The University OF CHICAGO



GRADUATE PROGRAMS IN THE DIVISIONS ANNOUNCEMENTS 2015-2016

TABLE of CONTENTS

- 4 GRADUATE DIVISIONS 2015-2016
- 5 THE UNIVERSITY OF CHICAGO
- 7 Academic Calendar
- 8 GENERAL INFORMATION
- 14 INTERDIVISIONAL PROGRAMS
 - 16 Institute for Biophysical Dynamics
 - 18 The Center for the Study of Race, Politics, and Culture
 - 27 Center for East Asian Studies
 - 30 Center for East European and Russian/Eurasian Studies
 - 33 The Enrico Fermi Institute
 - 37 The Morris Fishbein Center for the History of Science and Medicine
 - 39 The James Franck Institute
 - 42 Center for the Study of Gender and Sexuality
 - 46 Pozen Family Center for Human Rights
 - 48 Center for International Studies
 - 50 Center for Jewish Studies
 - 56 Center for Latin American Studies
 - 59 Center for Middle Eastern Studies
 - 63 NORC
 - 65 Committee on Southern Asian Studies/South Asia Language & Area Center
- 68 THE DIVISION OF THE BIOLOGICAL SCIENCES AND THE PRITZKER SCHOOL OF MEDICINE
 - 71 Programs of Graduate Study in the Basic Biological Sciences
 - 74 Program in Biochemistry and Molecular Biophysics
 - 81 Committee on Cancer Biology
 - 87 Program in Cell and Molecular Biology
 - 95 Committee on Computational Neuroscience
 - 103 Committee on Development, Regeneration, and Stem Cell Biology
 - 109 Department of Ecology and Evolution
 - 117 Committee on Evolutionary Biology
 - 134 Committee on Genetics, Genomics & Systems Biology
 - 139 Department of Public Health Sciences
 - 151 Department of Human Genetics

- 156 Committee on Immunology
- 160 The Interdisciplinary Scientist Training Program
- 162 Committee on Medical Physics
- 171 Committee on Microbiology
- 175 Committee on Molecular Metabolism and Nutrition
- 178 Committee on Neurobiology
- 185 Department of Organismal Biology and Anatomy
- 192 Department of Pathology
- 196 Translational Research
- 200 Clinical Departments in the Biological Sciences
- 205 The Pritzker School of Medicine

211 THE DIVISION OF THE HUMANITIES

- 213 Master of Arts Program in the Humanities
- 218 Master of Arts in Latin American Studies Humanities
- 225 Master of Arts in Middle Eastern Studies Humanities
- 228 Department of Art History
- 243 Department of Cinema and Media Studies
- 261 Department of Classics
- 285 Department of Comparative Literature
- 296 Department of East Asian Languages and Civilizations
- 317 Department of English Language and Literature
- 336 Department of Germanic Studies
- 349 Department of Linguistics
- 360 Department of Music
- 370 Department of Near Eastern Languages and Civilizations
- 394 Department of Philosophy
- 419 Department of Romance Languages and Literatures
- 439 Department of Slavic Languages and Literatures
- 456 Department of South Asian Languages and Civilizations
- 485 Department of the Visual Arts

500 The Division of the Physical Sciences

- 503 Master of Science Program in Computer Science
- 517 Master of Science Program in Financial Mathematics
- 526 Master of Science Program in the Physical Sciences
- 528 Department of Astronomy and Astrophysics
- 538 Graduate Program in Biophysical Sciences
- 541 Department of Chemistry
- 552 Department of Computer Science
- 566 Department of the Geophysical Sciences
- 586 Department of Mathematics
- 599 Department of Physics
- 607 Department of Statistics

- 635 THE DIVISION OF THE SOCIAL SCIENCES
 - 638 Master of Arts Program in the Social Sciences
 - 642 Master of Arts in Latin American Studies Social Sciences
 - 649 Master of Arts in Middle Eastern Studies Social Sciences
 - 653 Department of Anthropology
 - 702 Department of Comparative Human Development
 - 725 Committee on Conceptual and Historical Studies of Science
 - 731 Department of Economics
 - 747 Committee on Geographical Studies
 - 753 Department of History
 - 792 Committee on International Relations
 - 797 Department of Political Science
 - 821 Department of Psychology
 - 842 The John U. Nef Committee on Social Thought
 - 853 Department of Sociology
- 877 THE PROFESSIONAL SCHOOLS AND PROGRAMS
 - 877 The William B. and Catherine V. Graham School of Continuing Liberal and Professional Studies
 - 888 The University of Chicago Booth School of Business
 - 894 The Divinity School
 - 895 The Law School
 - 897 Institute for Molecular Engineering
 - 903 The Irving B. Harris Graduate School of Public Policy Studies
 - 907 The School of Social Service Administration
 - 916 SSA Research Centers
- 919 INDEX

GRADUATE DIVISIONS 2015-2016

In keeping with its long-standing traditions and policies, the University of Chicago considers students, employees, applicants for admission or employment, and those seeking access to programs on the basis of individual merit. The University, therefore, does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, status as an individual with a physical or mental disability unrelated to ability, protected veteran status, military status, unfavorable discharge from military service, citizenship status, genetic information, marital status, parental status, ancestry, source of income, credit history, housing status, order of protection status, actual or perceived association with such a person, and does not discriminate against members of other protected classes under the law.

The University official responsible for coordinating compliance with the University of Chicago non-discrimination policy is Ingrid Gould, Interim Affirmative Action Officer. She can be reached via email at i-gould@uchicago.edu and by telephone at 773.702.8846. Her office is located in Edward H. Levi Hall, 5801 S. Ellis Avenue, Suite 510.

The Interim Title IX Coordinator for the University is Belinda Cortez Vazquez, Associate Dean of Students in the office of Campus and Student Life. She can be reached via email at belinda@uchicago.edu and by telephone at 773.834.9710. Her office is located in Edward H. Levi Hall, 5801 S. Ellis Avenue, Room 212.

The Interim 504 and ADA Coordinator for the University is Gregory Moorehead, Director of Student Disability Services. He can be reached via email at gmoorehead@uchicago.edu and by telephone at 773.702.7776. His office is located at 5501 S. Ellis Avenue.

The content of these *Announcements* is accurate as of August 1, 2015. It is subject to change.

Photo by Robert Kozloff.



THE UNIVERSITY OF CHICAGO

Andrew M. Alper, Chairman of the Board of Trustees Robert J. Zimmer, President of the University Eric D. Isaacs, Provost Candidates for admission to graduate programs at the University of Chicago should address their inquiries, including requests for application materials, to the Dean of Students of the relevant graduate division or school to which application is being made. All of the information in this volume, as well as in the Announcements of each of the professional schools, is available online at http://catalogs.uchicago.edu. These documents are updated periodically. You will find admissions applications and more detailed information about a program that interests you on divisional websites. The statements contained in these Announcements are subject to change without notice. Division of the Biological Sciences 924 East 57th Street Chicago, IL 60637 (773) 834 2105 Email: bsd.ogpa@lists.uchicago.edu http://gradprogram.bsd.uchicago.edu Division of the Physical Sciences 5747 Ellis Avenue Chicago, IL 60637 (773) 702-8789 Email: individual departments http://physical-sciences.uchicago.edu Division of the Humanities 1115 East 58th Street Chicago, IL 60637 (773) 702-1552 Email: humanitiesadmissions@uchicago.edu http://humanities.uchicago.edu Division of the Social Sciences 1130 East 59th Street Chicago, IL 60637 (773) 702-8415 Email: admissions@ssd.uchicago.edu http://socialsciences.uchicago.edu The University of Chicago Booth School of Business 5807 S. Woodlawn Ave. Chicago, IL 60637 (773) 702-7743 Email: admissions@chicagobooth.edu www.chicagobooth.edu (http://www.chicagobooth.edu) Divinity School

1025 East 58th Street Chicago, IL 60637 (773) 702-8217 Email: tdowens@uchicago.edu http://divinity.uchicago.edu Law School 1111 East 60th Street Chicago, IL 60637 (773) 702-9484 Email: admissions@law.uchicago.edu http://www.law.uchicago.edu The University of Chicago Harris School of Public Policy 1155 East 60th Street Chicago, IL 60637 (773) 702-8401 Email: harrisadmissions@uchicago.edu http://www.harrisschool.uchicago.edu School of Social Service Administration 969 East 60th Street Chicago, IL 60637 (773) 702-1250 Email: ssa.dos@uchicago.edu http://www.ssa.uchicago.edu Graham School of Continuing Liberal and Professional Studies 1427 E. 60th Street, Press Building, Suite 2 Chicago, IL 60637 (773) 702-1722 Email: grahamschool@uchicago.edu http://grahamschool.uchicago.edu Institute for Molecular Engineering Jones Laboratory 222 5747 South Ellis Avenue Chicago, IL 60637 (773) 834-2023 Email: ime@uchicago.edu http://ime.uchicago.edu/ The University of Chicago central switchboard: (773) 702-1234



ACADEMIC CALENDAR

2015 Summer Quarter

Description

Quarter begins Independence Day Holiday Convocation Quarter Ends Medicine Ends 2015 Autumn Quarter

Description Registration for the Divisions Quarter Begins

Thanksgiving College Reading Period Convocation Ouarter Ends

2016 Winter Quarter

Description

Quarter Begins Martin Luther King, Jr. Day College Break College Reading Period Convocation Ouarter Ends

2016 Spring Quarter

Description Quarter Begins Memorial Day College Reading Period Convocation

Ouarter Ends

Date(s)

Monday, June 22 Friday, July 3 Friday, August 28 Saturday, August 29 Friday, September 4

Date(s)

Monday, September 21 Monday, September 28 Thursday-Friday, November 26-27 Thursday-Friday, December 3-4 Friday, December 11 Saturday, December 12

Date(s) Monday, January 4 Monday, January 18 Friday, February 12 Thursday-Friday, March 10-11 Friday, March 18 Saturday, March 19

Date(s)

Monday, March 28 Monday, May 30 Thursday-Friday, June 2-3 Saturday, June 11 Saturday, June 11

All dates are subject to change with no notice.

Up to date academic calendars can be found at http://academiccalendar.uchicago.edu/.



General Information

Announcements: Graduate Programs in the Divisions provides an overview of all graduate programs at the University of Chicago in the Divisions of the Biological Sciences, the Humanities, the Physical Sciences, the Social Sciences, and the Institute for Molecular Engineering. Professional schools in the University are closely integrated into the wider University; their programs are briefly described here. An individual issue of the Announcements is also available from each professional school which describes its programs and requirements in detail.

This volume is organized in a way that reflects the organization and functioning of the University. Each department or degree granting committee in the divisions of the University conducts its own admissions and aid competition, and sets its own degree requirements within a framework that is set by the University and by each division. However, divisions and departments engage in a substantial number of cooperative efforts, as evidenced by the large number of interdepartmental and interdivisional programs, committees, centers, and research groups in the University. Therefore, this volume contains a section for each division, and a separate section for interdivisional programs, centers, committees, and other organizations in which students may participate and, in some cases, earn a degree. The introductory section, which you are now reading, contains information about the University that is relevant to all students and applicants. A final section contains information for those interested in one of the professional schools.

Readers of these *Announcements* are advised that the policies and degree requirements of academic units that are set forth herein may change at any time without prior notice, or may represent a summary of more detailed policies and requirements. Students and applicants who wish the most up to date information regarding courses and degree requirements should review the division or department website or contact the department or the dean of students in the relevant division. The provisions of these *Announcements* are for informational purposes only and are not intended to create a contract or agreement between the University and any applicant or student.

HISTORY AND PURPOSE

The University of Chicago is a private, nondenominational, coeducational institution of higher learning and research. It is located in the community of Hyde Park-South Kenwood, a culturally rich and ethnically diverse neighborhood seven miles south of downtown Chicago. Hyde Park-South Kenwood encompass one and one quarter square miles of commercial and residential districts that extend from 47th Street on the north to 61st Street on the south and from Cottage Grove Avenue eastward to the shoreline of Lake Michigan. The neighborhood is a stimulating blend of the urban and small town.

The University of Chicago includes the undergraduate College; four graduate Divisions (of the Biological Sciences, the Humanities, the Physical Sciences, and the Social Sciences); six graduate professional schools (The University of Chicago Booth School of Business, the Divinity School, the Law School, the Pritzker School

9

of Medicine, the Irving B. Harris Graduate School of Public Policy Studies, and the School of Social Service Administration); the Institute for Molecular Engineering, the libraries, laboratories, museums, clinics, and institutes; the William B. and Catherine V. Graham School of Continuing Liberal and Professional Studies; and the University of Chicago Press.

The University was founded by John D. Rockefeller. William Rainey Harper was its first president. Classes began on October 1, 1892, with an enrollment of 594 students and a faculty of 103, including eight former college presidents. In 1930 the undergraduate College and the graduate divisions were created by President Robert Maynard Hutchins to foster interdisciplinary study and encourage interdepartmental cooperation. Such cross fertilization continues to characterize the University.

Since its founding, the University has earned a reputation for recruiting a faculty committed to scholarly distinction and intellectual innovation. The faculty is represented in more than seventy honorary and professional societies, including the National Academy of Sciences, the American Academy of Arts and Sciences, the American Philosophical Society, and the National Academy of Education. Eighty-seven members of the faculty, former students, or individuals who did research at the University have been named Nobel laureates, and seven are currently members of the faculty. Notable is the faculty's tradition of developing cross disciplinary fields of study, such as Law and Economics, Conceptual and Historical Studies of Science, Ecology and Evolution, and the Institute for Mind and Biology. A leader in higher education, the University of Chicago has had a major impact on the nation's colleges and universities.

The graduate programs in the University aim to send out graduates who have begun to develop mastery of the content and methods of their chosen field of study and who are equipped to continue to learn and to produce new knowledge. To that end, the University of Chicago offers an unusually free environment for graduate study, one that encourages both faculty and young scholars and researchers to develop their interests and talents by working with colleagues throughout the University.

In addition to its Ph.D. programs and the master's degrees offered through them, the University offers a number of special degree programs for students who have completed an A.B. These free standing master's degree programs, which may be departmental and multidisciplinary, or offered in conjunction with a master's degree in a professional school, are carefully tailored for students whose goal is a master's degree. Some students who successfully complete these programs subsequently decide to apply to doctoral programs at the University or elsewhere. However, these special degree programs are conceived as self-contained. These programs are listed below:

Interdisciplinary programs

- East Asian Studies (as M.B.A./A.M. only)
- East European and Russian/Eurasian Studies (as M.B.A./A.M. only)
- Latin American and Caribbean Studies

- Middle Eastern Studies
- South Asian Studies (as M.B.A./A.M. only)
- Division of the Biological Sciences
- Health Studies
- Division of the Humanities
- Master of Arts Program in the Humanities
- Visual Arts (M.F.A.)

Division of the Physical Sciences

- Master of Science Program in Computer Science
- Master of Science Program in Financial Mathematics
- Master of Science Program in the Physical Sciences

Division of the Social Sciences

- International Relations
- Master of Arts Program in Computational Social Science
- Master of Arts Program in the Social Sciences

APPLICATION TO THE PROGRAMS IN THE DIVISIONS AND THE INSTITUTE FOR MOLECULAR ENGINEERING

Applicants for admission to graduate programs in the divisions at the University of Chicago should address their inquiries to the dean of students of the graduate division or to the program to which application is being made. Applications are submitted electronically; applicants should consult the appropriate divisional or program website for information and instructions.

DIVISION OF THE BIOLOGICAL SCIENCES

Associate Dean BSD Office of Graduate Affairs and Postdoctoral Affairs 924 East 57th Street, Suite 104 Chicago, IL 60637 5416 (773) 834-2105 BSD.OGPA@lists.uchicago.edu

DIVISION OF THE HUMANITIES

Dean of Students Division of the Humanities Walker Museum 111 1115 East 58th Street Chicago, IL 60637 (773) 702-1552 humanitiesadmissions@uchicago.edu http://humanities.uchicago.edu

DIVISION OF THE PHYSICAL SCIENCES

Applicants should consult the website of the program to which they intend to apply for up to date admission materials. http://physical-sciences.uchicago.edu

DIVISION OF THE SOCIAL SCIENCES

Dean of Students Division of the Social Sciences Foster Hall 105 1130 East 59th Street Chicago, IL 60637 (773) 702-8415 admissions@ssd.uchicago.edu http://socialsciences.uchicago.edu

INSTITUTE FOR MOLECULAR ENGINEERING

Jones Laboratory 222 5747 South Ellis Avenue Chicago, IL 60637 (773) 834-2023 ime@uchicago.edu http://ime.uchicago.edu/

An applicant who holds a degree from an accredited institution is considered for admission on the basis of (1) an undergraduate record, (2) a well organized plan for graduate study, (3) Graduate Record Examination (GRE) and English proficiency scores, where required, and (4) recommendations from three college faculty members acquainted with the character, ability, potential, qualifications, and motivation of the applicant. Persons who have been away from school for several years may submit recommendations from employers, professional associates, or supervisors.

Certain departments of the University require additional credentials; details concerning these additional credentials are available as part of the online application, or will be sent to candidates for admission after they have submitted their applications.

Unofficial transcripts of all academic work and contact information for your recommenders must be submitted with the application. More detailed instructions are included with each division's application. Every applicant is asked to study the general statement of the division he or she plans to enter and the specific requirements of the proposed field of graduate study.

International Students

Students from abroad must submit, in addition to the usual credentials, proof of proficiency in English and documentation of all sources of financial support for any expenses not covered by any funding provided by the University. Only those students from abroad who hold the equivalent of a U.S. bachelor's degree and whose academic record is excellent will be considered for admission.

APPLICATION DEADLINES

Applications for admission and for aid must be submitted by the appropriate deadline. Application deadlines can be found on the online applications and may be as early as December 1 for the following autumn. Incomplete applications will be evaluated on the basis of materials received at the time of the regular review process.

PART-TIME STUDY

Part-time study is more feasible in some fields than in others. The divisional dean of students can answer questions about opportunities for part time study in particular departments. Student loans are available to students enrolled at least half time. Applicants for part time study are generally not eligible for scholarship assistance since priority in assigning limited University aid funds must necessarily go to full time students.

Applicants who wish to begin their studies on a part-time basis should contact the divisional dean of students.

DECISIONS

Most admission and aid decisions for the autumn quarter are sent by mid-March. Deadlines for response vary by program.

In agreement with the Resolution of the Council of Graduate Schools in the United States, a student who agrees to accept a scholarship, fellowship, traineeship, or graduate assistantship at the University of Chicago or at any of these schools prior to **April 15** and subsequently desires to change plans must resign the financial aid offer and/or acceptance of admission at any time through **April 15** in order to accept another scholarship, fellowship, traineeship, or graduate assistantship, regardless of any understanding reached before then. This protects the student's right to select the offer that is most attractive.

STUDENTS WITH DISABILITIES

As soon as possible after having been admitted, students should contact their divisional dean of students and the Student Disability Services (http://disabilities.uchicago.edu) office.

CONDITIONS OF ACCEPTANCE

Acceptance of a scholarship or fellowship is conditional on the student's agreement to devote full time to graduate study toward an advanced degree at the University of Chicago. In cases of students holding larger awards, special permission for remunerative work must be secured in advance.

APPLICATION TO PROFESSIONAL SCHOOLS

Students interested in the University's professional schools (The University of Chicago Booth School of Business, the Divinity School, the Law School, the Pritzker

School of Medicine, the Harris School of Public Policy Studies, or the School of Social Service Administration) should contact the admissions office of each school. Students interested in general courses, courses as a student-at-large, returning scholar, the Master of Science in Threat and Response Management, or the Master of Arts in Teaching program should contact the William B. and Catherine V. Graham School of Continuing Liberal and Professional Studies. Students interested in the Urban Teacher Education Program (UTEP) should contact the UTEP staff.

Being a Student at the University of Chicago

From healthcare services to cultural programming, The University of Chicago is dedicated to supporting and enriching the life of its graduate students. To that end, there are many offices and programs that exist to create a healthy, safe, and productive environment for students both inside and outside the classroom. You can find a list of resources available to graduate students at http://grad.uchicago.edu/

Chicago is a vibrant and exciting city that you will want to explore. As a world class city, Chicago also presents all of the typical challenges of a complex modern urban society. While the University takes measures to ensure a safe campus environment, there are also many things you can do to ensure your own safety. The University's campus safety report, Common Sense, is designed to help equip you to navigate the city successfully and offers information about the University offices that provide services related to security and safety. The report is available online at http://commonsense.uchicago.edu/. Hard copies of Common Sense are available upon request from the Office of Campus and Student Life, 5801 S. Ellis Ave., Chicago, IL 60637, (773 702-7770).

As a member of The University of Chicago community, there are University policies and regulations you are responsible for knowing. These policies protect your rights and outline your responsibilities as students. For instance, the Graduate Student Parents Policy grants academic accommodations to graduate students who are also new parents, and the Residence System for Students in PhD programs defines the status of doctoral students as they progress through their studies. A complete statement of policies and regulations can be found at http:// studentmanual.uchicago.edu/



Interdivisional Programs

The University of Chicago has a distinctive and distinguished tradition of interdisciplinary research and teaching. Faculty and students with interests that span departmental lines are readily able to find colleagues throughout the University. The many interdivisional programs that flourish at the University vary widely in purpose and organization. Some are formal, degree granting committees, some are area studies centers, some are comparatively informal groupings of faculty and advanced students who share an interest in some method, approach, or subject area.

The Council on Advanced Studies in the Humanities, Social Sciences, and the Divinity School

Chair

Deborah Nelson, Deputy Provost for Graduate Education Members

- Daniel Arnold
- Shadi Bartsch-Zimmer
- Robert Bird
- Mark Philip Bradley
- Andreas Glaeser
- John Kelly
- Katherine Kinzler
- Jonathan Lear
- Jill Mateo
- John McCormick
- Eric Santner
- Judith Zeitlin
 - Ex Officio Members
- Margaret M. Mitchell, Dean of the Divinity School
- Martha T. Roth, Dean of the Division of Humanities
- Mario L. Small, Dean of the Division of Social Sciences Administrative Director

Julianne Gorny THE COUNCIL ON ADVANCED STUDIES Judd Hall 443/444 5835 South Kimbark Avenue Chicago, IL 60637 (773) 702-8540 cas@uchicago.edu http://cas.uchicago.edu



Institute for Biophysical Dynamics

Director

• Chuan He, Chemistry

Professors

- Francisco Bezanilla, Biochemistry and Molecular Biology
- Sean Crosson, Biochemistry and Molecular Biology
- Aaron Dinner, Chemistry
- Greg Engel, Chemistry
- Benjamin Glick, Molecular Genetics and Cell Biology
- Chuan He, Chemistry
- Stephen Kent, Biochemistry and Molecular Biology
- Anthony A. Kossiakoff, Biochemistry and Molecular Biology
- Ka Yee C. Lee, Chemistry
- Keith Moffat, Biochemistry and Molecular Biology
- Tao Pan, Biochemistry and Molecular Biology
- Eduardo Perozo, Biochemistry and Molecular Biology
- Benoit Roux, Biochemistry and Molecular Biology
- Norbert Scherer, Chemistry
- Ridgway Scott, Computer Science, Mathematics
- Tobin Sosnick, Biochemistry and Molecular Biology
- Andrei Tokmakoff, Chemistry
- Gregory Voth, Chemistry

Associate Professors

- Margaret Gardel, Physics
- Ronald Rock, Biochemistry and Molecular Biology Assistant Professors
- David Biron, Physics
- Edwin Munro, Molecular Genetics and Cell Biology
- Michael Rust, Molecular Genetics and Cell Biology
- Bozhi Tian, Chemistry

The University of Chicago established the Institute for Biophysical Dynamics (http://ibd.uchicago.edu) to meet the challenges of achieving a molecular-level understanding of the structure, diversity and function of biological entities. The Institute represents a new approach to scientific research at the interface between biology and the physical sciences, bringing together experimentalists, theoreticians, and computational scientists to forge a scientific culture of fluid exchange of ideas and collaboration across disciplines and among laboratories.

In addition, the Institute has established programs to involve undergraduate, graduate, and postdoctoral students in this new cross-disciplinary approach to science. Notably, the Graduate Program in Biophysical Sciences (http:// biophysics.uchicago.edu) is designed to immerse graduate students in this culture of interdisciplinary research. Work by Institute faculty and researchers in their laboratories provides insights profoundly influencing endeavors as diverse as molecular-based computing and the treatment of illness at the bedside.

Institute for Biophysical Dynamics Gordon Center for Integrated Science, W101 929 East 57th Street, Chicago, IL 60637



The Center for the Study of Race, Politics, and Culture

Staff

Michael Dawson, Director Email:mc-dawson@uchicago.edu Phone: 773.702.8063

Tracye A. Matthews, Associate Director Email: tracye@uchicago.edu Phone: 773.834.2581

Dara Epison, Program Coordinator Phone: 773.795.3328

Sarah Tuohey, Student Affairs Administrator Phone: 773.702.2365

Marcus Board, Preceptor Email: board@uchicago.edu Phone: 773.834.8737

Alfredo Gonzalez, Workshop Coordinator Email: lesurea@uchicago.edu Phone: 773.834.8737

Faculty

- Leora Auslander– History
- Ralph A. Austen-History Emeritus
- Lauren Berlant– English
- Philip Bohlman– Music and the Humanities in the College
- Dain Borges- History
- Matthew Briones- American History and the College
- Chad Broughton-Public Policy & Chicago Studies Program
- Adrienne Brown– English
- Melvin Butler- Music
- Kerwin Charles– Harris School
- Yoon Sun Choi– School of Social Service Administration
- Cathy Cohen– Political Science
- Jennifer Cole– Human Development
- Herschella Conyers– Law School
- Jane Dailey– American History
- Shannon Dawdy– Anthropology
- Michael Dawson– Political Science
- Daniel Desormeaux– French Literature

- Curtis Evans– Divinity
- Thomas Fisher– Medicine
- Raymond Fogelson– Anthropology
- Anton Ford- Philosophy
- Cécile Fromont– Art History
- Craig Futterman– Law School
- Melissa Gilliam– Obstetrics/Gynecology and Pediatrics
- Henry Ginard– Surgery
- John A. Goldsmith-Linguistics
- Adam Green– History
- Roberto Gonzalez– Social Service Administration
- Ramón Gutiérrez– United States History and the College
- Thomas Holt- History
- Dwight Hopkins- Theology in the Divinity School
- Dennis Hutchinson- College and Law School
- Reginald Jackson– East Asian Lang & Civilizations
- Travis Jackson– Music and the Humanities
- Waldo E. Johnson, Jr.- Social Service Administration
- Arthur Damon Jones- Harris School Public Policy
- Micere Keels– Department of Comparative Human Development
- John Kelly- Anthropology
- Karen Kim– Professor of Medicine
- Emilio Kouri- History
- Loren Kruger– Comparative Literature and English
- Agnes Lugo-Ortiz– Romance Languages & Literatures
- William McDade– Anesthesia & Critical Care; Deputy Provost for Research & Minority Issues
- Omar M. McRoberts– Sociology
- Alfredo César Melo- Luso-Brazilian Literature
- Doriane Miller– Medicine
- Salikoko Mufwene– Linguistics
- Dolores G. Norton– Social Service Administration (Emeritus)
- Eric Oliver– Political Science
- Olufunmilayo Olopade– Medicine and Human Genetics Human
- Emily L. Osborn- History
- Jennifer Palmer– Liberal Arts
- Stephan D. Palmié– Anthropology
- Virginia Parks– Social Service Administration
- Charles Payne– Social Service Administration
- Monica Peek– Biological Sciences Division

- Srikanth"Chicu" Reddy- English
- François G. Richard– Anthropology
- Gina Miranda Samuels– Social Service Administration
- Julie Saville– History
- Margaret Beale Spencer– Urban Education
- Randolph Stone– Law School
- Forrest Stuart– Sociology
- Monica Vela– Medicine
- Dexter Voisin– Social Service Administration
- Kenneth Warren– English
- Miwa Yasui– Social Service Administration
- Rebecca Zorach– Art History

The CSRPC has many resources for masters and doctoral students who work on topics around race and ethnicity. The Center offers a CSRPC Dissertation Fellowship, currently providing one or two ABD students a year with a stipend of \$23,000, some research funding, and an office at the Center. The CSRPC Residential Fellowship also provides office space and research funding. Jointly with the Center for The Study of Gender and Sexuality, the Center offers a dissertation fellowship (also with a stipend, research funding, and office space) for a student working on an intersectional topic. Finally, the CSRPC gives a total of \$20,000 per year in research grants to students working on relevant topics.

Many teaching opportunities can be found at CSRPC as well. Several teaching internships and lectureships for the civilization sequence "Colonizations" are available each year, and the Center offers six stand alone courses from among those proposed by advanced graduate students.

The Center sponsors a Council on Advanced Studies graduate workshop, the Reproduction of Race and Racial Ideologies Workshop.

The CSRPC also maintains a list of Courses with Substantial Content on Race and Ethnicity: http://csrpc.uchicago.edu/academic_programs/course/

For further information on student and curricular matters at CSRPC, contact Sarah Tuohey, Student Affairs Administrator, 5733 S. University, Chicago, IL 60637, telephone: 773-702-2365, email: stuohey@uchicago.edu.

Comparative Race and Ethnic Studies Courses

CRES 30104. Urban Structure and Process. 100 Units.

This course reviews competing theories of urban development, especially their ability to explain the changing nature of cities under the impact of advanced industrialism. Analysis includes a consideration of emerging metropolitan regions, the microstructure of local neighborhoods, and the limitations of the past U.S. experience as a way of developing worldwide urban policy. Instructor(s): O. McRoberts Terms Offered: Spring

CRES 31800. Religious Movements in Native North America. 100 Units.

Religious beliefs and practices are assumed to be primordial, eternal, and invariable. However a closer examination reveals that Native American religions are highly dynamic and adaptive, ever reactive to internal pressure and external circumstances. Perhaps the most dramatic forms of religious change are the transformations that anthropologists recognize as nativistic or revitalization movements. These movements on one level represent conscious breaks with an immediate negative past, and they anticipate a positive future in which present sources of oppression are overcome. Many contemporary Native American movements, political and/or religious, can be understood as sharing similar dynamics to past movements. We examine classic accounts of the Ghost Dance, often considered to be the prototypical Native American religious movement; the analysis of the Handsome Lake religion among the Senecas; and other Native American religious movements. Instructor(s): R. Fogelson

Prerequisite(s): Advanced standing and consent of instructor

CRES 33001. Censorship in East Asia: The Case of Colonial Korea. 100 Units. This course examines the operation and consequences of censorship in the Japanese Empire, with focus on its effects in colonial Korea. It begins with two basic premises: first, both the Japanese colonial authorities' measures of repression, and the Korean responses to them, can be understood as noticeably more staunch and sophisticated when compared to any other region of the Empire; and second, the censorship practices in Korea offers itself as a case that is in itself an effective point of comparison to better understand other censorship operations in general and the impact of these operations across different regions. With a view to probing an inter- and intra-relationship between censorship practices among a variety of imperial/colonial regions, this course studies the institutions related to censorship, the human agents involved in censorship-both external and internal-and texts and translations that were produced in and outside of Korea, and were subject to censorship. Overall, the course stresses the importance of establishing a comparative understanding of the functions of censorship, and on the basis of this comparative thinking we will strive to conceptualize the characteristics of Japanese colonial censorship in Korea.

Instructor(s): K. Choi Terms Offered: Winter Equivalent Course(s): EALC 23001,EALC 43000

CRES 34501-34502. Anthropology of Museums I-II.

This sequence examines museums from a variety of perspectives. We consider the World's Columbian Exposition of 1893, the Native American Graves Protection and Repatriation Act, the image and imagination of African American culture as presented in local museums, and museums as memorials, as exemplified by Holocaust exhibitions. Several visits to area museums required.

CRES 34501. Anthropology of Museums I. 100 Units.

Instructor(s): M. Fred Terms Offered: Winter Prerequisite(s): Advanced standing and consent of instructor Equivalent Course(s): ANTH 24511,ANTH 34502,CHDV 38101,MAPS 34500,SOSC 34500

CRES 34502. Anthropology of Museums II. 100 Units.

Instructor(s): M. Fred Terms Offered: Spring Prerequisite(s): Advanced standing or consent of instructor Equivalent Course(s): ANTH 24512,SOSC 34600

CRES 34502. Anthropology of Museums II. 100 Units.

Instructor(s): M. Fred Terms Offered: Spring Prerequisite(s): Advanced standing or consent of instructor Equivalent Course(s): ANTH 24512,SOSC 34600

CRES 35106. Slavery and Freedom in South America. 100 Units.

This seminar will examine the historiography of African slavery in South America. It will compare the responses of Africans and their descendants to the experiences of enslavement and freedom from the 16th century to the 19th century, addressing the major debates around the Atlantic Slave Trade along with comparative histories of enslavement, freedom, abolition and post-abolition in Spanish America and Brazil. Urban slavery, manumission, slave life and slave resistance, as well as the experiences of free Blacks who lived in slave societies, will also be examined. Instructor(s): Keila Grinberg, Tinker Visiting Professor in History Terms Offered: Autumn

Equivalent Course(s): HMRT 25115,HMRT 35115,HIST 26216,HIST 26216,CRES 25106,LACS 35106

CRES 35107. Public history & the Memory of Slavery in Brazil and the U.S. 100 Units.

This course will address the contemporary discussion about public history and the memory of slavery in Brazil and the United States. Like the United States, Brazil declared its independence without abolishing slavery. Unlike citizens of the US, however, Brazilians constructed their notions of citizenship and nationality in a context in which racial identities were only loosely demarcated. In the nineteenth century, Brazil was the country with the largest number of Africans and the largest number of free Afro-descendents in the Americas. It also underwent an unprecedented period of economic growth, based in the coffee economy and slave labor. This growth did not, however, lead to an industrial transformation comparable to that of the US during the same period. This course will examine the paradoxes on the history of slavery and abolition in Brazil and the United States, exploring the ways in which both countries deal with their past in the present. Built on historical scholarship, movies (documentaries and historical motion pictures), digital projects and museum exhibits, this course aims to discuss the public role of historians and of historical research in new approaches about the public memory of slavery in Brazil and the United States.

Instructor(s): Keila Grinberg, Tinker Visiting Professor in History Terms Offered: Winter

Equivalent Course(s): CRES 25107, HIST 26217, HIST 36217, LACS 35107

CRES 35500. History of Mexico, 1876 to Present. 100 Units.

From the Porfiriato and the Revolution to the present, a survey of Mexican society and politics, with emphasis on the connections between economic developments, social justice, and political organization. Topics include fin de siècle modernization and the agrarian problem; causes and consequences of the Revolution of 1910; the making of the modern Mexican state; relations with the United States; industrialism and land reform; urbanization and migration; ethnicity, culture, and nationalism; economic crises, neoliberalism and social inequality; political reforms and electoral democracy; the zapatista rebellion in Chiapas; and the end of PRI rule. Instructor(s): E. Kourí Terms Offered: Winter

Equivalent Course(s): HIST 36500, LACS 26500, LACS 36500, HIST 26500

CRES 37002. Colloquium: Interracial America. 100 Units.

This course will examine the interaction between different racialized and ethnic groups in America (and beyond) from the eighteenth-century to our present moment. Conventional studies rely on a simplistic black-white paradigm of US race relations. This seminar aims to move beyond that dichotomy and searches for broader historical models, which include yellow, brown, red, and ethnic white. For example, how do we interpret recently excavated histories of Afro-Cherokee relations in antebellum America? What are hepcats, pachucos, and yogores? What is a "model minority," and why did Asians inherit the mantle from Jews? What is a "protest minority," and why were Blacks and Jews labeled as such during the civil rights movement? How does race operate differently in an ostensible racial paradise like Hawai'i? How do we understand race, nation, and decolonization in a global context, as evidenced by radical activism in California in the 1960s and '70s? We will critically interrogate the history of contact that exists between and among these diverse "groups." If conflicted, what factors have prevented meaningful alliances? If confluent, what goals have elicited cooperation?

Instructor(s): M. Briones Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): HIST 47002

CRES 37605. United States Legal History. 100 Units.

This course focuses on the connections between law and society in modern America. It explores how legal doctrines and constitutional rules have defined individual rights and social relations in both the public and private spheres. It also examines political struggles that have transformed American law. Topics to be addressed include the meaning of rights; the regulation of property, work, race, and sexual relations; civil disobedience; and legal theory as cultural history. Readings include legal cases, judicial rulings, short stories, and legal and historical scholarship. Instructor(s): A. Stanley Terms Offered: Autumn

Equivalent Course(s): AMER 27605,CRES 27605,GNSE 27605,HMRT 27061,LLSO 28010,HIST 37605,GNSE 37605,HMRT 37605,HIST 27605

CRES 38406. Nineteenth-Century Segment of the United States History Survey. 100 Units.

The nineteenth-century survey will examine the experiences and the conflicts that made up the history of modern American society, as it unfolded over the course of the 1800s. This is where modern America begins. Before there was a Great Recession or an Occupy Wall Street, there was the nineteenth-century roller coaster of prosperity and panic; the robber barons and newfound workers' unions of the Gilded Age; the passionate public debates over the central bank, monetary policy, and the national currency. Before the Tea Party, the Founders themselves debated the best ways to make their revolution realized, enduring, and meaningful in daily interactions as well as institutions. To understand the implications of Iraq War and its aftermath, we must return to the origins of American imperialism in the 1800s. To appreciate the significance and symbolism of the first African American president, we have to revisit the nation's long history of slavery, racism, and segregation. The immigration policy issues covered ad nauseam on the cable news channels have their roots in the ebbs and flows of global migrations that began over a century and a half ago. The American feminist movement for equal rights and opportunities began in the nineteenth century; yet in 2008, US women still earned only 77 cents on the male dollar, and in 2011, more than 40 percent of households headed by women lived in poverty. Returning to the contentious (and ongoing) history of Anglo-Indian relations is an essential component of contextualizing today's sobering statistics, when some reservations face unemployment rates of up to 80 percent, and one quarter of all Native Americans live in poverty. Course equirements include careful reading, active and thoughtful participation, and written assignments. Instructor(s): A. Lippert Terms Offered: Winter

Equivalent Course(s): HIST 28406,HIST 38406,AMER 28406,AMER 38406,CRES 28406,GNSE 28406,GNSE 38406,LLSO 28406

CRES 43505. Colloquium: Paris and Berlin in the Long Twentieth Century. 100 Units.

This colloquium will analyze the convergences and divergences, focusing on immigration, urban planning, and culture of two of Europe's great capitals from the turn of the twentieth century to its end. Starting with the massive intraand international immigration into both cities in the 1880s, we will discuss how strangers were received and made their lives. Where did they live, work, eat, shop, play, and worship? How did they participate in the political lives of both cities? How did the experiences of postcolonial subjects and guest-workers vary? This population growth along with economic, technological, environmental, and political change challenged each metropolis's infrastructure. In the interwar period Berlin responded by expansion while Paris refused that strategy. Berlin's demolition during the Second World War was followed by forty years of division while Paris emerged from the war largely unscathed. Europeanification, followed by unification in the one case and massive postcolonial immigration in other, posed very different, but equally dramatic, challenges to both. Finally, both cities have been the centers of vibrant cultural production, including music, theater, the fine arts, film, and literature, with artists often moving between the two, carrying ideas and innovations. Reading knowledge of French or German would be very helpful, but is not required.

Instructor(s): L. Auslander Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): GNSE 43505,HIST 43505

CRES 47101. Colloquium: Re-imagining the US Civil War and Reconstruction. 100 Units.

This course explores the conflicts and contestations opened by efforts to reestablish new basis of national life in the aftermath of the political dismantling of slavery during the era of the Civil War and Reconstruction. Course readings and discussions explore ways to reconceive of US Reconstruction as a national and indeed even international phenomenon, rather than as an exclusively regional process. Readings and discussions will give particular attention to territorial expansion and annexation in American national and domestic life during the nineteenth century, the politics and economics of national reunification of former Confederate states and new western territories, and changes in the material, moral, and political meanings of freedom during the postwar acceleration of capitalist industrial and agricultural development. What is the role of violence in social change? What new political, economic, and cultural conflicts were opened by slavery's abolition? How did former slaveowners, former slaves, government policymakers, and abolitionists envision the promises and dangers of emancipation? What labor systems replaced slavery? Through consideration of such questions we explore the material and symbolic efforts to define and change the terms of participation in a postemancipation world as they relate to contradictions of modern freedom and to the production of histories about this era.

Instructor(s): J. Saville Terms Offered: Winter

Prerequisite(s): Advanced undergraduates with consent of instructor. Equivalent Course(s): HIST 47101

CRES 49100. Colloquium: Haitian Revolution and Human Rights, 1790–2004. 100 Units.

This course explores the Haitian revolution as critical to the examination of slave emancipation, colonialism, comparative revolutions, and postcolonial governance and sovereignty. It especially aims to explore interpretive debates that explicitly (or implicitly) link the problems of slave emancipation to the contradictions of modern freedom. Course readings draw on historical, anthropological, and political studies, selected published documents, and historical fiction to think critically about ways of extending how this history and its implications have been explored.

Instructor(s): J. Saville Terms Offered: Autumn

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): HMRT 49100,LACS 49100,HIST 49100

CRES 79101. Seminar: Topics in Latin American History 1. 100 Units.

This two-quarter research seminar is devoted to the craft of reading and writing Latin American history. Specific topics will shift from year to year, depending on the instructor. For 2015-16, the first quarter of the seminar will be devoted to the issue of inequality in Latin American historiography. Students will gain an understanding of the role that issues of inequality have played in shaping Latin American history; we will also play close attention to the ways in which broader intellectual trends and shifting methodologies have shaped Latin American historical narratives. Issues covered will include colonialism, slavery, citizenship, social movements, and the Latin American manifestations of global inequalities. This seminar can be taken either as a two-quarter seminar sequence, which culminates in a winter-quarto research paper, or as a fall-quarter colloquium.

Instructor(s): B. Fischer Terms Offered: Autumn

Prerequisite(s): Graduate students only.

Equivalent Course(s): LACS 79101, HIST 79101

CRES 79102. Sem: Topics in Lat Amer Hist 2. 100 Units.

The second quarter is mainly for graduate students writing a History seminar paper. Instructor(s): B. Fischer Terms Offered: Winter Prerequisite(s): HIST 79101, part 1 Equivalent Course(s): LACS 79102,HIST 79102



CENTER FOR EAST ASIAN STUDIES

Director

- Donald Harper Associate Director
- Abbey Newman Assistant Director of Programming
- To be Decided Outreach Coordinator
- Myra Su Center Coordinator
- Walter Bourdaghs

Faculty

- Guy S. Alitto History
- Michael Bourdaghs East Asian Languages & Civilizations
- Susan Burns History
- Anthony Cheung Music
- Kyeong Hee Choi East Asian Languages & Civilizations
- Julie Chu Anthropology
- Paul Copp East Asian Languages & Civilizations
- Bruce Cumings History
- Xinyu Dong Cinema and Media Studies
- Jacob Eyferth East Asian Languages & Civilizations
- Michael Fisch Anthropology
- Ariel Fox East Asian Languages & Civilizations
- Chelsea Foxwell Art History
- Thomas Ginsburg Law
- Susan Goldin Meadow Psychology
- Donald Harper East Asian Languages & Civilizations
- James Hevia International Relations
- Dwight Hopkins Divinity School
- Christopher Hsee Booth School of Business & Behavioral Science
- Chang-Tai Hsieh Booth School of Business
- Paola Iovene East Asian Languages & Civilizations
- Matthew Kapstein Divinity School
- James E. Ketelaar History
- Cheol-Sung Lee Sociology
- Yungti Li East Asian Languages & Civilizations
- Hoyt Long East Asian Languages & Civilizations

- Kenneth Pomeranz History
- Johanna Ransmeier History
- Haun Saussy Comparative Literature
- Edward Louis Shaughnessy East Asian Languages & Civilizations
- Laura A Skosey East Asian Languages & Civilizations
- Richard Jean So English Language & Literature
- Zheng Michael Song Economics
- Ruey Tsay Business
- Grace Tsiang Economics
- Katherine Tsiang Center for the Art of East Asia
- Hung Wu Art History
- Ming Xiang Linguistics
- Kazuo Yamaguchi Sociology
- Dali Yang Political Science
- Jun Yang East Asian Languages & Civilizations
- Alice Yao Anthropology
- Alan Yu Linguistics
- Judith Zeitlin East Asian Languages & Civilizations
- Dingxin Zhao Sociology
- Brook Ziporyn Divinity School

Lecturers

- Fangpei Cai East Asian Languages & Civilizations
- Yoko Katagiri East Asian Languages & Civilizations
- Jieun Kim East Asian Languages & Civilizations
- Meng Li East Asian Languages & Civilizations
- Harumi Lory East Asian Languages & Civilizations
- Misa Miyachi East Asian Languages & Civilizations
- Hiroyoshi Noto East Asian Languages & Civilizations
- Youqin Wang East Asian Languages & Civilizations Library Personnel
- Kikuhiko Hibino, East Asian Collection, Regenstein Library
- Jee-Young Park, East Asian Collection, Regenstein Library
- Jiaxun Benjamin Wu, East Asian Collection, Regenstein Library
- Yuan Zhou, East Asian Collection, Regenstein Library
- Ayako Yoshimura, East Asian Collection, Regenstein Library Other Affiliates
- Ashton Lazarus, Harper-Schmidt Fellow
- Nobuko Toyosawa, Postdoctoral Fellow, East Asian Languages & Civilizations Professors Emeriti

- Norma Field
- Tetsuo Najita
- William Parish
- David Roy
- George Tiao
- Bernard Silberman
- Judith Farquhar

The Center for East Asian Studies (CEAS) endeavors to broaden the East Asian focus in interdisciplinary scholarship for which UChicago is famous by supporting a wide range of graduate fellowships, events, and faculty research initiatives. Our activities support training in East Asian studies and languages across an array of disciplines and professional schools on campus. Through conferences, graduate workshops, film screenings and public lectures, CEAS promotes intellectual exchange among East Asia scholars across departments and disciplines. Our faculty and programs in East Asian studies regularly achieve the highest rankings among peer institutions in the United States, making East Asian Studies at the University of Chicago an invaluable national resource and a focal point for East Asian Studies in the Midwest.

Student fellowships, faculty research, and a wide range of events form the core of the Center's activities. For more information about graduate fellowships—including conference travel grants, pre-dissertation research grants, and other offerings—visit our website http://ceas.uchicago.edu and click on the 'Grants and Fellowships' tab.

CEAS' East Asian Film Library is the largest such collection in North America, containing over 6,800 titles from Japan, Korea, and China. It is particularly strong in independent film, documentaries, WWII issues, LGBTQ in East Asia, Japanese Group Sounds, anime, Korean dramas, and Chinese Opera. The Film Library is free for UChicago student, staff, or faculty use.

More information about all of our initiatives, including current and upcoming events, job openings in the field, and our quarterly lunches, can be found at http:// ceas.uchicago.edu.



Center for East European and Russian/Eurasian Studies

Director

 Susan Gal Associate Director

- Meredith Clason
- Outreach and Campus Programs Coordinator
- Maureen E. Marshall

Faculty

- Robert Bird Slavic Languages & Literatures, Cinema & Media Studies and the College
- Philip Bohlman Music and Committee on Jewish Studies
- John W. Boyer History and the College
- Margareta Ingrid Christian Germanic Studies
- Leah Feldman Comparative Literature
- Sheila Fitzpatrick History (Emerita)
- Cornell Fleischer Near Eastern Languages & Civilizations, History and the College
- Victor Friedman Linguistics and the College (Emeritus)
- Paul Friedrich Anthropology, Linguistics and Social Thought (Emeritus)
- Susan Gal Anthropology, Linguistics and the College
- Anastasia Giannakidou Linguistics and the College
- Eleonor Gilburd History
- Tom Ginsburg Law School
- Yaroslav Gorbachov Linguistics
- Lenore Grenoble Linguistics and the College
- Jonathan M. Hall History, Classics and the College
- Faith Hillis History and the College
- Leyla Ismayilova School of Social Service Administration
- Matthew Jesse Jackson Art History, Visual Arts, and the College
- Walter E. Kaegi History and the College
- Hakan Karateke Near Eastern Languages & Civilizations
- Ofer Malamud Harris School of Public Policy Studies
- Marko Malink Philosophy
- Stanislav Markus Political Science and the College
- Boris Maslov Comparative Literature and the College
- John J. Mearsheimer Political Science and the College

- Paul Mendes-Flohr Divinity School
- Jason Merchant Linguistics and the College
- Monika Nalepa Political Science and the College
- William Nickell Slavic Languages & Literatures
- Charles Payne School of Social Services Administration
- Eric Posner Law School
- Marta Ptaszynska Music
- Eugene Raikhel Comparative Human Development and the College
- Michael Sells Divinity School
- Bozena Shallcross Slavic Languages & Literatures and the College
- Holly Shissler Near Eastern Languages & Civilizations
- Olga Solovieva Comparative Literature and the College
- Malynne Sternstein Slavic Languages & Literatures and the College
- Yuri Tsivian Art History, Slavic, Cinema & Media Studies, Comparative Literature and the College
- Robert Ward Vishny The University of Chicago Booth School of Business
- John E. Woods History, Near Eastern Languages & Civilizations and the College
- Alan Yu Linguistics and the College
- Adam Zagajewski Social Thought
- Tara Zahra History and the College

Lecturers

- Helga Anetshofer Near Eastern Languages & Civilizations and the College
- Kagan Arik Near Eastern Languages & Civilizations and the College
- Susanne Cohen Anthropology
- Hripsime Haroutunian Near Eastern Languages & Civilizations and the College
- Erik Houle Slavic Languages & Literatures
- Angelina Ilieva Slavic Languages & Literatures
- Andrew Janco Human Rights Program
- Larisa Jašarević Program in International Studies
- Kinga Kosmala Slavic Languages & Literatures
- James Leitzel Public Policy Studies and the College
- Nada Petkovic-Djordjevic Slavic Languages & Literatures
- Valentina Pichugin Slavic Languages & Literatures
- Diane P. Wood Law School
- Sunny Yudkoff Germanic Studies Library Personnel
- June P. Farris Slavic and East European Collections, Regenstein Library
- Sandra Levy Slavic and East European Collections, Regenstein Library

Other Affiliates

- Leonid Gavrilov NORC
- Natalia Gavrilova NORC
- Natalia Tamarina School of Medicine
- Tasha Vorderstrasse Oriental Institute

The Center for East European and Russian/Eurasian Studies (CEERES) is an interdivisional center which promotes the study of, and research about, the countries of Central and Eastern Europe and the former Soviet Union. The University of Chicago has been providing instruction in disciplines of the CEERES region continuously since 1903, when courses in Russian language and area studies were begun. The center now known as CEERES has been in existence since 1965, and it continues to coordinate instruction and facilitate research about Russia/ Eurasia and Eastern/Central Europe, including the Baltic States, the Balkans, the Caucasus, and Central Asia.

In addition to its robust language offerings, CEERES supports curricula which are particularly strong in Russian/Soviet history; Slavic, Balkan, and Caucasian linguistics; nationalities studies of the former USSR; Slavic literatures (Russian, Polish, Czech, Balkan); Russian and East European cultural anthropology; comparative literature; Russian and East European film and art history; and business administration. CEERES affiliated faculty have expertise also in political science, international relations, economics, sociology, and Central and Eastern European, Byzantine, and Ottoman history. The center does not itself offer a separate master's degree; however, it does administer a joint A.M./M.B.A. degree through the Division of the Social Sciences in conjunction with the University of Chicago Booth School of Business. The faculty members that teach and do research in the CEERES area are supported by one of the best libraries in the country.

CEERES has a mission to disseminate information about and increase knowledge of a vast and diverse region of the world. We have a firm commitment to scholarship within the university community that extends to outreach to the greater Chicago community, the nation, and the world. We fulfill our mission through conferences, workshops, and seminars, including close collaboration with the Council on Advanced Studies workshops; by providing curricular support and administering Foreign Language and Area Studies (FLAS) Fellowships; by organizing teacher training workshops and assisting in developing CEERES-focused curricula for K-12 and community college instruction; and by hosting concerts and cultural programming, including music and dance performances, films, and art exhibits open to the general public. We publicize our activities at our website (ceeres.uchicago.edu), through weekly e-bulletins sent through our listserv, and by means of our biannual newsletter. A number of our events are also recorded and available as free podcasts at our CEERES Media Archive.



The Enrico Fermi Institute

Director

- Emil J. Martinec, Physics Professors
- Edward Blucher, Physics
- John Eric Carlstrom, Astronomy & Astrophysics
- Cheng Chin, Physics
- Juan Collar, Physics
- Nicolas Dauphas, Geophysical Sciences
- Andrew Davis, Geophysical Sciences
- Henry J. Frisch, Physics
- Lawrence Grossman, Geophysical Sciences
- Jeffrey A. Harvey, Physics
- Craig Hogan, Astronomy & Astrophysics
- Wayne Hu, Astronomy & Astrophysics
- Alexei Khokhlov, Astronomy & Astrophysics
- Young Kee Kim, Physics
- Edward W. Kolb, Astronomy & Astrophysics
- Arieh Königl, Astronomy & Astrophysics
- Andrey Kravtsov, Astronomy & Astrophysics
- David Kutasov, Physics
- Emil J. Martinec, Physics
- Stephan Meyer, Astronomy & Astrophysics
- Sidney Nagel, Physics
- Angela Olinto, Astronomy & Astrophysics
- Mark J. Oreglia, Physics
- Paolo Privitera, Astronomy & Astrophysics
- Robert Rosner, Astronomy & Astrophysics
- Savdeep Sethi, Physics
- Melvyn Shochet, Physics
- Dam Thanh Son, Physics
- Michael S. Turner, Astronomy & Astrophysics
- Carlos Wagner, Physics
- Yau W. Wah, Physics
- Robert M. Wald, Physics
- Paul B. Wiegmann, Physics

Associate Professors

- Fred Ciesla, Geophysical Sciences
- Daniel Holz, Physics
- Scott Wakely, Physics
- Liantao Wang, Physics

Part-Time Faculty

- Marcela Carena, Professor of Physics (part-time with Fermilab)
- Kwang-Je Kim, Professor of Physics (part-time with Argonne)
- Michael Pellin, Professor of Geophysical Sciences (part-time with Argonne)
- Guy Savard, Professor of Physics (part-time with Argonne)

Assistant Professors

- Luca Grandi, Physics
- David W. Miller, Physics
- David Schmitz, Physics
- Abigail Vieregg, Physics Emeritus Faculty
- Edward Anders, Chemistry
- Robert N. Clayton, Chemistry and Geophysical Sciences
- James W. Cronin, Astronomy & Astrophysics and Physics
- Peter G. O. Freund, Physics
- Robert P. Geroch, Physics
- Roger H. Hildebrand, Astronomy & Astrophysics and Physics
- Leo P. Kadanoff, Physics and Mathematics
- Edward James Kibblewhite, Astronomy & Astrophysics
- Donald Q. Lamb, Astronomy & Astrophysics
- Riccardo Levi-Setti, Physics
- Frank S. Merritt, Physics
- Dietrich Müller, Physics
- Yoichiro Nambu, Physics
- Takeshi Oka, Astronomy & Astrophysics and Chemistry
- Eugene N. Parker, Astronomy & Astrophysics and Physics
- James E. Pilcher, Physics
- Jonathan L. Rosner, Physics
- John P. Schiffer, Physics
- James W. Truran, Astronomy & Astrophysics
- S. Courtenay Wright, Physics
- Donald G. York, Astronomy & Astrophysics

The Enrico Fermi Institute (http://efi.uchicago.edu) is a Physical Sciences unit of the University devoted to interdisciplinary research. It was founded shortly after the Second World War as the "Institute for Nuclear Studies" and is now named in honor of Enrico Fermi, who was one of the founders and a distinguished member of the Institute. All faculty members in the Institute hold joint appointments in one or more of the following departments: Physics (http://physics.uchicago.edu), Astronomy and Astrophysics (http://astro.uchicago.edu), Chemistry (http:// chemistry.uchicago.edu), Geophysical Sciences (http://geosci.uchicago.edu), and Mathematics (http://math.uchicago.edu). Graduate students and postdoctoral scholars working with these faculty members also hold appointments and perform their research in the Institute.

The experimental disciplines currently being pursued include: high-energy particle physics, high-energy astrophysics, studies of particles and fields in the solar system and in space, infrared and optical astronomy, nuclear cosmochemistry, geochemistry, scanning electron and proton microscopy, and solar energy concentration. Theoretical studies include physics of elementary particles, quantum field theory, theoretical astrophysics and solar physics, plasma physics, cosmology, and general relativity.

The Enrico Fermi Institute provides engineering, technical and administrative support for the academic members and students. It includes a state-of-theart electronics development group and facilities for mechanical design and construction, as well as computational equipment. Special resources include environmental test equipment, large-scale assembly facilities, computer aided design facilities, etc. This makes possible the design of complex instruments, and the in-house construction of detectors needed for experiments in the laboratory, with high-energy particle accelerators, on high-altitude balloons, and in space on satellites, deep space probes and the space shuttle. Most of the high-energy physics activity is focused on the Fermi National Accelerator Laboratory (http:// www.fnal.gov) ("Fermilab"), one hour's driving distance from the campus, but experiments are also planned and prepared for the LEP/LHC facility at CERN in Geneva, Switzerland. Offices and laboratories for faculty, students, and staff are located in four adjacent buildings, the Laboratory for Astrophysics and Space Research, the High Energy Physics building, the Temporary Astronomy and Astrophysics Center, and the Accelerator Building. The Eckhardt Research Center, which replaces the Research Institutes building that stood at the corner of Ellis and 57th Street for more than 50 years, is scheduled to open in autumn 2015; the ERC will be the new home of the Astronomy and Astrophysics Center. The Kavli Institute for Cosmological Research, now occupying LASR, will also move to the ERC, at which time LASR will undergo a complete renovation and become the new home of the Enrico Fermi Institute.

The Enrico Fermi Institute annually awards Enrico Fermi Postdoctoral Fellowships and McCormick Postdoctoral Fellowships on a worldwide competitive basis to recent Ph.D. recipients in astronomy, chemistry, physics, or planetary sciences. The purpose of these fellowships is to enable young scientists to work either independently or in close association with present members of the Institute in areas of mutual interest. The intellectual life in the Institute is enhanced by frequent visitors, Visiting Scholars and Distinguished Visiting Professors. The Institute also sponsors a popular Saturday morning public lecture series in the autumn and spring quarters, The Arthur H. Compton Lectures. Chicago Pile No. 1 (CP-1) was constructed in a makeshift laboratory under the grandstands of Stagg Field Stadium on the University of Chicago campus. It was here that Enrico Fermi and his colleagues achieved the first self-sustaining controlled release of nuclear energy on December 2, 1942. In 1965, the site was designated a registered national historic landmark.



THE MORRIS FISHBEIN Center for the History of Science and Medicine

Director

- Robert J. Richards Faculty
- Arnold Ira Davidson, Philosophy
- Jan Ellen Goldstein, History
- Adrian Johns, History
- Karl Matlin, Department of Surgery
- Robert J. Richards, History
- Michael Rossi, History
- Joel M. Snyder, Art History
- Stephen M. Stigler, Statistics
- Russell H. Tuttle, Anthropology
- Alison Winter, History

Emeritus Faculty

- Donald N. Levine, Sociology
- William C. Wimsatt, Philosophy

The Morris Fishbein Center for the History of Science and Medicine was inaugurated at the University of Chicago in 1970. Its mission is to facilitate studies in the history of science and medicine by students, post doctoral scholars, and faculty with interest in this field. It lends particular support to Ph.D. students pursuing the history of science. It maintains close cooperative relations with the Department of History and the Committee on the Conceptual and Historical Studies of Science.

Graduate study in the history of science and medicine can lead to a Ph.D. degree through either the Department of History or the Committee on Conceptual and Historical Studies of Science. An extremely flexible program enables students to draw on a wide range of formal courses and seminars. At the same time it is possible to define programs of individual study that can accommodate the specific needs of persons with quite different backgrounds and interests. Arrangements are normally made with science departments when further technical training or supervision seems advisable. Additional training and supervision are available through the co-operation of historians of science and medicine at other universities throughout the nation.

Programs are designed for those who wish to investigate the sciences and medicine in their religious, philosophical, literary and technological contexts, and to relate them to broad questions of social structure and cultural change. Requirements are listed under the Department of History and the Committee on Conceptual and Historical Studies of Science. Additional information describing the program and the types of financial aid available to students may be obtained on the center's web site: http://fishbein.uchicago.edu/ or by writing the Secretary of the Center, 1126 East 59th Street, Chicago, IL 60637 (bethcalderon@uchicago.edu).

COURSES

A listing of courses representative of those offered by members of the center is available at the CHSS website. (http://chss.uchicago.edu)



The James Franck Institute

Director

- Aaron Dinner, Chemistry Professors
- Laurie J. Butler, Chemistry
- Cheng Chin, Physics
- Aaron Dinner, Chemistry
- Todd Dupont, Computer Science
- Greg Engel, Chemistry
- Philippe Guyot-Sionnest, Chemistry
- Eric D. Isaacs, Physics
- Heinrich M. Jaeger, Physics
- Woowon Kang, Physics
- Ka Yee Lee, Chemistry
- Kathryn J. Levin, Physics
- Donald H. Levy, Chemistry
- Peter B. Littlewood, Physics
- Gene F. Mazenko, Physics
- David A. Mazziotti, Chemistry
- Sidney R. Nagel, Physics
- Norbert F. Scherer, Chemistry
- Steven J. Sibener, Chemistry
- Dam Thanh Son, Physics
- Dmitri Talapin, Chemistry
- Andrei Tokmakoff, Chemistry
- Gregory A. Voth, Chemistry
- Paul Wiegmann, Physics
- Luping Yu, Chemistry Associate Professors
- Margaret Gardel, Physics
- Dion L. Heinz, Geophysical Sciences
- William T. M. Irvine, Physics
- Wendy W. Zhang, Physics Assistant Professors
- David Biron, Physics
- Michael Levin, Physics
- David Schuster, Physics
- Jonathan Simon, Physics

- Bozhi Tian, Chemistry
- Jonathan Weare, Statistics
- Suriyanarayanan Vaikununtanathan, Chemistry Emeritus Faculty
- R. Stephen Berry, Chemistry
- Karl F. Freed, Chemistry
- Robert Gomer, Chemistry
- Leo P. Kadanoff, Physics and Mathematics
- John C. Light, Chemistry
- Stuart A. Rice, Chemistry
- Thomas A. Witten, Physics

About the Institute

The James Franck Institute (http://jfi.uchicago.edu) is the premier institute in the U.S. for interdisciplinary research at the intersection of physics, chemistry and materials science. The Institute is home to scientists from condensed matter physics, physical chemistry, synthetic materials chemistry, atomic, molecular, and optical (AMO) physics, geophysics, and biophysics. Most of the faculty in the Institute are also associated with the University of Chicago Materials Research Science and Engineering Center (http://mrsec.uchicago.edu) (MRSEC), supported by the National Science Foundation.

The James Franck Institute was established after World War II as the Institute for the Study of Metals, with the present name being adopted in 1967 to reflect the emerging wider range of research activities covering the full spectrum of solids, liquids, and gases. Today, high-profile experimental and theoretical research in the Institute covers the areas of nanoscience, phase transitions, far-from-equilibrium phenomena, granular materials, low-temperature transport phenomena and superconductivity, ultracold atomic matter, quantum information, electronic structure, hydrodynamics, active matter, biophysics, and networks.

The Institute provides a stimulating environment for scientists of different disciplines to interact and aid each other's research. This facilitates pre- and postdoctoral researchers working jointly with mentors from different academic backgrounds. The intellectual environment in the Institute is further enriched by Senior Scientists, Senior Research Associates, Research Scientists and Visiting Scholars. Active colloquium and seminar series, as well as a more informal weekly "bag lunch", stimulate information exchange. Housed in the Gordon Center for Integrative Science building, the Institute provides office and state-of-the-art laboratory space which operates a number of specialized research facilities. These include a low-temperature (cryogenics) laboratory, materials preparation and spectroscopic facilities, scanning probe and electron microscopes, and extensive shop facilities.

In an age where much cutting-edge research lies at the boundaries between traditional disciplines, the James Franck Institute fosters creative interdisciplinary work at the forefront of science.



Center for the Study of Gender and Sexuality

Faculty Director

- Linda M. G. Zerilli Staff
- Gina Olson, Associate Director
- Tate Brazas, Program Coordinator
- Sarah Tuohey, Student Affairs Administrator

Faculty

- Niall Atkinson Art History
- Leora Auslander History
- Shadi Bartsch-Zimmer Classics
- Orit Bashkin Near East Languages & Civilizations
- Sian Beilock, Psychology
- Lauren G. Berlant English Language & Literature
- Alida Bouris Social Service Administration
- Catherine Brekus Divinity
- Bill Brown English Language & Literature
- Margot Browning Humanities
- E. Summerson Carr Social Service Administration
- Mary Anne Case Law
- Kyeong Hee Choi East Asian Languages & Civilizations
- Hillary Chute English Language & Literature
- Elisabeth Clemens Sociology
- Cathy Cohen Political Science
- Jennifer Cole Comparative Human Development
- Kristine Culp Divinity
- Jane Dailey History
- Shannon Dawdy Anthropology
- Daisy Delogu Romance Languages & Literature
- Wendy Doniger Divinity
- Sascha Ebeling Near East Languages & Civilizations
- Jacob Eyferth East Asian Languages & Civilizations
- Martha Feldman Music
- Ping Foong Art History
- Susan Gal Anthropology
- Melissa Gilliam Obstetrics and Gynecology

- Jan Ellen Goldstein History
- Ramón Gutiérrez History
- Elaine Hadley English Language & Literature
- James Heckman Economics
- Julia Henly Social Services Administration
- Judy Hoffman Visual Arts
- Alison James Romance Languages & Literature
- Waldo Johnson Social Services Administration
- Robert L. Kendrick Music
- Karen Kim Medicine
- Janice Knight English Language & Literature
- Aden Kumler Art History
- Edward O. Laumann Sociology
- Laura Letinsky Visual Arts
- David Levin Germanic Studies
- Jonathan Lyon History
- Agnes Lugo Ortiz Romance Languages & Literatures
- Armando Maggi Romance Languages & Literature
- Rochona Majumdar South Asian Languages & Civilizations
- Patchen Markell Political Science
- Jeanne Marsh Social Service Administration
- Jill Mateo Comparative Human Development
- Martha K. McClintock Psychology
- Françoise Meltzer Romance Languages & Literatures
- J. Mark Miller English Language & Literature
- Kathleen Morrison Anthropology
- Deborah Nelson English Language & Literature
- Larry Norman Romance Languages & Literatures
- Martha C. Nussbaum Law
- Wendy R. Olmsted College
- Mark Osadjan Biological Sciences
- Emily Lynn Osborn History
- Tianna Paschel Political Science
- Lucy Pick Divinity
- Melissa Roderick Social Service Administration
- Martha Roth Near Eastern Languages & Civilizations
- Lisa C. Ruddick English Language & Literature
- Julie Saville History
- Jennifer Scappettone English Language & Literature
- Kristen Schilt Sociology

- Reynolds Barton Schultz Humanities
- Bozena Shallcross Slavic Languages & Literatures
- Richard Shweder Comparative Human Development
- Michael Silverstein Anthropology
- William Sites Social Service Administration
- Amy Dru Stanley History
- Christine Stansell History
- Justin Steinberg Romance Languages & Literature
- Sonali Thakkar English Language & Literature
- Leigh VanValen Ecology & Evolution
- Candace A. Vogler Philosophy
- Linda Waite Sociology
- Martha Ward Art History
- Lisa Wedeen Political Science
- Jennifer Wild Cinema & Media Studies
- Alison Winter History
- David Wray Comparative Literature
- Wu Hung Art History
- Tara Zahra History
- Judith Zeitlin East Asian Languages & Civilizations
- Linda Zerilli Political Science
- Rebecca Zorach Art History

The Center for the Study of Gender and Sexuality coordinates courses and activities that take up gender and sexuality as primary objects of study and categories of analysis. Courses engage these domains in many different ways, including: the study of gender and/or sexuality as historical practice; scientific concept and site of representation; in social movements such as feminism and gay and lesbian liberation; feminist and queer theory; family structures; the gendering of labor force participation; representations of women in literature and the visual arts; intersections of race and gender, transnationalism; and women's and men's participation in politics.

Our courses fall under traditional disciplinary rubrics, and use gender and sexuality as categories of analysis to track contemporary transformations in these and other domains of knowledge. We are interested in developing points of comparison within and among diverse areas of organized knowledge, not assuming that gender means the same thing in different disciplines, historical moments, epistemologies, or cultural frameworks. We are also dedicated to fostering debate about the construction and implications of categories of gender difference and sexual identity. Further, we promote engagement with ways that gender and sexuality give us insight into other modes of social organization and change, including transformations of economic and political systems; media public spheres; forms of repression and resistance; modes of production, knowledge and experience; and everyday life.

The Center for the Study of Gender and Sexuality confers no graduate degrees at this time. It does, however, offer a graduate certificate in Gender and Sexuality Studies for University of Chicago doctoral students, and it fosters graduate participation in the center in several other ways. In addition to offering undergraduate and graduate courses and an undergraduate major and minor in gender studies, the Center sponsors lectures and symposia of interest to graduate students. It also encourages and supports graduate student initiatives for conferences and speakers, as well as student participation in the governance of the center. In addition, many Gender and Sexuality Studies faculty and students participate in the graduate workshops conducted under the auspices of the Council on Advanced Studies in Humanities and Social Sciences that engage questions of gender, sexualities and identities including the Gender and Sexuality Studies Workshop. Each year, the Center offers a dissertation writing fellowship as well as an office space competition at the Center. Problems in the Study of Gender and Problems in the Study of Sexuality (the core undergraduate courses for the program) and Advanced Theories of Sex and Gender (a graduate level theory course) promote collaborative teaching among faculty and graduate students. The Center also offers graduate student teaching opportunities in the form of free standing courses in the College. A library of textual materials related to the curriculum and the workshops, together with information about gender and women's studies programs at other institutions and funding opportunities for research on women's and gender studies, is kept in the Gender and Sexuality Studies at 5733 S. University Avenue.

The affiliated faculty draws from departments, committees, and professional schools from around the University. Members of this faculty support interdisciplinary work in gender and sexuality studies, even when their major course offerings are not directly gender or sexuality studies courses. Faculty also regularly direct master's theses in the field of gender and sexuality studies within the MAPSS and MAPH programs as well as Ph.D. dissertations in their own departments. Students interested in gender and/or sexuality studies who wish to earn advanced degrees leading to careers in research and teaching should apply for admission to the department in which their chief interest falls.

Please contact Sarah Tuohey, Student Affairs Administrator at the Center for the Study of Gender and Sexuality (773-702-2365; stuohey@uchicago.edu) for specific information regarding courses and programs. More information can also be found on the Center's website at http://gendersexuality.uchicago.edu/.

12



Pozen Family Center for Human Rights

Faculty Director

- Mark Bradley Executive Director
- Susan Gzesh

The University of Chicago Pozen Family Center for Human Rights (PFCHR), founded as the Human Rights Program in 1997, is currently led by Faculty Director Mark Bradley and Executive Director Susan Gzesh. The PFCHR offers a broad range of innovative interdisciplinary teaching and research initiatives that critically explore the theory and practice of human rights. The PFCHR advances the global study of human rights through:

- Developing a rigorous liberal arts curriculum that combines foundational research with practice-oriented training. Courses are open to all UChicago students (see current list (https://humanrights.uchicago.edu/page/curriculum)).
- Supporting research that brings together faculty and students from across the university to address the challenges of articulating universal human rights in a world of global inter-connectedness.
- Organizing programs to enhance the university's engagement with local, national, and international human rights communities.

The Pozen Family Center for Human Rights also offers a variety of opportunities for graduate students from across the University and is unique in its dedication to supporting the next generation of human rights scholars as they develop their research and teaching. Opportunities include:

ALL GRADUATE STUDENTS:

- Research support (http://humanrights.uchicago.edu/page/pozen-researchgrants-phd-students) for all graduate students in multi-year programs
- Competitive grants for the Human Rights Summer Internship Program (http:// humanrights.uchicago.edu/page/human-rights-internship-program)
- Human Rights faculty members advise M.A. and Ph.D. students on human rights research

DOCTORAL STUDENTS:

- Doctoral students are encouraged to submit papers for presentation at the Human Rights Workshop series (http://humanrights.uchicago.edu/page/human-rights-workshop-series).
- Graduate Lectureship grants (http://humanrights.uchicago.edu/page/graduatelectureships) offer doctoral students the opportunity to create and teach their own Human Rights courses.

- Doctoral students may work as Teaching Assistants or Co-teach (http:// humanrights.uchicago.edu/page/ta-and-co-teaching-opportunities) in Human Rights courses.
- In 2014-15, the Center began offering its first Pozen Dissertation Year Completion Fellowship (http://humanrights.uchicago.edu/pozen-human-rights-dissertation-completion-fellowship).



Center for International Studies

Interim Director

Mark Lycett

Founded in 1966, the Center for International Studies (http://cis.uchicago.edu) (CIS) sponsors and coordinates a wide variety of activities related to research, teaching, curriculum, and public outreach on global and international topics. The Center, which celebrated its 50th anniversary in 2016, hosts the Program on the Global Environment; provides an administrative home for several regional studies programs; and organizes a robust slate of public and scholarly events that address global issues.

- The **Program on the Global Environment** (PGE) was officially launched in 2007-08. The program integrates perspectives on key environmental issues coming from the sciences, social sciences, and the policy community. The program includes an undergraduate major and minor in Environmental Studies and a faculty and graduate workshop on the global environment as well as support for internships, research, conferences and other events. Among the innovative offerings of the undergraduate program is the **Calumet Quarter**, a hands-on, intensive field program in the Calumet, Chicago's own back yard.
- CIS also serves as a the coordinator for regional studies programs not covered by Department of Education National Resource Centers on campus, including **African Studies** and (with the Centers for Middle East Studies and East European and Russian/Eurasian Studies), **Central Eurasian Studies**. CIS is also the institutional home of the **Committee on Southern Asian Studies** (COSAS), a faculty interest group whose members work in South and Southeast Asia. We also work closely with Chicago's area centers: the Centers for East Asian Studies; East European and Russian/Eurasian Studies; Latin American Studies; Middle Eastern Studies, and the South Asian Language and Area Center.
- CIS sponsors a wide range of public programs from scholarly conferences and workshops to teacher training programs. Our signature series, **The World Beyond the Headlines**, focuses on events of outstanding contemporary importance, bringing an international lineup of scholars, journalists, and world leaders to the Chicago campus. Through its **Norman Wait Harris fund**, CIS sponsors supports a wide range of conferences, lectures, invited speakers, and other events on international topics aimed at both university and broader audiences.

CIS also serves as a the coordinator for regional studies programs not covered by Department of Education National Resource Centers, including African Studies (https://africanstudies.uchicago.edu) and (with the Centers for Middle East Studies and East European and Russian/Eurasian Studies), Central Eurasian Studies (http:// centralasia.uchicago.edu). CIS is also the institutional home of the Committee on Southern Asian Studies (http://southasia.uchicago.edu) (COSAS), a faculty interest group whose members work in South and Southeast Asia. We also work closely with Chicago's area centers: the Centers for East Asian Studies; East European and Russian/Eurasian Studies; Latin American Studies; Middle Eastern Studies; and the South Asian Language and Area Center.

Through its Norman Wait Harris fund (http://cis.uchicago.edu/nwh), CIS supports a wide range of conferences, lectures, invited speakers, and other events on international topics aimed at both university and broader audiences. In recent years, the Center has utilized new technologies to increase the reach and impact of its programming through its online CHIASMOS (http://chiasmos.uchicago.edu) multimedia content delivery site featuring podcasts and other audio and video feeds of public lectures and other events.



CENTER FOR JEWISH STUDIES

Director

- David Schloen, Near Eastern Languages & Civilizations Professors
- Leora Auslander, History
- Orit Bashkin, Near Eastern Languages & Civilizations
- Philip Bohlman, Music
- Arnold I. Davidson, Philosophy, Divinity, and Comparative Literature
- Michael Fishbane, Divinity
- Cornell Fleischer, Near Eastern Languages & Civilizations
- David Levin, Germanic Studies
- Françoise Meltzer, Romance Languages and Literatures, Comparative Literature, and Divinity
- Paul Mendes-Flohr, Divinity
- David Nirenberg, Social Thought and History
- Martha Nussbaum, Law, Philosophy, and Divinity
- Dennis Pardee, Near Eastern Languages & Civilizations
- Moishe Postone, History
- Martha Roth, Oriental Institute
- Eric Santner, Germanic Studies
- Bożena Shallcross, Slavic Languages and Literatures
- Josef Stern, Philosophy
- Tara Zahra, History

Associate Professors

- Hakan Karateke, Near Eastern Languages & Civilizations
- James Robinson, Divinity
- Sofia Torallas-Tovar, Classics and Near Eastern Languages & Civilizations Assistant Professors
- Simeon Chavel, Divinity
- Sarah Hammerschlag, Divinity
- Faith Hillis, History
- Raoul Moati, Philosophy
- William Nickell, Slavic Languages and Literatures
- Richard Payne, Near Eastern Languages & Civilizations and History
- Na'ama Rokem, Near Eastern Languages & Civilizations
- Jeffrey Stackert, Divinity
- Sonali Thakkar, English Language and Literature

Senior Lecturers

- Ari Almog, Near Eastern Languages & Civilizations
- Sunny Yudkoff, Germanic Studies Emeritus Members
- Howard I. Aronson, Slavic Languages & Literatures
- Menachem Brinker, Near Eastern Languages & Civilizations
- Michael Geyer, History
- Joel Kraemer, Divinity
- Judith Nadler, Library
- Shulamit Ran, Music
- Jerrold Sadock, Linguistics
- Bernard Wasserstein, History

Jewish Studies has been an important field of research at The University of Chicago since the days when its first president, the Biblical scholar William Rainey Harper, oversaw the beginnings of programs in Bible and Ancient Near Eastern Civilizations. In addition to Professor Harper, Rabbi Emil Gustav Hirsch taught Jewish Studies from the very founding of the university. In 1892 he was appointed one of the first four full professors at the fledgling university, occupying a chair in "Rabbinical Literature and Philosophy." He held the chair until his death in 1923. In fact, the University of Chicago was one of the first universities in the world to have a full fledged program in Jewish Studies. A few decades later, these early initiatives received a huge institutional boost with the founding of the Oriental Institute, which remains one of the preeminent centers for the study of ancient Near Eastern language, civilization, and archeology. But the flourishing of Jewish Studies over the years at Chicago has also been sustained by appointments in a wide range of departments: professorships of Jewish Hellenism in Classics, Medieval Jewish Philosophy in Philosophy, Jewish Social and Economic History in History, to name only a few. During the past decade, the University has appointed eminent scholars in the study of Hebrew Bible, Midrash, Jewish Medieval Studies, Hebrew Literature, American Jewish Literature, and German Jewish Culture. Working together, they have created one of the most modern comprehensive, distinguished and interdisciplinary programs in Jewish Studies available at any American university. Students can make full use of the resources in Jewish Studies available through the Divinity School, the Departments of Germanic Studies, History, Linguistics, Philosophy, Music, Near Eastern Languages & Literature, and the Oriental Institute.

ACADEMIC OPPORTUNITIES

Graduate students in Jewish Studies at the University of Chicago earn their degrees in a department, school, or committee, while supplementing their disciplinary training through participation in the inter-disciplinary activities and scholarship opportunities offered by the Center. Students who wish to pursue graduate work in an area of Jewish Studies should apply to the appropriate department, school, or committee, and not to the Chicago Center for Jewish Studies. The following departments and schools offer specialized graduate study in the following tracks or programs of Jewish Studies:

The Divinity School

- Biblical Studies
 - Hebrew Bible and the Ancient Near East
 - Hebrew Bible and Early Jewish Literature
 - Jewish and Christian Bible
- History of Judaism
- Rabbinic literature, Midrash, and mysticism
- Medieval Jewish philosophy, thought, and literature (including Islamic philosophy)
- Modern Jewish thought and intellectual history

For information about the Divinity School please visit http://divinity.uchicago.edu.

DEPARTMENT OF GERMANIC STUDIES

- German-Jewish Intellectual History
- Yiddish Language, Literature, and Culture

For information about the Department of Germanic Studies please visit http://german.uchicago.edu.

Department of History

• Modern Jewish History

For information about the Department of History please visit http:// history.uchicago.edu.

DEPARTMENT OF NEAR EASTERN LANGUAGES AND CIVILIZATIONS (NELC)

- Near Eastern Judaica (including Modern Hebrew Studies and Hebrew Studies)
- Northwest Semitic Philology (including Hebrew, Phoenician-Punic, Ugaritic, Aramaic, and Syriac)
- Ancient Near Eastern History (including the ancient history of Syria-Palestine)
- Near Eastern Art and Archaeology
- Modern Hebrew Language and Literature
- Islamic History and Civilization (including the study of Jews in the Islamic world)
- Islamic Thought (including the interaction between Jewish and Islamic thought)

For more information about NELC please visit http://nelc.uchicago.edu/.

In addition, students and faculty work in specific areas of Jewish Studies in the Departments of Music, Philosophy, Political Science, and Slavic Languages and Literatures.

The Chicago Center for Jewish Studies seeks to provide a common space in which graduate students of all disciplines working in the diverse areas of Jewish Studies can participate in a rich and lively intellectual community. We are planning interdisciplinary graduate courses, lectures and conferences, and graduate workshops and seminars for faculty and students. The faculty of the Center guide students to the multiple opportunities for the study of Judaism and Jewish culture available across the university. In addition, the Center awards research and travel grants and dissertation year fellowships to students in any department and school working on topics related to Jewish Studies. Prospective and current students should keep in mind that, given the deeply ingrained interdisciplinary culture of the University of Chicago, their opportunities for study and research can range across the entire faculty in addition to the resources of their home department or unit. Although each program has its own requirements, students typically take courses and seminars in departments other than their own, and dissertation committees often include faculty from multiple departments, thus reflecting the interdisciplinary nature of graduate study at this university.

JEWISH STUDIES & HEBREW BIBLE WORKSHOPS

Bringing together faculty and students from across various disciplines, the Jewish Studies and the Hebrew Bible workshops seek to provide a forum for vibrant discourse and critical reflection on work and topics included in these broad fields of Judaica. From Jewish language, literature, and music to religion and philosophy, these workshops look to engage students and faculty interested in Jewish studies while stretching them to think beyond the strictures that currently typify their subdisciplines.

Research and Library Resources

The University of Chicago library system serves the research and study interests of faculty and students and houses a bound volume and microfilm collection of more than 5 million volumes; a manuscript and archival collection of over 7 million pieces; serial holdings of some 95,000 titles; and a photographic study collection of visual art of more than 500,000 pieces. The physical facilities of the library system consist of the Joseph Regenstein Graduate Research Library, supporting research activities and graduate programs in the humanities and social sciences; Harper Memorial Library, serving primarily students in the College; and six professional and departmental libraries. Regenstein Library provides the central location for research materials in the humanities, the social sciences, and the ancient and modern languages, an array of resources numbering more than 3 million volumes.

Regenstein Library contains the Department of Special Collections, a major repository of archival and rare published materials. Regenstein also houses the Middle East Collection, with rich holdings in Assyriology and Egyptology. Of particular interest to students in Jewish Studies is the unique Ludwig Rosenberger Collection, which contains thousands of items in German Judaica. In addition, the Oriental Institute maintains extensive holdings in ancient Near Eastern and biblical studies and archaeology. Library resources are not limited to the University community. The libraries of the cluster of five theological schools in the University neighborhood enrich the available library facilities by more than 1,000,000 volumes. The libraries of the Art Institute and the Chicago Historical Society also contain extensive resources for historical study. The Newberry Library, located on Chicago s Near North Side, is a world-renowned research collection of some 1,000,000 titles and 5,000,000 manuscripts in the humanities, chiefly in history, literature, music, and philosophy, with special strengths in European, American, and Latin American history and literature.

STUDENT FUNDING AND OPPORTUNITIES

DISSERTATION YEAR FELLOWSHIP

The Chicago Center for Jewish Studies periodically offers Dissertation Year Fellowship(s) for students in all Divisions and Schools at the University of Chicago pursuing projects on any topic relating to Jewish Studies, including (but not restricted to) study of the history, culture, and thought of the Jews, classical and modern Jewish texts, and languages of the Jews (e.g., biblical through modern Hebrew, Yiddish).

Travel and Research Grants

The Chicago Center for Jewish Studies awards grants to students to support their work in any area of Jewish Studies. Eligible expenses include (1) research travel and materials, and (2) advanced foreign language study in an accredited program (beyond the level offered at the University). Because funds are currently limited, priority will be given to proposals in the order listed. Awards are also available for conference travel and fees when a paper has been accepted for presentation. Students may combine their awards with funding from other sources.

TEACHING NOMINATIONS TO THE GRAHAM SCHOOL FOR CONTINUING EDUCATION

The Chicago Center for Jewish Studies at the University of Chicago, in cooperation with the Graham School of General Studies, organizes an annual competition for Jewish Studies courses to be taught at the Graham School (at the Gleacher Center). The Graham School offers an array of open enrollment non-credit courses in the liberal arts for adult students; for examples of current courses, see http:// grahamschool.uchicago.edu/has. The Center for Jewish Studies oversees three such courses on topics in Jewish Studies, to be taught by University of Chicago Ph.D. students, one in each quarter of the academic year.

Each course meets for a total of 20 hours per quarter; usually they are taught over eight weeks, each meeting lasting 2 ½ hours. Courses are contingent on minimal enrollment (typically six students). Each student teacher will be assigned a faculty mentor who will work with the student on syllabus preparation and oversee student teaching.

For additional information about the Jewish Studies program, please see http://lucian.uchicago.edu/blogs/ccjs/.



Center for Latin American Studies

STAFF

Natalie Arsenault | Associate Director e-mail: ncarsenault@uchicago.edu phone: 773.702.9741

Jamie Gentry | Office Manager, Student Affairs Coordinator e-mail: jagentry@uchicago.edu phone: 773.702.8420

CLAS WEBSITE: HTTP://CLAS.UCHICAGO.EDU/

Established in 1968, the University of Chicago Center for Latin American Studies provides an intellectual meeting point for members of our University and extended community to study, debate, and shape the big questions surrounding Latin America. CLAS coordinates workshops, seminars and conferences; hosts visiting scholars; and provides financial support for preliminary student field research, library acquisitions, and the development of curricular materials in the less commonly taught languages of the region. In consortium with the University of Illinois at Urbana Champaign, the Center for Latin American Studies has been designated a National Resource Center by the United States Department of Education continuously since 1976. This funding provides a wide range of support, including Foreign Language and Area Studies (FLAS) fellowships. A full description of Latin American Studies programming is available at the Center's website, http:// clas.uchicago.edu.

The Center sponsors various activities that contribute to the richness of Latin American Studies at the University of Chicago, including the sponsorship of major academic conferences which bring scholars from around the world to examine particular issues in Latin American studies. The Latin American Briefing Series brings renowned figures to campus for public lectures on current affairs in Latin America.

The Center for Latin American Studies administers both undergraduate and graduate degree programs including a BA major program (https:// clas.uchicago.edu/page/ba-major-latin-american-caribbean-studies), a BA minor program (https://clas.uchicago.edu/page/ba-minor), a BA to MA program (https:// clas.uchicago.edu/page/ba-ma-program), a Master of Arts degree program (https:// clas.uchicago.edu/page/about-ma-degree-program) in Latin American Studies, a Joint A.M./M.B.A. (https://clas.uchicago.edu/page/ma-program-joint-ma-programs) degree and a dual A.M in Latin American Studies/A.M. in Public Policy (https:// clas.uchicago.edu/page/ma-program-joint-ma-programs). For details on these degree programs, please visit the CLAS degree programs webpage (https:// clas.uchicago.edu/page/degree-programs).

AFFILIATED FACULTY

DIRECTOR

• Brodwyn Fischer, Department of History

FACULTY

- Michael Albertus Department of Political Science
- Fernando Alvarez Department of Economics
- Dain Borges Department of History
- Claudia Brittenham Department of Art History
- Chad Broughton Department of Public Policy Studies (College)
- Melvin Butler Department of Music
- Shannon Dawdy Department of Anthropology
- Daniel Desormeaux, Department of ROmance Languages & Literatures
- Frederick A. de Armas Department of Romance Languages & Literatures
- René de Costa Department of Romance Languages & Literatures
- Cécile Fromont Department of Art History
- Laura Gandolfi, Department of Romance Languages & Literatures
- Ramón Gutiérrez Department of History
- Susan R. Gzesh Department of Human Rights
- James Heckman Department of Economics
- Thomas Holt Department of History
- Dwight Hopkins Divinity School
- Robert L. Kendrick Department of Music
- Alan Kolata Department of Anthropology
- Emilio H. Kourí Department of History
- Benjamin Lessing Department of Political Science
- Ana Maria Lima Department of Romance Languages & Literatures
- Victor Lima Department of Economics
- Hedibert Lopes Booth School of Business
- Maria Cecilia Lozada Department of Romance Languages & Literatures
- John A. Lucy Department of Comparative Human Development
- Agnes Lugo Ortiz Department of Romance Languages & Literatures
- Alicia Menendez Harris School of Public Policy
- Salikoko Mufwene Department of Linguistics
- Stephan Palmié Department of Anthropology
- Mario Santana Department of Romance Languages & Literatures
- Julie Saville Department of History
- Paul Sereno Department of Organismal Biology & Anatomy
- Megan Sullivan Department of Art History

- Mauricio Tenorio Department of History
- Robert M. Townsend Department of Economics

2015-16 CENTER FOR LATIN American studies courses

*FOR A CONTINUALLY UPDATED LIST OF COURSE OFFERINGS, PLEASE VISIT THE CENTER FOR LATIN AMERICAN STUDIES WEBPAGE (HTTP://MACLAS.UCHICAGO.EDU/ PAGE/COURSES) OR CLASSES.UCHICAGO.EDU

LACS 16100	Introduction to Latin American Civilization I	100
LACS 16200	Introduction to Latin American Civilization II	100
LACS 16300	Introduction to Latin American Civilization III	100
LACS 29700	Reading and Research in Latin American Studies	100
LACS 29801	BA Colloquium	100
LACS 29900	Preparation of the BA Essay	100
LACS 32501	Elementary Haitian Kreyol I	100
LACS 32502	Elementary Haitian Kreyol II	100
LACS 32503	Elementary Haitian Kreyol III	100
LACS 34512	Intermediate Haitian Kreyol I	100
LACS 34513	Intermediate Haitian Kreyol II	100
LACS 34514	Intermediate Haitian Kreyol III	100
LACS 40100	Reading and Research in Latin American Studies	100
LACS 40300	MA Paper Pre: Latin American Studies	100
LACS 40501	MA Proseminar	100



Center for Middle Eastern Studies

Director

- Hakan Karateke
 Deputy Director
- Orit Bashkin

Deputy Director for Academic Programs

- Paul E. Walker Associate Director
- Thomas E. R. Maguire Project Assistant
- Brittany Ciboski
 Public Education Project Director
- Alexander Barna

Please see entry for Center for Middle Eastern Studies for the list of Middle Eastern Studies faculty, also available at http://cmes.uchicago.edu/.

The Center for Middle Eastern Studies offers an interdisciplinary Master of Arts program designed for students who wish to use their knowledge of the Middle East in careers other than university teaching and research. The program is also suitable for students considering an academic career who have not had the appropriate academic background for direct entrance into a doctoral program. Language and area studies preparation may be supplemented by relevant course work in a professional school or department. Students may be admitted to the Master of Arts program in either the Division of the Social Sciences or the Humanities and will receive the degree from the division through which they have registered. Students with significant previous training in Middle Eastern or Islamic studies who wish to earn a doctoral degree leading to careers in research and college or university teaching should apply for admission directly to one of the graduate doctoral departments or committees of the University.

There are two tracks — modern and ancient — for the MA program in Middle Eastern Studies. The modern program covers the time period from the rise of Islam until the present. The ancient track, offered in collaboration with the faculty of the Department of Near Eastern Languages and Civilizations, focuses on the cultures and languages of the ancient Near East. The application process, degree requirements, and the rules and conditions for financial aid are similar for both programs.

ADMISSION

Applicants for the Master of Arts in Middle Eastern Studies are expected to meet the graduate admission requirements of the University and of the division to which they apply. In addition, applicants to the Middle Eastern Studies program must submit an academic writing sample. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Students must enter the program in the autumn quarter. Although the program is designed for full time students, applications from those who can attend only on a part time basis will be considered.

HOW TO APPLY THROUGH THE DIVISION OF HUMANITIES

The application process for admission and financial aid for all Humanities graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (http://humanities.uchicago.edu/students/admissions/apply-now).

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

How to Apply Through the Division of the Social Sciences

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (https://socialsciences.uchicago.edu/admissions/apply).

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415.

Joint Program in Business Administration and Middle Eastern Studies

Benefiting from the combined strengths of the Center and the Graduate School of Business (http://www.chicagobooth.edu) -- one of the finest business schools in the country -- this three-year program helps students gain a firm grasp of the languages, history, and social institutions of the Middle East while acquiring the basic skills for careers in international business. To apply for the joint M.A. in Middle Eastern Studies/Masters in Business Administration, please click here (http://www.chicagobooth.edu/programs/full-time/admissions).

Joint Program in Public Policy and Middle Eastern Studies

This dual degree program addresses the needs of students wishing to acquire a solid background in modern Middle Eastern languages, history, and civilization while developing their abilities in policy analysis in preparation for professional careers in scholarly, educational, governmental, non-governmental, and business environments in the United States and abroad. This program requires approximately 5 quarters of study in the Center for Middle Eastern Studies and 4 quarters of study in the Harris School of Public Policy (http://harris.uchicago.edu/

admissions-and-aid). Applicants for the joint program must apply to both the Harris School (https://grad-application.uchicago.edu) and the Division of the Social Sciences (https://socialsciences.uchicago.edu/admissions/apply) separately.

Program requirements

The requirements are satisfactory completion of:

- Six quarters of a Middle Eastern (ancient or modern) language (through at least two year proficiency);
- One quarter core colloquium: Approaches to the Study of the Middle East, or Approaches to the Study of the Ancient Near East;
- Three quarters of an approved integrated Middle Eastern survey course.
- Seven courses in relevant electives;
- One course in thesis preparation, or reading and research;
- A master's thesis.

Only courses taken for a quality grade count toward fulfilling the requirements. No P or R grades will be accepted.

Elective courses may concentrate on one area or explore several of the fields of ancient or modern Middle Eastern studies such as, for example, Archaeology, Cuneiform Studies, Egyptology, Semitic linguistics, Arabic, Persian or Turkish literature, as well as related disciplines such as Art History, Anthropology, Classics, History, Linguistics, Political Science and Sociology.

LANGUAGE

Placement interviews will be given so that entering students may register for courses at the appropriate level of instruction. The languages offered include: Akkadian, Arabic, Armenian, Egyptian (Ancient), Hebrew (classical and modern), Hittite, Sumerian, and Uzbek.

CORE COURSES

For the modern track MA, all students are required to take the core colloquium Approaches to the Study of Middle East (CMES 30001). Students must enroll in one of the following three quarter sequences: Islamic History & Society (NEHC 31000, 31100, 31200/HIST 35704, 35804, 35904), or Islamic Thought & Literature (NEHC 30601, 30602, 30603/ SOSC 22000, 22100, 2220). For the ancient track MA, students are required to take the core colloquium Approaches to the Study of the Ancient Near East and must enroll in the three quarter sequence: Ancient Near Eastern History & Society (NEHC 30001, 30002, 30003).

MASTER'S THESIS

Students are required to submit a master's thesis that should deal with a problem relevant to the student's intended career and should give evidence of the specialized disciplinary aspects of his or her training. The student's program adviser and a faculty member with special interest in the subject of the paper will guide the research and writing of the paper and judge whether it exhibits proof of competence in the field. During the writing of the paper, the student will register for a thesis

preparation or reading and research course. The thesis title will be listed on the student's transcript.



NORC

NORC at the University of Chicago

NORC at the University of Chicago is an independent, not for profit research organization that has been affiliated with the University for more than fifty years. NORC delivers objective data and meaningful analysis to help decision-makers and leading organizations make informed choices and identify new opportunities. Since 1941, NORC has applied sophisticated methods and tools, innovative and cost-effective solutions, and the highest standards of scientific integrity and quality to conduct and advance research on critical issues. Today, NORC expands on this tradition by partnering with government, business, and nonprofit clients to create deep insight across a broad range of topics and to disseminate useful knowledge throughout society. Headquartered in downtown Chicago, NORC works in over 40 countries around the world, with additional offices on the University of Chicago campus, the DC metro area, Atlanta, Boston, and San Francisco.

NORC has pioneered methodological investigations which advance the science of survey research and maintains an active presence in the research and teaching life of the Divisions of the Social Sciences and Biological Sciences, as well as the Pritzker School of Medicine, the Harris Graduate School of Public Policy Studies, and the School of Social Service Administration.

NORC conducts nationwide surveys that are used as data resources for social scientists and policy analysts throughout the world. It employs a field staff of over 1,000 trained interviewers and conducts more than 30 surveys each year on such topics as the costs and practices of health care, environmental studies, substance abuse, education, labor, family, and the attitudes of Americans. NORC has been conducting the General Social Survey (GSS) since 1972; the GSS is the most frequently used dataset in sociology aside from the U.S. Census.

In addition to its core research areas (Economics, Markets, and the Workforce; Education, Training, and Learning; Global Development; Health and Well-Being; and Society, Media, and Public Affairs)NORC is also the home to seven academic research centers. The Academic Research Centers occupy two floors of recently renovated, green offices in the Harris School building on the University campus. The Centers provide a collegial, interdisciplinary environment in which University of Chicago faculty can conduct social science research. The seven centers are:

The Population Research Center, funded by the National Institute of Child Health and Human Development, facilitates interdisciplinary population research by economists, sociologists, and other population sciences from the University.

The Cultural Policy Center (CPC) is a nationally recognized, joint initiative of the Harris School of Public Policy Studies and NORC and is dedicated to researching and understanding the most significant issues affecting arts and culture from a range of interdisciplinary perspectives.

The Center on Demography and Economics of Aging is funded by the National Institute on Aging. Like the Population Research Center, faculty Research Associates come from across the University community, with members housed in the Division of Social Sciences, the Harris School of Public Policy, the University of Chicago Booth School of Business and the Pritzker Medical School, as well as other University units.

The Ogburn-Stouffer Center for the Study of Social Organizations promotes innovative, theoretically-informed, empirical research on population, political attitudes and decision making, community, health, social inequality, and social structure. A core mission is to promote the training of graduate students in the social sciences through involvement in all phases of large-scale survey research from development to execution and analysis.

Two other centers are the **Center for the Study of Politics and Society**, which houses the GSS, and the **Joint Center for Education Research**. The Joint Center coordinates research activities with the University of Chicago faculty from the Committee on Education and other academic units as well as with education researchers at research institutes affiliated with the University of Chicago.

The Center for Advancing Research and Communication (ARC) in STEM (science, technology, engineering and math) is a National Science Foundation funded initiative that supports education research focusing on core scientific questions about learning in science, technology, engineering and mathematics. ARC investigators conduct research and provide technical assistance in support of over 300 STEM investigators across the U.S. funded by NSF's Research and Evaluation on Education in Science and Engineering (REESE) program as they work to improve education policy, instruction, and learning, in and outside of formal classroom settings

University students participate in NORC's activities in several ways. NORC offers a summer intern program open to graduate and undergraduate students. In addition, some students are hired by faculty members as research assistants; some are provided support through NORC for their own research in the writing of dissertations; many attend conferences and weekly workshops that are sponsored by and held at NORC. NORC employs many University graduates at professional career levels.



Committee on Southern Asian Studies/South Asia Language & Area Center

Chair, Committee on Southern Asian Studies

- Kathleen D. Morrison Associate Director, Committee on Southern Asian Studies
- Irving Birkner Members: Faculty and Emeritus Faculty
- Anjali Adukia, Law
- Muzaffar Alam, South Asian Languages & Civilizations
- E. Annamalai, South Asian Languages & Civilizations
- Daniel A. Arnold, Divinity: Philosophy of Religion
- Kali Bahl, Linguistics, South Asian Languages & Civilizations
- Elena Bashir, South Asian Languages & Civilizations
- Mandira Bhaduri, South Asian Languages & Civilizations
- Philip V. Bohlman, Music
- Mark Bradley, History
- Dipesh Chakrabarty, History
- Brian S. Citro, Law
- Steven Collins, South Asian Languages & Civilizations
- Lavanya Collooru, South Asian Languages & Civilizations
- Whitney Cox, South Asian Languages & Civilizations
- Thibaut d'Hubert, South Asian Languages & Civilizations
- Wendy Doniger, Divinity: History of Religions
- Sascha Ebeling, South Asian Languages & Civilizations
- Philip Engblom, South Asian Languages & Civilizations
- Marco Garrido, Sociology
- Jason Grunebaum, South Asian Languages & Civilizations
- Iza Hussin, Political Science
- Ronald B. Inden, History
- Matthew Kapstein, Divinity: History of Religions
- John D. Kelly, Anthropology
- Alan Kolata, Anthropology
- Nisha Kommattam, South Asian Languages & Civilizations
- Mark Lycett, Anthropology
- Rochona Majumdar, South Asia Languages & Civilizations

- Colin Masica, Linguistics
- Kaley Mason, Music
- William Mazzarella, Anthropology
- Kathleen D. Morrison, Anthropology
- C. M. Naim, South Asian Languages & Civilizations
- Constantine V. Nakassis, Anthropology
- Karma Ngodup, South Asian Languages & Civilizations
- Ralph Nicholas, Anthropology
- Martha Nussbaum, Law
- James H. Nye, Library
- Trevor Price, Ecology and Evolution
- Tahera Qutbuddin, Near East Languages & Civilizations
- Frank Reynolds, Divinity: History of Religions
- Laura Ring, Library
- Lloyd Rudolph, Political Science
- Susanne Hoeber Rudolph, Political Science
- John Schneider, Medicine
- Anna Lise Seastrand, Humanities
- Clinton Seely, South Asian Languages & Civilizations
- Richard A. Shweder, Comparative Human Development
- Dan Slater, Political Science
- Paul Staniland, Political Science
- Ulrike Stark, South Asian Language & Civilizations
- Kaushik Sundar Rajan, Anthropology
- Richard P. Taub, Comparative Human Development
- Gary Tubb, South Asian Languages & Civilizations
- Christian K. Wedemeyer, Divinity: History of Religions
- Tyler Williams, South Asian Languages & Civilizations
- Norman Zide, Linguistics

The University of Chicago is one of the leading centers for the study of Southern Asia. Countries in which we have scholarly expertise include in South Asia, Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka, and Tibet (as an autonomous region); and in Southeast Asia, Burma (Myanmar), Cambodia (Kampuchea), East Timor, Indonesia, Laos, Malaysia, Papua New Guinea, the Philippines, Singapore, Thailand, and Vietnam.

The Committee on Southern Asian Studies is an interdepartmental and interdivisional committee that coordinates research and teaching dealing with the countries of South and Southeast Asia. The committee formerly worked closely with the South Asia Language and Area Center, which was inaugurated in 1959 with grants from the Ford Foundation and the United States Department of Education under the National Defense Education Act, Title VI. The committee works to enhance opportunities available to scholars both in the United States and in South and Southern Asia and to foster intellectual and scholarly communication and inter-disciplinary collaboration among the students and faculty at the University of Chicago and the wider Chicago and Southern Asian Studies communities.

The committee does not offer degrees, but cooperates with the several departments, committees, and schools within which specialized work on South or Southeast Asia may be combined with a degree program. These include the College; the Departments of Anthropology, Art History, Comparative Human Development, Comparative Literature, Economics, English, History, Linguistics, Music, Political Science, Psychology, Sociology, and South Asian Languages & Civilizations; the Committees on History of Culture, International Relations, and Social Thought; in the Divinity School, the fields of History of Religions, Church History, Philosophy of Religions; and in the Law School, International and Comparative Legal Studies.

A joint A.M. in Southern Asia Studies/M.B.A. is administered through the Booth School of Business and the Division of the Social Sciences. Advanced degree programs with specialization in Bengali, Hindi, Malayalam, Marathi, Pali, Sanskrit, Tamil, Telugu, Tibetan, and Urdu languages, literatures, and civilizations are available in the Department of South Asian Languages & Civilizations. Persian and Arabic are available through the Department of Near Eastern Languages & Civilizations. A limited number of fellowships, scholarships, and grants in aid are awarded by the committee in support of training or research dealing with South or Southeast Asia. Students in all disciplines interested in training in South Asian languages may also apply for Foreign Language and Area Studies Fellowships under Section 602 of Title VI of the Higher Education Act of 1965 as amended. For further information, please write to the Associate Director

The University of Chicago Library has a very strong and well balanced collection of South Asian books, government documents, journals, and maps. It includes extensive holdings in all South Asian languages, as well as publications on the subcontinent from major publishing centers around the world. The library has been a comprehensive participant since 1962 in the Library of Congress Foreign Acquisitions Program for South Asia. The library s membership in the nearby Center for Research Libraries, and in its South Asia Microfilm Project (SAMP), provides ready access to additional valuable research materials. The library's South Asia Collection staff coordinates acquisition and processing, and provides specialized reference service. A smaller collection of Southeast Asian materials is limited to Western language works on the area from Burma to the Philippines.



THE DIVISION OF THE BIOLOGICAL SCIENCES AND THE Pritzker School of Medicine

Kenneth S. Polonsky, M.D.

- Richard T. Crane Distinguished Service Professor
- Dean of the Division of the Biological Sciences and the Pritzker School of Medicine
- Executive Vice President of Medical Affairs Victoria E. Prince, Ph.D.
- Professor, Department of Organismal Biology & Anatomy
- Dean and Director, Office of Graduate and Postdoctoral Affairs Holly J. Humphrey, M.D.
- Ralph W. Gerard Professor in Medicine
- Dean for Medical Education

The Division of the Biological Sciences is unique in encompassing both a medical school and graduate programs in biological sciences. Faculty in the division teach biology to undergraduate students, but the organization and administration of baccalaureate programs in the biological sciences is the responsibility of the College, through the office of the Master of the Biological Sciences Collegiate Division. The departments and faculty within the division are not separated by providing instruction to medical, graduate or college students, but rather all serve the entire curricular needs of the students in the university. This organizational structure makes possible a wide range of contacts and interactions among students and faculty in the basic and clinical science areas and affords singular study and research opportunities for students regardless of their program of study.

Degrees and Requirements

The Division of the Biological Sciences offers the degrees of Master of Science, Doctor of Philosophy, Doctor of Medicine, or Doctor of Medicine with Honors. Combined degrees (A.B./S.M. or M.D./Ph.D.) are available within certain special programs.

Recommendation for any of these degrees is conditional on the satisfactory completion of the academic requirements for the degree and the maintenance of proper conduct by the student while in the University.

MASTER OF SCIENCE

The Master of Science degree is awarded by the Division of the Biological Sciences in very specific circumstances: the S.M in Health Studies for clinical professionals; the S.M. in Translational Research for PhD students in select BSD graduate programs; or as below:

- Those individuals not continuing in their Ph.D. program of study may be awarded a terminal masters degree.
- Some students who are continuing their Ph.D. programs specify a desire to receive a transitional Master of Science degree.

DOCTOR OF PHILOSOPHY

A general statement of the conditions under which this degree is awarded is presented here. The more specific program requirements are described in the sections outlining the offerings of each graduate program.

- Bachelors degree from an accredited undergraduate institution.
- A minimum of three years of graduate work beyond the level of the bachelors degree. Credit for graduate work completed at other institutions may be given if recommended by the graduate program concerned and approved by the Dean of Graduate Affairs.
- Completion of nine, letter graded courses at the University of Chicago, with a B average in course grades. This is a minimum; individual units may have more stringent requirements.
- Preliminary examination testing the candidate's general knowledge of their field of study.
- Fulfillment of the divisional teaching requirement. Before the Ph.D. can be awarded, students are required to serve as a teaching assistant twice (two quarters) for credit in preapproved positions in the biological sciences.
- Fulfillment of the divisional ethics requirement. All students receive training in scientific integrity and the ethical conduct of research. The first course is completed in the first year of study and the second training is taken in the fifth year, if the PhD is not yet completed.
- Formal admission to candidacy for the degree upon recommendation of the graduate program, after completion of all program-specific requirements, including course work and the preliminary examination if applicable. Admission to candidacy is approved by the Dean of Graduate Affairs at least eight months before the degree is granted but generally occurs at the beginning of the third year of study.
- Acceptance of a dissertation submitted by the student to the graduate program having jurisdiction over the student's degree.
- A successful final examination administered by the graduate program concerned.

Combined Bachelor's/Master's

Students who have completed at least three years of undergraduate study in the College of the University of Chicago but have not completed their bachelor's degree may sometimes qualify for admission to a special A.B./S.M. program leading directly to the master's degree. Acceptance into such a program depends on a student's qualifications and on departmental policy. Only a few departments currently offer such a combined program. Inquiries should be made to the appropriate departments or the College office.

DOCTOR OF MEDICINE

This degree is normally awarded after fourteen quarters of satisfactory full time work at the University of Chicago Pritzker School of Medicine. To qualify for the M.D. degree, students must have completed at least the last eight academic quarters of medical studies in the School. Please see the Pritzker School of Medicine section for additional information on this degree.

DOCTOR OF MEDICINE WITH HONORS

Each year during the spring, the committee on honors and awards entertains nominations from individual departments of senior medical students to be awarded graduation with honors. It is the purpose of this committee to select those students who have demonstrated leadership qualities, outstanding scholastic performance, and significant research abilities and accomplishments. Membership in Alpha Omega Alpha is taken into consideration, but is not a prerequisite for the award. The names of students so honored appear in the convocation program followed by the notation with Honors. This notation also appears both on the official academic records and on the diplomas of such students.

M.D./PH.D. DEGREES

In addition to the regular degree programs in medicine (M.D.) and the basic sciences (Ph.D.), the Division of the Biological Sciences administers a few special joint degree programs, such as the Medical Scientist Training Program, Growth, Development and Disabilities Training Program and the MD-PhD program in Medicine, the Social Sciences and Humanities.



PROGRAMS OF GRADUATE STUDY IN THE BASIC BIOLOGICAL SCIENCES

The Division of the Biological Sciences offers a variety of graduate programs leading to the Ph.D. degree. Joint programs also may be devised with departments, such as chemistry and psychology, in other divisions of the university. Graduate programs are offered under the aegis of divisional departments as well as interdepartmental committees composed of faculty members with a common interest in a broad but definable area of advanced study. Recent years have seen a trend in graduate study in the biological sciences away from strict separations of disciplines and toward interdisciplinary approaches to research. Toward a similar goal in the Division of the Biological Sciences, several degree granting units have joined together in clusters, with a common admissions process and a core basic curriculum. The cluster arrangement offers students greater flexibility in their choice of graduate program, while enhancing interdisciplinary research opportunities. The fundamentals of graduate education in the division are not altered by these provisions. Students complete their degree in individual graduate programs.

The goal of the programs, whether offered by clusters or individual departments or committees, is the creation and dissemination of fundamental knowledge of life processes and the education and training of outstanding young scholars in these disciplines. To this end, the Division of the Biological Sciences has assembled a dedicated and talented faculty, strong in research and teaching, and has developed laboratory and other facilities of the first rank that allow the faculty and graduate students to pursue their goals at the highest level of excellence.

The clusters in the division that offer programs of study leading to the Ph.D. degree are:

Biomedical Sciences: Cancer, Immunology, Microbiology, Molecular Metabolism and Nutrition, and Pathology

- The Committee on Cancer Biology
- The Committee on Immunology
- The Committee on Molecular Metabolism and Nutrition
- The Committee on Microbiology
- The Department of Pathology
 - (Graduate Program in Molecular Pathogenesis and Molecular Medicine)

Darwinian Sciences: Ecological, Integrative, and Evolutionary Biology

- The Department of Ecology and Evolution
- The Committee on Evolutionary Biology
- The Department of Organismal Biology and Anatomy
 - (Graduate Program in Integrative Biology)

Molecular Biosciences: Biochemistry, Genetics, and Cell and Developmental Biology

- The Department of Biochemistry and Molecular Biology
 - (Graduate Program in Biochemistry and Molecular Biophysics)
- The Committee on Development, Regeneration, and Stem Cell Biology
- The Department of Human Genetics
- The Committee on Genetics, Genomics, and Systems Biology
- The Department of Molecular Genetics and Cell Biology
 - (Graduate Program in Cell and Molecular Biology)

Neuroscience: Computational Neuroscience, Neurobiology and Integrative Neuroscience

- The Committee on Computational Neuroscience
- Program in Integrative Neuroscience (Psychology)
- The Committee on Neurobiology

These degree granting units have not entered into a cluster arrangement and provide separate admission. They are:

- The Department of Public Health Sciences (M.S. and Ph.D.)
- Interdisciplinary Scientist Training Program (Janelia Farm)
- The Committee on Medical Physics
- Graduate Program in Biophysical Sciences (Joint with the Division of Physical Sciences)

Admission Procedures

The following requirements and procedures apply to those students wishing to follow a course of study leading to the Doctor of Philosophy degree in the division. Students may apply to a single cluster and as many as four individual units, indicating their choices in order of preference. According to their own schedules, the units applied to will communicate directly with the student as needed. Final decision letters are issued by the BSD Office of Graduate and Postdoctoral Affairs (OGPA). If admitted to more than one program, applicants will have the option of accepting the program of their choice.

APPLICATION MATERIALS

Information about graduate programs and application materials is available at http://gradprograms.bsd.uchicago.edu/.

DEADLINES

Applications are due December 1st. Late applications will be reviewed only at the discretion of the Dean for Graduate Affairs. Incomplete applications will be evaluated on the basis of materials received at the time of the regular review process. Interviews are often required and students will be invited to attend formal recruitment weekends. Beginning about March 1, admissions decisions are released to applicants. Responses by applicants to offers of admission are due to OGPA by April 15.

CREDENTIALS

An applicant who holds an undergraduate degree from an accredited institution is considered for admission on the basis of:

- 1. An excellent undergraduate record
- 2. The Graduate Record Examination
- 3. A demonstrated interest in a research career
- 4. Three letters of recommendation addressing the scientific abilities and potential for graduate studies of the applicant
- 5. Proof of English proficiency for foreign students whose native language is not English; either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Certain programs require additional credentials. These additional requirements may be ascertained by contacting the individual program.

Funding

The typical BSD graduate student working toward the Ph.D. degree is fully funded (regular tuition and fees and prevailing competitive stipend). Funds for this support are derived from numerous sources, including federal or private training grants, institutional funds, endowed funds, research grants and individual awards to students. During a student's course of study, support mechanisms may vary. Funds for international students are limited to institutional sources. Funding is guaranteed for five years, subject to maintaining satisfactory progress.



Program in Biochemistry and Molecular Biophysics

Chair

- Tobin R. Sosnick
- Professors
- Erin J. Adams
- Francisco Bezanilla
- Sean D. Crosson
- Glyn Dawson, Pediatrics
- Geoffrey Greene, Ben May Department for Cancer Research
- Chuan He, Chemistry
- Stephen B. H. Kent
- Shohei Koide
- Anthony A. Kossiakoff
- Marvin W. Makinen
- Stephen Meredith, Pathology
- Keith Moffat
- Tao Pan
- Eduardo Perozo
- Joseph A. Piccirilli
- Phoebe A. Rice
- Benoit Roux
- Nancy B. Schwartz, Pediatrics
- James A. Shapiro
- Tobin R. Sosnick

Associate Professors

- Robert J. Keenan
- David Kovar, Molecular Genetics & Cell Biology
- Ronald S. Rock

Assistant Professors

- Demet Arac-Ozkan
- D. Allan Drummond
- Jingyi Fei
- Engin Ozkan
- Alex Ruthenburg, Molecular Genetics & Cell Biology Emeritus Faculty

- Wolfgang Epstein
- Theodore L. Steck
- Edwin W. Taylor

The biochemistry and molecular biophysics graduate program is a highly interdisciplinary program of study offered by the Department of Biochemistry and Molecular Biology. The program forges a scientific culture of collaboration across the physical and biological sciences and among diverse laboratories. In this environment, students will have the opportunity to engage in research that aims to understand biological processes at the molecular level. The program is designed to encourage students to pursue research interests at the biologicalphysical sciences interface using diverse approaches such as structural and chemical biology, molecular and single molecule biophysics, combinatorial mutagenesis, protein engineering and RNA and DNA protein recognition.

Admission

For information about applying to our graduate program, please visit our website at http://molbio.bsd.uchicago.edu/index.php.

Degrees

DOCTOR OF PHILOSOPHY

A Ph.D. program requires generally 4 to 6 years of study. In the first year, students engage in course work and small research projects in several laboratories to become acquainted with the department. Also during the first year there are many opportunities to attend departmental seminars and the Graduate Student Seminar Series and to participate in the visits of invited speakers. In the summer quarter of the first year students engage in the preliminary examination, in which they develop, write, and defend an original research proposal. After successful completion of the preliminary examination, students choose a research advisor, carry out their Ph.D. research in the advisor's laboratory, and write and orally defend a thesis.

Classes may be substituted by graded laboratory rotations. Of the nine courses only the following are required:

BCMB 30400	Protein Fundamentals	100
BCMB 31600	Cell Biology I	100
BCMB 31200	Molecular Biology-I	100
BCMB 32200	Biophysics of Biomolecules	100

Two additional courses (BCMB 31900 – Introduction to Faculty Research, affectionately called "Faculty All Stars" and BCMB 31800 – Current Seminar Topics in Biochemistry and Molecular Biology) are required. The introduction to faculty research course is not for credit; however, BCMB 31800 is for ½ credit. Each student is required to be a teaching assistant for a total of two quarters in their third and fourth years of residence.

The preliminary examination in BMB consists of a written research proposal that is prepared and submitted during the summer quarter of the first year (the fourth quarter in residence). Students (including MSTP students interested in joining BMB) will be permitted to take the preliminary examination only after all course and grade requirements have been met. The exam consists of a concise written research proposal and an oral defense of the proposal. Students are expected to demonstrate their ability to 1) identify a scientific problem, 2) propose experiments to address the problem, 3) interpret potential outcomes from the experiments, and 4) frame the question and results in a broader scientific context. In addition, students are evaluated on their ability to convey their ideas clearly in the written proposal and to defend the proposal orally. The chairperson of each exam committee will then contact the student regarding the outcome of their exam and provide written feedback. Two outcomes are possible: Pass or Revisions Needed. If revisions are required, the student will have the opportunity to respond to the committee's concerns and either revise portions of the proposal or re-write the entire proposal as indicated by the committee. In these cases, students will need to write a cover letter addressing the concerns of the committee and the changes that have been made. In addition, students may be required to re-defend the revisions orally with part or all of the exam committee. If a student is asked to re-write and redefend the entire proposal, an additional faculty member will be added to the exam committee. Inadequate performance on a second exam is grounds for dismissal from the program. For continuation in the program, students must successfully pass the Preliminary Examination by the end of the fifth quarter of full-time residence as a graduate student in biochemistry and molecular biology.

During the second year, students select a thesis advisor and begin laboratory research. To complete the Ph.D. degree, they must prepare, under the general direction of an appointed doctoral committee, a dissertation based upon their original research. A public seminar describing the results of the dissertation research must be presented and the dissertation must be successfully defended before the doctoral committee.

BIOCHEMISTRY AND MOLECULAR BIOLOGY COURSES

BCMB 30266. Molecular Immunology. 100 Units.

This course will examine the molecular principles of immune recognition. We will explore the roles of protein modification, protein-protein and protein-DNA interactions in the discrimination between self and non-self, and will study the molecular fundamentals of cell stimulation and signaling. Primary literature focused on molecular research of the immune system will be integrated with lectures on commonly used biochemical, structural and immunological techniques used in the research papers examined. Emphasis is placed on class participation. Instructor(s): E. Adams Terms Offered: Spring

Prerequisite(s): Prereq: BIOS 20200, BIOS 25256, or consent of instructor

BCMB 30400. Protein Fundamentals. 100 Units.

The course covers the physical-chemical phenomena that define protein structure and function. Topics include: the principles of protein folding, molecular motion and molecular recognition; protein evolution, design and engineering; enzyme catalysis; regulation of protein function and molecular machines; proteomics and systems biology. Workshop on X-ray Crystallography: The workshop is an addendum to Protein Fundamentals and is required for all BCMB students. This one week workshop will provide students with an intensive introduction to protein structure determination by x-ray crystallography. In addition to lectures, an extensive laboratory component will give students the opportunity to carry out protein crystallization, data collection (at Argonne), structure determination, refinement, model building and validation.

Instructor(s): R. Keenan, S. Koide, Kossiakoff Terms Offered: Autumn Equivalent Course(s): HGEN 30400, MGCB 30400

BCMB 30600. Nucleic Acid Structure and Function. 100 Units.

This course focuses on the biochemistry of nucleic acids. Topics include nucleic acid structure, folding, and chemistry, protein-nucleic acid interactions, non-coding RNAs, and the enzymology of key processes such as DNA replication, repair and recombination. A special emphasis is placed on primary literature.

Instructor(s): P. Rice, T. Pan Terms Offered: Autumn

Prerequisite(s): Course in biochemistry, molecular biology and organic chemistry

BCMB 30800. Single Molecule Biochemistry. 100 Units.

This course presents a series of advanced case studies designed to familiarize students with current single molecule research. Topics include: motor proteins and the cytoskeleton, nucleic acid processing enzymes, ion channels, and force spectroscopy and macromolecule folding.

Instructor(s): R. Rock, F. Bezanilla Terms Offered: Spring

BCMB 31000. Fundamentals of Molecular Biology. 100 Units.

This course covers the structure of genetic material, chromatin, replication, DNA repair and transcription, including its regulation, RNA processing, post-transcriptional regulation, and protein synthesis. Third- or fourth-year standing is required for undergraduates; any graduate student may enroll.

Instructor(s): J. Staley and Staff Terms Offered: Winter

Prerequisite(s): For College students: Basic knowledge of genetics and biochemistry Equivalent Course(s): MGCB 31000,BIOS 21208

BCMB 31100. Evolution of Biological Molecules. 100 Units.

The course connects evolutionary changes imprinted in genes and genomes with the structure, function and behavior of the encoded protein and RNA molecules. Central themes are the mechanisms and dynamics by which molecular structure and function evolve, how protein/ RNA architecture shapes evolutionary trajectories, and how patterns in present-day sequence can be interpreted to reveal the interplay data of evolutionary history and molecular properties. Core concepts in macromolecule biochemistry (folding and stability of proteins and RNA, structurefunction relationships, kinetics, catalysis) and molecular evolution (selection, mutation, drift, epistasis, effective population size, phylogenetics) will be taught, and the interplay between them explored.

Instructor(s): A. Drummond, J. Thornton Terms Offered: Winter Prerequisite(s): Comfort with basic computer programming (course will use Python and R); undergraduate biology, chemistry, calculus, and introductory statistics. Equivalent Course(s): HGEN 31100,ECEV 31100

BCMB 31200. Molecular Biology-I. 100 Units.

Nucleic acid structure and DNA topology; methodology; nucleic-acid protein interactions; mechanisms and regulation of transcription in eubacteria, and of replication in eubacteria and eukaryotes; mechanisms of genome and plasmid segregation in eubacteria.

Instructor(s): L. Rothman-Denes Terms Offered: Winter Equivalent Course(s): MGCB 31200,DVBI 31200

BCMB 31300. Molecular Biology-II. 100 Units.

The content of this course covers the mechanisms and regulation of eukaryotic gene expression at the transcriptional and post-transcriptional levels. Our goal is to explore research frontiers and evolving methodologies. Rather than focusing on the elemental aspects of a topic, the lectures and discussions highlight the most significant recent developments, their implications and future directions. Instructor(s): J. Staley, A. Ruthenburg Terms Offered: Spring Equivalent Course(s): MGCB 31300,DVBI 31300

BCMB 31358. Simulation, Modeling, and Computation in Biophysics. 100 Units.

This course develops skills for modeling biomolecular systems. Fundamental knowledge covers basic statistical mechanics, free energy, and kinetic concepts. Tools include molecular dynamics and Monte Carlo simulations, random walk and diffusion equations, and methods to generate random Gaussian and Poisson distributors. A term project involves writing a small program that simulates a process. Familiarity with a programming language or Mathlab would be valuable. Instructor(s): B. Roux Terms Offered: Winter

Prerequisite(s): BIOS 20200 and Bios 26210-26211, or consent from instructor Equivalent Course(s): BIOS 21358,CPNS 31358

BCMB 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Instructor(s): A. Palmer, D. Bishop, E. Ferguson, J. Malamy Terms Offered: Autumn Equivalent Course(s): DVBI 31400,HGEN 31400,MGCB 31400

BCMB 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion. Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn Equivalent Course(s): DVBI 31600,MGCB 31600

BCMB 31900. Introduction to Research. 100 Units.

Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students Instructor(s): Staff Terms Offered: Autumn, Winter Equivalent Course(s): MGCB 31900,DVBI 31900,GENE 31900,HGEN 31900

BCMB 32200. Biophysics of Biomolecules. 100 Units.

This course covers the properties of proteins, RNA, and DNA, as well as their interactions. We emphasize the interplay between structure, thermodynamics, folding, and function at the molecular level. Topics include cooperativity, linked equilibrium, hydrogen exchange, electrostatics, diffusion, and binding. Instructor(s): T. Sosnick Terms Offered: Spring Prerequisite(s): Consent of instructor Equivalent Course(s): BIOS 21328,BPHS 31000

BCMB 32300. Structure and Function of Membrane Proteins. 100 Units.

This course will be an in depth assessment of the structure and function of biological membranes. In addition to lectures, directed discussions of papers from the literature will be used. The main topics of the courses are: (1) Energetic and thermodynamic principles associated with membrane formation, stability and solute transport (2) membrane protein structure, (3) lipid-protein interactions, (4) bioenergetics and transmembrane transportmechanisms, and (5) specific examples of membrane protein systems and their function (channels, transporters, pumps, receptors). Emphasis will be placed on biophysical approaches in these areas. The primary literature will be the main source of reading. Instructor(s): E. Perozo Terms Offered: Autumn

Equivalent Course(s): MGCB 32300

BCMB 32500. Bioorganic Chemistry. 100 Units.

A goal of this course is to relate chemical phenomena with biological activities. We cover two main areas: (1) chemical modifications of biological macromolecules and their potential effects; and (2) the application of spectroscopic methods to elucidate the structure and dynamics of biologically relevant molecules.

Terms Offered: Not offered in 2015-16

Equivalent Course(s): CHEM 32500

BCMB 32700. Protein Aggregation /"Misfolding" and Protein Design. 100 Units.

This course will discuss in depth two major topics in protein science in biomedical sciences, protein misfolding and protein design. The class will examine milestone papers from the primary literature that cover important concepts and techniques for the topics.

Instructor(s): S. Koide, S. Meredith Terms Offered: Winter

BCMB 39800. Selected Reading Topics in Biochemistry and Molecular Biology. VAR Units.

Subject matter for individual tutorial-based study is selected through prior consultation and is given under the guidance of a faculty member. The student and faculty member must indicate at time of registration whether the course will be taken on a letter grade or pass/fail basis.

Instructor(s): Staff Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Consent of Department and Instructor

BCMB 39900. Intro To Research: BCMB, Introduction to Research. Var, VAR Units.

For course description contact Biological Sciences. ,The student participates in one of the research programs of the Department.

Instructor(s): ,Staff Terms Offered: ,Summer

Prerequisite(s): ,Consent of Department Chairman and individual faculty member.

BCMB 40100. Research in Biochemistry and Molecular Biology. VAR Units.

The student conducts original investigation under the direction of a faculty member. The research is presented and defended as a dissertation in candidacy for the degree of Doctor of Philosophy.

Instructor(s): Staff Terms Offered: Autumn, Winter, Spring, Summer

Prerequisite(s): Completion of course requirements adn Preliminary Examination at the Ph.D. level and approval of Chairman of the Department.



Committee on Cancer Biology

Chair

- Kay Macleod, Ben May Department for Cancer Research Professors
- Erin Adams, Biochemistry and Molecular Biology
- Habibul Ahsan, Health Studies
- Eric Beyer, Pediatrics
- Douglas Bishop, Radiation and Cellular Oncology
- Susan Cohn, Pediatrics
- Suzanne Conzen, Medicine
- M. Eileen Dolan, Medicine
- Wei Du, Ben May Department for Cancer Research
- Richard Fehon, Molecular Genetics and Cell Biology
- Edwin Ferguson, Molecular Genetics and Cell Biology
- Yang-Xin Fu, Pathology
- Thomas Gajewski, Medicine
- David Grdina, Radiation and Cellular Oncology
- Geoffrey Greene, Ben May Department for Cancer Research
- Gregory Karczmar, Radiation and Cellular Oncology
- Stephen Kron, Molecular Genetics and Cell Biology
- Howard Halpern, Radiation and Cellular Oncology
- Lucy Godley, Medicine
- Michelle Le Beau, Medicine
- Ernst Lengyel, Obstetrics and Gynecology
- Maciej Lesniak, Surgery
- Anning Lin, Ben May Department for Cancer Research
- Mark Lingen, Pathology
- Olufunmilayo Olopade, Medicine
- Ilaria Rebay, Ben May Department for Cancer Research
- Carrie Rinker-Schaeffer, Surgery
- Marsha Rosner, Ben May Department for Cancer Research
- Benoit Roux, Biochemistry and Molecular Biology
- Ravi Salgia, Medicine
- Hans Schreiber, Pathology
- Walter Stadler, Medicine
- Wei-Jen Tang, Ben May Department for Cancer Research
- Mitchel Villereal, Neurobiology, Pharmacology and Physiology
- Ralph R. Weichselbaum, Radiation and Cellular Oncology

- Amittha Wickrema, Medicine
- Yingming Zhao, Ben May Department for Cancer Research Associate Professors
- Nickolai Dulin, Medicine
- Tong Chuan He, Surgery
- Fotini Gounari, Medicine
- Akira Imamoto, Ben May Department for Cancer Research
- Barbara Kee, Pathology
- Kay Macleod, Ben May Department for Cancer Research
- Kenan Onel, Pediatrics
- Michael Thirman, Medicine

Assistant Professors

- Lev Becker, Ben May Department for Cancer Research
- Kenneth Cohen, Medicine
- Jill De Jong, Pediatrics
- Yu-Ying He, Medicine
- Rong (Stephanie) Huang, Medicine
- Justin Kline, Medicine
- James LaBelle, Pediatrics
- Deborah Lang, Medicine
- Megan McNerney, Medicine
- Peter Savage, Pathology
- Michael Spiotto, Radiation and Cellular Oncology
- Donald Vander Griend, Surgery
- Xiayang Wu, Ben May Department of Cancer Research Emerita Professors
- Ursula Storb, Molecular Genetics and Cell Biology

The Committee on Cancer Biology (CCB) provides multidisciplinary and integrated training in cancer biology with an emphasis on innovation and critical thinking in cancer research. The program provides doctoral students with the most up-to-date knowledge and research training with the goal of preparing students for leadership and research careers in academia, industry, clinical research, science journalism, advocacy and policy and other relevant areas of the biomedical workforce. The program prepares students to conduct research by offering a core curriculum that focuses on multiple aspects of cancer biology, including molecular mechanisms of cancer, tumor progression and metastasis, autophagy and tumor metabolism, cancer genomics, computational approaches and big data analysis, mechanisms of drug resistance and tumor heterogeneity, in addition to translational research approaches. With approximately 65 faculty members from across the Biological Sciences Division with diverse interests in all of these research areas, students have a broad choice of research concentrations to select from for their thesis research project.

The CCB is committed to fostering interactions amongst graduate students, postdoctoral fellows, and faculty, and has a consistent track record of success in mentorship with many trainees publishing their work in outstanding journals and going on to run their own research labs. This is achieved through our core curriculum, a weekly cancer biology seminar series, journal clubs, student research presentations, group research meetings, an annual retreat and symposia. All of our students attend the AACR meeting in their third year of graduate school and numerous other opportunities are available to our students to present their data at international meetings and symposia. Our dedicated program in cancer biology is one of the most established in the country and is supported by an NCI training grant in addition to valuable support from foundations allowing us to continue to recruit and train the next generation of expert cancer biologists.

In addition to formal course work, the program sponsors a student led journal club, a student/postdoctorate research presentation group, and an annual cluster retreat in which students and trainees present their research findings. In addition, the program co-sponsors the Ben May Symposium with the Ben May Department for Cancer Research. This symposium brings speakers of international renown to campus. Students and trainees also have the opportunity to attend national meetings and cancer biology workshops off campus. Through the auspices of the Ben May Department for Cancer Research, the Section of Hematology/Oncology, and the University of Chicago Cancer Research Center (an NCI designated Cancer Center), there are several additional seminar series and a clinical cancer research/ basic science research translational conference. Thus, there is a thriving, interactive community of cancer researchers.

Admission

Prospective students interested in obtaining the Ph.D. in cancer biology should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Cancer Biology as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- Completion of 9.5 course credits consisting of basic science, cancer biology and elective courses
- A preliminary examination
- A dissertation based on original research
- A final thesis examination

CANCER BIOLOGY COURSES

CABI 30800. Cancer Biology 1: Fundamentals in Cancer Biology. 100 Units.

This course introduces students to key aspects of cancer biology, including fundamental molecular mechanisms (includes tumor suppressor and oncogene function, cell cycle checkpoint control, cytokinesis defects and aneuploidy, DNA damage sensing repair, cell death mechanisms, cellular senescence) underpinning the initiation and progression of disease. These lectures are taught alongside an introduction to clinical and translational perspectives, on the topics of epidemiology, pathology, diagnosis and staging, and the basis for various therapeutic strategies with an emphasis on four different organ sites to illustrate key points. The course concludes with an examination of how to identify important research questions in cancer biology and the importance of innovation in research Instructor(s): M. Lingen Terms Offered: Autumn

CABI 30900. Cancer Biology 2: Molecular Mechanisms in Cancer Biology. 100 Units.

This course provides students with an in-depth understanding of how key cellular processes are deregulated in cancer and the molecular mechanisms underpinning these defects. The course covers cell cycle checkpoint control, cell death, tumor suppressor and oncogene function, DNA repair mechanisms, epigenetics of cancer, nuclear hormone receptor activity in cancer, tumor metabolism, hypoxia responses, angiogenesis and metastasis. In addition to material covered in formal lectures, discussion sessions cover tumor stem cells, "oncogene addiction," inflammatory responses, cancer therapeutics, mouse models of human cancer and other topical subjects relevant to understanding tumor initiation and progression, as well as how current research may facilitate cancer treatment.

Instructor(s): Donald Vander Griend Terms Offered: Winter Equivalent Course(s): CCTS 40200, MPMM 30900

CABI 31300. Cancer Biology 3: Translational Approaches in Cancer Research. 100 Units.

This is a lab/clinic-based course in which students complete training objectives in multiple modules of translational/applied cancer research (clinical, animal models, targeted therapy, intellectual property, bioinformatics, nanotechnology and population science). The emphasis of the course is hands-on experience and a high degree of independence is expected. Trainees select a topic on which to write up a final discussion paper and each student will deliver a presentation on their topic that incorporates elements of the different translational elements discussed during the quarter.

Instructor(s): K. Macleod Terms Offered: Spring

CABI 31500. Cancer Biology 4: Hypothesis Design and Grant Writing. 100 Units.

This is a course based on developing and testing hypotheses that will provide an overview and real-world experience of the grant-writing process (F31 format), as well as responding to criticisms and presenting one's grant in a precise but concise manner. As it is a course centered around in-class discussion, it is dependent on the consistent creativity and participation of students in order to provide and receive useful feedback to and from their colleagues. The grant will formulate hypotheses around the student's own research project and the completed grant should provide a strong basis for future F31 or other fellowship applications

Instructor(s): L. Becker and X. Wu Terms Offered: Autumn. This course will not be offered until Autumn 2016. It is being implemented as part of the core curriculum for students matriculating in 2015-2016, but they will not take it until Autumn of their second year. Current first years completed the course Spring 2015.

CABI 39000. Cancer Biology 5: Introduction to Experimental Cancer Biology. 050 Units.

This is a primary literature-based course that tracks our outstanding CCB Seminar Series and also incorporates seminars of interest from other Divisional programs. Typically, students meet to discuss research papers published by the following week's seminar speaker, attend the seminar, and then meet with the speaker afterward. Faculty hosts of outside speakers are also encouraged to attend the relevant class. The goal of the course is to broaden the student's exposure to current cutting edge research and to encourage discussion of scientific ideas among peers, as well introduce students to some of the major figures in cancer research with whom they may pursue future post-doctoral opportunities. All students start with an "A" grade but lose grade points if class performance or attendance is inadequate. Students are required to take this course for six quarters during years 1-2. Instructor(s): K. Onel, J. LaBelle Terms Offered: Autumn,Spring,Winter

CABI 40400. Genomics of Personalized Medicine. 050 Units.

Aspects of genomics have slowly become integrated into many levels of medical research. This has led to the incorporation of genomics into clinical trial design, cost-effectiveness research, pharmacogenetic studies, as well as influencing the direction of basic science investigation. The field of medical genomic is fast moving and requires specialized knowledge in genetics, statistics, molecular and cell biology, animal models, and epidemiology, thus making it a highly collaborative and translational field. This is a new course designed specifically for upper level graduate students, fellows and junior faculty members, and is meant to provide a strong overview of several areas of knowledge needed to integrate genomics into medical research. Each class will address a different aspect of genetics and genomics as they relate to disease, with emphasis on state-of the-art research methods, current study designs and analysis, and relevant clinical examples drawn from a wide range of medical fields. At the end of this course, clinicians and translational researchers will have a good understanding of how genetics/genomics provides a basis for personalized medicine.

Instructor(s): Minoli Perera Terms Offered: Summer Equivalent Course(s): MPMM 40400,CCTS 40003

CABI 47510. Pharmacogenomics: Discovery and Implementation. 100 Units.

Pharmacogenomics is aimed at advancing our knowledge of the genetic basis for variable drug response. Advances in genetic knowledge gained through sequencing have been applied to drug response, and identifying heritable genetic variants that predict response and toxicity is an area of great interest to researchers. The ultimate goal is to identify clinically significant variations to predict the right choice and dose of medications for individuals-"personalizing medicine." The study of pharmacogenomics is complicated by the fact that response and toxicity are multigenic traits and are often confounded by nongenetic factors (e.g., age, co-morbidities, drug-drug interactions, environment, diet). Using knowledge of an individual's DNA sequence as an integral determinant of drug therapy has not yet become standard clinical practice; however, several genetics-guided recommendations for physicians have been developed and are highlighted. The ethics and economics of pharmacogenomics are also discussed. Instructor(s): M. E. Dolan, R. S. Huang Terms Offered: Spring Prerequisite(s): BIOS 20186 and 20187 and consent of Instructor. Equivalent Course(s): CCTS 40006, BIOS 25310



Program in Cell and Molecular Biology

Chair

David Kovar

Faculty accepting students into their lab

Professors

- Douglas K. Bishop, Radiation & Cellular Oncology
- Edwin L. Ferguson
- Richard Fehon
- Benjamin Glick
- Michael Glotzer
- Jean Greenberg
- Stephen J. Kron
- Ilaria Rebay, Ben May Department for Cancer Research
- John Reinitz, Statistics
- Lucia Rothman-Denes
- Jonathan P. Staley
- Jerrold Turner, Pathology
- Aaron Turkewitz

Associate Professors

- Margaret Gardel, Physics
- Sally Horne-Badovinac
- David Kovar
- Jocelyn Malamy

Assistant Professors

- Ed Munro
- Michael Rust
- Alex Ruthenburg

Faculty not accepting students into their lab

Professors

- Robert Haselkorn
- Robert Josephs
- Bernard Roizman, Microbiology Associate Professors
- Gayle K. Lamppa
- Laurens J. Mets

Emeritus Faculty

- Kwen Sheng Chiang
- Wolfgang Epstein
- Rochelle Easton Esposito
- Anthony Mahowald
- Terence E. Martin
- Theodore L. Steck, Biochemistry & Molecular Biology
- Ursula B. Storb
- Bernard S. Strauss
- Edwin W. Taylor

In the graduate program in cell and molecular biology, the Ph.D. degree places great emphasis on rigorous, didactic preparation in cell biology, molecular biology, and genetics, and focuses on choosing questions, defining experimental approaches, and interpreting data. Once qualified, advanced students choose from a wider range of opportunities for research in cell biology, molecular biology, genetics, developmental biology, plant biology, and microbiology. Of special interest is the design of interdisciplinary programs that emphasize the frontiers of biology.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The graduate program in cell and molecular biology offers a program of study leading to the Doctor of Philosophy in molecular genetics and cell biology. A Ph.D. candidate must fulfill certain formal coursework requirements, pass one preliminary and one qualifying examination, and present a satisfactory dissertation describing the results of original research.

The program expects knowledge of and proficiency in cell biology, molecular biology, and genetics. This requirement will normally be met by fulfilling the formal coursework described here, but detailed degree programs are flexible. Courses taken at other institutions, in other departments, or as part of the Pritzker School of Medicine curriculum may substitute for CMB courses with approval of the curriculum committee. To fulfill the requirements for a Ph.D., nine graded courses are required. In the program in cell and molecular biology, a student must take one course in each of three areas during the first year:

- Cell biology
- Molecular biology
- Genetics

In addition to these core courses, a second course in one of these areas is required to develop greater proficiency in a subdiscipline. The total of four required courses can be selected from among the following courses: MGCB 31200 Molecular Biology-I, MGCB 31300 Molecular Biology-II, MGCB 31400 Genetic Analysis of Model Organisms, MGCB 31500 Genetic Mechanisms, MGCB 31600 Cell Biology I, and MGCB 31700 Cell Biology II. Three additional graded electives must be taken, one of which may be a reading course. The electives can be selected according to the student's interests and the availability of courses. A student is also required to do three laboratory rotations before selecting an advisor and laboratory to pursue a Ph.D. dissertation. These rotations will be graded, and two will count towards the nine courses required for the Ph.D. All students are required to serve as teaching assistants for two quarters.

Students select a thesis advisor and begin laboratory research by the tenth month of the first year. To complete the Ph.D. degree, they must prepare, under the general direction of an appointed doctoral committee, a dissertation based upon their original research. Students are also required to submit, if not publish, at least one first author paper prior to their defense. A public seminar describing the results of the dissertation research must be presented and the dissertation must be successfully defended before the doctoral committee.

Admissions

For information about applying to our graduate program, please visit our website at http://molbio.bsd.uchicago.edu/index.php.

Molecular Genetics & Cell Biology Courses

MGCB 30400. Protein Fundamentals. 100 Units.

The course covers the physical-chemical phenomena that define protein structure and function. Topics include: the principles of protein folding, molecular motion and molecular recognition; protein evolution, design and engineering; enzyme catalysis; regulation of protein function and molecular machines; proteomics and systems biology. Workshop on X-ray Crystallography: The workshop is an addendum to Protein Fundamentals and is required for all BCMB students. This one week workshop will provide students with an intensive introduction to protein structure determination by x-ray crystallography. In addition to lectures, an extensive laboratory component will give students the opportunity to carry out protein crystallization, data collection (at Argonne), structure determination, refinement, model building and validation.

Instructor(s): R. Keenan, S. Koide, Kossiakoff Terms Offered: Autumn Equivalent Course(s): HGEN 30400, BCMB 30400

MGCB 31000. Fundamentals of Molecular Biology. 100 Units.

This course covers the structure of genetic material, chromatin, replication, DNA repair and transcription, including its regulation, RNA processing, posttranscriptional regulation, and protein synthesis. Third- or fourth-year standing is required for undergraduates; any graduate student may enroll. Instructor(s): J. Staley and Staff Terms Offered: Winter

Prerequisite(s): For College students: Basic knowledge of genetics and biochemistry Equivalent Course(s): BCMB 31000,BIOS 21208

MGCB 31200. Molecular Biology-I. 100 Units.

Nucleic acid structure and DNA topology; methodology; nucleic-acid protein interactions; mechanisms and regulation of transcription in eubacteria, and of replication in eubacteria and eukaryotes; mechanisms of genome and plasmid segregation in eubacteria.

Instructor(s): L. Rothman-Denes Terms Offered: Winter Equivalent Course(s): BCMB 31200,DVBI 31200

MGCB 31300. Molecular Biology-II. 100 Units.

The content of this course covers the mechanisms and regulation of eukaryotic gene expression at the transcriptional and post-transcriptional levels. Our goal is to explore research frontiers and evolving methodologies. Rather than focusing on the elemental aspects of a topic, the lectures and discussions highlight the most significant recent developments, their implications and future directions. Instructor(s): J. Staley, A. Ruthenburg Terms Offered: Spring Equivalent Course(s): BCMB 31300,DVBI 31300

MGCB 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Instructor(s): A. Palmer, D. Bishop, E. Ferguson, J. Malamy Terms Offered: Autumn Equivalent Course(s): DVBI 31400,BCMB 31400,HGEN 31400

MGCB 31500. Genetic Mechanisms. 100 Units.

Advanced coverage of mechanisms involved in promoting genome stability and genome evolution. A variety of experimental systems are explored from bacteriophage to humans. Topics include the genetics and biochemistry of DNA repair, homologous and site-specific recombination, transposition and genome rearrangement. Two of three weekly meetings are lecture and the third student led discussion of recent papers from the primary literature. The course emphasizes experimental design and interpretation of primary data.

Instructor(s): D. Bishop

Equivalent Course(s): DVBI 31500

MGCB 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion. Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn Equivalent Course(s): BCMB 31600,DVBI 31600

MGCB 31700. Cell Biology II. 100 Units.

This course covers the mechanisms with which cells execute fundamental behaviors. Topics include signal transduction, cell cycle progression, cell growth, cell death, cancer biology, cytoskeletal polymers and motors, cell motility, cytoskeletal diseases, and cell polarity. Each lecture will conclude with a dissection of primary literature with input from the students. Students will write and present a short research proposal, providing excellent preparation for preliminary exams. Instructor(s): M. Glotzer, D. Kovar Terms Offered: Winter Equivalent Course(s): DVBI 31700,BIOS 21238

MGCB 31900. Introduction to Research. 100 Units.

Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students Instructor(s): Staff Terms Offered: Autumn, Winter Equivalent Course(s): BCMB 31900,DVBI 31900,GENE 31900,HGEN 31900

MGCB 32000. Quantitative Analysis of Biological Dynamics. 100 Units.

The basic focus of the course will be quantitative approaches to understanding organization and dynamics at the molecular, subcellular and cellular levels, and will rest on three pillars - modern imaging and image analysis, quantitative analysis and presentation of data, mathematical modeling and computer simulations. Instructor(s): Edwin Munro; Michael Rust Terms Offered: Spring Equivalent Course(s): DVBI 32000

MGCB 32100. Senior Graduate Student Ethics. 100 Units.

This course explores specific ethical dilemmas that may arise in laboratory settings. The format of this course will provide opportunities for all students to voice their questions and opinions. Student groups of 4-5 will act as a review board during each session. Class time will center around the case, the conclusions of the review board, and the steps that should be taken to remedy the situation, if any. Faculty will guide and stimulate discussion in each case. Faculty will also provide any relevant University bylaws and/or NIH guidelines. Following the session, review board members will submit a formal 1-2 page justified decision in writing to the instructor. Successful completion of the course requires active participation in group presentations and general class discussions as well as joint submission of review board summaries.

Instructor(s): Jocelyn Malamy Terms Offered: Spring

MGCB 32300. Structure and Function of Membrane Proteins. 100 Units.

This course will be an in depth assessment of the structure and function of biological membranes. In addition to lectures, directed discussions of papers from the literature will be used. The main topics of the courses are: (1) Energetic and thermodynamic principles associated with membrane formation, stability and solute transport (2) membrane protein structure, (3) lipid-protein interactions, (4) bioenergetics and transmembrane transportmechanisms, and (5) specific examples of membrane protein systems and their function (channels, transporters, pumps, receptors). Emphasis will be placed on biophysical approaches in these areas. The primary literature will be the main source of reading. Instructor(s): E. Perozo Terms Offered: Autumn

Equivalent Course(s): BCMB 32300

MGCB 34300. Image Processing in Biology. 100 Units.

Whether one is trying to read radio signals from faraway galaxies or to understand molecular structures, it is necessary to understand how to read, interpret, and process the data that contain the desired information. In this course, we learn how to process the information contained in images of molecules as seen in the electron microscope. We also deal with the principles involved in processing electron microscope images, including the underlying analytical methods and their computer implementation.

Instructor(s): R. Josephs Terms Offered: Spring Prerequisite(s): For College students: One year of calculus Equivalent Course(s): BIOS 21407

MGCB 35401. Gene Regulation. 100 Units.

This course covers the fundamental theory of gene expression in prokaryotes and eukaryotes through lectures and readings in the primary literature. Natural and synthetic genetic systems arising in the context of *E. coli* physiology and Drosophila development will be used to illustrate fundamental biological problems together with the computational and theoretical tools required for their solution. These tools include large-scale optimization, image processing, ordinary and partial differential equations, the chemical Langevin and Fokker-Planck equations, and the chemical master equation. A central theme of the class is the art of identifying biological problems which require theoretical analysis and choosing the correct mathematical framework with which to solve the problem.

Terms Offered: Spring

Prerequisite(s): Consent of instructor

Equivalent Course(s): ECEV 35400,STAT 35400

MGCB 35600. Vertebrate Development. 100 Units.

This advanced-level course combines lectures, student presentations, and discussion sessions. It covers major topics on the developmental biology of embryos (e.g. formation of the germ line, gastrulation, segmentation, nervous system development, limb pattering, organogenesis). We make extensive use of the primary literature and emphasize experimental approaches (e.g. classical embryology, genetics, molecular genetics).

Instructor(s): V. Prince, C. Ragsdale. Terms Offered: Spring

Prerequisite(s): For College students: Completion of the first three quarters of a Biological Sciences Fundamentals Sequence

Equivalent Course(s): BIOS 21356, DVBI 35600

MGCB 36100. Plant Development and Molecular Genetics. 100 Units.

Genetic approaches to central problems in plant development will be discussed. Emphasis will be placed on embryonic pattern formation, meristem structure and function, reproduction, and the role of hormones and environmental signals in development. Lectures will be drawn from the current literature; experimental approaches (genetic, cell biological, biochemical) used to discern developmental mechanisms will be emphasized. Graduate students will present a research proposal in oral and written form; undergraduate students will present and analyze data from the primary literature, and will be responsible for a final paper.

Instructor(s): J. Greenberg Terms Offered: Spring

Prerequisite(s): For undergraduates only: Completion of the general education requirement in the biological sciences

Equivalent Course(s): BIOS 23299, DVBI 36100, ECEV 32900

MGCB 36400. Developmental Mechanisms. 100 Units.

This course provides an overview of the fundamental questions of developmental biology, with particular emphasis on the genetic, molecular and cell biological experiments that have been employed to reach mechanistic answers to these questions. Topics covered will include formation of the primary body axes, the role of local signaling interactions in regulating cell fate and proliferation, the cellular basis of morphogenesis, and stem cells.

Instructor(s): E. Ferguson, R. Fehon Terms Offered: Winter

Prerequisite(s): For undergraduates only: BIOS 20189, BIPS 20190, or BIOS 20235 or equivalent.

Equivalent Course(s): BIOS 21237, DVBI 36400

MGCB 38100. Pedagogy for Scientists. 100 Units.

This course will enable graduate students in the molecular biosciences to develop their teaching skills through 1) the study and discussion of pedagogical theory; 2) class observation and critique; and 3) practical application of concepts through extensive teaching exercises. Teaching for different audiences and curricula with be emphasized. Undergraduate volunteers will supplement peer and instructor feedback. Classes will also be videotaped to allow for self-assessment. Instructor(s): Jocelyn Malamy

Note(s): This course may not be taken to satisfy the requirement for elective courses, but must be taken as an extra course over and above the required nine courses. Course will be offered by petition from interested students.



Committee on Computational Neuroscience

Chair

Nicholas Hatsopoulos

Professors

- Yali Amit, Statistics
- Nicolas Brunel, Statistics
- Jack Cowan, Mathematics
- Ruth Anne Eatock, Neurobiology
- John Ebersole, Neurology
- Jay Goldberg, Neurobiology, Pharmacology and Physiology
- John Goldsmith, Linguistics
- Melina Hale, Organismal Biology and Anatomy
- Dorothy Hanck, Medicine
- Christian Hansel, Neurobiology
- Nicholas Hatsopoulos, Organismal Biology and Anatomy
- Richard P. Kraig, Neurology
- Daniel Margoliash, Organismal Biology and Anatomy
- John Maunsell, Neurobiology
- Martha McClintock, Psychology
- Howard Nusbaum, Psychology
- Eduardo Perozo, Biochemistry and Molecular Biology
- Brian Prendergast, Psychology
- S. Murray Sherman, Neurobiology
- Steven Shevell, Psychology
- Wim van Drongelen, Pediatrics
- V. Leo Towle, Neurology

Associate Professors

- Leslie Kay, Psychology
- David Freedman, Neurobiology
- Xiaoxi Zhuang, Neurobiology Assistant Professors
- Sliman Bensmaia, Organismal Biology and Anatomy
- David Biron, Physics
- Jason MacLean, Neurobiology
- Leslie Osborne, Neurobiology
- Stephanie Palmer, Organismal Biology and Anatomy

Emeritus

Joel Pokorny, Ophthalmology and Visual Science

The University of Chicago has a long tradition of innovative research in the neurosciences. K. C. Cole developed the voltage clamp here, Stephen Polyak and C. J. Herrick did pioneering work on the anatomy of the retina and brain, and Jack Cowan and Hugh Wilson were among the first to develop mathematical analyses of the dynamics of cortical neurons using non linear dynamics. This tradition is continued in the Committee on Computational Neuroscience, which draws on faculty from many departments in all four graduate divisions in the University to create a multidisciplinary program in neuroscience. Computational neuroscience is a relatively new area of inquiry that is concerned with how components of animal and human nervous systems interact to produce behaviors. Using quantitative and modeling methods, the interdisciplinary approach of computational neuroscience seeks to understand the function of the nervous system, natural behaviors and cognitive processes and to design human made devices that duplicate behaviors. Course work in computational neuroscience prepares students for research in neurobiology, psychology, or in the mathematical or engineering sciences. Graduates from this program move to traditional academic careers, to careers in biomedical research or engineering, or to opportunities in the corporate world.

GRADUATE DEGREES

Students with undergraduate degrees in biology or psychology, any of the quantitative sciences or any of the engineering disciplines are welcome to apply for graduate study. Computational neuroscience is inherently interdisciplinary, and most students doing graduate work in this area will have strengths in one of the relevant areas and weaknesses in others. Program requirements in the committee are designed to correct background deficiencies, so students with uneven backgrounds should not hesitate to apply. A year of college level calculus is an absolute prerequisite. Ideally, applicants should have some collegiate level course work in biology (optimally including an introductory neurobiology course), an introductory psychology course, and some mathematics (such as linear algebra and elementary differential equations) beyond calculus. Students who have not had prior exposure to linear algebra and differential equations may be asked to take appropriate courses in these areas before taking the mathematics sequence within the computational neuroscience curriculum.

DOCTOR OF PHILOSOPHY

Students seeking the Ph.D. in computational neuroscience must take the nine formal courses in the computational neuroscience curriculum, and enroll for nine quarters of research. The formal courses are typically taken in the first year and arranged into three themes. The neuroscience theme presents the basic concepts and phenomena in neuroscience. The mathematics theme presents the quantitative techniques required for a modern analysis of the nervous system and behavior. The courses in this theme have prior exposure to linear algebra and differential equations as a prerequisite. The computational neuroscience theme illustrates how quantitative methodologies are used to understand neurons and behavior. The courses in this theme have completion of a year of calculus as a prerequisite. Students must complete two laboratory rotations which can be started in the first year. Students can also take graduate courses offered by the Departments of Computer Science, Linguistics, Mathematics, Psychology and Statistics, or from any of the graduate programs in the Division of the Biological Sciences. Please consult the listings elsewhere in these *Announcements* or on the University of Chicago web page for current lists of such courses. Courses in engineering applications of computational neuroscience are also available through a limited reciprocal course arrangement with the Department of Biomedical Engineering at the Illinois Institute of Technology. Students must pass a qualifying examination with both written and oral components at the end of their second year. In addition to satisfying course requirements, students must write and defend a dissertation based on original and publishable research. Students are expected to participate in the ongoing computational neuroscience seminar series, as well as occasional workshops, that are conducted during their stay in the program.

M.D./PH.D. PROGRAM

Students interested in earning both an M.D. and a Ph.D. in computational neuroscience at the University of Chicago can follow one of two routes. The first is to apply to the Medical Science Training Program (MSTP) within the Pritzker School of Medicine. The MSTP training grant provides support for both the M.D. and Ph.D. components of the training. Second, a student in the Pritzker School of Medicine may take a leave of absence from the School of Medicine after the first two, preclinical years of medical training and apply to the Ph.D. program in the normal fashion. The student would then return to finish the two clinical years of medical studies after completing the Ph.D. Several of the preclinical medical school courses may be used as electives in the computational neuroscience Ph.D. program. Students with an undergraduate degree in one of the engineering disciplines can earn an M.D. through the Pritzker School of Medicine and a Ph.D. in Biomedical Engineering through the Department of Biomedical Engineering at the Illinois Institute of Technology (which is located approximately three miles north of the University of Chicago Campus). They are able to emphasize neural engineering in the Biomedical Engineering Ph.D. program and take courses in the Committee on Computational Neuroscience.

Admission to Graduate Programs

Admission to the Committee on Computational Neuroscience is coordinated through the Neuroscience Cluster within the Division of the Biological Sciences. The most recent admissions policies, including an on line application, can be viewed at http://gradprograms.bsd.uchicago.edu/. Students preparing an application must submit transcripts of their undergraduate and prior graduate work, recent test scores from the general Graduate Record Exam, and three letters of recommendation under separate cover. Foreign applicants from non English speaking nations must also submit TOEFL scores with their application materials. Applications are due by December 1st for students beginning their studies in the following autumn quarter.

FINANCIAL AID

Students enrolled in the Ph.D. program receive financial support in the form of a stipend and tuition payments as long as they remain in good standing. Students are encouraged to apply for individual fellowships from the National Science Foundation or other sources.

Research Opportunities

Unparalleled research opportunities and facilities are available through the facilities and faculty on the University of Chicago campus, at the Argonne National Laboratory, the Illinois Institute of Technology campus and corporate partners. Research interests of faculty in the Committee on Computational Neuroscience can be accessed through the committee web page at http://neuroscience.uchicago.edu/? p=neuro/cns. Ongoing research topics range from work at the molecular level to studies in cognitive neuroscience. These projects involve modern methods of recording and imaging the activities of individual neurons, populations of neurons and human brain regions. Quantitative approaches currently utilized by faculty and students include those derived from non-linear dynamics, large scale simulations of neural activity, time series analysis, and pattern recognition. Research projects address basic problems in neuroscience using approaches that range from molecular neurobiology to cognitive neuroscience, biomedical applications such as the construction of neural prostheses and the control of epilepsy, and technological applications to computational vision and language.

COMPUTATIONAL NEUROSCIENCE COURSES

CPNS 30000. Celluar Neurobiology. 100 Units.

This course is concerned with the structure and function of the nervous system at the cellular level. The cellular and subcellular components of neurons and their basic membrane and electrophysiological properties will be described. Cellular and molecular aspects of interactions between neurons will be studied. This will lead to functional analyses of the mechanisms involved in the generation and modulation of behavior in selected model systems.

Instructor(s): C. Hansel and P. Lloyd Terms Offered: Autumn

CPNS 30107. Behavioral Neuroscience. 100 Units.

This course is concerned with the structure and function of systems of neurons, and how these are related to behavior. Common patterns of organization are described from the anatomical, physiological, and behavioral perspectives of analysis. The comparative approach is emphasized throughout. Laboratories include exposure to instrumentation and electronics, and involve work with live animals. A central goal of the laboratory is to expose students to in vivo extracellular electrophysiology in vertebrate preparations. Laboratories will be attended only on one day a week but may run well beyond the canonical period.

Instructor(s): D. Margoliash Terms Offered: Winter Equivalent Course(s): NURB 30107,PSYC 40107

CPNS 30116. Survey Systems Neuroscience. 100 Units.

This lab-centered course teaches students the fundamental principles of vertebrate nervous system organization. Students learn the major structures and the basic circuitry of the brain, spinal cord and peripheral nervous system. Somatic, visual, auditory, vestibular and olfactory sensory systems are presented in particular depth. A highlight of this course is that students become practiced at recognizing the nuclear organization and cellular architecture of many regions of brain in rodents, cats and primates.

Instructor(s): C. Hansel, N. Hatsopoulos Terms Offered: Autumn

CPNS 31000. Mathematical Methods for Biological Sciences I. 100 Units.

This course builds on the introduction to modeling course biology students take in the first year (BIOS 20151 or 152). It begins with a review of one-variable ordinary differential equations as models for biological processes changing with time, and proceeds to develop basic dynamical systems theory. Analytic skills include stability analysis, phase portraits, limit cycles, and bifurcations. Linear algebra concepts are introduced and developed, and Fourier methods are applied to data analysis. The methods are applied to diverse areas of biology, such as ecology, neuroscience, regulatory networks, and molecular structure. The students learn computations methods to implement the models in MATLAB.

Instructor(s): D. Kondrashov Terms Offered: Autumn. L

Prerequisite(s): BIOS 20151 or BIOS 20152 or consent of the instructor Equivalent Course(s): BIOS 26210,PSYC 36210

CPNS 31100. Mathematical Methods for Biological Sciences II. 100 Units.

This course is a continuation of BIOS 26210. The topics start with optimization problems, such as nonlinear least squares fitting, principal component analysis and sequence alignment. Stochastic models are introduced, such as Markov chains, birth-death processes, and diffusion processes, with applications including hidden Markov models, tumor population modeling, and networks of chemical reactions. In computer labs, students learn optimization methods and stochastic algorithms, e.g., Markov Chain, Monte Carlo, and Gillespie algorithm. Students complete an independent project on a topic of their interest.

Instructor(s): D. Kondrashov Terms Offered: Winter. L. Prerequisite(s): BIOS 26210 Equivalent

Equivalent Course(s): BIOS 26211, PSYC 36211

CPNS 31358. Simulation, Modeling, and Computation in Biophysics. 100 Units. This course develops skills for modeling biomolecular systems. Fundamental knowledge covers basic statistical mechanics, free energy, and kinetic concepts. Tools include molecular dynamics and Monte Carlo simulations, random walk and diffusion equations, and methods to generate random Gaussian and Poisson distributors. A term project involves writing a small program that simulates a process. Familiarity with a programming language or Mathlab would be valuable. Instructor(s): B. Roux Terms Offered: Winter

Prerequisite(s): BIOS 20200 and Bios 26210-26211, or consent from instructor Equivalent Course(s): BIOS 21358,BCMB 31358

CPNS 32111. Modeling and Signal Analysis for Neuroscientists. 100 Units.

The course provides an introduction into signal analysis and modeling for neuroscientists. We cover linear and nonlinear techniques and model both single neurons and neuronal networks. The goal is to provide students with the mathematical background to understand the literature in this field, the principles of analysis and simulation software, and allow them to construct their own tools. Several of the 90-minute lectures include demonstrations and/or exercises in Matlab. Instructor(s): W. van Drongelen Terms Offered: Spring. L.

Prerequisite(s): BIOS 26210 and 26211, or consent of instructor. Equivalent Course(s): BIOS 24408

CPNS 33200. Computational Approaches for Cognitive Neuroscience. 100 Units.

This course is concerned with the relationship of the nervous system to higher order behaviors such as perception and encoding, action, attention, and learning and memory. Modern methods of imaging neural activity are introduced, and information theoretic methods for studying neural coding in individual neurons and populations of neurons are discussed.

Instructor(s): N. Hatsopoulos Terms Offered: Spring Prerequisite(s): BIOS 24222 or CPNS 33100 Equivalent Course(s): PSYC 34410,ORGB 34650

CPNS 34206. Peering Inside the Black Box: Neocortex. 100 Units.

The neocortex is the multilayered outermost structure of the mammalian brain. It is the site of higher brain functions including reasoning and creativity. However, the complexity of the neocortex—it is comprised of ~20 billion neurons which have 0.15 quadrillion connections between them—seems to preclude any hope of achieving a fundamental understanding of the system. Recent technological innovations have opened novel avenues of investigation making realization of the neocortex an increasingly tractable problem. This course will place particular emphasis on how to critically read scientific papers as we evaluate and discuss current experimental approaches to the neocortex. Integral to this evaluation will be the detailed discussion of the latest technological approaches.

Instructor(s): J. MacLean Terms Offered: Autumn

Prerequisite(s): BIOS 24205 or consent of instructor.

Equivalent Course(s): BIOS 24206

CPNS 34231. Methods in Computational Neuroscience. 100 Units.

Topics include (but are not limited to): Hodgkin-Huxley equations, Cable theory, Single neuron models, Information theory, Signal Detection theory, Reverse correlation, Relating neural responses to behavior, and Rate vs. temporal codes. Instructor(s): S. Bensmaia Terms Offered: Winter. L.

Prerequisite(s): BIOS 26210 and BIOS 26211 which must be taken concurrently, or consent of instructor.

Equivalent Course(s): BIOS 24231

CPNS 34600. Neurobiology of Disease I. 100 Units.

Instructor(s): C. Gomez Terms Offered: Winter

CPNS 34700. Neurobiology of Disease II. 100 Units.

This seminar course is devoted to understanding pathogenic mechanisms of neuronal death, neurodegenerative disease, and neuronal repair. Weekly seminars are given by experts in the basic and clinical aspects of neurodegenerative diseases. For each lecture, students are provided with a brief description of clinical and pathological features of a given set or mechanistic category of neurodegenerative diseases that is followed by a more detailed description of the current status of knowledge of several of the prototypical pathogenic mechanisms.

Instructor(s): C. Gomez, Staff Terms Offered: Spring

Prerequisite(s): BIOS 24246

Equivalent Course(s): BIOS 24247, NURB 34700

CPNS 35510. Theoretical Neuroscience: Single Neuron Dynamics and Computation. 100 Units.

This course is the first part of a three-quarter sequence in,theoretical/computational neuroscience. It will focus on mathematical,models of single neurons. Topics will include: basic biophysical,properties of neurons; Hodgkin-Huxley model for action potential,generation; 2D models, phase-plane analysis and bifurcations leading,to action potential generation; integrate-and-fire-type models; noise;, characterization of neuronal activity with stochastic inputs;, spatially extended models; models of synaptic currents and synaptic, plasticity; unsupervised learning; supervised learning; reinforcement, learning.

Terms Offered: Autumn

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory

Equivalent Course(s): STAT 42510

CPNS 35520. Theoretical Neuroscience: Network Dynamics and Computation. 100 Units.

This course is the second part of a three-quarter sequence in,theoretical/ computational neuroscience. It will focus on mathematical,models of networks of neurons. Topics will include: firing rate models,for populations of neurons; spatially extended firing rate models, models of visual cortex; models of brain networks at different levels;, characterization of properties of specific brain networks; models of, networks of binary neurons, mean rates, correlations, reductions to, rate models; learning in networks of binary neurons, associative, memory models; models of networks of spiking neurons: asynchronous vs, synchronous states; oscillations in networks of spiking neurons; learning in networks of spiking neurons; models of working memory; models of decision-making.

Terms Offered: Winter

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory, STAT 42510 or instructor consent.

Equivalent Course(s): STAT 42520

CPNS 35600. Theoretical Neuroscience: Statistics and Information Theory. 100 Units.

This course is the third part of a three-quarter sequence in theoretical/computational neuroscience. It begins with the spike sorting problem, used as an introduction to inference and statistical methods in data analysis. We then cover the two main sections of the course: I) Encoding and II) Decoding in single neurons and populations. The encoding section will cover receptive field analysis (STA, STC and non-linear methods such as maximally informative dimensions) and will explore linear-nonlinear-Poisson models of neural encoding as well as generalized linear models and newer population coding models. The decoding section will cover basic methods for inferring the stimulus from spike train data, including both linear and correlational approaches to population decoding. The course will use examples from real data (where appropriate) in the problem sets which students will solve using MATLAB.

Instructor(s): S. Palmer Terms Offered: Spring

Prerequisite(s): Prior exposure to basic calculus and probability theory, CPNS 35500 or instructor consent.

Equivalent Course(s): ORGB 42600,STAT 42600



Committee on Development, Regeneration, and Stem Cell Biology

Chair

- Ilaria Rebay Professors
- John Cunningham, Pediatrics
- Glyn Dawson, Pediatrics
- Wei Du, Ben May Department for Cancer Research
- Richard Fehon, Molecular Genetics & Cell Biology
- Edwin Ferguson, Molecular Genetics & Cell Biology
- Yoav Gilad, Human Genetics
- Michael Glotzer, Molecular Genetics & Cell Biology
- William Green, Neurobiology
- Elizabeth Grove, Neurobiology
- Robert Haselkorn, Molecular Genetics & Cell Biology
- Robert Ho, Organismal Biology & Anatomy
- Bruce Lahn, Human Genetics
- Victoria Prince, Organismal Biology & Anatomy
- Ilaria Rebay, Ben May Department for Cancer Research
- Marsha Rosner, Ben May Department for Cancer Research
- Nancy Schwartz, Pediatrics
- Neil Shubin, Organismal Biology & Anatomy
- Kevin White, Human Genetics

Associate Professors

- Sally Horne-Badovinac, Molecular Genetics & Cell Biology
- Akira Imamoto, Ben May Department for Cancer Research
- Barbara Kee, Pathology
- David Kovar, Molecular Genetics & Cell Biology
- Kay Macleod, Ben May Department for Cancer Research
- Jocelyn Malamy, Molecular Genetics & Cell Biology
- Ivan Moskowitz, Pediatrics
- Clifton Ragsdale, Neurobiology
- Urs Schmidt-Ott, Organismal Biology & Anatomy

Assistant Professors

- Jill de Jong, Pediatrics
- Vincent Lynch, Human Genetics
- Ed Munro, Molecular Genetics & Cell Biology
- Donald VanderGriend, Medicine
- Xiaoyang Wu, Ben May Department for Cancer Research Emeritus Faculty
- Martin Gross, Pathology
- Anthony Mahowald, Molecular Genetics & Cell Biology
- Manfred Ruddat, Ecology & Evolution

Program of Study

First Year

The first year of graduate study is spent in coursework, independent reading, and exploratory research. Three courses constitute a full schedule for each quarter of the first year; the schedule typically includes three lecture courses or two lecture courses and a research rotation. Students are required to undertake laboratory rotations in at least two different laboratories before beginning their dissertation research. Three rotations are encouraged. These rotations can be performed during the first academic year or during Summer Quarter.

Seminars given by invited speakers are regularly offered and students are strongly urged to attend. A separate series of meetings is presented in the Autumn and Winter quarters by faculty to introduce students to their research. Before beginning their second year, students complete Part I of the candidacy examinations: over a period of several weeks, students prepare an original research proposal based upon data in the current literature; the written proposal is then presented orally before an examining committee of faculty.

Second year

While coursework can continue during the second year, students spend much of their time developing a research project. Students have generally chosen research advisors by the beginning of the second year. By the end of Winter Quarter of the second year, each student's doctoral committee is named. The student then prepares a written proposal for dissertation research and defends this proposal before the doctoral committee. This defense constitutes Part II of the candidacy examination. This examination must be completed by the end of Spring Quarter of the second academic year.

Advanced years

After the qualifying exam, the student works full time on thesis research, although the faculty urges students to continue to take advantage of the advanced courses and seminars that are offered. Finally, each graduating student writes a dissertation describing his or her research, presents the work in a public seminar, and defends it before their doctoral committee.

Evaluation

Throughout their term as graduate students, students are expected to have frequent informal conversations with professors in their courses, their research advisor, and members of their doctoral committees. In this way, students can obtain frequent appraisals of their progress and constructive advice.

Formal evaluation of each student's progress continues every academic year. In the first and second years, the evaluation is based on the student's performance in courses, laboratory rotations and the qualifying examination. In later years, the research advisor and doctoral committee oversee the student's dissertation research progress; a report is submitted after the yearly meeting that becomes part of the student's permanent file. If there are any deficiencies in performance, the student will receive a letter describing those deficiencies and making suggestions about how to remedy them.

Admissions

For information about applying to our graduate program, please visit our website at http://molbio.bsd.uchicago.edu/index.php.

Requirements for the Ph.D. Degree

A Ph.D. candidate must fulfill certain formal course work requirements, pass the qualifying examination, and present a satisfactory dissertation describing the results of original research.

The committee expects a knowledge of and proficiency in contemporary developmental biology as well as auxiliary fields of molecular biology, cell biology, and genetics. This requirement will normally be met by fulfilling the formal course work listed below. However, courses taken at other institutions, in other departments, or as part of the medical school curriculum may substitute for required committee courses with the approval of the curriculum committee.

Formal Course Work

The Biological Sciences Division requirement of nine graded course units may be met by registering for a combination of formal courses and up to two graded laboratory rotations. During the first year of graduate work students ordinarily complete one course in molecular biology, one in cell biology, one in genetics, and three courses in developmental biology.

DEVELOPMENTAL BIOLOGY COURSES

DVBI 33850. Evolution and Development. 100 Units.

The course will provide a developmental perspective on animal body plans in phylogenetic context. The course will start with a few lectures, accompanied by reading assignments. Students will be required to present a selected research topic that fits the broader goal of the course and will be asked to submit a referenced written version of it after their oral presentation. Grading will be based on their presentation (oral and written) as well as their contributions to class discussions. Instructor(s): U. Schmidt-Ott Terms Offered: Autumn

Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Equivalent Course(s): ORGB 33850, BIOS 22306, EVOL 33850

DVBI 35600. Vertebrate Development. 100 Units.

This advanced-level course combines lectures, student presentations, and discussion sessions. It covers major topics on the developmental biology of embryos (e.g. formation of the germ line, gastrulation, segmentation, nervous system development, limb pattering, organogenesis). We make extensive use of the primary literature and emphasize experimental approaches (e.g. classical embryology, genetics, molecular genetics).

Instructor(s): V. Prince, C. Ragsdale. Terms Offered: Spring

Prerequisite(s): For College students: Completion of the first three quarters of a Biological Sciences Fundamentals Sequence

Equivalent Course(s): BIOS 21356, MGCB 35600

DVBI 36100. Plant Development and Molecular Genetics. 100 Units.

Genetic approaches to central problems in plant development will be discussed. Emphasis will be placed on embryonic pattern formation, meristem structure and function, reproduction, and the role of hormones and environmental signals in development. Lectures will be drawn from the current literature; experimental approaches (genetic, cell biological, biochemical) used to discern developmental mechanisms will be emphasized. Graduate students will present a research proposal in oral and written form; undergraduate students will present and analyze data from the primary literature, and will be responsible for a final paper.

Instructor(s): J. Greenberg Terms Offered: Spring

Prerequisite(s): For undergraduates only: Completion of the general education requirement in the biological sciences

Equivalent Course(s): BIOS 23299, ECEV 32900, MGCB 36100

DVBI 36200. Stem Cells and Regeneration. 100 Units.

The course will focus on the basic biology of stem cells and regeneration, highlighting biomedically relevant findings that have the potential to translate to the clinic. We will cover embryonic and induced pluripotent stem cells, as well as adult stem cells from a variety of systems, both invertebrate and vertebrates. Instructor(s): E. Ferguson, V. Prince, J. Cunningham, J. De Jong, X. Wu Terms Offered: Autumn

Prerequisite(s): For undergraduates only: completion of a biological sciences fundamentals sequence

Equivalent Course(s): BIOS 21416

DVBI 36400. Developmental Mechanisms. 100 Units.

This course provides an overview of the fundamental questions of developmental biology, with particular emphasis on the genetic, molecular and cell biological experiments that have been employed to reach mechanistic answers to these questions. Topics covered will include formation of the primary body axes, the role of local signaling interactions in regulating cell fate and proliferation, the cellular basis of morphogenesis, and stem cells.

Instructor(s): E. Ferguson, R. Fehon Terms Offered: Winter

Prerequisite(s): For undergraduates only: BIOS 20189, BIPS 20190, or BIOS 20235 or equivalent.

Equivalent Course(s): BIOS 21237,MGCB 36400

DVBI 32000. Quantitative Analysis of Biological Dynamics. 100 Units.

The basic focus of the course will be quantitative approaches to understanding organization and dynamics at the molecular, subcellular and cellular levels, and will rest on three pillars - modern imaging and image analysis, quantitative analysis and presentation of data, mathematical modeling and computer simulations. Instructor(s): Edwin Munro; Michael Rust Terms Offered: Spring Equivalent Course(s): MGCB 32000

DISTRIBUTION COURSES

DISTRIBUTION COURSES

DVBI 31200. Molecular Biology-I. 100 Units.

Nucleic acid structure and DNA topology; methodology; nucleic-acid protein interactions; mechanisms and regulation of transcription in eubacteria, and of replication in eubacteria and eukaryotes; mechanisms of genome and plasmid segregation in eubacteria.

Instructor(s): L. Rothman-Denes Terms Offered: Winter Equivalent Course(s): MGCB 31200,BCMB 31200

DVBI 31300. Molecular Biology-II. 100 Units.

The content of this course covers the mechanisms and regulation of eukaryotic gene expression at the transcriptional and post-transcriptional levels. Our goal is to explore research frontiers and evolving methodologies. Rather than focusing on the elemental aspects of a topic, the lectures and discussions highlight the most significant recent developments, their implications and future directions. Instructor(s): J. Staley, A. Ruthenburg Terms Offered: Spring Equivalent Course(s): MGCB 31300,BCMB 31300

DVBI 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Instructor(s): A. Palmer, D. Bishop, E. Ferguson, J. Malamy Terms Offered: Autumn Equivalent Course(s): BCMB 31400,HGEN 31400,MGCB 31400

DVBI 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion. Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn Equivalent Course(s): BCMB 31600,MGCB 31600

DVBI 31700. Cell Biology II. 100 Units.

This course covers the mechanisms with which cells execute fundamental behaviors. Topics include signal transduction, cell cycle progression, cell growth, cell death, cancer biology, cytoskeletal polymers and motors, cell motility, cytoskeletal diseases, and cell polarity. Each lecture will conclude with a dissection of primary literature with input from the students. Students will write and present a short research proposal, providing excellent preparation for preliminary exams. Instructor(s): M. Glotzer, D. Kovar Terms Offered: Winter Equivalent Course(s): BIOS 21238,MGCB 31700



Department of Ecology and Evolution

Chair: Joy Bergelson **Director of Graduate Studies**: Stefano Allesina

Professors

- Joy Bergelson
- Jerry Coyne
- Richard R. Hudson
- Martin Kreitman
- Manyuan Long
- Mercedes Pascual
- Catherine Pfister
- Trevor D. Price
- John Reinitz, Statistics
- Joseph Thornton
- Kevin White, Human Genetics
- J. Timothy Wootton
- Chung-I Wu

Associate Professors

- Gregory Dwyer
- Jack Gilbert (part-time)
- Stephen Pruett-Jones

Assistant Professors

- Sarah Cobey
- Marcus Kronforst

Emeritus Faculty

- Wen-Hsiung Li
- Thomas Nagylaki
- Manfred D.E. Ruddat
- Janice B. Spofford

Research Associate (Associate Professor)

- Michael Z. Ludwig
- Ilya Ruvinsky

Department of Ecology and Evolution

The Department of Ecology and Evolution provides training for research and teaching in the ecology, evolution and behavior of whole organisms, at the levels of the organism, the population, and the ecosystem. The research interests of our faculty include molecular evolution, population genetics, quantitative genetics, animal behavior, plant and animal ecology, evolutionary theory, systematics, paleontology, and related subjects. Individual levels of study range from molecules to communities. A common theme is the conduct of studies in a rigorous ecological and conceptual context, and the faculty share an interest in the architecture of populations, species and communities.

The department stresses scientific breadth and the interrelations between various specialized fields. Students are encouraged to approach basic biological problems with the most appropriate techniques: biophysical, biochemical, mathematical, physiological, or organismal. Departmental laboratories are equipped for a wide variety of contemporary research methods. Courses in other programs may be taken for credit in ecology and evolution for example, in the Departments of Organismal Biology and Anatomy, Biochemistry and Molecular Biology, Molecular Genetics and Cell Biology, Statistics, Geophysical Sciences, Anthropology, and Chemistry. Many students in the Department of Ecology and Evolution participate in interdepartmental programs in genetics, cell biology, developmental biology, population biology, theoretical biology, and evolutionary biology, and in these programs dissertation research may be co-sponsored by faculty from different departments. Collaboration is also maintained with the Field Museum and the Shedd Aquarium for students interested in research in systematics, taxonomy, and evolutionary biology, and with the Brookfield Zoo for basic research in conservation and behavior involving zoo animals. New opportunities are available for research and education at the Woods Hole Marine Biological Laboratory as well as the Warren Woods Ecological Field Station (http://pondside.uchicago.edu/ee/facilities/ WW.shtml). Recent students in the department have performed field research in Central and South America, Asia, Australasia, Northern Europe, and other regions of the earth.

PROGRAM OF STUDY

Most students in the Department of Ecology and Evolution complete their Ph.D. program in 5-6 years, though students entering with a master's degree may finish in slightly less time. A student advisory committee advises all incoming and second year students on academic and research concerns. The first and second years consist largely of course work and individual reading courses, aiming toward successful completion of an oral general knowledge examination by the spring quarter of the first year, supervised by the student advisory committee. The student and faculty advisor, in consultation with the director of graduate studies, then choose a five member faculty doctoral committee, scheduling a defense of the dissertation research proposal by the end of the second year of study. Work in subsequent years shifts to dissertation-centered research and, finally, preparation and defense of the Ph.D. dissertation. All students are required to register to be a supervised teaching assistant in two approved courses during their tenure in the doctoral program. While there is no terminal master's degree program in the department, students may elect to receive the S.M. degree upon successful completion of their dissertation proposal defense.

ENTRANCE REQUIREMENTS

Entering students are expected to have received a broad undergraduate training in biology, and a good background in related quantitative subjects, such as chemistry, statistics and calculus. Students who are admitted without having fully satisfied these requirements will be required to remedy their deficiencies by taking appropriate courses during their first two years in the graduate program.

General Knowledge Examination

Each first year student will be expected to pass an oral general knowledge examination during the first year of study, generally no later than the 10th week of the spring quarter. This examination session shall be attended by all three members of an examination committee appointed by the student advisory committee. The goal of the examination will be to assess each student's general knowledge of key concepts, processes and issues in ecology and evolutionary biology, as covered in the courses recommended to the student by the student advisory committee during the student's first year in the program.

DISSERTATION PROPOSAL DEFENSE

This examination consists of the submission of a written Ph.D. research proposal and an oral presentation of the proposal in a public or closed/private seminar format, followed by a closed discussion and examination on the proposal presentation with the faculty committee chosen by the student and the chair of the department. Students are expected to schedule the dissertation proposal defense before the end of their second year.

DOCTOR OF PHILOSOPHY

Upon successful completion of the dissertation proposal defense and admission into candidacy for the Ph.D., students work closely with the faculty advisor and dissertation committee on the dissertation project. During the period of two to three years in which students do primary original research, they also participate in seminars, discussion groups, and professional meetings and conferences, leading to the completion of the written Ph.D. dissertation. The Ph.D. in ecology and evolution is awarded based upon:

- Submission of a written dissertation based on original research, which must be approved by the faculty adviser and dissertation committee.
- Presentation of a public seminar based on the dissertation research.
- Following the public seminar, successful performance during an oral examination by the dissertation committee and other relevant faculty.
- Acceptance of the approved written dissertation by the university Dissertation Office in compliance with that office's regulations.

APPLICATION

We strongly advise students considering application to the department to begin preparation of their application early in the autumn quarter, so that all materials will arrive by the December 1 deadline. The department requires GRE General Test scores from all applicants, and recommends submission of GRE subject test scores in biology. Foreign applicants whose first language is not English also must submit TOEFL test scores with their application materials.

Further information also may be obtained from the department's home page at http://pondside.uchicago.edu/ee/

ECOLOGY AND EVOLUTION COURSES

ECEV 31100. Evolution of Biological Molecules. 100 Units.

The course connects evolutionary changes imprinted in genes and genomes with the structure, function and behavior of the encoded protein and RNA molecules. Central themes are the mechanisms and dynamics by which molecular structure and function evolve, how protein/ RNA architecture shapes evolutionary trajectories, and how patterns in present-day sequence can be interpreted to reveal the interplay data of evolutionary history and molecular properties. Core concepts in macromolecule biochemistry (folding and stability of proteins and RNA, structurefunction relationships, kinetics, catalysis) and molecular evolution (selection, mutation, drift, epistasis, effective population size, phylogenetics) will be taught, and the interplay between them explored.

Instructor(s): A. Drummond, J. Thornton Terms Offered: Winter Prerequisite(s): Comfort with basic computer programming (course will use Python and R); undergraduate biology, chemistry, calculus, and introductory statistics. Equivalent Course(s): HGEN 31100,BCMB 31100

ECEV 31500. Ecological Genetics. 100 Units.

A graduate class in ecological genetics (evolution of the phenotype, without considering molecular approaches). This will be a weekly 2-hour seminar, emphasizing quantitative genetic approaches. Basic theory will cover such topics as heritability and breeding value, genetic correlation, Price's theorem and sexual selection. Seminars will include discussions of current topics from the literature. Instructor(s): T. Price Terms Offered: Autumn. not offered in 2015-16 Equivalent Course(s): EVOL 31500

ECEV 32000. Introduction to Scientific Computing for Biologists. 100 Units.

The course will cover basic concepts in computing for an audience of biology graduate students. The students will receive basic training in the use of version control systems, databases and regular expressions. They will learn how to program in python and R and how to use R to produce publication-grade figures for their manuscripts, and how to typeset scientific manuscripts and theses using LaTeX. All the examples and exercises will be biologically motivated and will make use of real data. The approach will be hands-on, with lecturing followed by exercises in class. Instructor(s): S. Allesina Terms Offered: Winter

ECEV 32500. Evolutionary Aspects of Gene Regulation. 100 Units.

Using primary research literature, this course will examine recent advances in understanding of evolution of gene regulation. Among others it will cover the following topics: patterns and forces of evolutionary change in regulatory DNA and transcription factors, genetic changes that are responsible for phenotypic evolution, and discovery and evolutionary of implications of gene control by microRNAs. Instructor(s): I. Ruvinsky Terms Offered: Autumn

Equivalent Course(s): BIOS 23281,EVOL 32600,GENE 32500,ORGB 32600,DVBI 32500

ECEV 32900. Plant Development and Molecular Genetics. 100 Units.

Genetic approaches to central problems in plant development will be discussed. Emphasis will be placed on embryonic pattern formation, meristem structure and function, reproduction, and the role of hormones and environmental signals in development. Lectures will be drawn from the current literature; experimental approaches (genetic, cell biological, biochemical) used to discern developmental mechanisms will be emphasized. Graduate students will present a research proposal in oral and written form; undergraduate students will present and analyze data from the primary literature, and will be responsible for a final paper.

Instructor(s): J. Greenberg Terms Offered: Spring

Prerequisite(s): For undergraduates only: Completion of the general education requirement in the biological sciences

Equivalent Course(s): BIOS 23299, DVBI 36100, MGCB 36100

ECEV 34500. Advanced Topics in Evolution. 100 Units.

While evolution by natural selection is an elegantly simple phenomenon, modern research in evolutionary biology contains a variety of controversial, and sometimes confusing, topics. In this course, we will explore, as a group, a select list of controversial or confusing topics in evolutionary biology through a mix of student-led presentations and discussion of the primary literature. Each student will also write a review paper about his or her selected topic. Instructor(s): M. Kronforst Terms Offered: Spring

Equivalent Course(s): EVOL 34500

ECEV 35400. Gene Regulation. 100 Units.

This course covers the fundamental theory of gene expression in prokaryotes and eukaryotes through lectures and readings in the primary literature. Natural and synthetic genetic systems arising in the context of *E. coli* physiology and Drosophila development will be used to illustrate fundamental biological problems together with the computational and theoretical tools required for their solution. These tools include large-scale optimization, image processing, ordinary and partial differential equations, the chemical Langevin and Fokker-Planck equations, and the chemical master equation. A central theme of the class is the art of identifying biological problems which require theoretical analysis and choosing the correct mathematical framework with which to solve the problem.

Terms Offered: Spring

Prerequisite(s): Consent of instructor Equivalent Course(s): MGCB 35401,STAT 35400

ECEV 35600. Principles of Population Genetics-1. 100 Units.

Examines the basic theoretical principles of population genetics, and their application to the study of variation and evolution in natural populations. Topics include selection, mutation, random genetic drift, quantitative genetics, molecular evolution and variation, the evolution of selfish genetic systems, and human evolution.

Instructor(s): C.-I. Wu and M. Kreitman Terms Offered: Spring Equivalent Course(s): EVOL 35600

ECEV 35800. Classics in Evolutionary Genetics. 100 Units.

Major classic papers in evolutionary genetics that had great impact on the development of the field are reviewed. Instructor(s): M. Long Terms Offered: Spring Note(s): Not offered in 2015-16 Equivalent Course(s): EVOL 35800

ECEV 35901. Genomic Evolution. 100 Units.

Canalization, a unifying biological principle first enunciated by Conrad Waddington in 1942, is an idea that has had tremendous intellectual influence on developmental biology, evolutionary biology, and mathematics. In this course we will explore canalization in all three contexts through extensive reading and discussion of both the classic and modern primary literature. We intend this exploration to raise new research problems which can be evaluated for further understanding. We encourage participants to present new ideas in this area for comment and discussion. Instructor(s): M. Long Terms Offered: Autumn. Not Offered 2015-2016 Note(s): Not offered in 2015-16 Equivalent Course(s): STAT 35410

ECEV 36300. Speciation. 100 Units.

A review of the literature on the origin of species beginning with Darwin and continuing through contemporary work. Both theoretical and empirical studies will be covered, with special emphasis on the genetics of speciation. Instructor(s): C-I Wu, S. Pruett-Jones Terms Offered: Winter. in alternate (odd) years

Equivalent Course(s): EVOL 36300

ECEV 36700. Advanced Topics in Behavioral Ecology. 100 Units.

This is a reading course covering advanced topics in behavioral ecology. The list of topics to be covered will be based in part on student interests, but may include: behavior and conservation, communication, mating systems, sexual conflict, and sperm competition. This course is designed as a graduate course, but advanced undergraduates may enroll with the permission of the instructor. Instructor(s): S. Pruett-Jones, T. Price Terms Offered: Winter Equivalent Course(s): EVOL 46700

ECEV 36900. Topics in Paleobiology. 100 Units.

In this seminar we investigate paleobiological or multidisciplinary topics of current interest to students and faculty. Previous subjects include the origin of phyla, historical and macro-ecology, the stratigraphic record and evolutionary patterns, and climate and evolution.

Instructor(s): D. Jablonski, S. Kidwell, T. Price Terms Offered: Autumn Equivalent Course(s): EVOL 31900,GEOS 36900

ECEV 40100. Grants, Publications and Professional Issues. 100 Units.

Covers professional topics in evolutionary biology, primarily strategies in grant writing and review. Each student will work towards the submission of an application of their choice. The course meets weekly and involves extensive writing and discussion.

Instructor(s): J. Bergelson, R. Ho, M. Coates Terms Offered: Autumn Note(s): Only open to first year graduate students in the Darwinian Sciences Cluster Equivalent Course(s): EVOL 40100,ORGB 40100

ECEV 40200. Advanced Topics in Ethics for the Darwinian Sciences. 100 Units.

This course covers advanced topics in ethics relevant to senior Ph.D. students in the Darwinian Sciences. CEB students are required to successfully complete this course before being awarded the Ph.D.

Instructor(s): M. Coates, P. Herendeen Terms Offered: Winter Prerequisite(s): Open to Ph.D. students in the Darwinian Sciences Equivalent Course(s): ORGB 40200, EVOL 40200

ECEV 42600. Community Ecology. 100 Units.

Lectures and readings cover advanced topics in multi-species systems, and include an introduction to basic theoretical approaches.

Instructor(s): J.T. Wootton Terms Offered: Autumn

Equivalent Course(s): EVOL 42600

ECEV 42800. Population Ecology. 100 Units.

A lecture course on the empirical and theoretical approaches to the study of natural populations, including field methodologies and quantitative approaches. Includes computer assignments.

Instructor(s): C. Pfister Terms Offered: Winter Equivalent Course(s): EVOL 42800

ECEV 42900. Theoretical Ecology. 100 Units.

An introduction to mathematical modeling in ecology. The course will begin with linear growth and Lotka-Volterra models, and proceed to partial differential equations. The course's perspective will emphasize numerical computations and fitting models to data.

Instructor(s): G. Dwyer, S. Cobey Terms Offered: Winter Equivalent Course(s): EVOL 42900

ECEV 44001. Molecular Evolution I: Fundamentals and Principles. 100 Units.

The comparative analysis of DNA sequence variation has become an important tool in molecular biology, genetics, and evolutionary biology. This course covers major theories that form the foundation for understanding evolutionary forces that govern molecular variation, divergence, and genome organization. Particular attention is given to selectively neutral models of variation and evolution, and to alternative models of natural selection. The course provides practical information on accessing genome databases, searching for homologous sequences, aligning DNA and protein sequences, calculating sequence divergence, producing sequence phylogenies, and estimating evolutionary parameters.

Instructor(s): M. Kreitman Terms Offered: Winter

Prerequisite(s): Two quarters of biology and calculus, or consent of instructor Equivalent Course(s): BIOS 23258, EVOL 44001

ECEV 44200. Bioinformatics and Microbial Ecology. 100 Units.

We will explore the application of sequencing data treatment and statistical analysis to explore ecology and biodiversity in microbial ecosystems. The course will explore metagenomic principles and bioinformatic techniques. The course will be different to most in that the class will be split into two small groups, each will be given a novel dataset and will be asked to produce a publishable paper. We will then work to submit the paper following the completion of the course. Essentially, following 4 weeks of lectures on techniques, application and theory, we will start to work on real data to solve real problems. Students will be graded on 1 mid term paper, and on the quality of the final group manuscript aimed for publication. Instructor(s): J. Gilbert Terms Offered: Spring. Not offered in 2015-16 Prerequisite(s): An interest in sequence data and no fear of computers. Equivalent Course(s): EVOL 44200



Committee on Evolutionary Biology

Chair

- Michael Coates Associate Chair
- Shannon Hackett
- Faculty
- Kenneth Angielczyk, Field Museum
- John Bates, Field Museum
- Joy Bergelson, Ecology and Evolution
- Rüdiger Bieler, Field Museum
- Michael Coates, Organismal Biology and Anatomy
- Maureen Coleman, Geophysical Sciences
- Jerry Coyne, Ecology and Evolution
- Martin Feder, Organismal Biology and Anatomy
- Michael J. Foote, Geophysical Sciences
- Jack A. Gilbert, Ecology and Evolution
- Lance Grande, Field Museum
- Shannon Hackett, Field Museum
- Lawrence Heaney, Field Museum
- Patrick Herendeen, Chicago Botanic Garden
- Andrew Hipp, Morton Arboretum/Herbarium
- Robert Ho, Organismal Biology and Anatomy
- David Jablonski, Geophysical Sciences
- Susan M. Kidwell, Geophysical Sciences
- Marcus Kronforst, Ecology and Evolution
- Robert Lacy, Brookfield Zoo
- Scott Lidgard, Field Museum
- Sarah London, Psychology
- Manyuan Long, Ecology and Evolution
- Thorston Lumbsch, Field Museum
- Vincent J. Lynch, Human Genetics
- Zhe-Xi Luo, Organismal Biology and Anatomy
- Dario Maestripieri, Comparative Human Development
- Peter Makovicky, Field Museum
- Robert D. Martin, Field Museum
- Jill Mateo, Comparative Human Development

- Lance Miller, Chicago Zoological Society (Brookfield Zoo)
- R. Michael Miller, Argonne National Laboratory
- Corrie Moreau, Field Museum
- Gregory M. Mueller, Chicago Botanic Garden
- Salikoko Mufwene, Linguistics
- John Novembre, Human Genetics
- Bruce Patterson, Field Museum
- Catherine Pfister, Ecology and Evolution
- Trevor Price, Ecology and Evolution
- Victoria Prince, Organismal Biology and Anatomy
- Stephen Pruett-Jones, Ecology and Evolution
- Clifton Ragsdale, Neurobiology
- Richard Ree, Field Museum
- Olivier Rieppel, Field Museum
- Callum Ross, Organismal Biology and Anatomy
- Rachel Santymire, Lincoln Park Zoo
- Urs Schmidt-Ott, Organismal Biology and Anatomy
- Paul Sereno, Organismal Biology and Anatomy
- Neil Shubin, Organismal Biology and Anatomy
- Petra Sierwald, Field Museum
- Douglas Stotz, Field Museum
- Margaret Thayer, Field Museum
- Russell Tuttle, Anthropology
- Janet Voight, Field Museum
- Mark Webster, Geophysical Sciences
- Mark Westneat, Organismal Biology and Anatomy
- Huntington Willard, President and Director, Marine Biological Laboratory
- John Timothy Wootton, Ecology and Evolution
- Chung I Wu, Ecology and Evolution Emeritus Faculty
- Stuart Altmann, Ecology and Evolution
- John Bolt, Field Museum
- James Hopson, Organismal Biology and Anatomy
- Michael LaBarbera, Organismal Biology and Anatomy
- Wen-Hsiung Li, Ecology and Evolution
- R. Eric Lombard, Organismal Biology and Anatomy
- Thomas Nagylaki, Ecology and Evolution
- Janice B. Spofford, Ecology and Evolution

- Harold Voris, Field Museum
- William Wimsatt, Philosophy

The Committee on Evolutionary Biology (CEB) provides students with the opportunity for interdisciplinary study of all aspects of evolutionary biology. The committee consists of faculty members with primary appointments in departments in all four graduate divisions within the university and of associated faculty from institutions in the Chicago area, such as Argonne National Laboratory, Lincoln Park Zoo, Chicago Botanic Garden, Morton Arboretum, and the Field Museum. The diversity of research interests represented by the collective expertise of the committee faculty contributes to its strong national and international reputation as a graduate training program.

Students in the committee have ready access to facilities at the associated institutions, including the more than 1,100 animals representing over 200 species at Lincoln Park Zoo, more than 17 million specimens in the Field Museum collections in botany, zoology, and paleontology, and libraries at the Field Museum. Various facilities for the study of molecular evolution and phylogenetic analysis are available to committee students, as are several student computer centers, an on-campus greenhouse, and digital equipment for off-site research.

In the Chicago area, committee students have access to the rich and diverse resources available at the Chicago Botanic Garden, Argonne National Laboratory, the Shedd Aquarium, the Morton Arboretum, and the many parks and lands managed by the local forest preserve and park districts.

The University of Chicago is a member of the Organization for Tropical Studies. Doctoral students in the committee have taken courses in tropical ecology and conducted research in Costa Rica through this affiliation. Recent evolutionary biology students have also conducted domestic research at a variety of field sites, including the Southwest Research Station of the American Museum of Natural History, Sierra Nevada Aquatic Research Laboratory, Kellogg Biological Station, the Marine Biological Laboratory at Woods Hole, and Friday Harbor Marine Laboratory. International research is conducted on every continent.

PROGRAM OF STUDY

Most students in the Committee on Evolutionary Biology complete their Ph.D. program in about five and a half years.

The first and second years consist largely of course work and individual reading and research courses, aiming toward successful defense of a dissertation research proposal by the end of the second year of study.

FIRST YEAR

Entering students are expected to have received a broad undergraduate training in biology and a good background in related quantitative subjects, such as chemistry, statistics and calculus. Students who are admitted with gaps in these areas may be required to remedy their deficiencies by taking appropriate courses during their first two years in the graduate program. The committee maintains a student advisory committee, which meets three times a year with each of the first and second year students to advise them on courses available, arbitrate on which courses meet the committee's course distribution requirements, and otherwise help students keep on track towards Ph.D. candidacy.

Second year

Second year students continue to meet with the student advisory committee until they pass their preliminary examination/dissertation proposal hearing. The first part of the second year may be taken up mostly with course work, supplemented more heavily by reading and research courses.

Reading and research requirements

CEB courses have been divided into six broad areas. Students must successfully complete a course in five of the six areas to be recommended for Ph.D. candidacy. The primary aim is that the student acquires considerable breadth in evolutionary biology; this breadth and the interdisciplinary research it permits should be the distinguishing feature of students working in the committee. In the first two years of study students generally enroll in three courses per quarter. This can be a combination of lecture, seminar, research, and reading formats.

DIVISION OF THE BIOLOGICAL SCIENCES TEACHING ASSISTANT REQUIREMENT PROGRAM

During their tenure in the doctoral program, students are required to register for two evaluated teaching assistants in two approved courses.

DISSERTATION PROPOSAL HEARING AND ADMISSION TO PH.D. CANDIDACY

Students should select an advisor no later than Autumn Quarter of their second year. This advisor normally will become the chair of the student's dissertation proposal committee. The committee for the dissertation proposal hearing will be formed by the student and her/his advisor, subject to approval by the CEB Chair, when the student asks the CEB Chair in writing to approve her/his request to appoint the exam committee and hold the proposal hearing.

CEB students must present and defend their dissertation proposal, followed by an oral examination by a faculty committee on general issues in evolutionary biology. Students are expected to successfully defend their dissertation proposal by the end of the Spring Quarter of their second year in the Ph.D. program. After successfully defending their dissertation proposal, students may be recommended for candidacy for the Ph.D. by the CEB Chair.

Ph.D. Dissertation

Upon successful completion of the dissertation proposal hearing and admission into candidacy for the Ph.D., students work on their dissertation projects in close consultation with their faculty advisor and dissertation committee. During a period of two to three years the student does primary original research, participates in seminars, discussion groups, and professional meetings and conferences, and completes the written Ph.D. dissertation. Students are expected to publish dissertation related research, and encouraged to submit a substantial part of their research for publication before Ph.D. completion. A student is expected to submit a dissertation outline and proposed timetable for dissertation completion six months before the estimated date of final defense. These plans must be approved by the advisory committee, and a copy submitted as part of the meeting report to the CEB Chair.

The Ph.D. in evolutionary biology is awarded based upon the candidate's having:

- Submitted a written dissertation reporting results of the student's original research in a form suitable for publication, which must be approved by the faculty advisor and dissertation committee.
- Successfully completed a final oral examination covering the student's field of specialization.
- Final approval of the dissertation by the CEB Chair and the University Dissertation Office.

ADMISSION

We strongly advise students considering application to CEB to begin preparation of their application early in the autumn quarter, so that all materials will arrive by the December 1st deadline. The committee requires GRE General Test scores from all applicants. Foreign applicants whose first language is not English also must submit TOEFL or IELTS test scores with their application materials (http://gradadmissions.uchicago.edu/admissions/international/).

Students have the opportunity to apply for the M.S. degree while completing their work for the Ph.D. The M.S. degree is also awarded in special cases, usually in association with Ph.D. requirements for graduate students in the Committee on the Conceptual and Historical Studies of Science.

Further information also may be obtained from the program's home at http://evbio.uchicago.edu, or by sending an email to darwin@uchicago.edu.

EVOLUTIONARY BIOLOGY COURSES

EVOL 30250. Chordates: Evolution and Comparative Anatomy. 100 Units.

Chordate biology emphasizes the diversity and evolution of modern vertebrate life, drawing on a range of sources (from comparative anatomy and embryology to paleontology, biomechanics, and developmental genetics). Much of the work is lab-based, with ample opportunity to gain firsthand experience of the repeated themes of vertebrate body plans, as well as some of the extraordinary specializations manifest in living forms. The instructors, who are both actively engaged in vertebrate-centered research, take this course beyond the boundaries of standard textbook content.

Instructor(s): M. Coates Terms Offered: Spring. L.

Prerequisite(s): Completion of the first three quarters of a Biological Sciences Fundamentals Sequence. Recommended for Advanced Biology students. Equivalent Course(s): BIOS 22250,ORGB 30250

EVOL 30300. Key Issues in Early Vertebrate Evolution. 100 Units.

The course addresses questions about the origin of vertebrates, the interrelationships of major gnathostome clades, and the fish-tetrapod transition. Instructor(s): M. I. Coates Terms Offered: Winter

Prerequisite(s): Undergraduate level chordate biology required; familiarity with methods in systematic biology advantageous.

Equivalent Course(s): ORGB 31300

EVOL 31500. Ecological Genetics. 100 Units.

A graduate class in ecological genetics (evolution of the phenotype, without considering molecular approaches). This will be a weekly 2-hour seminar, emphasizing quantitative genetic approaches. Basic theory will cover such topics as heritability and breeding value, genetic correlation, Price's theorem and sexual selection. Seminars will include discussions of current topics from the literature. Instructor(s): T. Price Terms Offered: Autumn. not offered in 2015-16 Equivalent Course(s): ECEV 31500

EVOL 31700. Macroevolution. 100 Units.

Patterns and processes of evolution above the species level, in both recent and fossil organism. A survey of the current literature, along with case studies. Instructor(s): D. Jablonski Terms Offered: Spring Equivalent Course(s): GEOS 36800

EVOL 31800. Taphonomy. 100 Units.

Lecture and research course on patterns and processes of fossilization, including rates and controls of soft tissue decomposition, post mortem behavior of skeletal hard parts, concentration and burial of remains, scales of time averaging, and the net spatial and compositional fidelity of (paleo)biologic information, including trends across environments and evolutionary time. Offered alternate years. Instructor(s): S. Kidwell

Equivalent Course(s): GEOS 36700

EVOL 31900. Topics in Paleobiology. 100 Units.

In this seminar we investigate paleobiological or multidisciplinary topics of current interest to students and faculty. Previous subjects include the origin of phyla, historical and macro-ecology, the stratigraphic record and evolutionary patterns, and climate and evolution.

Instructor(s): D. Jablonski, S. Kidwell, T. Price Terms Offered: Autumn Equivalent Course(s): ECEV 36900,GEOS 36900

EVOL 32400. Invertebrate Paleobiology and Evolution. 100 Units.

This course provides a detailed overview of the morphology, paleobiology, evolutionary history, and practical uses of the invertebrate and microfossil groups commonly found in the fossil record. Emphasis is placed on understanding key anatomical and ecological innovations within each group and interactions among groups responsible for producing the observed changes in diversity, dominance, and ecological community structure through evolutionary time. Labs supplement lecture material with specimen-based and practical application sections. An optional field trip offers experience in the collection of specimens and raw paleontological data. Several "Hot Topics" lectures introduce important, exciting, and often controversial aspects of current paleontological research linked to particular invertebrate groups. (L)

Instructor(s): M. Webster Terms Offered: Autumn

Prerequisite(s): GEOS 13100 and 13200, or equivalent. For BIOS students: Completion of the first three quarters of a Biological Sciences Fundamentals Sequence.

Equivalent Course(s): BIOS 23261, GEOS 36300, GEOS 26300

EVOL 32600. Evolutionary Aspects of Gene Regulation. 100 Units.

Using primary research literature, this course will examine recent advances in understanding of evolution of gene regulation. Among others it will cover the following topics: patterns and forces of evolutionary change in regulatory DNA and transcription factors, genetic changes that are responsible for phenotypic evolution, and discovery and evolutionary of implications of gene control by microRNAs. Instructor(s): I. Ruvinsky Terms Offered: Autumn

Equivalent Course(s): ECEV 32500,BIOS 23281,GENE 32500,ORGB 32600,DVBI 32500

EVOL 33001. Paleobiological Modeling and Analysis-1. 100 Units.

This course is an introduction to mathematical modeling as applied to problems in paleobiology and evolutionary biology. Topics include: basic probability theory; general approaches to modeling; model comparison using likelihood and other criteria; forward modeling of branching processes; sampling models; and inverse methods. A series of programming exercises and a term project are required. Programming in R or C is recommended, but any language may be used. Winter quarter, generally in even numbered years. GEOS 36501 and GEOS 36502 can be taken in either order.

Instructor(s): M. Foote Terms Offered: Winter

Prerequisite(s): Mathematics through first-year calculus; basic computer programming skills (or willingness to learn); elementary statistics helpful. Equivalent Course(s): GEOS 36501

EVOL 33002. Paleobiological Modeling and Analysis-2. 100 Units.

This course is an introduction to multivariate analysis, with emphasis on morphological data and problems in paleontology and evolutionary biology. Topics include: types of data and scales of measurement; data transformations; bivariate analysis; measurement of similarity and difference; clustering; ordination; singular value decomposition; principal component analysis, factor analysis, principal coordinates, correspondence analysis, and other eigenvector methods; and path analysis. Each student will bring a multivariate dataset (not necessarily original) to the course and will write a series of short papers based on analysis of these data. Code written in the R programming language will be supplied for most analyses. Winter quarter, generally in odd numbered years. GEOS 36501 and GEOS 36502 can be taken in either order.

Instructor(s): M. Foote Terms Offered: Winter

Prerequisite(s): Mathematics at secondary school level; basic computer programming skills (or willingness to learn); calculus, linear algebra, and elementary statistics also helpful, although essential points will be reviewed. Equivalent Course(s): GEOS 36502

EVOL 33700. Evolutionary Developmental Biology. 100 Units.

The purpose of this course is to provide a developmental genetic perspective on evolutionary questions that have emerged in various disciplines (e.g., developmental biology, paleontology, phylogenetic systematics). Topics range from the evolution of gene regulation to the origin of novelties (e.g., eyes, wings). Although these subjects are introduced in lectures, the focus of this course is on reading, presenting, and discussing original research papers.

Instructor(s): U. Schmidt-Ott Terms Offered: Spring

Prerequisite(s): Biological Sciences Fundamentals sequence. Recommended for AP5 students.

Equivalent Course(s): BIOS 22256

EVOL 33850. Evolution and Development. 100 Units.

The course will provide a developmental perspective on animal body plans in phylogenetic context. The course will start with a few lectures, accompanied by reading assignments. Students will be required to present a selected research topic that fits the broader goal of the course and will be asked to submit a referenced written version of it after their oral presentation. Grading will be based on their presentation (oral and written) as well as their contributions to class discussions. Instructor(s): U. Schmidt-Ott Terms Offered: Autumn

Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Equivalent Course(s): ORGB 33850, BIOS 22306, DVBI 33850

EVOL 34500. Advanced Topics in Evolution. 100 Units.

While evolution by natural selection is an elegantly simple phenomenon, modern research in evolutionary biology contains a variety of controversial, and sometimes confusing, topics. In this course, we will explore, as a group, a select list of controversial or confusing topics in evolutionary biology through a mix of student-led presentations and discussion of the primary literature. Each student will also write a review paper about his or her selected topic.

Instructor(s): M. Kronforst Terms Offered: Spring

Equivalent Course(s): ECEV 34500

EVOL 34800. Kinship and Social Systems. 100 Units.

This course will use a biological approach to understanding how groups form and how cooperation and competition modulate group size and reproductive success. We will explore social systems from evolutionary and ecological perspectives, focusing on how the biotic and social environments favor cooperation among kin as well as how these environmental features influence mating systems and inclusive fitness. While a strong background in evolutionary theory is not required, students should have basic understanding of biology and natural selection. Course will use combination of lectures and discussion.

Instructor(s): J. Mateo Terms Offered: Autumn Note(s): CHDV Distribution, A; 1* Equivalent Course(s): CHDV 34800

EVOL 35300. Phylogenetic Comparative Methods. 100 Units.

This is a graduate seminar course about the uses of phylogenetic trees in evolution and ecology, emphasizing historical inference of phenotypic traits, geographic ranges, and community ecology. (This is not a course on how to infer phylogenies, or their uses in studies of molecular evolution and population genetics.) Within this scope we will focus on topics of popular interest and relevance to student research. The format of the 2-hour weekly meeting will be somewhat fluid, but I anticipate giving introductory remarks or a lecture on main topics, followed by discussion of primary literature, and opportunities to work hands-on with software (bring your own laptop). Small-group assignments will be given to develop and present short tutorials on conducting analyses of real data.

Instructor(s): R. Ree, A. Hipp

EVOL 35401. Reconstructing the Tree of Life: An Introduction to Phylogenetics. 100 Units.

This course is an introduction to the tree of life (phylogeny): its conceptual origins, methods for discovering its structure, and its importance in evolutionary biology and other areas of science. Topics include history and concepts, sources of data, methods of phylogenetic analysis, and the use of phylogenies to study the tempo and mode of lineage diversification, coevolution, biogeography, conservation, molecular biology, development, and epidemiology. One Saturday field trip and weekly computer labs required in addition to scheduled class time. This course is offered in alternate (odd) years.

Instructor(s): C. Moreau, R. Ree. Terms Offered: Autumn. L.

Prerequisite(s): Completion of the general education requirement in the biological sciences or consent of instructor

Note(s): This course is offered in alternate (odd) years.

Equivalent Course(s): BIOS 23404

EVOL 35501. Phylogenetics. 100 Units.

This course will explore the principles of molecular systematic biology and the use of contemporary phylogenetic methods to address diverse evolutionary questions. Topics include homology and the alignment of sequence data, genome evolution, computational complexity, tree-searching algorithms, optimality criteria, coalescent methods, tree support, and an introduction to comparative methods. This course will emphasize theoretical issues followed by empirical examples to examine these topics as well as feature hands-on instruction for relevant computer programs and resources.

Terms Offered: Spring

EVOL 35600. Principles of Population Genetics-1. 100 Units.

Examines the basic theoretical principles of population genetics, and their application to the study of variation and evolution in natural populations. Topics include selection, mutation, random genetic drift, quantitative genetics, molecular evolution and variation, the evolution of selfish genetic systems, and human evolution.

Instructor(s): C.-I. Wu and M. Kreitman Terms Offered: Spring Equivalent Course(s): ECEV 35600

EVOL 35800. Classics in Evolutionary Genetics. 100 Units.

Major classic papers in evolutionary genetics that had great impact on the development of the field are reviewed. Instructor(s): M. Long Terms Offered: Spring

Note(s): Not offered in 2015-16

Equivalent Course(s): ECEV 35800

EVOL 36300. Speciation. 100 Units.

A review of the literature on the origin of species beginning with Darwin and continuing through contemporary work. Both theoretical and empirical studies will be covered, with special emphasis on the genetics of speciation.

Instructor(s): C-I Wu, S. Pruett-Jones Terms Offered: Winter. in alternate (odd) years Equivalent Course(s): ECEV 36300

EVOL 36700. Morphometrics. 100 Units.

This graduate-level course serves as an introduction to the field of morphometrics (the analysis of organismal shape). Quantitative exploratory and confirmatory techniques involving both traditional (length-based) and geometric (landmark-based) summaries of organismal shape are introduced in a series of lectures and practical exercises. Emphasis is placed on the application of morphometric methods to issues such as (but not restricted to) quantification of intraspecific variability, interspecific differences, disparity, ontogenetic growth patterns (allometry), and phylogenetic changes in morphology. Relevant statistical and algebraic operations are explained assuming no prior background. Students are required to bring personal laptop computers, and are expected to acquire and analyze their own data sets during the course.

Instructor(s): M. Webster

Equivalent Course(s): GEOS 36000

EVOL 36900. Biopsychology of Sex Differences. 100 Units.

This course will explore the biological basis of mammalian sex differences and reproductive behaviors. We will consider a variety of species, including humans. We will address the physiological, hormonal, ecological and social basis of sex differences. To get the most from this course, students should have some background in biology, preferably from taking an introductory course in biology or biological psychology.

Instructor(s): J. Mateo Terms Offered: Autumn. Not offered 2015-2016 Equivalent Course(s): GNSE 30901, PSYC 31600, CHDV 30901

EVOL 37600. Research Seminar in Animal Behavior I. 100 Units.

Instructor(s): J. Mateo Terms Offered: Autumn

Prerequisite(s): Graduate students only.

Note(s): Students register for this course in Autumn Quarter and receive credit in Spring Quarter after successful completion of the year's work. CHDV Distribution, 1 Equivalent Course(s): CHDV 37500

EVOL 37700. Research Seminar in Animal Behavior II. 100 Units.

Instructor(s): J. Mateo Terms Offered: Winter Prerequisite(s): Graduate students only. Note(s): CHDV Distribution, 1 Equivalent Course(s): CHDV 37502

EVOL 37800. Research Seminar in Animal Behavior III. 100 Units.

Instructor(s): J. Mateo Terms Offered: Spring Prerequisite(s): Graduate students only. Note(s): CHDV Distribution, 1 Equivalent Course(s): CHDV 37503

EVOL 38100. Evolution of the Hominoidea. 200 Units.

This course is a detailed consideration of the fossil record and the phylogeny of Hominidae and collateral taxa of the Hominidea that is based upon studies of casts and comparative primate osteology.

Instructor(s): R. Tuttle Terms Offered: TBD

Prerequisite(s): Third- or fourth-year standing and consent of instructor Equivalent Course(s): ANTH 28100,ANTH 38100,HIPS 24000

EVOL 38200. Comparative Primate Morphology. 200 Units.

This course covers functional morphology of locomotor, alimentary, and reproductive systems in primates. Dissections are performed on monkeys and apes. Instructor(s): R. Tuttle Terms Offered: TBD

Equivalent Course(s): ANTH 28300, ANTH 38200, HIPS 23500

EVOL 38400. History and Theory of Human Evolution. 100 Units.

This course is a seminar on racial, sexual, and class bias in the classic theoretic writings, autobiographies, and biographies of Darwin, Huxley, Haeckel, Keith, Osborn, Jones, Gregory, Morton, Broom, Black, Dart, Weidenreich, Robinson, Leakey, LeGros-Clark, Schultz, Straus, Hooton, Washburn, Coon, Dobzhansky, Simpson, and Gould.

Instructor(s): R. Tuttle Terms Offered: Winter Equivalent Course(s): ANTH 21102,ANTH 38400,HIPS 23600

EVOL 38800. Introduction to Research at the Field Museum. 100 Units.

Introduction to Research at the Field Museum and the University of Chicago. This course meets once every two weeks for a lecture by a curator at the Field Museum. A different curator lectures each week, presenting results of her/his current research on a range of topics in evolutionary biology, including phylogenetic systematics, molecular biology, paleontology, development, conservation biology and biodiversity, population biology, or biomechanics. Lectures often are followed by a tour of one of the major natural history collections in the world of living or fossil birds, mammals, plants, insects, fishes, invertebrates, or amphibians and reptiles.

Instructor(s): S. Hackett Terms Offered: Autumn

EVOL 40100. Grants, Publications and Professional Issues. 100 Units.

Covers professional topics in evolutionary biology, primarily strategies in grant writing and review. Each student will work towards the submission of an application of their choice. The course meets weekly and involves extensive writing and discussion.

Instructor(s): J. Bergelson, R. Ho, M. Coates Terms Offered: Autumn Note(s): Only open to first year graduate students in the Darwinian Sciences Cluster Equivalent Course(s): ORGB 40100,ECEV 40100

EVOL 40200. Advanced Topics in Ethics for the Darwinian Sciences. 100 Units.

This course covers advanced topics in ethics relevant to senior Ph.D. students in the Darwinian Sciences. CEB students are required to successfully complete this course before being awarded the Ph.D.

Instructor(s): M. Coates, P. Herendeen Terms Offered: Winter Prerequisite(s): Open to Ph.D. students in the Darwinian Sciences Equivalent Course(s): ECEV 40200,ORGB 40200

EVOL 40900. Behavioral Ecology. 100 Units.

This graduate seminar will explore current advances of animal social behaviors in their natural contexts, including theoretical and methodological approaches. Format will include reading and analysis of empirical and review articles, as well as an oral presentation on a topic of interest to the student. We will meet once a week. Instructor(s): J Mateo Terms Offered: Winter. Not Offered 2015-2016

Prerequisite(s): Consent of Instructor

Equivalent Course(s): CHDV 40900

EVOL 41500. Topics in Stratigraphy and Biosedimentology. 100 Units.

Seminar course using the primary literature and/or a field problem. Topic selected from the rapidly evolving fields of sequence stratigraphy, basin analysis, and animal sediment relationships.

Instructor(s): S. Kidwell

Prerequisite(s): GEOS 26400 and GEOS 28300 or equivalent Equivalent Course(s): GEOS 38400

EVOL 42600. Community Ecology. 100 Units.

Lectures and readings cover advanced topics in multi-species systems, and include an introduction to basic theoretical approaches.

Instructor(s): J.T. Wootton Terms Offered: Autumn

Equivalent Course(s): ECEV 42600

EVOL 42800. Population Ecology. 100 Units.

A lecture course on the empirical and theoretical approaches to the study of natural populations, including field methodologies and quantitative approaches. Includes computer assignments.

Instructor(s): C. Pfister Terms Offered: Winter Equivalent Course(s): ECEV 42800

EVOL 42900. Theoretical Ecology. 100 Units.

An introduction to mathematical modeling in ecology. The course will begin with linear growth and Lotka-Volterra models, and proceed to partial differential equations. The course's perspective will emphasize numerical computations and fitting models to data.

Instructor(s): G. Dwyer, S. Cobey Terms Offered: Winter Equivalent Course(s): ECEV 42900

EVOL 44001. Molecular Evolution I: Fundamentals and Principles. 100 Units.

The comparative analysis of DNA sequence variation has become an important tool in molecular biology, genetics, and evolutionary biology. This course covers major theories that form the foundation for understanding evolutionary forces that govern molecular variation, divergence, and genome organization. Particular attention is given to selectively neutral models of variation and evolution, and to alternative models of natural selection. The course provides practical information on accessing genome databases, searching for homologous sequences, aligning DNA and protein sequences, calculating sequence divergence, producing sequence phylogenies, and estimating evolutionary parameters.

Instructor(s): M. Kreitman Terms Offered: Winter

Prerequisite(s): Two quarters of biology and calculus, or consent of instructor Equivalent Course(s): BIOS 23258, ECEV 44001

EVOL 44200. Bioinformatics and Microbial Ecology. 100 Units.

We will explore the application of sequencing data treatment and statistical analysis to explore ecology and biodiversity in microbial ecosystems. The course will explore metagenomic principles and bioinformatic techniques. The course will be different to most in that the class will be split into two small groups, each will be given a novel dataset and will be asked to produce a publishable paper. We will then work to submit the paper following the completion of the course. Essentially, following 4 weeks of lectures on techniques, application and theory, we will start to work on real data to solve real problems. Students will be graded on 1 mid term paper, and on the quality of the final group manuscript aimed for publication. Instructor(s): J. Gilbert Terms Offered: Spring. Not offered in 2015-16

Prerequisite(s): An interest in sequence data and no fear of computers. Equivalent Course(s): ECEV 44200

EVOL 44800. Evolutionary Biomechanics of Vertebrate Feeding Systems. 100 Units.

This proseminar examines the evolutionary and functional principles underlying the diversity of vertebrate musculoskeletal systems as revealed by research on vertebrate feeding systems. Mechanical, neuromechanical, modeling and experimental approaches to the biomechanics of vertebrate feeding systems are examined. Weekly labs cover practical skills surrounding collection and analysis of in vivo data. Students are required to participate in class discussions and prepare a written and oral proposal of a research project on a vertebrate feeding system. It is expected that the students will then perform that research in the Summer Quarter. Instructor(s): C. Ross Terms Offered: Winter

Prerequisite(s): Vertebrate diversity and phylogenetic relationships; algebra, some linear algebra and calculus helpful. Not offered in 2015-16.

Equivalent Course(s): ORGB 34800

EVOL 45500. Biogeography. 100 Units.

This course examines factors governing the distribution and abundance of animals and plants. Topics include patterns and processes in historical biogeography, island biogeography, geographical ecology, areography, and conservation biology (e.g., design and effectiveness of nature reserves).

Instructor(s): B. Patterson (odd years, lab). L., Heaney (even years, discussion) Terms Offered: Winter

Prerequisite(s): Completion of the general education requirement in the biological sciences and a course in either ecology, evolution, or earth history; or consent of instructor

Equivalent Course(s): BIOS 23406,ENST 25500,GEOG 25500,GEOG 35500

EVOL 46200. Evolution and the Fossil Record. 100 Units.

This course serves as an introduction to the practical and theoretical issues involved in obtaining primary systematic data from the fossil record, and demonstrates the criticality of such data to the rigorous documentation and interpretation of evolutionary patterns. Precise topics of the seminar discussions will vary from year to year depending on relevance to student research projects and interest, but are likely to focus on issues such as (but not restricted to) practical techniques in specimen-based paleontology (including fossil preparation and photography), species delimitation (including species concepts, variability, and ecophenotypy), stratigraphic/geographic range determination (including biostratigraphic correlation), phylogeny reconstruction (including the relevance of stratigraphic data), and the importance of these topics to broader macroevolutionary issues such as diversity/disparity dynamics and the determination of evolutionary trends, rates and processes.

Instructor(s): M. Webster Equivalent Course(s): GEOS 36200

EVOL 46700. Advanced Topics in Behavioral Ecology. 100 Units.

This is a reading course covering advanced topics in behavioral ecology. The list of topics to be covered will be based in part on student interests, but may include: behavior and conservation, communication, mating systems, sexual conflict, and sperm competition. This course is designed as a graduate course, but advanced undergraduates may enroll with the permission of the instructor. Instructor(s): S. Pruett-Jones, T. Price Terms Offered: Winter Equivalent Course(s): ECEV 36700

EVOL 49401. Approaches to Teaching in the Darwinian Sciences. 100 Units.

This course will introduce different teaching philosophies and methods that address how to be an effective teacher in the Darwinian Sciences. Specifically, the course will address what skills and knowledge undergraduates need to acquire and which assignments best teach these skills. Students will prepare course syllabi, discuss different approaches to teaching, and draft a philosophy of teaching statement. The overall goal for the course is that the students think critically about the art of teaching and formulate their own thoughts on the matter to better prepare them for their own careers in teaching.

Instructor(s): Staff

Prerequisite(s): Open to Ph.D. students in the Darwinian Sciences

EVOL 49500. Teaching in Evolutionary Biology. 100 Units.

Under the supervision of University faculty, graduate students in the Evolutionary Biology may serve as teaching assistants for courses in the College and relevant Graduate Divisions. Students will be evaluated and mentored throughout the quarter by their faculty supervisor, and at the end of the quarter by enrolled students. Prerequisite: successful fulfillment of the BSD teaching requirement and consent of instructor. Students must choose the instructor name from the faculty listing in the *Time Schedules* and register using that instructor's assigned section number.

Instructor(s): Staff

EVOL 49600. Graduate Readings in Evolutionary Biology at the Field Museum. VAR Units.

Directed individual reading courses supervised by CEB faculty members who are curators at the Field Museum. Students must choose the instructor name from the faculty listing in the *Time Schedules* and register using that instructor's assigned section number.

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

EVOL 49700. Graduate Readings in Evolutionary Biology. VAR Units.

Directed individual reading courses in evolutionary biology supervised by CEB faculty members. Prerequisite: consent of instructor. Students must choose the instructor name from the faculty listing in the *Time Schedules* and register using that instructor's assigned section number.

Instructor(s): Staff.

Prerequisite(s): Consent of Instructor

EVOL 49800. Graduate Research - Off Campus. VAR Units.

Advanced research under the direction of the faculty of the Committee on Evolutionary Biology, undertaken away from the University of Chicago campus at the Field Museum, the Chicago Zoological Park, Lincoln Park Zoo, established biological field stations under the direction of their staffs, or other locations approved by the Chair and the student's advisory committee. Students must choose the instructor name from the faculty listing in the *Time Schedules* and register using that instructor's assigned section number.

Instructor(s): Staff

Prerequisite(s): Consent of Instructor

EVOL 49900. Graduate Research - On Campus. VAR Units.

Advanced research under the direction of the faculty of the Committee on Evolutionary Biology. While any approved research problem may be pursued under this course number, special attention is called to the following research fields available in the Committee: population ecology and genetics, entomology, applied ecology, plant biology, systematics of fossil invertebrates, molluscs, problems in the systematics of arthropods, herpetology, mammalogy, ornithology, and ichthyology, theoretical biology, animal behavior, paleoecology, molecular evolution, functional morphology, evolution of development, community ecology and evolution, evolutionary paleobiology and macroevolution, and physiological ecology. Students must choose the instructor name from the faculty listing in the *Time Schedules* and register using that instructor's assigned section number. Instructor(s): Staff

Prerequisite(s): Consent of Instructor



Committee on Genetics, Genomics & Systems Biology

Chair

• Yoav Gilad

Professors

- Graeme Bell, Biochemistry & Molecular Biology
- Joy Bergelson, Ecology & Evolution
- Douglas K. Bishop, Radiation & Cellular Oncology
- Jerry Coyne, Ecology & Evolution
- Sean Crosson, Biochemistry & Molecular Biology
- Anna DiRienzo, Human Genetics
- M. Eileen Dolan, Medicine
- Wei Du, Ben May Department for Cancer Research
- Martin Feder, Organismal Biology & Anatomy
- Richard Fehon, Molecular Genetics & Cell Biology
- Edwin L. Ferguson, Molecular Genetics & Cell Biology
- Yoav Gilad, Human Genetics
- T. Conrad Gilliam, Human Genetics
- Benjamin Glick, Molecular Genetics & Cell Biology
- Michael Glotzer, Molecular Genetics & Cell Biology
- Christopher Gomez, Neurology
- Jean Greenberg, Molecular Genetics & Cell Biology
- Robert Grossman, Medicine
- Robert Ho, Organismal Biology & Anatomy
- Richard R. Hudson, Ecology & Evolution
- Martin Kreitman, Ecology & Evolution
- Stephen J. Kron, Molecular Genetics & Cell Biology
- Bruce T. Lahn, Human Genetics
- Michelle M. LeBeau, Medicine
- Manyuan Long, Ecology & Evolution
- Mary Sara McPeek, Statistics
- Carole Ober, Human Genetics
- Olufunmilayo Olopade, Medicine
- Brian J. Popko, Neurology
- Trevor Price, Ecology & Evolution
- Victoria Prince, Organismal Biology & Anatomy
- Ilaria Rebay, Ben May Department for Cancer Research

- John Reinitz, Ecology & Evolution
- Carrie Rinker-Schaeffer, Surgery
- Marsha Rosner, Ben May Department for Cancer Research
- Lucia Rothman-Denes, Molecular Genetics & Cell Biology
- Andrey Rzhetsky, Medicine
- James A. Shapiro, Biochemistry & Molecular Biology
- Jonathan P. Staley, Molecular Genetics & Cell Biology
- Joseph W. Thornton, Ecology & Evolution
- Aaron Turkewitz, Molecular Genetics & Cell Biology
- Kevin White, Human Genetics
- Chung-I Wu, Ecology & Evolution

Associate Professors

- Jack Gilbert, Ecology & Evolution
- Tong-Chuan He, Surgery
- Akira Imamoto, Ben May Department for Cancer Research
- David Kovar, Molecular Genetics & Cell Biology
- Gayle K. Lamppa, Molecular Genetics & Cell Biology
- Jocelyn Malamy, Molecular Genetics & Cell Biology
- Laurens J. Mets, Molecular Genetics & Cell Biology
- Ivan Moskowitz, Pediatrics
- Marcelo Nobrega, Human Genetics
- Kenan Onel, Pediatrics
- Abraham Palmer, Human Genetics
- Urs Schmidt-Ott, Organismal Biology & Anatomy Assistant Professors
- David Biron, Physics
- D. Allan Drummond, Biochemistry & Molecular Biology
- Xin He, Human Genetics
- Sally Horne-Badovinac, Molecular Genetics & Cell Biology
- Vincent Lynch, Human Genetics
- Megan McNerney, Pathology
- Edwin Munro, Molecular Genetics & Cell Biology
- Minoli Perera, Medicine
- Alex Ruthenburg, Molecular Genetics & Cell Biology
- Barbara Stranger, Medicine

Emeritus Faculty

- Wolfgang Epstein, Molecular Genetics & Cell Biology
- Robert Haselkorn, Molecular Genetics & Cell Biology
- Samuel Refetoff, Medicine

- Bernard Roizman, Molecular Genetics & Cell Biology
- Angelo Scanu, Medicine
- Bernard Strauss, Molecular Genetics & Cell Biology

Systems The Committee on Genetics, Genomics & Biology (http:// cg.uchospitals.edu) (GGSB) is an interdisciplinary degree-granting program that brings together biologists from over a dozen academic departments. The program is aimed at training Ph.D. scholars for careers as independent scientists in basic and applied biomedical research and education. The Genetics, Genomics, & Systems Biology graduate program offers a program of basic study leading to Doctor of Philosophy in genetics. The Ph.D. training program combines a foundation in modern genetic analysis with training in current methods for formulating and addressing biological questions in the context of complex systems. Such systems are studied in physiological, developmental and evolutionary contexts. The presence of both basic and clinical sciences in the Biological Sciences Division (BSD) enhances the committee's broad based interdisciplinary approach to teaching and research. The committee provides an exciting environment in which to pursue rigorous, high quality training with flexibility in designing programs to meet individual needs. The focus of GGSB is to train students to utilize sophisticated genetic analysis, genomics, modeling and systems level analysis of regulations networks in their own research program. Opportunities are available to study diverse areas of biology and genetics, including bioinformatics, developmental processes, gene structure and regulation, genetic recombination and mutation, chromosome mechanics, evolution, human disease, immunology, and other areas of modern genetics. Students receive broad training in these sub-disciplines, while specializing in one of them for their research career. The committee's goal is to provide an intellectually stimulating, collegial and supportive environment for students to progress smoothly from research training to research independence.

CURRRICULUM AND TIMELINE - FIRST YEAR

The first year of graduate study is spent completing coursework, exploring research opportunities and doing laboratory rotations

<u>CORE COURSES AND ELECTIVES</u> (HTTP://CG.UCHOSPITALS.EDU/ GRADUATE-PROGRAM/CURRICULUM-AND-TIMELINE-FIRST-YEAR)

Graduate students in the BSD are required to take nine credits of coursework for the Ph.D. program. Each class is one credit.

- 4 required courses in genetics
- 4 electives
- 2 graded lab rotations for 1/2 credit each

In addition to the course requirements, students attend the Faculty Research Seminar Series (also referred to as "AllStars"), to acquaint themselves with the research community and potential mentors. All first year students in the BSD are required to attend a scientific ethics course.

REQUIRED COURSES

- Genetic Analysis of Model Organisms PLUS
- Genomics & Systems Biology PLUS one of the following three courses:
- Fundamentals of Molecular Biology **OR** Molecular Biology I **OR** Molecular Biology II

Students must then choose one of the following to satisfy their final course requirement:

- Fundamentals of Molecular Evolution OR
- Principals of Population Genetics I OR
- Evolutionary Genomics OR
- Human Variation and Disease

The remaining four courses are chosen as elective courses from a host of courses offered in the BSD, the Department of Statistics and the Department of Computer Science. All elective courses are to be approved by an academic advisor. The curriculum and research training are designed to take full advantage of the strength of genetics, genomics & systems biology research at the university. The program sponsors a regular colloquium, an annual symposium on a chosen topic, a biweekly journal club, and a biweekly genetics of model organisms club.

Students undertake short research projects in at least two different laboratories before beginning their dissertation research. The purpose of the rotation is to expose the student to different research environments, broaden his/her acquaintance with useful laboratory techniques, and introduce him/her to the conceptual framework of experimental design. The distribution of course offerings makes it difficult for students to undertake rotations in Autumn Quarter of the first academic year. Therefore, rotations are performed in the winter or spring and summer quarters. The winter and spring rotations last 10 weeks to coincide with the academic quarter. The summer rotation lasts 5 weeks, when the student is able to devote full-time to research. Students wishing to do a third rotation may do so during the second half of Summer Quarter.

APPLICATION

For information about applying to our graduate program, please visit our website at http://cg.uchospitals.edu/index.php

GENETICS COURSES

GENE 31900. Introduction to Research. 100 Units. Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students Instructor(s): Staff Terms Offered: Autumn, Winter Equivalent Course(s): MGCB 31900,BCMB 31900,DVBI 31900,HGEN 31900

GENE 32500. Evolutionary Aspects of Gene Regulation. 100 Units.

Using primary research literature, this course will examine recent advances in understanding of evolution of gene regulation. Among others it will cover the following topics: patterns and forces of evolutionary change in regulatory DNA and transcription factors, genetic changes that are responsible for phenotypic evolution, and discovery and evolutionary of implications of gene control by microRNAs. Instructor(s): I. Ruvinsky Terms Offered: Autumn

Equivalent Course(s): ECEV 32500,BIOS 23281,EVOL 32600,ORGB 32600,DVBI 32500

GENE 39900. Readings Genetics. 100 Units.

A course designed by a student and faculty member. All reading courses must be approved by the Curriculum/Student Affairs Committee prior to registration. Terms Offered: Autumn, Winter, Spring, Summer

GENE 40100. Thesis Research: Genetics. 300 Units. Instructor(s): Gilad Terms Offered: Autumn, Winter, Spring, Summer

GENE 40200. Non-Thesis Research: Genetics. 300 Units. Instructor(s): Gilad Terms Offered: Autumn, Winter, Spring, Summer

GENE 40206. Genetics: Lab Rotation 3. 150 Units.

Terms Offered: Autumn, Winter, Spring, Summer



Department of Public Health Sciences

Chair

- Diane S. Lauderdale
 Professors
- Habib Ahsan
- Robert D. Gibbons
- Donald Hedeker
- Benjamin B. Lahey
- Diane S. Lauderdale
- Harold Pollack, School of Social Service Administration
- Ronald A. Thisted

Associate Professors

- Kathleen A. Cagney, Sociology
- Brian Chiu
- James J. Dignam
- Dezheng Huo
- Yuan Ji (part-time)
- R. Tamara Konetzka

Assistant Professors

- Lin Chen
- Rena Conti, Pediatrics
- Michael David, Medicine
- Brandon Pierce
- John Schneider, Medicine
- Fabrice Smieliauskas
- Fan Yang

Emeritus Faculty

John Christian Bailar

Public Health Sciences (PHS) is the home in the Biological Sciences Division to biostatistics, epidemiology and health services research. These core fields in public health research share a focus on the development and implementation of complex analytic methods to understand the determinants of health, the efficacy of experimental treatments, and the structure of health care at the population level. Bringing together these fields in one department underscores their commonality and enhances opportunities for interdisciplinary research. Faculty members lead local, national, and international studies, and also welcome opportunities to collaborate with faculty across the Biological Sciences Division and the university. Substantively, our research themes include social and environmental determinants of health, genetics and disease, the economics of health care, and the evaluation and implementation of new technologies in public health and clinical care. In terms of methodological expertise, areas in which our faculty has developed innovative approaches include: risk factor measurement; multilevel, clustered and longitudinal data; clinical trials; administrative health data; social networks; and statistical methods to assess the genetic and molecular basis of disease.

Program of Study

Currently, the Department of Public Health Sciences offers a graduate program, the Master of Science in Public Health Sciences for Clinical Professionals, and a Ph.D. program. Current information on graduate programs is available from the department's website at http://health.bsd.uchicago.edu/.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The Department of Public Health Sciences at the University of Chicago offers a program of study leading to the Ph.D. with emphasis in biostatistics, epidemiology or health services research. This program will prepare individuals for research careers in population-based research in human health and biomedical science. The program is organized around a common quantitative core curriculum designed to prepare students methodologically for more in-depth study in their chosen field and for dissertation research. Beyond the core curriculum, each student will choose a major disciplinary area of concentration, take a sequence of advanced courses in that area, and prepare a dissertation of independent, original, and rigorous research. Opportunities for such concentrated study will be available in the three broad areas of biostatistics, epidemiology and health services research, areas of expertise represented by department faculty.

In addition to the concentration, each student will choose a minor program of study in another area either represented by department faculty or offered elsewhere in the Biological Sciences Division or on campus. Tailored to each individual student, the minor will vary in its degree of specificity from student to student. It may be in one of the broad areas represented by the department, or in a more specialized area. Examples of specialized minors include psychiatric or cancer epidemiology, health economics, economics of aging, clinical trials design, cancer biology, genetic or molecular epidemiology, bioinformatics, or medical decision theory.

PROGRAM REQUIREMENTS

Students should expect to complete the program in 5 years by fulfilling the following requirements:

Complete 18 graduate level courses, including:

- A core curriculum of up to six courses.
- A *major concentration program* approved by the faculty consisting of at least 7 additional courses in a disciplinary domain (such as biostatistics).

• A *minor program* approved by the faculty consisting of at least 3 additional courses in a second disciplinary area.

Successfully complete a course in scientific integrity and the ethical conduct of research, usually in the first year of study (divisional ethics requirement).

Pass a multi-part *preliminary examination* demonstrating mastery of the core curriculum and of foundational knowledge in the chosen area of concentration.

Teach two quarters for credit in pre-approved teaching assistant positions in the biological sciences (divisional teaching requirement).

Establish a doctoral dissertation committee, present proposed dissertation research to members of that committee and other interested faculty, and obtain written approval from the committee on the proposed dissertation research.

Prepare and defend a doctoral dissertation of independent, original, and rigorous research in the chosen area of concentration.

Participate in the departmental seminar, in weekly faculty/student workshops, and in research workshops that overlap with the chosen area of concentration.

REQUIRED COURSES

PBHS 30900	Principles of Epidemiology	100
PBHS 32400	Applied Regression Analysis	100
PBHS 31001	Epidemiologic Methods	100
PBHS 32700	Biostatistical Methods	100
PBHS 35100	Health Services Research Methods	100
PBHS 35411	The U.S. Health Care System	100

APPLICATION FOR ADMISSION

Applications should be received by December 1st for entrance into the program in the fall quarter and should consist of a BSD application (including three letters of recommendation), uploaded official transcript(s) from all degree institutions, GRE scores, TOEFL scores (if applicable), CV/detailed relevant work history, and a research statement indicating area of major concentration.

Interested students should visit the department website at http://health.bsd.uchicago.edu.

MASTER OF SCIENCE IN PUBLIC HEALTH SCIENCES FOR CLINICAL PROFESSIONALS

The Master of Science Program for Clinical Professionals is a course of study in the theory, methods, and concepts of biostatistics, epidemiology, and health services research needed to design and carry out clinical and epidemiologic research programs. It is designed for the professional enhancement of physicians and other clinical professionals. The program can be completed in one year of full time study, or it can be undertaken in conjunction with a clinical fellowship or training program, in which case the course work may be distributed over two or three years. Students in the program acquire skills with basic statistical methods, followed by additional training in the fundamental theory and methods of epidemiology, biostatistics, and health services research. Through choice from a broad range of elective courses, students can specialize in one of the three disciplinary areas.

ENTRANCE REQUIREMENTS

Applicants should either have a doctoral level clinical degree (such as M.D., D.O., or nursing Ph.D.) from an accredited institution, or must have completed preclinical training at an accredited medical school. In the latter case, the candidate must provide a plan for completion of both the M.D. and S.M. degrees, and a letter of support from the candidate's medical school.

Program requirements

A candidate in this program for the degree of Master of Science in Public Health Sciences must complete the required and elective courses (nine courses in total), and complete a master's paper.

REQUIRED COURSES

	e		
PBHS 30700	Clinical Epidemiology	100	
OR			
PBHS 30900	Principles of Epidemiology	100	
PBHS 32100	Introduction to Biostatistics *	100	
PBHS 32400	Applied Regression Analysis	100	
PBHS 31001	Epidemiologic Methods	100	
PBHS 35100	Health Services Research Methods	100	
At least one of the following:			
PBHS 32600	Analysis of Categorical Data	100	
PBHS 32700	Biostatistical Methods	100	
PBHS 33300	Applied Longitudinal Data Analysis	100	
PBHS 33100	Applied Survival Analysis	100	

* STAT 22000 or equivalent can be substituted for this course.

APPLICATION FOR ADMISSION

Applications for admission should be completed by December 1st for entry into the program in the following summer quarter.

If the degree program will be pursued while the candidate will be participating in a clinical training program, a letter of support from the training program director is required. Candidates must also submit a statement describing how the proposed course of study will enhance their professional objectives. In addition, candidates must provide transcripts from all post secondary institutions, MCAT or GRE scores, and a completed Biological Sciences Division application.

Interested students should visit the department website at http://health.bsd.uchicago.edu.

HEALTH STUDIES COURSES

HSTD 32901. Introduction to Clinical Trials. 100 Units. Instructor(s): James Dignam Equivalent Course(s): CCTS 32901

PUBLIC HEALTH SCIENCES COURSES

PBHS 30030. Introduction to Global Health. 100 Units.

This course provides an overview of global health from the historical perspective to the current state of global health. The course features weekly guest lecturers with a broad range of expertise in the field: topics include the social and economic determinants of health, the economics of global health, global burden of disease, and globalization of health risks, as well as the importance of ethics, human rights, and diplomacy in promoting a healthier world. The course is designed for graduatelevel students and senior undergraduates with an interest in global health work in resource-limited settings.

Instructor(s): J. Schneider, C. S. Olopade Terms Offered: Winter

Prerequisite(s): This course does not meet requirements for the biological sciences major

Equivalent Course(s): BIOS 29294,CCTS 43000

PBHS 30700. Clinical Epidemiology. 100 Units.

Clinical epidemiology is the "application of epidemiologic principles and methods to problems encountered in clinical medicine." This course introduces the basic principles of epidemiologic study design, analysis and interpretation, with a particular focus on clinical applications. The course includes lectures and discussions based on critical appraisal of significant research articles. The course is primarily intended for, but not restricted to, students with prior clinical training. Public Health Sciences 30700 and 30900 may not both be taken for credit, either will fulfill the basic epidemiology requirement for the MSCP in Public Health Sciences and either will serve as the epidemiology prerequisite for Public Health Sciences 31001.

Instructor(s): B. Chiu, D. Lauderdale Terms Offered: Summer

Prerequisite(s): Introductory statistics recommended, may be taken concurrently. Equivalent Course(s): CCTS 45100

PBHS 30900. Principles of Epidemiology. 100 Units.

This course does not meet requirements for the biological sciences major. Epidemiology is the study of the distribution and determinants of health and disease in human populations. This course introduces the basic principles of epidemiologic study design, analysis, and interpretation through lectures, assignments, and critical appraisal of both classic and contemporary research articles.

Instructor(s): B. Lahey Terms Offered: Autumn

Prerequisite(s): Introductory statistics recommended or Consent of Instructor Equivalent Course(s): BIOS 29318,ENST 27400,PPHA 36400,STAT 35000

PBHS 31001. Epidemiologic Methods. 100 Units.

This course expands on the material presented in "Principles of Epidemiology," further exploring issues in the conduct of epidemiologic studies. The student will learn the application of both stratified and multivariate methods to the analysis of epidemiologic data. The final project will be to write the "specific aims" and "methods" sections of a research proposal on a topic of the student's choice. Instructor(s): B. Chiu Terms Offered: Winter

Prerequisite(s): PBHS 30700 or PBHS 30900 AND PBHS 32400 or applied statistics courses through multivariate regression.

Equivalent Course(s): STAT 35700

PBHS 31200. Cancer Epidemiology. 100 Units.

The purpose of this course is to review the basic concepts and issues relevant to cancer epidemiology. Specifically, this course will focus on interpreting cancer statistics, and describing the current state of knowledge regarding the etiology and risk factors for the major cancer sites. In addition, issues in research design and interpretation within the context of cancer epidemiology, as well as the molecular and cellular basis of carcinogenesis as it pertains to cancer occurrence in populations will be discussed. The course is appropriate for students who have an introductory knowledge of epidemiology. Previous study of cancer biology is helpful but not required.

Instructor(s): B. Chiu Terms Offered: Winter Prerequisite(s): PBHS 30700 or PBHS 30900 Note(s): Course not offered in 2015-16.

PBHS 31300. Infectious Disease Epidemiology; Networks and Modeling. 100 Units.

Instructor(s): M. David, J. Schneider Terms Offered: Spring 2015 Prerequisite(s): PBHS 30700 or PBHS 30900 or introductory epidemiology or consent of instructor.

Equivalent Course(s): BIOS 25419, MEDC 31300, CCTS 31300

PBHS 31400. Social Epidemiology. 100 Units.

This course will examine research that has sought to understand how social factors influence health. We will survey and evaluate different types of measurements used in social epidemiology (such as measurements of socioeconomic status, race, ethnicity, stress, social support and neighborhood characteristics), types of study designs, and debates and theories in the literature. A prior course in epidemiology or closely related filed (such as demography or medical sociology) is highly desirable. Familiarity with the statistical methods used in the literature we will be reading, in particular multivariate regression analysis, is necessary.

Instructor(s): D. Lauderdale Terms Offered: Winter

Prerequisite(s): A course in epidemiology, demography, medical sociology or the equivalent, and familiarity with multivariate statistical methods.

Note(s): Course not offered in 2015-16.

Equivalent Course(s): BIOS 29325

PBHS 31510. Critical Readings in Epidemiology. 100 Units.

Course consists of reading and critiquing important and innovative recent papers in epidemiology. Each week, there will be a different substantive or disease focus for the papers. Research areas covered will be primarily, but not exclusively, in noninfectious diseases. Different faculty will lead the discussion each week and students will prepare and present summary critiques of the articles.

Instructor(s): B. Pierce Terms Offered: Spring

Prerequisite(s): PBHS 30700 or PBHS 30900

Note(s): Course not offered in 2015-16.

PBHS 31831. Genetic & Molecular Epidemiology. 100 Units.

This course is designed for students with strong research interests related to identifying and characterizing the role of genetic and molecular features in human disease. Students will be introduced to the key concepts and methodological issues encountered in epidemiological studies that utilize genetic and molecular data. This course will train students on the theoretical and practical aspects of study design and data generation, and also provide the relevant hands-on training for quality control, management, and analysis of large-scale genomic/molecular data. Students are expected to have taken prior coursework in epidemiology, biostatistics, and genetics.

Instructor(s): B. Pierce Terms Offered: Spring

Prerequisite(s): PBHS 30700 or PBHS 30900 (or introductory epidemiology) AND HGEN 47000 or consent of instructor.

PBHS 32100. Introduction to Biostatistics. 100 Units.

This course will provide an introduction to the basic concepts of statistics as applied to the bio-medical and public health sciences. Emphasis is on the use and interpretation of statistical tools for data analysis. Topics include (i) descriptive statistics; (ii) probability and sampling; (iii) the methods of statistical inference; and (iv) an introduction to linear and logistics regression.

Instructor(s): S. Watson Terms Offered: Summer

Prerequisite(s): 2 quarters of pre-calculus

Note(s): *In addition to the course, there is a statistical computing workshop on Wednesdays from 10-11:30am.

Equivalent Course(s): CCTS 45000

PBHS 32400. Applied Regression Analysis. 100 Units.

This course introduces the methods and applications of fitting and interpreting multiple regression models. The primary emphasis is on the method of least squares and its many varieties. Topics include the examination of residuals, the transformation of data, strategies and criteria for the selection of a regression equation, the use of dummy variables, tests of fit, nonlinear models, biases due to excluded variables and measurement error, and the use and interpretation of computer package regression programs. The techniques discussed are illustrated by many real examples involving data from both the natural and social sciences. Matrix notation is introduced as needed.

Terms Offered: Autumn, Spring

Prerequisite(s): STAT 22000 or 23400 or 24500 or PBHS 32100

Equivalent Course(s): STAT 22400

PBHS 32600. Analysis of Categorical Data. 100 Units.

This course covers statistical methods for the analysis of structured, counted data. Topics may include Poisson, multinomial, and product-multinomial sampling models; chi-square and likelihood ratio tests; log-linear models for crossclassified counted data, including models for data with ordinal categories and logmultiplicative models; logistic regression and logit linear models; and measures of association. Applications in the social and biological sciences are considered, and the interpretation of models and fits, rather than mathematical details of computational procedures, is emphasized.

Terms Offered: Winter

Prerequisite(s): STAT 22000 or 23400 or 24500 Equivalent Course(s): STAT 22600

PBHS 32700. Biostatistical Methods. 100 Units.

This course is designed to provide students with tools for analyzing categorical, count, and time-to-event data frequently encountered in medicine, public health, and related biological and social sciences. This course emphasizes application of the methodology rather than statistical theory (e.g., recognition of the appropriate methods; interpretation and presentation of results). Methods covered include contingency table analysis, Kaplan-Meier survival analysis, Cox proportional-hazards survival analysis, logistic regression, and Poisson regression. Instructor(s): Fan Yang Terms Offered: Winter

Prerequisite(s): PBHS 32400, STAT 22400 or STAT 24500 or equivalent or consent of instructor.

Equivalent Course(s): STAT 22700

PBHS 32901. Introduction to Clinical Trials. 100 Units.

This course will review major components of clinical trial conduct, including the formulation of clinical hypotheses and study endpoints, trial design, development of the research protocol, trial progress monitoring, analysis, and the summary and reporting of results. Other aspects of clinical trials to be discussed include ethical and regulatory issues in human subjects research, data quality control, meta-analytic overviews and consensus in treatment strategy resulting from clinical trials, and the broader impact of clinical trials on public health.

Instructor(s): TBD Terms Offered: TBD. Course not offered every year. Prerequisite(s): PBHS 32100 or STAT 22000; Introductory Statistics or Consent of Instructor

Equivalent Course(s): STAT 35201, CCTS 32901

PBHS 33100. Applied Survival Analysis. 100 Units.

This course will provide an introduction to the principles and methods for the analysis of time-to-event data. This type of data occurs extensively in both observational and experimental biomedical and public health studies, as well as in industrial applications. While some theoretical statistical detail is given (at the level appropriate for a Master's student in statistics), the primary focus will be on data analysis. Problems will be motivated from an epidemiologic and clinical perspective, concentrating on the analysis of cohort data and time-to-event data from controlled clinical trials.

Instructor(s): TBD Terms Offered: TBD

Prerequisite(s): PBHS 32100 or Stat 22000; introductory statistics or consent of instructor

Note(s): Course not offered every year.

Equivalent Course(s): STAT 35600

PBHS 33300. Applied Longitudinal Data Analysis. 100 Units.

Longitudinal data consist of multiple measures over time on a sample of individuals. This type of data occurs extensively in both observational and experimental biomedical and public health studies, as well as in studies in sociology and applied economics. This course will provide an introduction to the principles and methods for the analysis of longitudinal data. Whereas some supporting statistical theory will be given, emphasis will be on data analysis and interpretation of models for longitudinal data. Problems will be motivated by applications in epidemiology, clinical medicine, health services research, and disease natural history studies.

Instructor(s): D. Hedeker Terms Offered: Autumn

Prerequisite(s): PBHS 32400/STAT 22400 or equivalent, and PBHS 32600/STAT 22600 or PBHS 32700/STAT 22700 or equivalent; or consent of instructor. Equivalent Course(s): STAT 36900

PBHS 33400. Multilevel Modeling. 100 Units.

This course will focus on the analysis of multilevel data in which subjects are nested within clusters (e.g., health care providers, hospitals). The focus will be on clustered data, and several extensions to the basic two-level multilevel model will be considered including three-level, cross-classified, multiple membership, and multivariate models. In addition to models for continuous outcomes, methods for non-normal outcomes will be covered, including multilevel models for dichotomous, ordinal, nominal, time-to-event, and count outcomes. Some statistical theory will be given, but the focus will be on application and interpretation of the statistical analyses.

Instructor(s): Donald Hedeker Terms Offered: Spring

Prerequisite(s): PBHS 32400 and PBHS 32700 or consent of instructor.

PBHS 33500. Statistical Applications. 100 Units.

This course provides a transition between statistical theory and practice. The course will cover statistical applications in medicine, mental health, environmental science, analytical chemistry, and public policy.

Lectures are oriented around specific examples from a variety of content areas. Opportunities for the class to work on interesting applied problems presented by U of C faculty will be provided. Although an overview

of relevant statistical theory will be presented, emphasis is on the development of statistical solutions to interesting applied problems.

Instructor(s): R. Gibbons Terms Offered: Spring

Prerequisite(s): PBHS 32700/STAT 22700 or STAT 34700 or consent of instructor. Equivalent Course(s): STAT 35800

PBHS 35000. Fundamentals of Health Services Research: Theory, Methods, and Applications. 100 Units.

This course is designed to provide an introduction to the fundamentals of health services research. The basic concepts of health services research will be taught with emphasis on both their social scientific foundations and the methods needed for their practical application to empirically relevant research. Theoretical foundations will draw on principles from economics, sociology, psychology, and the other social sciences. Methodological topics to be covered will include techniques for data collection and analysis, including outcomes measurement, survey methods, large data set research, population-based study design, community based participatory research, research based in clinical settings, qualitative methods, cost-effectiveness analysis, and tools of economic and sociological analysis. The theoretical and empirical techniques taught will emphasize those relevant to the examination of health care costs, quality, and access. Major applications will include: measurement and improvement of health care quality, analysis of health disparities, analysis of health care technology, and analysis of health care systems and markets. This course will meet for 1.5-hour sessions, five times per week for six weeks. Equivalent Course(s): PPHA 47900

PBHS 35100. Health Services Research Methods. 100 Units.

The purpose of this course is to better acquaint students with the methodological issues of research design and data analysis widely used in empirical health services research. To deal with these methods, the course will use a combination of readings, lectures, problem sets (using STATA), and discussion of applications. The course assumes that students have had a prior course in statistics, including the use of linear regression methods.

Instructor(s): T. Konetzka Terms Offered: Spring

Prerequisite(s): At least one course in linear regression and basic familiarity with STATA; or consent of instructor.

Equivalent Course(s): PPHA 38010,SSAD 46300

PBHS 35411. The U. S. Health Care System. 100 Units.

This course is a comprehensive examination of many of the key components of the U.S. health care system and how they work, intended for students from a wide range of backgrounds. Among others, topics may include public and private health insurance, the uninsured, health reform, hospitals, physicians, health care quality and costs, health information technology, pharmaceuticals, medical devices and diagnostics, long-term care, mental health services, and comparisons with health systems in developed and emerging markets

Instructor(s): F. Smieliauskas Terms Offered: Winter & Spring

Note(s): Open to Non-GPHAP students in Winter quarter; GPHAP student requirement in Spring quarter.

Equivalent Course(s): PPHA 37510,SSAD 47512

PBHS 38100. Economics of Health Care. 100 Units.

Theory and evidence on the economics of US medical care. Particular focus on the causes and consequences of high and rising health expenditures; technological change and the specific role of institutions in current reform efforts. The course is targeted to MA and PhD level students in business, policy and related disciplines. The course format will be a mix of lectures and presentations by guest speakers. Grading will be based on class participation, performance on course assignments and a final project. Attendance in all seminars is required. Instructor(s): R. Conti Terms Offered: Autumn

PBHS 38400. Advanced Topics in Health Economics. 100 Units.

The purpose of this course is to provide substantial exposure to the state of the evidence and the major theoretical and empirical approaches used to study salient issues in health economics. Selected topics may vary from year to year; examples include health capital, health insurance, health behaviors, health care market structure and competition, not-for-profit ownership, payment incentives, and the effects of information on provider behavior (e.g. public reporting and value-based purchasing) and consumer behavior (e.g., advertising and medical decision making) Instructor(s): T. Konetzka, R. Conti Terms Offered: Autumn

Prerequisite(s): Graduate courses in microeconomics and econometrics or statistics, including the use of linear and nonlinear regression methods.

PBHS 40500. Advanced Epidemiologic Methods. 100 Units.

This course examines some features of study design, but is primarily focused on analytic issues encountered in epidemiologic research. The objective of this course is to enable students to conduct thoughtful analysis of epidemiologic and other population research data. Concepts and methods that will be covered include: matching, sampling, conditional logistic regression, survival analysis, ordinal and polytomous logistic regressions, multiple imputation, and screening and diagnostic test evaluation. The course follows in sequence the material presented in "Epidemiologic Methods."

Instructor(s): D. Huo Terms Offered: Spring Prerequisite(s): PBHS 31001 Note(s): Course not offered every year.

PBHS 43010. Applied Bayesian Modeling and Inference. 100 Units.

Course begins with basic probability and distribution theory, and covers a wide range of topics related to Bayesian modeling, computation, and inference. Significant amount of effort will be directed to teaching students on how to build and apply hierarchical models and perform posterior inference. The first half of the course will be focused on basic theory, modeling, and computation using Markov chain Monte Carlo methods, and the second half of the course will be about advanced models and applications. Computation and application will be emphasized so that students will be able to solve real-world problems with Bayesian techniques.

Instructor(s): Y. Ji Terms Offered: Autumn

Prerequisite(s): STAT 24400 and STAT 24500 or master level training in statistics. Note(s): Course not offered in 2015-16.



DEPARTMENT OF HUMAN GENETICS

Chair: Carole Ober

Professors

- Habibul Ahsan, Public Health Sciences
- Graeme Bell, Biochemistry and Molecular Biology
- Soma Das
- Anna Di Rienzo
- Elliot Gershon, Psychiatry and Behavioral Neuroscience
- Yoav Gilad
- T. Conrad Gilliam
- Richard Hudson, Ecology and Evolution
- Bruce T. Lahn
- Michelle M. Le Beau, Medicine
- Jason Lieb
- Natalia Maltsev
- Mary Sara McPeek, Statistics
- Dan L. Nicolae, Statistics
- Carole Ober
- Andrey Rzhetsky, Medicine
- Matthew Stephens
- Joseph Thornton, Ecology and Evolution
- Olufunmilayo Olopade, Medicine
- Darrel J. Waggoner
- Kevin White
- Huntington F. Willard

Associate Professors

- Mark Abney
- Ivan Moskowitz, Pediatrics
- Marcelo Nobrega
- John Novembre
- Abraham Palmer
 - Assistant Professors
- D. Allan Drummond, Biochemistry and Molecular Biology
- Daniela Del Gaudio
- Xin He
- Zejuan Li, Medicine
- Vincent J. Lynch
- Brandon Pierce, Public Health Sciences

The Department of Human Genetics offers training in a number of fields of human genetics such as human disease, classical genetics, complex trait genetics, population and evolutionary genetics, cytogenetics, neurogenetics, systems biology, pharmacogenetics and developmental human genetics. This coursework is intended for graduate students who plan to pursue research careers and teaching in the emerging areas of modern biology, and is intended for medical students, advanced undergraduate and graduate students in other programs. The Ph.D. program places great emphasis on sound preparation in human genetics, statistical genetics, and molecular biology.

THE DEGREE OF DOCTOR OF PHILOSOPHY

A Ph.D. candidate must fulfill certain formal coursework requirements, pass one preliminary and one qualifying examination, and present a satisfactory dissertation describing the results of original research.

The department expects a knowledge of and proficiency in human genetics. This requirement will normally be met by fulfilling the formal coursework described here, but degree programs are flexible. Courses taken at other institutions, in other programs, or as part of the Pritzker School of Medicine curriculum may substitute for HG courses with approval of the Curriculum Committee. To fulfill the requirements for a Ph.D., nine graded courses are required. In the Department of Human Genetics, a student must take the following three required courses:

MGCB 31400	Genetic Analysis of Model Organisms	100
HGEN 47000	Human Genetics-1	100
HGEN 46900	Human Variation and Disease	100
One of the following:		
HGEN 47100	Intro Statistical Genetics	100
MGCB 31500	Genetic Mechanisms	100
DVBI 35600	Vertebrate Development	100
MGCB 31300	Molecular Biology-II	100
ECEV 35600	Principles of Population Genetics-1	100

The remaining 4 courses are electives chosen from a host of courses in the Biological Sciences Division and Statistics Department. All courses are to be approved by an assigned academic advisor. These courses and many more are designed to develop greater proficiency in your particular sub discipline.

A student is also required to do two laboratory rotations before selecting an advisor and laboratory in which to pursue a Ph.D. dissertation. These rotations will be graded and together will be equivalent to one elective. All students are required to serve as a teaching assistant for two quarters.

During the second year, students select a thesis advisor and begin laboratory research. To complete the Ph.D. degree, they must prepare, under the general direction of an appointed doctoral committee, a dissertation based upon their original research. A public seminar describing the results of the dissertation research

must be presented and the dissertation must be successfully defended before the doctoral committee.

APPLICATION

For information about applying to our graduate program, please visit: https://apply-bsd.uchicago.edu/apply/.

Human Genetics Courses

HGEN 30400. Protein Fundamentals. 100 Units.

The course covers the physical-chemical phenomena that define protein structure and function. Topics include: the principles of protein folding, molecular motion and molecular recognition; protein evolution, design and engineering; enzyme catalysis; regulation of protein function and molecular machines; proteomics and systems biology. Workshop on X-ray Crystallography: The workshop is an addendum to Protein Fundamentals and is required for all BCMB students. This one week workshop will provide students with an intensive introduction to protein structure determination by x-ray crystallography. In addition to lectures, an extensive laboratory component will give students the opportunity to carry out protein crystallization, data collection (at Argonne), structure determination, refinement, model building and validation.

Instructor(s): R. Keenan, S. Koide, Kossiakoff Terms Offered: Autumn Equivalent Course(s): MGCB 30400, BCMB 30400

HGEN 31100. Evolution of Biological Molecules. 100 Units.

The course connects evolutionary changes imprinted in genes and genomes with the structure, function and behavior of the encoded protein and RNA molecules. Central themes are the mechanisms and dynamics by which molecular structure and function evolve, how protein/ RNA architecture shapes evolutionary trajectories, and how patterns in present-day sequence can be interpreted to reveal the interplay data of evolutionary history and molecular properties. Core concepts in macromolecule biochemistry (folding and stability of proteins and RNA, structurefunction relationships, kinetics, catalysis) and molecular evolution (selection, mutation, drift, epistasis, effective population size, phylogenetics) will be taught, and the interplay between them explored.

Instructor(s): A. Drummond, J. Thornton Terms Offered: Winter

Prerequisite(s): Comfort with basic computer programming (course will use Python and R); undergraduate biology, chemistry, calculus, and introductory statistics. Equivalent Course(s): ECEV 31100,BCMB 31100

HGEN 31400. Genetic Analysis of Model Organisms. 100 Units.

Fundamental principles of genetics discussed in the context of current approaches to mapping and functional characterization of genes. The relative strengths and weaknesses of leading model organisms are emphasized via problem-solving and critical reading of original literature.

Instructor(s): A. Palmer, D. Bishop, E. Ferguson, J. Malamy Terms Offered: Autumn Equivalent Course(s): DVBI 31400,BCMB 31400,MGCB 31400

HGEN 31600. Cell Biology I. 100 Units.

Eukaryotic protein traffic and related topics, including molecular motors and cytoskeletal dynamics, organelle architecture and biogenesis, protein translocation and sorting, compartmentalization in the secretory pathway, endocytosis and exocytosis, and mechanisms and regulation of membrane fusion. Instructor(s): A. Turkewitz, B. Glick Terms Offered: Autumn. Quarter

HGEN 31900. Introduction to Research. 100 Units.

Lectures on current research by departmental faculty and other invited speakers. A required course for all first-year graduate students Instructor(s): Staff Terms Offered: Autumn, Winter Equivalent Course(s): MGCB 31900,BCMB 31900,DVBI 31900,GENE 31900

HGEN 40400. Thesis Research. Units.

Instructor(s): A DiRienzo Terms Offered: Autumn, Winter, Spring, Summer

HGEN 46900. Human Variation and Disease. 100 Units.

This course focuses on principles of population and evolutionary genetics and complex trait mapping as they apply to humans. It will include the discussion of genetic variation and disease mapping data. Spring

HGEN 47000. Human Genetics-1. 100 Units.

This course covers classical and modern approaches to studying cytogenic, Mendelian, and complex diseases. Topics include chromosome biology, single gene and complex disease, non-Mendelian inheritance, cancer genetics, human population genetics, and genomics. The format includes lectures and student presentations. Autumn

Instructor(s): C. Ober, M. Nobrega, D. Waggoner

HGEN 47100. Intro Statistical Genetics. 100 Units.

This course focuses on genetic models for complex human disorders and quantitative traits. Topics covered also include linkage and linkage disequilibrium mapping and genetic models for complex traits, and the explicit and implicit assumptions of such models.

Instructor(s): J. Novembre, B. Pierce, L. Chen Terms Offered: Winter Equivalent Course(s): BIOS 21216

HGEN 47300. Genomics and Systems Biology. 100 Units.

This lecture course explores the technologies that enable high-throughput collection of genomic-scale data, including sequencing, genotyping, gene expression profiling, assays of copy number variation, protein expression and protein-protein interaction. We also cover study design and statistical analysis of large data sets, as well as how data from different sources can be used to understand regulatory networks (i.e., systems). Statistical tools introduced include linear models, likelihood-based inference, supervised and unsupervised learning techniques, methods for assessing quality of data, hidden Markov models, and controlling for false discovery rates in large data sets. Readings are drawn from the primary literature.

Instructor(s): Y. Gilad Terms Offered: Spring

Prerequisite(s): STAT 23400 or Statistics in the Biomath Sequence Equivalent Course(s): IMMU 47300,BIOS 28407

HGEN 47400. Introduction to Probability and Statistics for Geneticists. 100 Units.

This course is an introduction to basic probability theory and statisticalo methods useful for people who intend to do research in genetics or a similar scientific field. Topics include random variable and probability distributions, descriptive statistics, hypothesis testing and parameter estimation. Problem sets and tests will include both solving problems analytically and analysis of data using the R statistical computing environment.

Instructor(s): M. Abney, A. Skol Terms Offered: Autumn



Committee on Immunology

Chair

Alexander Chervonsky

Professors

- Erin Adams, Biochemistry and Molecular Biology
- Maria Luisa Alegre, Medicine
- Albert Bendelac, Pathology
- Eugene Chang, Medicine
- Alexander Chervonsky, Pathology
- Anita Chong, Surgery
- Marcus Clark, Medicine
- Aaron Dinner, Chemistry
- Yang Xin Fu, Pathology
- Thomas Gajewski, Pathology and Medicine
- Yoav Gilad, Human Genetics
- Tatyana Golovkina, Microbiology
- Bana Jabri, Medicine
- Vinay Kumar, Pathology
- Rima McLeod, Surgery
- Cathryn Nagler, Pathology
- Anthony Reder, Neurology
- Raymond Roos, Neurology
- Hans Schreiber, Pathology
- Jerrold Turner, Pathology
- Martin Weigert, Pathology

Associate Professors

- Juliane Bubeck Wardenburg, Pediatrics
- Fotini Gounari, Medicine
- Haochu Huang, Medicine
- Barbara Kee, Pathology
- Avertano Noronha, Neurology
- Glenn Randall, Microbiology
- Anne I. Sperling, Medicine
- Patrick Wilson, Medicine Assistant Professors
- Kenneth Cohen, Medicine
- Jill De Jong, Pediatrics
- Justin Kline, Medicine

- James LaBelle, Pediatrics
- Vu Nguyen, Medicine
- Peter Savage, Pathology

Emerita Professors

Ursula Storb, Molecular Genetics and Cell Biology

The Committee on Immunology offers a graduate program of study leading to the Doctor of Philosophy degree in Immunology. The committee is dedicated to the open exchange of ideas among scholars of all fields, a commitment enhanced by an organizational structure that completely integrates the basic biological sciences with the clinical sciences. This multidisciplinary and integrated approach corresponds well with the reality of the new biology, where molecular and structural techniques are applied widely and with great success to clinical problems.

The Committee on Immunology is a member of the Biomedical Sciences Cluster, which also includes graduate programs from the Committee on Cancer Biology, Committee on Microbiology, the Committee on Molecular Metabolism and Nutrition, and the Department of Pathology's Molecular Pathogenesis and Molecular Medicine Graduate Program. The five academic units share several common courses, a seminar series and additional common events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study.

In addition to formal course work, the Committee on Immunology sponsors a weekly seminar series, an annual retreat where students and faculty present their research, and several focused group meetings.

Admission

Prospective students interested in obtaining the Ph.D. in Immunology should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Immunology as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- Completion of 9 course credits consisting of basic science, immunology and elective courses.
- A preliminary examination.
- A dissertation based on original research.
- A final thesis examination.

IMMUNOLOGY COURSES

IMMU 30010. Immunopathology. 100 Units.

Five examples of diseases are selected each year among the following categories: autoimmune diseases, inflammatory bowel diseases, infection immunity, immunodeficiencies and gene therapy, and transplantation and tumor immunology. Each disease is studied in depth with general lectures that include, where applicable, histological analysis of diseased tissue samples and discussions of primary research papers on experimental disease models. Special emphasis is placed on understanding immunopathology within the framework of general immunological concepts and on experimental approaches to the study of immunopathological models.

Instructor(s): B. Jabri Terms Offered: Winter Prerequisite(s): Consent of instructor Equivalent Course(s): BIOS 25258,PATH 30010

IMMU 31200. Host Pathogen Interactions. 100 Units.

This course will explore the basic principals of host defense against pathogens and pathogens' strategies to overcome host immune mechanisms. The course will address evolutionary aspects of innate and adaptive immune responses, while also studying specific examples of viral and bacterial interactions with their hosts. The reviews of relevant immunological mechanisms necessary for appreciation of host/ pathogen interactions will be incorporated in the studies of specific cases. ,This course explores the basic principles of host defense against pathogens, including evolutionary aspects of innate and adaptive immunity and immune evasion strategies. Specific examples of viral and bacterial interactions with their hosts are studied in depth. A review of immunological mechanisms involved in specific cases is incorporated in the course.

Instructor(s): A. Chervonsky Terms Offered: Autumn Equivalent Course(s): ,MICR 31200

IMMU 31500. Advanced Immunology 1. 100 Units.

This course explores the basic principles of the immune system, including tolerance, the development and differentiation of lymphocyte subsets, the regulation of the class of immune responses, memory, cell homing and migration, cell-cell interactions, antigen presentation and recognition. Instructor(s): A. Bendelac Terms Offered: Winter

IMMU 32000. Advanced Immunology 2. 100 Units.

This class will explore the molecular and biochemical mechanisms by which lymphocytes develop and are activated in response to antigen. This will include the signal transduction pathways and transcriptional networks involved in these processes, as well as the molecular mechanisms underlying the generation of receptor diversity.

Instructor(s): B. Kee Terms Offered: Spring

IMMU 37000. Mucosal Immunology. 100 Units.

This course addresses how the gut associated lymphoid tissue distinguishes innocuous dietary antigens and commensal bacteria from pathogenic microbes and mounts an appropriate response. The realization that we live in a dynamic relationship with the trillions of bacteria that form the commensal microbiome has added additional complexity to our understanding of this conundrum. In this course a topic will be introduced with a lecture and review article for the first class of each week. In the second class each week students will lead the discussion of the primary articles assigned. The course will be graded on class participation and a final essay-based exam. Although intended primarily for graduate students in the Immunology, Microbiology, MPMM and CMMN programs, undergraduates may enroll with the permission of the instructor.

Instructor(s): C. Nagler Terms Offered: Spring. Offered in even years Prerequisite(s): An introductory course in immunology is required.

IMMU 40200. Experimental Immunology. 050 Units.

This course centers around the Immunology Journal Club and the Immunology Seminar Series and has two purposes. The first is to provide background knowledge for the seminar given each week by an outside speaker or a member of the Committee on Immunology. The second is to allow the students an opportunity to develop skills in analyzing the literature with students at the same stage of training. First and second year students are required to participate in this course. The twoyear course counts towards one credit.

Instructor(s): Staff Terms Offered: Autumn, Winter, Spring

IMMU 47300. Genomics and Systems Biology. 100 Units.

This lecture course explores the technologies that enable high-throughput collection of genomic-scale data, including sequencing, genotyping, gene expression profiling, assays of copy number variation, protein expression and protein-protein interaction. We also cover study design and statistical analysis of large data sets, as well as how data from different sources can be used to understand regulatory networks (i.e., systems). Statistical tools introduced include linear models, likelihood-based inference, supervised and unsupervised learning techniques, methods for assessing quality of data, hidden Markov models, and controlling for false discovery rates in large data sets. Readings are drawn from the primary literature.

Instructor(s): Y. Gilad Terms Offered: Spring

Prerequisite(s): STAT 23400 or Statistics in the Biomath Sequence Equivalent Course(s): HGEN 47300,BIOS 28407



The Interdisciplinary Scientist Training Program

The Interdisciplinary Scientist Training Program (ISTP) is a doctoral-degree granting program within the Division of the Biological Sciences at the University of Chicago, awarding a Ph.D. degree in biology. The core mission of the program is to train graduate students in interdisciplinary approaches and foster novel, multifaceted analyses of biological systems and processes.

Central to the program is the recruitment of unusual students with an aptitude and demonstrable interest in interdisciplinary biological science. Coursework is flexible and individually tailored depending on the student's background and interests. Students are strongly encouraged to pursue research projects that involve interdisciplinary collaborations between two or more members of the training faculty. A subset of ISTP students are part of a strategic training partnership between Chicago and the Howard Hughes Medical Institute's Janelia Farm Research Campus (JFRC).

In addition to the BSD application requirements, students must submit a brief description of a proposed Ph.D. research project, designed to span the research interests of two or more participating faculty trainers. The applicants selected for interviews for the ISTP will be highly committed, well-prepared and ready to pursue challenging research projects. During the interview process, candidates will be provided extensive opportunities to discuss their proposed research with their potential advisors and will present their proposals orally to a committee. Selection into the program will be based on academic credentials, letters of recommendation, preparation and motivation for interdisciplinary training and quality of research ideas.

Incoming students are advised by the program director in consultation with a relevant member of the steering committee or program faculty to select courses and formulate individual programs of study. This steering committee or program faculty member provides oversight and guidance for the trainee in their first year. New trainees are introduced to the ISTP in an annual orientation session. Members of the steering committee and current ISTP trainees also participate in the orientation session.

All students are strongly encouraged to pursue research projects that involve interdisciplinary collaborations between two or more members of the training faculty. Students choose two faculty mentors as advisors from among the program training facility. Once the advisors are chosen, a thesis committee is constituted which is typically comprised of four members of the faculty. The chairperson of this committee is a faculty member other than the thesis mentors. The thesis committee is responsible for evaluating the thesis research proposal and its defense as well as monitoring the student's progress on a yearly basis. ISTP trainees participate in an annual symposium—the venue for the symposium involves both the UC and JFRC campuses. Both participating students and faculty present research talks.

Further information about the program is available from:

Deanine Johnson, Administrative Director, Interdisciplinary Scientist Training Program, johnson6@uchicago.edu

Daniel Margoliash, Ph.D., Director, Interdisciplinary Scientist Training Program, dan@bigbird.uchicago.edu



COMMITTEE ON MEDICAL PHYSICS

Chair

Samuel G. Armato III

Associate Chair

Charles A. Pelizzari

Professors

Maryellen L. Giger, Radiology David J. Grdina, Radiation & Cellular Oncology Howard J. Halpern, Radiation & Cellular Oncology Gregory S. Karczmar, Radiology Xiaochuan Pan, Radiology

Associate Professors

Samuel G. Armato III, Radiology Bulent Aydogan, Radiation & Cellular Oncology Chin-Tu Chen, Radiology Yulei Jiang, Radiology Chien-Min Kao, Radiology Patrick La Riviere, Radiology Zheng Feng Lu, Radiology Bill O'Brien-Penney, Radiology Charles A. Pelizzari, Radiation & Cellular Oncology Chester S. Reft, Radiation & Cellular Oncology Steffen Sammet, Radiology Kamil M. Yenice, Radiation & Cellular Oncology

Assistant Professors

Hania A. Al-Hallaq, Radiation & Cellular Oncology Naim Ozturk, Radiation & Cellular Oncology Ingrid Reiser, Radiology Rodney D. Wiersma, Radiation & Cellular Oncology

Emeritus Professors

Kunio Doi, Radiology David N. Levin, Radiology

The Committee on Medical Physics includes the graduate program in medical physics, which is recognized internationally for its research excellence. Faculty with primary interest in diagnostic imaging hold appointments in the Department of Radiology, and faculty with primary interest in the physics of radiation therapy hold appointments in the Department of Radiation & Cellular Oncology. Many of the faculty are leaders in their respective specialties. Because the departments are located in the University of Chicago Medical Center, there is strong interaction among the clinical and research faculty and staff. The Committee on Medical Physics program leads to the Ph.D. degree in medical physics. Although most students are admitted directly for study toward the Ph.D. degree, the S.M. degree

may occasionally be awarded as a terminal degree. Normally five or six years of residency are required for the Ph.D. degree.

Please visit our website http://medicalphysics.uchicago.edu/ for more information.

Inquiries concerning the graduate program should be addressed to Sam Armato, Ph.D., Chair of the Committee on Medical Physics, Director of the Graduate Program in Medical Physics, Department of Radiology, MC 2026, 5841 South Maryland Avenue, Chicago, IL 60637, or e-mail: <u>s-armato@uchicago.edu</u>

In addition to the graduate program in medical physics, the Committee on Medical Physics has combined with the University of Chicago's Graham School to offer a postgraduate certificate in medical physics. This certificate program provides the necessary training for physicists who are interested in moving to medical physics with the knowledge that they will need in their future profession. Applicants must hold a Ph.D. in physics from either US or Canadian universities.

Inquiries concerning the certificate program should be addressed to Hania Al-Hallaq, Ph.D., Director of the Medical Physics Certificate Program, at:

hal-hallaq@radonc.bsd.uchicago.edu

Medical physics researchers at the university have available to them a variety of state-of-the-art equipment:

- 1.5T MR scanners
- 3T MR scanner
- 9.4T MRI/MRS system
- Electron paramagnetic resonance imaging spectrometers
- 16-, 32-, and 64-slice helical CT scanners
- Advanced 256-slice helical cone-beam CT scanner
- Advanced 256-slice dual-energy helical cone-beam CT scanner
- Dual-energy chest radiography system
- Full-field digital mammography systems
- PET/CT scanner
- 30% sensitivity dual-head small animal PET scanner
- Computer controlled dual-energy linear accelerators with multileaf collimators, dynamic treatment capability, and solid-state megavoltage imagers and kilovoltage 2D and cone-beam imaging capabilities
- Computer controlled high-dose-rate remote after loading brachytherapy system
- Virtual reality display system
- Computed radiography systems
- 7 dual-head SPECT systems
- Real-time quantitative PCR machine
- Zeiss surgical microscope
- Harvard small animal ventilator
- Micro-interventricular pressure and volume catheters
- MRI-compatible fiber optic pressure transducer

- Physiologic data acquisition and analysis system
- Class II cell culture hood
- Zeissfluorescence microscope with associated CCD camera and image acquisition and analysis computer system
- Microplate reader
- Sorvall RC-6 high-speed ultracentrifuge
- Bio-rad gel documentation and analysis workstation
- Harshaw automated thermoluminescent reader
- Philips 250 kVp orthovoltage machine
- Diagnostic and mammography x-ray systems
- Dual-head SPECT systems
- Xenogen IVIS 200 for bioluminescence and fluorescence animal imaging
- VisEn FMT for fluorescence molecular tomography in animal imaging
- Olympus OV-100 for fluorescence animal imaging
- GMI/GE Triumph Flex microPET/SPECT/CT pre-clinical imaging system
- Vevo 770 ultrasound imaging system for animal imaging
- Super-resolution single-photon emission microscope (SPEM)
- High-resolution digital x-ray imaging system
- Computer-aided detection system for mammography
- · High-resolution display monitors and workstations
- General use and specialized image processing and display computers linked via a high-speed network

MEDICAL PHYSICS COURSES

MPHY 32000. Overview of the Physics of Medical Imaging. 100 Units.

This course is for students in the medical physics certificate program. The course presents a comprehensive overview of physics in medical imaging, covering a wide range of clinical imaging modalities including radiography, fluoroscopy, computed tomography (CT), mammography, ultrasound, magnetic resonance imaging (MRI) and nuclear medicine imaging. The course will introduce the student to the fundamental principles of clinical radiological imaging as well as cutting-edge diagnostic imaging technology.

Instructor(s): Z.F Lu, B. O'Brien-Penney, I. Reiser and S. Sammet Terms Offered: Spring

MPHY 34100. Bioethics for Medical Physicists. 50 Units.

This course explores ethical issues that arise in the practice of medical physics in research, education and clinical settings. Topics include misconduct (fabrication, falsification and plagiarism) and questionable conduct in scientific research; authorship and publication practices; human subject research (informed consent and IRB review, patient/subject privacy and confidentiality; quality improvement vs research; vulnerable subjects); history of human radiation experiments and medical physics; research with animals; incidental findings in radiation therapy and imaging research; conflicts of interest; mentorship; professionalism and the AAPM code of ethics; ethics of innovative technologies (charged particle therapy); off-label uses of radiation; radiation errors and patient safety; and the ethics of radiation protection, optimization and justification of medical radiation exposure in therapy and imaging. The course aims to increase students' awareness of ethical issues they might face as medical physicists and to help them, through case discussions, better recognize, analyze and resolve ethical issues, conflicts and dilemmas. Instructor(s): N. Ozturk Terms Offered: Spring

MPHY 34200. Practicum in the Physics of Medical Imaging I. 100 Units.

This laboratory course is designed for students to enhance the understanding of materials covered in the Physics of Medical Imaging I (MPHY 38600) and to acquire hands-on experience on related subjects. These subjects include diagnostic x-ray sources and imaging systems, MRI, and the applications of computer-aided diagnosis.

Instructor(s): S. Sammet, M. Giger, Y. Jiang, P. La Rivière, Z.F. Lu Terms Offered: Spring

MPHY 34300. Practicum in the Physics of Medical Imaging II. 100 Units.

This laboratory course is designed to familiarize the medical physics student with certain equipment and procedures in diagnostic radiology, with emphasis on nuclear medicine (both PET and SPECT), ultrasound, and x-ray (helical) computed tomographic (CT) imaging. The students will conduct routine quality control procedures and educational exercises. Data analysis will be conducted using clinical software that will process DICOM images.

Instructor(s): B. O'Brien-Penney, Z.F. Lu Terms Offered: Summer

MPHY 34400. Practicum in the Physics of Radiation Therapy. 100 Units.

This course combines lectures and intensive hands-on experiments. It includes an introduction to thermoluminescent detectors, film and ionization chamber dosimetry, and quality assurance for intensity modulated radiation therapy (IMRT). Training in data acquisition, error analysis, experimental techniques and the safe handling of sealed radiation sources is also included. The basic concepts of Monte Carlo calculations will be presented and measurements made in simple slab phantoms to compare with (MC) calculations.

Instructor(s): C. Reft, H. Al-Hallaq, B. Aydogan Terms Offered: Winter

MPHY 34900. Mathematics for Medical Physics. 100 Units.

This course focuses on the mathematics that will be used throughout the training of students in the Graduate Program in Medical Physics. Lectures are given on linear algebra, Fourier analysis, sampling theory, functions of random variables, stochastic processes, estimation theory, signal detection theory, and ROC analysis. Instructor(s): X. Pan, M. Giger, P. La Rivière Terms Offered: Autumn

MPHY 35000. Interactions of Ionizing Radiation with Matter. 100 Units.

Ionizing radiation is the basis for radiation therapy and for many diagnostic imaging studies. This course explores the fundamental modes of interaction between ionizing radiation (both electromagnetic and particulate) and matter, with an emphasis on the physics of energy absorption in medical applications. Topics will include exponential attenuation, x-ray production, charged particle equilibrium, cavity theory, dosimetry, and ionization chambers.

Instructor(s): S. Armato, H. Al-Hallaq Terms Offered: Winter

MPHY 35100. Physics of Radiation Therapy. 100 Units.

This course covers aspects of radiation physics necessary for understanding modern radiation therapy. Rigorous theoretical foundations of physical dose calculation for megavoltage-energy photons and electrons, biological predictions of therapy outcomes, and brachytherapy are presented. Methods of modeling and implementing radiation therapy treatment planning, evaluation, and delivery are described. Emphasis is placed on current developments in the field including intensity modulated radiation therapy. The course is intended to provide comprehensive knowledge of radiation therapy physics, enabling the student to grasp current research in the field.

Instructor(s): K. Yenice, N. Ozturk, R. Wiersma Terms Offered: Winter

MPHY 35601. Anatomical Structure and Physiological Function of the Human Body. 100 Units.

Study and primer of the basic anatomy of the human body, as demonstrated from diagnostic radiographic imaging. Physiological processes of body systems will be examined with an emphasis on its relationship with imaging. Emphasis is placed on critical landmark structures involved in body, limb and nervous system imaging, allowing for effective clinically oriented research.

Instructor(s): C. Straus, B. Roman Terms Offered: Autumn

MPHY 35900. Cancer and Radiation Biology. 100 Units.

This course provides students with an overview of the biology of cancer and of the current methods used to diagnose and treat the disease. Lectures from faculty throughout the Biological Sciences Division will include presentations on cancer incidence and mortality, cancer prevention, a molecular biology perspective, the role of genetic markers, methods of treatment (radiation, chemotherapy) and prognosis. The course will be primarily for medical physics graduate students. Instructor(s): D. Grdina, R. Miller, J. Murley Terms Offered: Winter

MPHY 37400. Charles E. Metz Special Topics. 100 Units.

The Charles E. Metz Special Topics Course will focus on a faculty/student selected topic in medical physics, which will enhance and extend the education process. A visiting faculty member will spend approximately a week at the University delivering lectures/seminars and interacting with faculty, students, and staff. Each course offering will also include a specific Committee on Medical Physics faculty member who will hold pre- and post- seminar lectures.

Instructor(s): M. Giger, P. La Rivière Terms Offered: Spring (every other year)

MPHY 38600. Physics of Medical Imaging I. 100 Units.

This is an introductory course to the basic elements of x-ray imaging, electron paramagnetic resonance (EPR) imaging, and magnetic resonance imaging (MRI) and spectroscopy (MRS). X-ray imaging topics include x-ray spectra, image formation, analog and digital detectors, physical measures of image quality, fluoroscopy, digital subtraction angiography, dual-energy imaging and image restoration. Magnetic resonance imaging topics include nuclear magnetic resonance, relaxation times, pulse sequences, functional imaging and spectroscopy.

Instructor(s): Y. Jiang, H. Halpern, P. La Rivière, B. Roman Terms Offered: Spring

MPHY 38700. Physics of Medical Imaging II. 100 Units.

This course covers the physics, mathematics and statistics in nuclear medicine, xray computed tomography, ultrasound imaging, and optical imaging. Specific topics include: radioactive isotopes and tracer methodology; physics, instrumentation, and performance properties of gamma camera; quality control in nuclear medicine; SPECT imaging; physics, instrumentation and performance properties of PET imaging; biokinetics and compartmental analysis; physics, reconstruction, proformance properties for CT imaging and tomosynthesis; principles and instrumentation of ultrasound imaging; and optical imaging. Instructor(s): C-M. Kao, P. La Rivière, B. O'Brien-Penney, E. Sidky Terms Offered: Summer

MPHY 39200. Diagnostic Clinical Physics. 100 Units.

This course provides an understanding of the physical principles and theories involved in diagnostic imaging modalities. It will acquaint the student with the daily work of a clinical medical physicist in a Radiology department. This course will introduce concepts of quality control and will enable students to perform quality control scans on different imaging modalities.

Instructor(s): B. O'Brien-Penney, Z.F. Lu, S. Sammet Terms Offered: Autumn

MPHY 39600. Image Processing and Computer Vision. 100 Units.

Introduction to the fundamental concepts and techniques widely used for processing and understanding digital images. The course will consist of a series of lectures and with student projects to provide hands-on experience in various image processing techniques. Topics include: digital image properties, data structures for image analysis, image filtering (smoothing, edge detection, noise reduction), segmentation (region growing, mathematical morphology), feature extraction (histogram analysis, shape description), texture analysis (co-occurrence matrices, texture energy measures, fractals), pattern recognition (discriminant analysis, statistical pattern recognition, neural networks), and linear transforms (Fourier, discrete cosine, Hough, and wavelet transforms).

Instructor(s): S. Armato, M. Giger Terms Offered: Winter

MPHY 39700. Health Physics. 100 Units.

This course provides an introduction to fundamental principles of health physics and radiation protection in medical physics environments. A broad spectrum of topics is covered, including radiation detection and measurement, instrumentation, counting statistics, radiation protection criteria, exposure limits and regulations, shielding techniques, monitoring of personnel dose and radiation safety. Instructor(s): B. Aydogan, N. Ozturk Terms Offered: Spring

MPHY 39901. Directed Reading In Ultrasonic Imaging Physics. 100 Units.

This course, which will be offered in accordance with student interest and faculty availability, involves directed reading of texts related to ultrasonic physics and engineering, such as R.S.C. Cobbold's "Foundations of Biomedical Ultrasound." Instructor(s): P. La Rivière Terms Offered: All Quarters

MPHY 41600. Pre-Candidacy Research in Medical Physics. 100-300 Units.

Research topics span various areas of medical physics and can include those from diagnostic imaging to radiation therapy treatment methods, as well as crossdisciplinary projects. Students in the Graduate Program in Medical Physics will enroll in this course (after selecting a lab for their thesis reserach) each quarter until the successful passage of the thesis proposal.

Instructor(s): S. Armato, C Pelizzari and staff Terms Offered: All Quarters

MPHY 41700. Dissertation Research in Medical Physics. 100-300 Units. Research topics span various areas of medical physics and can include those from

diagnostic imaging to radiation therapy treatment methods, as well as crossdisciplinary projects. Students in the Graduate Program in Medical Physics will enroll in this course every quarter after the successful passage of the thesis proposal. Instructor(s): S. Armato, C. Pelizzari and Staff Terms Offered: All Quarters

MPHY 41800. Research in Advanced Tomographic Imaging. 100 Units.

Possible research topics include investigation, development, and evaluation of algorithms for advanced tomographic imaging with emphases on the fundamental physics, mathematics, and statistics of advanced tomographic imaging; cone-beam computed tomography (CT); tomosynthesis; phase-contrast CT; magnetic resonance imaging (MRI); electron paramagnetic resonance imaging (EPRI); positron emission tomography (PET); single-photon emission computed tomography (SPECT); and emerging tomographic imaging techniques.

Instructor(s): X. Pan and Staff Terms Offered: All Quarters

MPHY 41900. Research in Computer Aided Diagnosis. 100 Units.

Research topics include the application of advanced image processing techniques and computer vision approaches to the development of methods for the detection of abnormalities in medical images (e.g., mammograms, chest radiographs, computed tomography (CT) scans, and magnetic resonance imaging (MRI)); the development of methods to classify abnormalities as benign or malignant; the investigation of enhanced visualization techniques such as temporal subtraction imaging; the segmentation of anatomic or pathologic structures of interest; and the assessment of tumor response.

Instructor(s): S. Armato and Staff Terms Offered: All Quarters

MPHY 42000. Research in the Physics of Nuclear Medicine. 100 Units.

Possible research topics include the fundamental physical aspects of nuclear medicine, including radiation detection and spectrum analysis; image formation, processing, and display; criteria for image evaluation; and quantitative in vivo assay using methods of gamma ray and positron tomography, stimulated x-ray fluorescence, and activation analysis.

Instructor(s): X. Pan and Staff Terms Offered: All Quarters

MPHY 42100. Research in the Physics of Diagnostic Radiology. 100 Units.

Possible research topics include the development of methods to improve diagnostic accuracy and/or to reduce patient radiation exposure; quantitative image analysis and computer-aided diagnosis, methods of tomographic reconstruction, analysis and evaluation of imaging system components; and joint physical/clinical studies of new techniques in diagnostic medical physics.

Instructor(s): M. Giger and Staff Terms Offered: All Quarters

MPHY 42200. Research Physics of Radiation Therapy. 100 Units.

Possible research topics include radiation treatment planning; radiation dose calculations; intensity-modulated radiotherapy; image-guided radiotherapy; biological basis of radiation therapy; and analysis of treatment outcomes. Instructor(s): C. Pelizzari and Staff Terms Offered: All Quarters

MPHY 42300. Research in the Physics of MRI. 100 Units.

Possible research topics include fundamental aspects of magnetic resonance imaging (MRI) and magnetic resonance spectroscopy (MRS) including the development and optimization of methods to non-invasively characterize the structure and function of tissue invivo. The developments range from novel MRI/MRS pulse sequences to image reconstruction to data processing methods, multi-modal imaging approaches, and modeling of contrast mechanisms. Other research topics are the development and application of quantitative MRI/MRS methods for image-guided interventions and the analysis of treatment outcomes.

Instructor(s): G. Karczmar, S. Sammet and Staff Terms Offered: All Quarters

MPHY 42400. Research in Image-Guided Radiation Therapy. 100 Units.

Possible research topics include fundamental aspects of image guidance in radiation therapy planning and delivery, management of inter-treatment and intra-treatment patient motion, use of respiratory correlated CT, cone beam CT, kV/MV real-time imaging, and dynamic patient modeling for treatment planning. Instructor(s): C. Pelizzari and Staff Terms Offered: All Quarters

MPHY 42500. Research in Quantitative Image Analysis. 100 Units.

Possible research topics include fundamental and developmental aspects of computer vision and artificial intelligence on biomedical image data to yield imagebased phenotypes for Computer-aided diagnosis (CAD) and other decision support methods in medical imaging. Additional developments include aspects of data mining, dimension reduction, classifier training, metrics of validation, human-computer interface, and imaging genomics.

Instructor(s): M. Giger, S. Armato and Staff Terms Offered: All Quarters



Committee on Microbiology

Chair

- Olaf Schneewind, Microbiology Professors
- Joy Bergelson, Ecology & Evolution
- Eugene B. Chang, Medicine
- Alexander Chervonsky, Pathology
- Sean Crosson, Biochemistry & Molecular Biology
- Robert Daum, Pediatrics
- Tatyana Golovkina, Microbiology
- Jean Greenberg, Molecular Genetics & Cell Biology
- Robert Haselkorn, Molecular Genetics & Cell Biology
- Joseph Kanabrocki, Microbiology
- Dominique Missiakas, Microbiology
- Tao Pan, Biochemistry & Molecular Biology
- Bernard Roizman, Microbiology
- Raymond Roos, Neurology
- Lucia Rothman-Denes, Molecular Genetics & Cell Biology
- Olaf Schneewind, Microbiology
- Howard Shuman, Microbiology
- Wei Jen Tang, Ben May Department for Cancer Research Associate Professors
- Associate Professors
- Juliane Bubeck Wardenburg, Pediatrics and Microbiology
- Glenn Randall, Microbiology
 Assistant Professors
- Seungmin Hwang, Pathology
- Balaji Manicassamy, Microbiology

The primary purpose of the Committee on Microbiology is to produce research scientists and teachers in microbiology by offering formal instructions; by fostering informal dissemination of information among the faculty, fellows and students engaged in research in microbiology; and by administering a program of study leading to the degree of Doctor of Philosophy. Through its faculty, activities and educational program, the Committee on Microbiology integrates studies in various clinical and non-clinical departments of the Biological Sciences Division. The Committee on Microbiology maintains maximum flexibility in its program to cater to students' developing interests. Students with backgrounds in any appropriate field (physics, chemistry, biology, biochemistry, and medicine) may commence work in microbiology upon entering the graduate program of the Biological Sciences Division. The Committee on Microbiology sponsors a seminar series, which brings to campus prominent microbiologists from all over the world to discuss their

research and meet with microbiology faculty and students. Another regular activity sponsored by the committee is the Microbiology Data Club. Data club meetings feature a current graduate student, postdoctoral fellow or other training fellow in microbiology presenting his/her research data. Microbiology Data Club meetings are open to the university community, offering an informal forum for the discussion of microbiology within the Chicago scientific community.

The Committee on Microbiology is a member of the Biomedical Sciences Cluster, which also houses graduate programs of the Committee on Cancer Biology, the Committee on Immunology, the Committee on Molecular Metabolism and Nutrition, and the Department of Pathology's Molecular Pathogenesis and Molecular Medicine Graduate Program. The five academic units share a joint admissions committee, several courses, a seminar series and other events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study. The Ph.D. degree is administered by the Committee on Microbiology and is recommended when the student has fulfilled the requirements stipulated in his or her individual program; has met the divisional requirements for the degree; and, in the opinion of the committee, has attained competence in research in his or her field of specialization.

MICROBIOLOGY COURSES

MICR 30600. Fundamentals of Bacterial Physiology. 100 Units.

This course meets one of the requirements of the microbiology specialization. This course introduces bacterial diversity, physiology, ultra-structure, envelope assembly, metabolism, and genetics. In the discussion section, students review recent original experimental work in the field of bacterial physiology. Instructor(s): D. Missiakas Terms Offered: Autumn

Prerequisite(s): BIOS 20186 or 20234, or consent of instructor

Equivalent Course(s): BIOS 25206

MICR 31200. Host Pathogen Interactions. 100 Units.

This course explores the basic principles of host defense against pathogens, including evolutionary aspects of innate and adaptive immunity and immune evasion strategies. Specific examples of viral and bacterial interactions with their hosts are studied in depth. A review of immunological mechanisms involved in specific cases is incorporated in the course.

Instructor(s): A. Chervonsky Terms Offered: Autumn

MICR 31600. Molecular Basis of Bacterial Diseases. 100 Units.

This course meets one of the requirements of the microbiology specialization. This lecture/discussion course involves a comprehensive analysis of bacterial pathogens, the diseases that they cause, and the molecular mechanisms involved during pathogenesis. Students discuss recent original experimental work in the field of bacterial pathogenesis.

Instructor(s): H. Shuman Terms Offered: Winter

Prerequisite(s): Completion of the general education requirement in the biological sciences

Equivalent Course(s): BIOS 25216

MICR 34000. Bacterial Pathogenesis. 100 Units.

Bacterial pathogens of human, animal and plant organisms, their infectious strategies and molecular mechanisms of causing disease.

Instructor(s): D. Missiakas, O. Schneewind, H. Shuman Terms Offered: Winter Prerequisite(s): Completion of the general education requirement in the Biological Sciences. Consent required.

MICR 34600. Introduction to Virology. 100 Units.

This class on animal viruses considers the major families of the viral kingdom with an emphasis on the molecular aspects of genome expression and virushost interactions. Our goal is to provide students with solid appreciation of basic knowledge, as well as instruction on the frontiers of virus research. Instructor(s): T. Golovkina, B. Roizman Terms Offered: Spring Prerequisite(s): Completion of the general education requirement in the biological sciences and third- or fourth-year standing Equivalent Course(s): BIOS 25287

MICR 35900. Medical Microbiology. 125 Units.

Provides an overview of the clinically important microorganisms and their role in the causation of human infectious disease. The objectives of the course are to discuss mechanisms of microbial pathogenesis and host manifestations of disease, provide knowledge of the common organisms associated with specific infectious disease presentations as foundation for a system (organ)-based approach to diagnosis, and to describe the role of the clinical diagnostic laboratory in identification of pathogens and disease management. Lectures are held three days a week in 50minute periods. Additionally, students attend weekly laboratory sessions during the quarter and participate in student-led case-based discussion groups with a faculty preceptor on a weekly basis. Two multiple-choice exams are administered, as well as a final laboratory practical exam and several laboratory quizzes.

Instructor(s): J. Benoit, G. Randall, O. Schneewind Terms Offered: Spring 2012 Prerequisite(s): Second year medical students only or consent of instructor

MICR 39000. Introduction to Experimental Microbiology. 100 Units.

The Committee on Microbiology will host a seminar series comprised of seven to ten presentations by faculty invited from other institutions. A reading and discussion session will accompany the seminar series. In the session, which meets for one hour on a day preceding each week's seminar, first year graduate students will discuss with their peers and a Microbiology faculty member three original research papers of the invited speaker. Following the seminar and the conventional question and answer period, first year graduate students of the Committee on Microbiology are invited to question the speaker on her or his research and to discuss their own research for a period of 1 hour. In this manner, we will provide students with an intellectual environment that reveals the discovery process and research frontiers in various laboratories and fields. First year graduate students are required to register for the course.

Instructor(s): O. Schneewind Terms Offered: Autumn, Winter, and Spring

MICR 40000. Microbiology Research Forum. 100 Units.

All graduate students and honors undergraduate students of the Committee on Microbiology will present their research in a central forum, the data club, once each year. Students and postdoctoral fellows present their recent research data for critical evaluation by the faculty of the Committee on Microbiology. This course provides a forum to ensure continued progress of graduate students in their thesis projects. First year graduate students are required to register for the course. Instructor(s): O. Schneewind Terms Offered: Autumn, Winter, and Spring



Committee on Molecular Metabolism and Nutrition

Chair

Christopher Rhodes

Professors

- Maria-Luisa Alegre, Medicine
- Graeme Bell, Medicine
- Deborah Burnet, Medicine
- Eugene Chang, Medicine
- Alexander Chervonsky, Pathology
- Anita Chong, Surgery
- Suzanne Conzen, Medicine
- Anna DiRienzo, Human Genetics
- David Ehrmann, Medicine
- Murray Favus, Medicine
- Godfrey Getz, Pathology (Emeritus)
- Bana Jabri, Medicine
- James Liao, Medicine
- Deborah Nelson, Neurobiology, Pharmacology and Physiology
- Louis Philipson, Medicine
- Victoria Prince, Organismal Biology and Anatomy
- Christopher Rhodes, Medicine
- F. Gary Toback, Medicine
- Eve Van Cauter, Medicine
- Yingming Zhao, Ben May Department for Cancer Research
- Xiaoxi Zhuang, Department of Neurobiology

Associate Professors

- Marc Bissonnette, Medicine
- Matthew Brady, Medicine
- Ronald Cohen, Medicine
- Yan Chun Li, Medicine
- Kay Macleod, Ben May Department for Cancer Research
- Vivek Prachand, Surgery

Assistant Professor

- Lev Becker, Pediatrics
- Eunice Chen, Psychiatry & Behavioral Neuroscience
- Kristen Knutson, Medicine

- Robert Sargis, Medicine
- Esra Tasali, Medicine

Research Associate (Professor)

- Catherine Reardon Alulis, Pathology Research Associate (Assistant Professor)
- Mark Musch, Medicine

The Committee on Molecular Metabolism and Nutrition is a dynamic and interactive research unit of the University of Chicago offering interdisciplinary doctoral training in the molecular basis of biological processes as they relate to nutrition and human disease. The graduate program in molecular metabolism and nutrition offers a program of study leading to the Doctor of Philosophy in Molecular Metabolism and Nutrition. Faculty expertise includes the areas of insulin secretion, diabetes genetics, nutritional regulation of epithelial cell biology, intestinal absorption, adaptation, and malabsorption, water/nutrient/electrolyte transport, nutriceuticals, atherogenesis, abnormalities in lipid and lipoprotein metabolism, vitamin D research, insulin metabolic signaling, transcription factors and adipogenesis, impact of nutrition on reproductive biology, glucocorticoid action and sleep research. A mixture of nationally recognized senior faculty and dynamic junior faculty provide a stimulating and supportive environment designed to guide graduate students through course work and research training. Major resources include transgenic mouse facilities, flow cytometry, microscope imaging suites, microarray and gene chip facilities, computational labs and facilities for human research. The committee works closely with the government sponsored Diabetes Research and Training Center, Digestive Disease Research Core Center, Training Program in Digestive Diseases and Nutrition, and the Clinical Research Center to offer a broad array of choices for research topics.

The Committee on Molecular Metabolism and Nutrition is a member of the Biomedical Sciences Cluster, which also includes graduate programs from the Committee on Cancer Biology, the Committee on Immunology, the Committee on Microbiology and the Department of Pathology's Molecular Pathogenesis and Molecular Medicine Graduate Program. The five academic units share several common courses, a seminar series, and additional common events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study.

ADMISSION

Students interested in obtaining the Ph.D. in Molecular Metabolism and Nutrition should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Molecular Metabolism and Nutrition as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY Ph.D. requirements include:

- Completion of 9.5 course credits consisting of basic science, metabolism and elective courses.
- A preliminary exam in the form of a mock NIH-style grant proposal.
- A dissertation based on original research.
- A final thesis examination.

MOLECULAR METABOLISM AND NUTRITION COURSES

MOMN 36500. Molecular Nutrition I. 100 Units.

Students are exposed to a comprehensive review of nutritional physiology and requirements, including the regulated digestion, synthesis and/or metabolism of vitamins, minerals, lipids, proteins and carbohydrates. Various lecturers specialized in specific areas of metabolic research participate throughout the quarter. The course culminates with the students writing a comprehensive paper linking several of the topics covered throughout the quarter.

Instructor(s): C. Reardon and staff Terms Offered: Autumn. Autumn 2015

MOMN 36600. Molecular Nutrition II. 100 Units.

This course is an extension of Molecular Nutrition 1 and investigates the physiological control of systemic metabolism. Heavy emphasis is placed on the coordinate regulation of glucose and lipid metabolism by skeletal muscle, liver, adipose tissue, pancreas and brain. The format of the course is a combination of lectures and student presentations of primary literature. At the end of the course, students are expected to write a grant application to investigate a current area of metabolism research and then present and defend the proposal to the lecturers and students

Instructor(s): M. Brady, C. Reardon, Staff Terms Offered: Winter. Winter 2016 Equivalent Course(s): MPMM 36600

MOMN 40200. Topics in Nutrition Research. 100 Units.

This course is conducted as a seminar series. Students will broaden their exposure to metabolism related research through bi-weekly faculty and student presentations of research data and primary literature. Additionally, prominent researchers from other institutions are invited to give a seminar and meet alone with the students to discuss their career paths, experiences in running successfully funded labs and use of cutting edge experimental approaches. Attendance is mandatory for first and second year students but all students are strongly urged to attend. Instructor(s): M. Brady Terms Offered: Autumn,Spring,Winter



Committee on Neurobiology

Chair

Christian Hansel

Professor

- Francisco Bezanilla, Biochemistry and Molecular Biology
- Jean Decety, Psychology
- Harriet de Wit, Psychiatry and Behavioral Neuroscience
- Glyn Dawson, Pediatrics
- Ruth Anne Eatock, Neurobiology
- Aaron P. Fox, Neurobiology, Pharmacology and Physiology
- Elliot S. Gershon, Psychiatry and Behavioral Neuroscience
- Jay M. Goldberg, Neurobiology, Pharmacology and Physiology
- Christopher Gomez, Neurology
- William Green, Neurobiology
- Elizabeth Grove, Neurobiology
- Melina Hale, Organismal Biology and Anatomy
- Dorothy Hanck, Medicine
- Christian Hansel, Neurobiology
- Nicholas Hatsopoulos, Organismal Biology and Anatomy
- Richard P. Kraig, Neurology
- Andrea King, Psychiatry and Behavioral Neuroscience
- Anning Lin, Ben May Department of Cancer Research
- Daniel Margoliash, Organismal Biology and Anatomy
- Peggy Mason, Neurobiology
- John Maunsell, Neurobiology
- Martha McClintock, Psychology
- Deborah Nelson, Neurobiology, Pharmacology and Physiology
- Eduardo Perozo, Biochemistry and Molecular Biology
- Brian Popko, Neurology
- Nanduri Prabhakar, Medicine
- Brian Prendergast, Psychology
- Victoria Prince, Organismal Biology and Anatomy
- Anthony T. Reder, Neurology
- Raymond P. Roos, Neurology
- Marsha Rosner, Ben May Department of Cancer Research
- Steven Roth, Anesthesia and Critical Care
- Eric A. Schwartz, Neurobiology, Pharmacology and Physiology
- S. Murray Sherman, Neurobiology

- Sangram Sisodia, Neurobiology
- Betty Soliven, Neurology
- Sara Szuchet, Neurology
- Wei-Jen Tang, Ben May Department of Cancer Research
- Gopal Thinakaran, Neurobiology
- V. Leo Towle, Neurology
- Paul Vezina, Psychiatry and Behavioral Neuroscience
- Ming Xu, Anesthesia and Critical Care Associate Professor
- James Brorson, Neurology
- Stephanie Dulawa, Psychiatry and Behavioral Neuroscience
- David Freedman, Neurobiology
- Leslie Kay, Psychology
- Philip E. Lloyd, Neurobiology, Pharmacology and Physiology
- Jeremy Marks, Pediatrics
- Dario Maestripieri, Comparative Human Development
- James A. Mastrianni, Neurology
- Daniel McGehee, Anesthesia and Critical Care
- Abraham Palmer, Human Genetics
- Clifton Ragsdale, Neurobiology
- Xiaoxi Zhuang, Neurobiology

Assistant Professor

- Sliman Bensmaia, Organismal Biology and Anatomy
- David Biron, Physics
- Sarah London, Psychology
- Jason MacLean, Neurobiology
- Leslie Osborne, Neurobiology
- Wei Wei, Neurobiology

Emeritus Faculty

• Robert L. Perlman, Pediatrics

The Committee on Neurobiology is an interdepartmental committee designed to provide training and instruction for students interested in the biology of the nervous system, and to encourage communication and the exchange of ideas between faculty members and students interested in neurobiology. Recent technical and conceptual developments in neuroscience have produced remarkable growth in this field. The committee reflects this growth in its structure, having members from different departments whose research interests include a broad spectrum of approaches from the biochemical and molecular to the behavioral and comparative. The committee aims to provide broad training in technical and theoretical aspects of the neurosciences.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students initially are admitted to the Division of the Biological Sciences and must meet divisional requirements. The progress of each student will be supervised during the first one or two years by the chair of the Committee on Neurobiology until the student chooses a thesis advisor. Upon choosing a thesis advisor, an advisory committee chaired by a faculty member who is not the student's thesis advisor is formed. The advisory committee consists of at least four faculty members with a majority being members of the Committee on Neurobiology. As a student's focus changes, the composition of the advisory committee may be modified.

Each student is required to take four core courses, two graded laboratory rotations and three-related electives. Usually these courses will be taken during the first year and part of the second year. Required courses include a series of courses on cellular, developmental, molecular and systems neurobiology. Elective courses focus on topics such as neuropharmacology, systems neurophysiology, development, physiology of ion channels and statistics.

During the first year, in addition to taking courses, students rotate through different laboratories. During the second year, the student writes a thesis proposal in NRSA format and defends this before the advisory committee. For the purposes of the divisional requirements, this is the examination testing the candidate's qualifications for candidacy.

The original observations included in the final Ph.D. dissertation should be judged suitable for publication. The final oral examination for the Ph.D. degree consists of a public seminar and a private defense conducted by the advisory committee and by other such members of the University faculties as may be deemed suitable.

NEUROBIOLOGY, COMMITTEE ON COURSES

NURB 30107. Behavioral Neuroscience. 100 Units.

This course is concerned with the structure and function of systems of neurons, and how these are related to behavior. Common patterns of organization are described from the anatomical, physiological, and behavioral perspectives of analysis. The comparative approach is emphasized throughout. Laboratories include exposure to instrumentation and electronics, and involve work with live animals. A central goal of the laboratory is to expose students to in vivo extracellular electrophysiology in vertebrate preparations. Laboratories will be attended only on one day a week but may run well beyond the canonical period.

Instructor(s): D. Margoliash Terms Offered: Winter Equivalent Course(s): PSYC 40107,CPNS 30107

NURB 30500. Medical Neurobiology. 100 Units.

This intensive course starts by introducing the student to neuroanatomy and neurophysiology. With the vocabulary afforded by that introduction in hand, students will then learn the general principles of perception, followed by focused treatment of vision, hearing and verbal communication, pain, and equilibrium. Students will then learn the key components of voluntary motor control including the motor unit, reflexes, gait, posture, praxis, cerebellar and basal ganglia function, and gaze control. The course wraps up with a consideration of neural contributions to homeostasis and a consideration of how the brain informs the practice of medicine.

The course consists of daily lectures, 9 laboratory exercises, 6 review sessions, a midterm and a final. In addition, the ophthalmology and neurology exams will be taught in collaboration with Clinical Skills.

At the conclusion of this course, students will be prepared for the boards, the neurological part of CPPT, and most importantly for understanding the neural contributions to disorders of all organ systems.

Instructor(s): P. Mason Terms Offered: Autumn Equivalent Course(s): NEUR 30500

NURB 31349. Protein Structure and Functions in Medicine. 100 Units.

This course explores how molecular machinery works in the context of medicine (vision, fight or flight, cancer, and action of drugs). We first explore the physical and biochemical properties of proteins in the context of cellular signaling. We then examine how proteins and other cellular components make up the signal transduction pathway of humans and conduct their biological functions. The course engages students to strengthen their scientific communication and teaching skills via the in-class podcast, oral examinations, computer-aided structural presentations, student lectures, and discussions.

Instructor(s): W-J. Tang Terms Offered: Winter

Prerequisite(s): Completion of a Biological Sciences Fundamentals sequence.

Biochemistry strongly recommended.

Equivalent Course(s): BIOS 21349

NURB 31600. Survey of Systems Neuroscience. 100 Units.

This lab-centered course teaches students the fundamental principles of vertebrate nervous system organization. Students learn the major structures and the basic circuitry of the brain, spinal cord and peripheral nervous system. Somatic, visual, auditory, vestibular and olfactory sensory systems are presented in particular depth. A highlight of this course is that students become practiced at recognizing the nuclear organization and cellular architecture of many regions of brain in rodents, cats and primates.

Instructor(s): L. Osborne Terms Offered: Autumn

Prerequisite(s): undergraduates with consent of instructor

Equivalent Course(s): ORGB 32500

NURB 31800. Cellular Neurobiology. 100 Units.

This course is concerned with the structure and function of the nervous system at the cellular level. The cellular and subcellular components of neurons and their basic membrane and electrophysiological properties will be described. Cellular and molecular aspects of interactions between neurons will be studied. This will lead to functional analyses of the mechanisms involved in the generation and modulation of behavior in selected model systems.

Instructor(s): P. Lloyd, C. Hansel Terms Offered: Autumn Prerequisite(s): Undergraduates With Consent Of Instructor.

NURB 31900. Molecular Mechanisms of Cell Signaling. 100 Units.

Cells in the body communicate with each other by a variety of extracellular signals (e.g., hormones, neurotransmitters) and processes such as vision and olfaction, as well as diseases such as cancer, all involve aspects of such signaling processes. The subject matter of this course considers molecular mechanism of the wide variety of intracellular mechanisms that, when activated, change cell behavior. Both general and specific aspects of intracellular signaling are covered, with an emphasis on the structural basis of cell signaling.

Instructor(s): W.-J. Tang Terms Offered: Spring

Prerequisite(s): "BIOS 20181-20183 or 20191-20193, and 20200"

Equivalent Course(s): BIOS 26317, CPHY 31900

NURB 32100. Cell and Molecular Biology of the Neuron. 100 Units.

Cell and molecular biology of the neuron will discuss the fundamental knowledge the students need to understand the inner workings of the neuron. This course will explore core concepts in cell and molecular biology in considerable depth using examples from neurobiology. A wide range of topics will be covered including: from gene to proteins, regulation of gene expression, mammalian cell architecture, neuronal compartmentalization, membrane trafficking, neuronal dysfunction, and genetic models.

Instructor(s): G. Thinakaran Terms Offered: Winter

NURB 32200. Molecular Neurobiology. 100 Units.

This course is devoted to the examination of current research in the molecular biology of the nervous system. We will explore the structure and function of macromolecules that control, propagate, and elicit neural signaling. Topics covered include 1) structural elements of neurons and glia; 2) structure and function of the synapse; 3) aspects of the molecular basis of neural signaling; and 4) gene expression in neural systems. Lectures draw on current journal literature to present a state-of-the-art background of the topic, the current questions being explored, as well as problems and aspects.

Instructor(s): W. Green Terms Offered: Alternate Springs

NURB 32400. Synaptic Physiology. 100 Units.

This course covers the basic principles of synaptic transmission and plasticity using a combination of lecture and discussion of primary literature. Lecture topics cover membrane electrical phenomena that lead to release of neurotransmitter presynaptically, as well as the physilogical consequences of postsynaptic receptor activation. Paper discussions, which make up ~ 2/3 of the course, are centered on two major topics: 1) The molecular machinery controlling synaptic vesicle exocytosis and recycling, and 2) Synaptic plasticity covering LTP, LTD, Metaplasticity, Spiketiming dependent plasticity and Homeostatic plasticity. There is significant emphasis on the connections between the various forms of synaptic modification and behavior.

Instructor(s): D. McGehee and A. Fox Terms Offered: Spring

NURB 32800. Neuropsychopharmacology. 100 Units.

Effects of drugs on behavior; emphasis on the functional contribution of brain neurotransmitter systems.

Instructor(s): P. Vezina Terms Offered: Winter

NURB 32900. Perspectives in Drug Abuse. 100 Units.

It is a broad overview course about drug abuse, that is appropriate for graduate students as well as undergraduates. It includes lectures on epidemiology, genetics, neurobiology, experimental methods, policy and treatment, as well as lectures on several specific drug classes. Lectures are by Dr. de Wit and by other invited faculty members, and students are required to present and discuss recent published papers during classes.

Instructor(s): H. de Wit Terms Offered: Spring

NURB 33400. Genetic Approaches in Neurobiology. 100 Units.

This course is more technique oriented. The goal is to give a good coverage of different genetic approaches as well as different aspects of neurobiology. Topics are organized by genetic approaches as the following: 1) Transgenic. 2) Gene targeting. 3) Gene replacement. 4) Conditional knockout. 5) Genetic and optical control of neural activity. 6) Transgenic facilitated imaging. 7) Forward genetics and genetic screening. The selection of a variety of papers throughout the course aims to cover different neural pathways, neurotransmitters, receptor/channel types, signaling pathways, and functional implications (learning, memory, addiction, development etc). Specific emphasis will be on the integration of molecular, cellular and systems level approaches in understanding behavior. Lecture time will be devoted to the genetic approaches. Students will present and discuss papers. We will have 2-3 papers each lecture.ches as well as different elements of neuro Instructor(s): X. Zhuang Terms Offered: Winter Equivalent Course(s): NEUR 33400

NURB 33800. Animal Models of Neuropsychiatric Disorders. 100 Units.

This course will cover the development, validation, and use of animal models of neuropsychiatric disorders. A wide range of animal models will be covered including behavioral, pharmacological, and genetic models, with an emphasis on mouse models. The disorders covered will range from those with unknown etiology to those with known single-gene causes. Disorders covered will include schizophrenia, mood disorders, obsessive-compulsive disorder, and autism spectrum disorders.

Instructor(s): S. Dulawa Terms Offered: Spring Equivalent Course(s): BIOS 25129

NURB 34600. Neurobiology of Disease I. 100 Units.

This seminar course is devoted to understanding pathogenic mechanisms of neuronal death, neurodegenerative disease, and neuronal repair. Weekly seminars are given by experts in the basic and clinical aspects of neurodegenerative diseases. For each lecture, students are provided with a brief description of clinical and pathological features of a given set or mechanistic category of neurodegenerative diseases that is followed by a more detailed description of the current status of knowledge of several of the prototypical pathogenic mechanisms. Instructor(s): C. Gomez Terms Offered: Winter

NURB 34700. Neurobiology of Disease II. 100 Units.

This seminar course is devoted to understanding pathogenic mechanisms of neuronal death, neurodegenerative disease, and neuronal repair. Weekly seminars are given by experts in the basic and clinical aspects of neurodegenerative diseases. For each lecture, students are provided with a brief description of clinical and pathological features of a given set or mechanistic category of neurodegenerative diseases that is followed by a more detailed description of the current status of knowledge of several of the prototypical pathogenic mechanisms. Instructor(s): C. Gomez, Staff Terms Offered: Spring Prerequisite(s): BIOS 24246 Equivalent Course(s): BIOS 24247,CPNS 34700



Department of Organismal Biology and Anatomy

Chair: Robert K. Ho Director of Graduate Studies: Mark Westneat

Professors

- Michael I. Coates
- Martin Feder
- Edwin L. Ferguson, Molecular Genetics & Cell Biology
- Melina E. Hale
- Nicholas G. Hatsopoulos
- Robert K. Ho
- David Jablonski, Geophysical Sciences
- Raphael Lee, Surgery
- Zhe-Xi Luo
- Daniel Margoliash
- Victoria E. Prince
- Callum Ross
- Paul Sereno
- Neil H. Shubin
- Mark Westneat

Associate Professors

- Sliman Bensmaia
- Clifton Ragsdale, Neurobiology
- Urs Schmidt-Ott

Assistant Professors

- Leslie Osborne, Neurobiology
- Stephanie Palmer
 - **Emeritus Faculty**
- James A. Hopson
- Michael LaBarbera
- R. Eric Lombard

The graduate program in integrative biology is housed in the Department of Organismal Biology and Anatomy (OBA), which has a long history of training students in integrative organismal biology. During the 1970s, the focus of the (then) Department of Anatomy shifted from the classic purview of anatomy departments in the middle of the 20th century — histology, neurobiology, and cell biology — to more comparative and functionally oriented topics and an explicit focus on vertebrate evolutionary biology and functional morphology. The neurobiology

section of the department expanded first into explicitly comparative areas and later into neuroethology. Over the next twenty years the department evolved into its present configuration with research and teaching foci which include biomechanics/ functional morphology, organismal neurobiology, evolutionary developmental biology, and vertebrate evolutionary biology, all unified by a shared reference point in the biological hierarchy - the organism - an entity we see as the natural reference for all of the biological sciences since it is the natural unit of selection. We see the intellectual areas presently housed in OBA as inextricably and naturally connected. To understand the organismal level in biology requires an understanding of both how organisms have been shaped over evolutionary time scales and how they are generated on developmental time scales, the various interacting tissue and organ systems that generate organismal functions, and the mutual feedback among these functional, evolutionary, and developmental processes. The high degree of connectivity among our core disciplines is exemplified by the integrative nature of student dissertation projects in OBA and by the high level of interaction and collaboration among our faculty; both faculty and graduate student research in OBA frequently span several of these areas. In recent years there has been a resurgence of interest in and appreciation for organismal-level biology on the national level, putting molecular, genetic, and computational tools and information to use to understand broader systems-level questions. OBA and its integrative biology program has been actively positioning itself as a leader in research and graduate training in this endeavor.

Research and training in the graduate program focus on the integration of four overlapping areas:

- 1. Biomechanics: the application of methods from engineering and physics to understanding the design of organisms.
- 2. Developmental Biology: understanding how information coded into the genome is translated into the patterns seen in organisms. Our developmental biology program has a special emphasis on the interface between evolution and development, an area sometimes called "EvoDevo".
- 3. Neurobiology: understanding how the nervous system regulates and controls the behavior of animals. Our neurobiology program has a special emphasis on the relationship of the nervous system to behavior (or neuroethology) and the application of quantitative methods to understanding neural function (computational neuroscience).
- 4. Paleontology: documenting and understanding evolutionary patterns and processes through analyses of the fossil record.

Training in the department places an emphasis on familiarity with a broad range of ideas and skills in organismal biology. Although students can conduct research in any of the areas represented in the department, they are encouraged to develop research programs that capitalize on the talents of two or more faculty members with different perspectives. The department also encourages students to interact with other units on campus (such as the Department of Ecology and Evolution and the Committees on Development, Regeneration and Stem Cell Biology; Evolutionary Biology; Genetics, Genomics and Systems Biology; and Neurobiology) as well as the Field Museum of Natural History, the Brookfield and Lincoln Park zoos, the Shedd Aquarium, and the Marine Biological Lab at Woods Hole. Students earning doctorates through the department will be qualified, following suitable postdoctoral training, for research and teaching careers in biology departments, anatomy departments and museums.

DEGREES

MASTER OF SCIENCE

Students are not admitted to the program for the sole purpose of obtaining a Master of Science degree, but this degree is awarded to students from other academic units who require a Master of Science degree as one requirement for the doctorate.

DOCTOR OF PHILOSOPHY

The requirements for the Doctor of Philosophy are as follows:

- Course requirements are individualized and are defined for students early in their stay in the program, based on the student's background and interests. Students will complete a course distribution requirement by the end of their second year. Students must fulfill the divisional requirement of serving as a teaching assistant in two courses and completing ethics training.
- The preliminary examination, consisting of a written segment which covers a range of topics in organismal biology, as well as both the oral and written presentation of a directed research project or dissertation research proposal.
- The completion of a research project and the presentation of a dissertation satisfactory to the department faculty.
- The passing of a final oral examination.

Admission

We strongly advise students considering application to the department to begin preparation of their application early in the autumn quarter, so that all materials will arrive by the December 1 deadline. The department requires GRE General Test scores from all applicants. Foreign applicants whose first language is not English also must submit TOEFL test scores with their application materials. Further information also may be obtained from the department's home page at http:// pondside.uchicago.edu/.

COURSES

Didactic and seminar courses are offered in each of the departmental research foci. The specific courses presented vary from year to year. A list of current courses can be obtained by contacting the graduate program administrator. Students are encouraged to take courses related to their interests in other academic units on campus.

Organismal Biology & Anatomy Courses

ORGB 30001. The Human Body. 125 Units.

The Human Body course is the first component of the Scientific Foundations of Medicine curriculum in Year 1. The Human Body course will provide you with a foundation in the structural organization of the body. You will learn gross anatomy of the back, thorax, abdomen, pelvis, head and neck, and upper and lower limbs through large and small group teaching sessions, as well as cadaver dissection. Correlations with Radiology and Surgery are an integral part of the course and provide real world clinical context for the anatomic material.

Instructor(s): C. Ross Terms Offered: Summer

Note(s): For Pritzker students only, unless by instructor consent

ORGB 30250. Chordates: Evolution and Comparative Anatomy. 100 Units.

Chordate biology emphasizes the diversity and evolution of modern vertebrate life, drawing on a range of sources (from comparative anatomy and embryology to paleontology, biomechanics, and developmental genetics). Much of the work is lab-based, with ample opportunity to gain firsthand experience of the repeated themes of vertebrate body plans, as well as some of the extraordinary specializations manifest in living forms. The instructors, who are both actively engaged in vertebrate-centered research, take this course beyond the boundaries of standard textbook content.

Instructor(s): M. Coates Terms Offered: Spring. L.

Prerequisite(s): Completion of the first three quarters of a Biological Sciences Fundamentals Sequence. Recommended for Advanced Biology students. Equivalent Course(s): BIOS 22250,EVOL 30250

ORGB 31300. Key Issues in Early Vertebrate Evolution. 100 Units.

The course addresses questions about the origin of vertebrates, the interrelationships of major gnathostome clades, and the fish-tetrapod transition. Instructor(s): M. I. Coates Terms Offered: Winter

Prerequisite(s): Undergraduate level chordate biology required; familiarity with methods in systematic biology advantageous.

Equivalent Course(s): EVOL 30300

ORGB 32000. Development & Evolution of Neuromechanical Systems. 100 Units.

We investigate neuromechanical systems from developmental and evolutionary perspectives, synthesizing recent research in the field.

Instructor(s): M. Hale, C. Ross Terms Offered: Winter

Prerequisite(s): Required for IGERT trainees. Others may register with consent of instructor.

ORGB 32500. Survey of Systems Neuroscience. 100 Units.

This lab-centered course teaches students the fundamental principles of vertebrate nervous system organization. Students learn the major structures and the basic circuitry of the brain, spinal cord and peripheral nervous system. Somatic, visual, auditory, vestibular and olfactory sensory systems are presented in particular depth. A highlight of this course is that students become practiced at recognizing the nuclear organization and cellular architecture of many regions of brain in rodents, cats and primates.

Instructor(s): L. Osborne Terms Offered: Autumn Prerequisite(s): undergraduates with consent of instructor Equivalent Course(s): NURB 31600

ORGB 32600. Evolutionary Aspects of Gene Regulation. 100 Units.

Using primary research literature, this course will examine recent advances in understanding of evolution of gene regulation. Among others it will cover the following topics: patterns and forces of evolutionary change in regulatory DNA and transcription factors, genetic changes that are responsible for phenotypic evolution, and discovery and evolutionary of implications of gene control by microRNAs. Instructor(s): I. Ruvinsky Terms Offered: Autumn

Equivalent Course(s): ECEV 32500,BIOS 23281,EVOL 32600,GENE 32500,DVBI 32500

ORGB 33850. Evolution and Development. 100 Units.

The course will provide a developmental perspective on animal body plans in phylogenetic context. The course will start with a few lectures, accompanied by reading assignments. Students will be required to present a selected research topic that fits the broader goal of the course and will be asked to submit a referenced written version of it after their oral presentation. Grading will be based on their presentation (oral and written) as well as their contributions to class discussions. Instructor(s): U. Schmidt-Ott Terms Offered: Autumn

Prerequisite(s): Advanced undergraduates may enroll with the consent of the instructor.

Equivalent Course(s): BIOS 22306, DVBI 33850, EVOL 33850

ORGB 34650. Computational Approaches for Cognitive Neuroscience. 100 Units.

This course is concerned with the relationship of the nervous system to higher order behaviors such as perception and encoding, action, attention, and learning and memory. Modern methods of imaging neural activity are introduced, and information theoretic methods for studying neural coding in individual neurons and populations of neurons are discussed.

Instructor(s): N. Hatsopoulos Terms Offered: Spring Prerequisite(s): BIOS 24222 or CPNS 33100 Equivalent Course(s): PSYC 34410,CPNS 33200

ORGB 34800. Evolutionary Biomechanics of Vertebrate Feeding Systems. 100 Units.

This proseminar examines the evolutionary and functional principles underlying the diversity of vertebrate musculoskeletal systems as revealed by research on vertebrate feeding systems. Mechanical, neuromechanical, modeling and experimental approaches to the biomechanics of vertebrate feeding systems are examined. Weekly labs cover practical skills surrounding collection and analysis of in vivo data. Students are required to participate in class discussions and prepare a written and oral proposal of a research project on a vertebrate feeding system. It is expected that the students will then perform that research in the Summer Quarter. Instructor(s): C. Ross Terms Offered: Winter

Prerequisite(s): Vertebrate diversity and phylogenetic relationships; algebra, some linear algebra and calculus helpful. Not offered in 2015-16.

Equivalent Course(s): EVOL 44800

ORGB 40000. Introduction to Integrative Organismal Biology. 100 Units.

A graduate seminar to introduce students to research of faculty in the Department of Organismal Biology and Anatomy.

Instructor(s): M. Westneat Terms Offered: Autumn

Prerequisite(s): Required for first and second year graduate students in Integrative Biology.

ORGB 40001. Topics: Integrative Organismal Biology. 100 Units.

Instructor(s): U. Schmidt-Ott, S. Palmer Terms Offered: Winter Prerequisite(s): Required for first and second year graduate students in Integrative Biology.

ORGB 40100. Grants, Publications and Professional Issues. 100 Units.

Covers professional topics in evolutionary biology, primarily strategies in grant writing and review. Each student will work towards the submission of an application of their choice. The course meets weekly and involves extensive writing and discussion.

Instructor(s): J. Bergelson, R. Ho, M. Coates Terms Offered: Autumn

Note(s): Only open to first year graduate students in the Darwinian Sciences Cluster Equivalent Course(s): EVOL 40100, ECEV 40100

ORGB 40200. Advanced Topics in Ethics for the Darwinian Sciences. 100 Units.

This course covers advanced topics in ethics relevant to senior Ph.D. students in the Darwinian Sciences. CEB students are required to successfully complete this course before being awarded the Ph.D.

Instructor(s): M. Coates, P. Herendeen Terms Offered: Winter

Prerequisite(s): Open to Ph.D. students in the Darwinian Sciences

Equivalent Course(s): ECEV 40200, EVOL 40200

ORGB 42600. Theoretical Neuroscience: Statistics and Information Theory. 100 Units.

This course is the third part of a three-quarter sequence in theoretical/computational neuroscience. It begins with the spike sorting problem, used as an introduction to inference and statistical methods in data analysis. We then cover the two main sections of the course: I) Encoding and II) Decoding in single neurons and populations. The encoding section will cover receptive field analysis (STA, STC and non-linear methods such as maximally informative dimensions) and will explore linear-nonlinear-Poisson models of neural encoding as well as generalized linear models and newer population coding models. The decoding section will cover basic methods for inferring the stimulus from spike train data, including both linear and correlational approaches to population decoding. The course will use examples from real data (where appropriate) in the problem sets which students will solve using MATLAB.

Instructor(s): S. Palmer Terms Offered: Spring

Prerequisite(s): Prior exposure to basic calculus and probability theory, CPNS 35500 or instructor consent.

Equivalent Course(s): CPNS 35600,STAT 42600

ORGB 57500. Cell Growth, Injury, Repair and Death. 100 Units.

This course reviews the various modes of cell injury that can occur, the basic molecular healing responses, and pathways of metabolic survival or death. This course may be of interest to those interested in wound healing, biological stress responses, molecular chaperones, radiobiology, biomechanics, biomedical engineering, as well as trauma and critical care medicine.

Instructor(s): R. Lee Terms Offered: Autumn Equivalent Course(s): MOLM 57500,MPMM 57500



Department of Pathology

Chair

- Vinay Kumar
- Professors
- Albert Bendelac, Pathology
- Alexander Chervonsky, Pathology
- Richard DeMay, Pathology
- Yang Xin Fu, Pathology
- Thomas Gajewski, Pathology and Medicine
- John Hart, Pathology
- Aliya Husain, Pathology
- Thomas N. Krausz, Pathology
- Mark Lingen, Pathology
- Shane Meehan, Pathology
- Stephen Meredith, Pathology (Graduate Program Chair)
- Jonathon Miller, Pathology
- Anthony G. Montag, Pathology and Surgery
- Cathryn Nagler, Pathology
- Hans Schreiber, Pathology
- Lucia Schuger, Pathology
- Jerome Taxy, Pathology
- Jerrold Turner, Pathology
- Martin Weigert, Pathology
- Robert Wollmann, Pathology and Neurology
- Shu-Yuan Xiao, Pathology
- K-T Jerry Yeo, Pathology

Associate Professors

- John Anastasi, Pathology
- Beverly Baron, Pathology
- Anthony Chang, Pathology
- Barbara Kee, Pathology
- Susana Marino, Pathology
- Ivan Moskowitz, Pediatrics
- Ting-Wa Wong, Pathology Assistant Professors
- Tatjana Antic, Pathology
- Nikolina Babic, Pathology
- Carrie A. Fitzpatrick, Pathology

- Sandeep Gurbuxani, Pathology
- Katja Gwin, Pathology
- Seungmin Hwang, Pathology
- Loren Joseph, Pathology
- David McClintock, Pathology
- Megan McNerney, Pathology
- Jeffrey Mueller, Pathology
- Gladell Paner, Pathology
- Peter Pytel, Pathology
- Husain Sattar, Pathology
- Peter Savage, Pathology
- Vera Tesic, Pathology
- Angela Treml, Pathology
- Christopher Weber, Pathology Emeritus Faculty
- Cyril Abrahams, Pathology
- Frank W. Fitch, Pathology
- Godfrey Getz, Pathology
- Martin Gross, Pathology
- Josephine Morello, Pathology
- José Quintans, Pathology
- Hyman Rochman, Pathology
- Benjamin H. Spargo, Pathology
- James Vardiman, Pathology
- Kenneth Thompson, Pathology Research Associate (Professor)
- Catherine Reardon, Pathology Clinical Associates
- Ward Reeves, Pathology
- Elizabeth Sengupta, Pathology

The Department of Pathology previously joined with the Committee on Molecular Medicine to offer a joint program, Molecular Pathogenesis and Molecular Medicine. The graduate program in Molecular Pathogenesis and Molecular Medicine offers a program of study leading to the Doctor of Philosophy degree in Pathology. Fields of particular emphasis include immunobiology, vascular biology, and atherosclerosis, neurodegenerative disease, gastrointestinal epithelial biology, molecular oncology, and respiratory biology.

Instruction includes courses in biochemistry, defense reactions, cellular and molecular pathology, cell, molecular and genetic biology, cancer biology and immunology that are generally completed within the first two years of study. Each

student must select a faculty sponsor who is willing to supervise his or her thesis research. Such faculty members are generally in the Department of Pathology but may be chosen from other departments in the Biological Sciences Division if the research program is considered suitable by the departmental graduate student advisory committee.

The Department of Pathology's graduate program is integrated within the Biomedical Sciences Cluster, which also includes graduate programs from the Committee on Cancer Biology, the Committee on Immunology, the Committee on Microbiology, and the Committee on Molecular Metabolism and Nutrition. The five academic units share several common courses and additional common events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study.

ADMISSION

Students interested in obtaining the Ph.D. in molecular pathogenesis and molecular medicine should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Molecular Pathogenesis and Molecular Medicine as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- 1. Completion of 9.5 course credits consisting of basic science, pathology and elective courses
- 2. Two laboratory rotations
- 3. A preliminary exam in the form of a mock NIH-style grant proposal
- 4. A thesis proposal
- 5. A final thesis defense

PATHOLOGY COURSES

MPMM 30600. Signal Transduction and Disease. 100 Units.

Topics include receptor ligands, membrane receptor tyrosine kinases and phosphatases, G proteins, proto-oncogenes, signaling pathways, cytoplasmic protein kinases and phosphatases, transcription factors, receptor-nucleus signaling, development and cancer, genetic dissection of signaling pathways, cell growth and cell proliferation, interplay of cell cycle regulators, cell cycle progression and apoptosis, and sensing of hypoxia and mechanical stimuli. The role of signaling in disease is a theme throughout the course.

Instructor(s): N. Dulin Terms Offered: Winter

Equivalent Course(s): CCTS 40300

MPMM 30800. Molecular Defense Mechanisms. 100 Units.

Defense mechanisms which include the mechanisms of inflammation, coagulation, immunological injury, cytokines, complement induced injury, hypersensitivity, autoimmunity and AIDS. Emphasis is on mechanisms at the molecular level with an introductory lecture and following with discussions of selected recent journal articles which are read and discussed at class sessions.

Instructor(s): S. Meredith Terms Offered: Spring

MPMM 39000. Major Human Disease Journal Club. 050 Units.

All Pathology Program graduate students must participate in the Biodisease Journal Club throughout their training. Credit will be given during the student's first and second years, however it is expected that students will continue to attend and participate in their later years.

Instructor(s): C. Reardon, G. Getz Terms Offered: Autumn, Winter, Spring Note(s): Open to all BSD & PSD Students

MPMM 57500. Cell Growth, Injury, Repair and Death. 100 Units.

This course reviews the various modes of cell injury that can occur, the basic molecular healing responses, and pathways of metabolic survival or death. This course may be of interest to those interested in wound healing, biological stress responses, molecular chaperones, radiobiology, biomechanics, biomedical engineering, as well as trauma and critical care medicine.

Instructor(s): R. Lee Terms Offered: Autumn

Equivalent Course(s): MOLM 57500, ORGB 57500

PATH 30010. Immunopathology. 100 Units.

Five examples of diseases are selected each year among the following categories: autoimmune diseases, inflammatory bowel diseases, infection immunity, immunodeficiencies and gene therapy, and transplantation and tumor immunology. Each disease is studied in depth with general lectures that include, where applicable, histological analysis of diseased tissue samples and discussions of primary research papers on experimental disease models. Special emphasis is placed on understanding immunopathology within the framework of general immunological concepts and on experimental approaches to the study of immunopathological models.

Instructor(s): B. Jabri Terms Offered: Winter

Prerequisite(s): Consent of instructor

Equivalent Course(s): BIOS 25258, IMMU 30010



TRANSLATIONAL RESEARCH

HOWARD HUGHES MEDICAL INSTITUTE MED-INTO-Grad Translational Training Program (TTP)

The Howard Hughes Medical Institute - University of Chicago PhD/MS Translational Training Program (TTP) is designed to engage students in both basic biological and clinical research, and to bridge the gap between highly specialized research and human disease processes in the context of a formal PhD program. Graduates will receive a PhD in their chosen discipline and an MS in Translational Research.

In additional to gaining a strong understanding of modern research methodology, trainees will simultaneously be trained in pathophysiology and exposed to clinical problems that present them with opportunities to establish credentials as a biomedical researcher.

First-year doctoral students in the Biomedical Sciences cluster, which includes the Committees on Cancer Biology, Immunology, Microbiology, Molecular Metabolism and Nutrition, and the Department of Pathology, Molecular Pathogenesis and Molecular Medicine program, are eligible to apply. These five academic units share several common courses, seminar series, retreats and additional common events.

Students in the Neuroscience cluster, specifically the Committees on Neurobiology and Computational Neuroscience, are also welcome to apply. Neurobiology is an interdepartmental program designed to provide training and instruction for students interested in the biology of the nervous system, while computational neuroscience is concerned with how components of the various nervous systems interact to produce behaviors.

The Translational Training Program courses (several that were designed specifically for this program), lectures and workshops offer exposure to a wide array of clinical situations which would not be experienced in a regular basic science program. In addition, the requirement of having a thesis supervisor with a clinical background assures a medical focus in the research project.

Participants are also required to develop thesis projects focused on human biology or disease processes, and remain intellectually engaged with translational research topics through various conferences, seminars and the CTSA Translational Research and Outcomes Research workshops. Each trainee will have two mentors: one from their primary program and one with a clinical background.

Program participants receive a supplement to the current stipend levels, as well as funds toward laboratory expenses (core facilities charges, statistical analysis, etc.), consumables and conference attendance.

Molecular Pathogenesis & Molecular Medicine Courses

MPMM 30900. Cancer Biology 2: Molecular Mechanisms in Cancer Biology. 100 Units.

This course provides students with an in-depth understanding of how key cellular processes are deregulated in cancer and the molecular mechanisms underpinning these defects. The course covers cell cycle checkpoint control, cell death, tumor suppressor and oncogene function, DNA repair mechanisms, epigenetics of cancer, nuclear hormone receptor activity in cancer, tumor metabolism, hypoxia responses, angiogenesis and metastasis. In addition to material covered in formal lectures, discussion sessions cover tumor stem cells, "oncogene addiction," inflammatory responses, cancer therapeutics, mouse models of human cancer and other topical subjects relevant to understanding tumor initiation and progression, as well as how current research may facilitate cancer treatment.

Instructor(s): Donald Vander Griend Terms Offered: Winter Equivalent Course(s): CCTS 40200,CABI 30900

MPMM 33000. Extracellular Matrices: Chemistry and Biology. 100 Units.

This course covers advanced topics dealing with the biology and chemistry of the extracellular matrix, cell-matrix interactions, and current methodologies for engineering these interfaces.

Instructor(s): J. Collier, M. Mrksich, M. Gardel, K. Matlin Terms Offered: Spring Prerequisite(s): For College students: Completion of the first three quarters of a Biological Sciences fundamentals sequence or consent of instructor. Equivalent Course(s): BIOS 21357

MPMM 34300. Selected Topics in Molecular Engineering: The Engineering and Biology of Tissue Repair. 100 Units.

This course will examine the biomolecular and cellular bases for tissue engineering, including biological processes and biomolecular actors underlying morphogenesis and tissue repair in a number of tissue systems. Biomaterials and drug release principles being developed for tissue engineering will be examined, and the means by which molecular engineering is interfaced with the biomolecules and cells involved in tissue morphogenesis for tissue engineering applications will be considered both through didactic presentations and projects undertaken by the students. Course work or research experience in cell biology and biochemistry strongly recommended.

Instructor(s): Joel Collier Terms Offered: Spring Prerequisite(s): BIOS 20186 or BIOS 20234

MPMM 36600. Molecular Nutrition II. 100 Units.

This course is an extension of Molecular Nutrition 1 and investigates the physiological control of systemic metabolism. Heavy emphasis is placed on the coordinate regulation of glucose and lipid metabolism by skeletal muscle, liver, adipose tissue, pancreas and brain. The format of the course is a combination of lectures and student presentations of primary literature. At the end of the course, students are expected to write a grant application to investigate a current area of metabolism research and then present and defend the proposal to the lecturers and students

Instructor(s): M. Brady, C. Reardon, Staff Terms Offered: Winter. Winter 2016 Equivalent Course(s): MOMN 36600

MPMM 40400. Genomics of Personalized Medicine. 050 Units.

Aspects of genomics have slowly become integrated into many levels of medical research. This has led to the incorporation of genomics into clinical trial design, cost-effectiveness research, pharmacogenetic studies, as well as influencing the direction of basic science investigation. The field of medical genomic is fast moving and requires specialized knowledge in genetics, statistics, molecular and cell biology, animal models, and epidemiology, thus making it a highly collaborative and translational field. This is a new course designed specifically for upper level graduate students, fellows and junior faculty members, and is meant to provide a strong overview of several areas of knowledge needed to integrate genomics into medical research. Each class will address a different aspect of genetics and genomics as they relate to disease, with emphasis on state-of the-art research methods, current study designs and analysis, and relevant clinical examples drawn from a wide range of medical fields. At the end of this course, clinicians and translational researchers will have a good understanding of how genetics/genomics provides a basis for personalized medicine.

Instructor(s): Minoli Perera Terms Offered: Summer Equivalent Course(s): CABI 40400,CCTS 40003

MPMM 40500. Team Translational Project I. 100 Units.

Instructor(s): Louis Philipson and Richard Kraig Terms Offered: Summer Prerequisite(s): Admission to HHMI-MiG program

MPMM 40614. Team Translational Project II. 100 Units.

Instructor(s): Louis Philipson and Richard Kraig Terms Offered: Autumn Prerequisite(s): Admission to HHMI-MiG program

MPMM 40700. Team Translational Project III: Translational Research and Associated Clinical Trials. 100 Units.

Instructor(s): Nancy Schwartz Terms Offered: Winter Prerequisite(s): Consent of instructor

MPMM 40800. Team Translational Project IV: Clinical Experience. 100 Units.

Instructor(s): Nancy Schwartz Terms Offered: Summer Prerequisite(s): Admission to HHMI-MiG program



CLINICAL DEPARTMENTS IN THE BIOLOGICAL SCIENCES

Faculty in the Division of the Biological Sciences participate in undergraduate and graduate medical education through the Pritzker School of Medicine, and maintain a vital clinical enterprise through the University of Chicago Medical Center. Twelve clinical departments offer a wide variety of educational and research opportunities to students and treatment options to patients. In addition, one of these departments, described in the section on the Basic Biological Sciences, offers graduate programs leading to the PhD degree: Radiology (Medical Physics). Brief descriptions of each of the clinical departments appear below. Additional details about our clinical departments can be found by visiting the Biological Sciences Division and Pritzker School of Medicine websites: http://www.bsd.uchicago.edu/ and http://pritzker.uchicago.edu/

DEPARTMENT OF ANESTHESIA AND CRITICAL CARE

The Department of Anesthesia and Critical Care offers clinical training and educational and research opportunities for qualified students at all levels. While one mission of the department is to provide high quality clinical anesthesia (including pain therapy, intensive care, and perioperative management), the Department of Anesthesia and Critical Care also maintains active research programs in neurobiology, echocardiography, patient safety, psychomotor pharmacology, clinical pharmacology (including herbal medications in conjunction with the TANG Center), and outcomes research. Educational opportunities for students occur at the undergraduate level, in graduate courses that are led by our faculty, during the course of the medical school curriculum, and at the post graduate level. We also provide pre doctoral and post doctoral positions in our laboratories and provide post residency clinical training in critical care, pain management, cardiothoracic anesthesia and pediatric anesthesia. Individuals seeking opportunities for research or study within the department are invited to call the Chairman of the Department of Anesthesia and Critical Care, Pritzker School of Medicine, 5841 South Maryland Avenue, MC 4028, Chicago, IL 60637, telephone: (773) 702-2545.

Department of Family Medicine

The Department of Family Medicine was established by Bernard Ewigman, MD MSPH, who was recruited as the Founding Chairman in 2002. Since that time, the Department has grown to include many clinical practices, over 70 faculty members, medical student education, a residency program, fellowship programs, and a practice based research network. The Department is based primarily at the University of Chicago, the NorthShore University Health System and in the communities served both on the south and north sides of the Chicagoland area. The Department is unique in its focus on community based practice, education in community based settings, and research and scholarship relevant to improving primary care in both urban and suburban practice and the health of the communities we serve.

Department of Medicine

The Department of Medicine is comprised of nearly 300 full-time faculty members who provide clinical, translational, and basic research training for individuals at all levels, including College, undergraduate medical, graduate medical, and postdoctoral trainees. Because of the diverse interests of the faculty, the department is organized into sub-specialty sections with each represented by nationally recognized leaders in their field. The sections include cardiology, dermatology, endocrinology, emergency medicine, gastroenterology, geriatrics, general internal medicine, genetic medicine, hospital medicine, nephrology, infectious disease, hematology/oncology, pulmonary/critical care medicine and rheumatology.

The Department of Medicine has a long tradition of conducting original and rigorous biomedical and clinical research of fundamental significance in addition to providing a full range of outpatient, inpatient, and consultative services. Trainees can work with departmental faculty through participation in degree granting programs in the Pritzker School of Medicine or graduate programs, post-graduate residency and fellowship programs, or other specialty research programs.

Further information can be obtained from the appropriate degree granting entity or post-graduate training program. General questions can be directed to the Vice Chairs for Research: Dr. Julian Solway, Dr. Ravi Salgia or Dr. Bana Jabri.

DEPARTMENT OF NEUROLOGY

The Department of Neurology offers clinical training and research opportunities in the study of the nervous system and in neurological disorders. The department has a number of educational programs directed towards medical students, graduate students, residents and post residency fellows. These programs offer instruction in basic and translational research and in clinical neurology as well as the subspecialties of neurology that include pediatric neurology, neuroimmunology, neurovirology, clinical neurophysiology and sleep disorders, stroke, movement disorders and cognitive disorders. The department does not admit students nor offer a degree program. Nevertheless, opportunities are available for students who have been admitted to a Ph.D. program to pursue research under the direction of several of the department's faculty who direct laboratory research programs in basic neuroscience and/or neurological disease research. Post doctoral and post residency positions are also available. Candidates for graduate and post graduate study are invited to visit the faculty and explore opportunities for research. Please contact the department at (773) 702-6390.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

The Department of Obstetrics and Gynecology is located in the Chicago Lyingin Hospital in Hyde Park, which is an integral part of the University of Chicago Medical Center complex. The department is dedicated to the health care of women and has an outpatient clinic adjacent to the hospital. The faculty care for women with high risk pregnancies, gynecologic malignancies, those requiring complex gynecologic and pelvic reconstructive surgery as well as minimal invasive surgery, reproductive health and complex contraception, and problems of reproductive endocrinology & infertility, including assisted reproductive technologies.

The educational activities of the department are multi-faceted and include medical students, residents and fellows under the supervision of the faculty. We have recently established an affiliation with an excellent community-based academic institution in Evanston, NorthShore University Health System. This led to a major expansion of our clinical and research activities which are carried out within the department at both sites and encompass basic translational laboratory investigation, clinical trials and population-based epidemiology. We encourage students, interns, and residents to participate in these scientific endeavors and a large number pursue careers in academic medicine.

Our Departmental activities take place in the outpatient setting, the labor and delivery suite, the operating rooms, the inpatient wards, and in our laboratories. Research opportunities are available in all the subspecialty areas as well as genetics. Subspecialty fellowships are also available in Family Planning, Maternal-Fetal Medicine and Urogynecology and Pelvic Reconstructive Surgery. For more information, please call (773) 702-6726.

Department of Pathology

Please see the listing under Basic Biological Sciences.

Department of Pediatrics

The Department of Pediatrics offers instruction and research in normal and abnormal growth and development of infants and children and in the prevention, diagnosis and treatment of illness in children. All educational activities are integrated with research and scholarly endeavors to advance knowledge in the field of child healthcare. The Department of Pediatrics has clinical and research facilities at the University of Chicago Medicine Comer Children's Hospital; at La Rabida Children's Hospital and Research Center (children's chronic diseases); at the University of Chicago Friend Family Health Center at 55th and Cottage Grove Avenue; and at ambulatory clinical facilities at pediatric offices located in the southern suburbs and northwest Indiana.

Comprising over 100 faculty and research associates, the department conducts extensive research programs in a wide range of disciplines related to child health, growth, development and public policy. Research is conducted at all of the sites mentioned above. Postdoctoral fellows, both M.D.s and Ph.D.s, as well as undergraduate medical students conduct research and receive research education guided by departmental faculty.

Candidates for graduate and post graduate study are invited to visit with the various faculty to explore a wide range of opportunities. Contact the office of the department chair at the University of Chicago Medicine Comer Children's Hospital,

5721 South Maryland Avenue, MC8000, Suite K160, Chicago, IL 60637, or call (773) 702-6205.

Department of Psychiatry and Behavioral Neuroscience

Full time faculty in the Department of Psychiatry and Behavioral Neuroscience teach and deliver inpatient, outpatient, and consultation services in mood disorders, anxiety disorders, personality disorders, eating disorders, addictive disorders, electroconvulsive therapy, and schizophrenia. Primary and affiliated teaching and clinical institutions besides the University of Chicago Medical Center include Mercy Hospital, Evanston Hospital, and Chicago Lakeshore Hospital. Assessments include psychiatric diagnostic evaluation, psychological testing, neuropsychological testing, and other structured evaluations. Interventions may include a broad range of individual, family, and group therapies, including cognitive behavioral, psychodynamic, and psychopharmacologic treatments. Specialties in the Child and Adolescent Section include attention deficit hyperactivity disorder, disruptive behavior disorders, developmental disorders, and behavioral and learning difficulties. Major research efforts across the Department are in molecular pharmacology, behavioral psychopharmacology, behavioral and molecular genetics, affective neuroscience and neuroimaging, and psychopharmacology.

The department does not offer any degrees, but elective opportunities are available for degree candidates from other programs. Major educational opportunities for medical students, graduate students, interns, residents, fellows, other physicians and clinical psychologists are linked to through http:// psychiatry.bsd.uchicago.edu/.

For more information, please contact the Psychiatry Office of Education at (773) 702-0529 or the Chair of Psychiatry at (773) 834-4083, further contact information available at http://psychiatry.bsd.uchicago.edu/.

DEPARTMENT OF RADIATION AND CELLULAR ONCOLOGY

The Department of Radiation and Cellular Oncology currently provides clinical radiation oncology services at four practice locations: the University of Chicago's Center for Advanced Medicine (DCAM), the Outpatient Care Center (OCC) at the University of Illinois at Chicago, the University of Chicago Comprehensive Cancer Center at Silver Cross, and at Sherman Hospital. Approximately 1900 patients per year are treated at these facilities. State of the art clinical facilities include 8 image-guided linear accelerator treatment systems, stereotactic radiosurgery/stereotactic body radiotherapy, high dose-rate brachytherapy, and multislice wide-bore CT scanners.

The department conducts basic and translational research in cancer biology, radiation treatment physics and radiation biology. The department stresses a basic science approach to radiation oncology and state of the art investigation of molecular aspects of cancer through joint research programs with faculty members in the Division of the Biological Sciences. In addition a broad spectrum of clinical research is supported, including internal and multi-institutional treatment protocols and outcomes analysis.

The Department of Radiation and Cellular Oncology, in conjunction with the Department of Radiology, offers programs leading to the Ph.D. degree in medical physics. For more information, refer to the Committee in Medical Physics listing.

Department of Radiology

Please see the Graduate Program in Medical Physics listing under Basic Biological Sciences.

DEPARTMENT OF SURGERY

The Department of Surgery has a very active research program spanning the basic, translational, and clinical sciences. While traditionally surgery has focused on the excision of diseased tissues and repair of injury, it is now equally concerned with specific interventions that facilitate tissue regeneration, supplement the body through the transplantation of organs and the implantation of synthetic materials and tissues developed in vitro, and target particular diseased cells or modulate the behavior of normal cells.

Research in the Department of Surgery is organized into several focus areas including transplantation immunology and inflammation, carcinogenesis and metastasis, tissue regeneration and engineering, and cardiothoracic and vascular research. Each of these areas encompasses multiple clinical specialties within the department.

Specific current research programs include studies of the immune response to synthetic materials, mechanisms of immune tolerance in transplantation, crosstalk between the intestinal microbiome and the intestinal epithelium, molecular therapeutic strategies in brain cancer, tumorigenesis and metastasis in prostate and ovarian cancer, and signaling mechanisms in heart failure.

Faculty members of the Department of Surgery teach in a number of courses in the College and are members of a variety of graduate programs in the Biological Sciences Division. They are also extensively involved in the Medical Scientist Training Program (M.D.-Ph.D). Undergraduate, graduate and medical students interested in participating in research within the department should contact individual investigators or Karl S. Matlin, Ph.D., Vice-Chairman of Research.



The Pritzker School of Medicine

MISSION

At the University of Chicago, in an atmosphere of interdisciplinary scholarship and discovery, the Pritzker School of Medicine is dedicated to inspiring diverse students of exceptional promise to become leaders and innovators in science and medicine for the betterment of humanity.

OVERVIEW

The University of Chicago matriculated its first class of medical students in 1927 and today is a national leader in training physicians and physician-scientists. In recognition of the generous support extended to the medical school from the Pritzker family of Chicago, the medical school was renamed the Pritzker School of Medicine in 1968. The great traditions which underlie the school's history include the presence of a full-time teaching faculty devoted to working with students, a strong emphasis on research and discovery, and a commitment to translating the most recent advances in biomedical science to the bedside.

The Pritzker School of Medicine is unique among medical schools in that it is a part of the academic Division of the Biological Sciences. This situation offers medical students a wide array of opportunities for interdisciplinary research, learning and collaboration between the basic and clinical sciences. Surveys conducted by the Association of American Medical Colleges over the last several years consistently show the University of Chicago among the top schools in the nation as a producer of faculty members at academic medical centers.

In 2009, the Pritzker School of Medicine began rolling out a reorganized curriculum, known as the Pritzker Initiative. The new curriculum emphasizes active learning, integration among the clinical and basic sciences, and scholarship and discovery. The Pritzker curriculum begins with the introduction to the Human Body, which runs from early August through October and includes lectures from nearly 30 University of Chicago faculty members. Beginning in late September, first years students are introduced to the Scientific Foundation of Medicine series. This series spans the first two years of study guiding students through such themes as Response to Injury, Neurobiology, and Clinical Pathophysiology and Therapeutics. Students also begin seeing patients during their first quarter as part of the longitudinal Physician-Patient-Society-Systems (P2S2) course. This course includes modules on Health Care Disparities and the Social Context of Medicine. Students have access to a state-of-the-art clinical performance center which uses standardized patients and videotaped performance to educate students in taking a history, performing a physical examination, and clinical decision making. By the time students enter their clerkship rotations during the end of their second year of studies they are considered part of the health care team. During their clinical years, students participate in eight clinical clerkships, a subinternship and a series of elective experiences at the nationally ranked University of Chicago Medical Center and NorthShore University HealthSystem.

Building on Pritzker's legacy of producing research scholars, the revamped curriculum also includes a Scholarship and Discovery thread which requires the completion of a mentored scholarly project. Students have the option to engage in scholarship in medical education, quality improvement, community health, global health, and scientific investigation. During the pre-clinical years, students acquire core skills in research methodology and biostatistics and return to their designated scholarly area during their fourth year. The Pritzker School of Medicine's curriculum culminates with the Transitions to Internship Capstone course which provides graduating fourth year students with the practical skills they need to transition seamlessly into graduate medical education.

THE UNIVERSITY OF CHICAGO MEDICAL CENTER

The University of Chicago Medical Center, which includes the new \$700 million Center for Care and Discovery, plus Comer Children's Hospital, Bernard A. Mitchell Hospital and the Duchossois Center for Advanced Medicine, serves as the teaching facility for the Pritzker School of Medicine.

The medical center is a leader in research and treatment of disorders such as cancer, gastrointestinal disease, diabetes, lung disease, heart disease, neurological disorders, musculoskeletal disorders and others. It houses more than 100 specialty clinics and provides medical care during more than 500,000 in-hospital, outpatient and emergency room visits a year.

The Medical Center and Biological Sciences Division encompass almost 5 million gross square feet of space in more than 30 buildings devoted to research, teaching and patient care.

In early 2013, the 10-story Center for Care and Discovery opened, adding 1.2 million square feet of patient and clinical space. The state-of-the-art facility, designed by renowned architect Rafael Vinoly, is nestled in the heart of the medical campus, steps away from the 10-story Knapp Center for Biomedical Discovery, which opened in 2009, the Gordon Center for Integrative Science and Pritzker School of Medicine. Its prime location emphasizes our commitment to integrating research, education, and clinical excellence to improve patient care.

The Medical Center currently has more than 800 physicians and 1,600 nurses, as well as more than 900 residents and fellows (physicians working in advanced specialty training in medical science, leading to specialty board certification). Faculty members associated with the Medical Center and BSD ranked fifth nationally in National Institutes of Health (NIH) research funding per faculty member in 2013.

The medical center is a major provider of health care for the immediate neighborhood of more than 700,000 people, and has engaged in a long-term effort to construct a more rational collaborative system of doctors' offices, clinics, community hospitals and academic centers to provide care for all the people who live on the South Side of Chicago. Community-based training opportunities include relationships with nearby physicians and hospitals, and an academic affiliation with the NorthShore University Health System, which includes three suburban hospitals. It has regional burn and perinatal units.

Patients with particularly complex or obscure medical problems travel from all over the world for treatment at the University of Chicago Medicine. The medical center includes the National Cancer Institute-designated University of Chicago Medicine Comprehensive Cancer Center; a Howard Hughes Medical Institute; a National Diabetes Research and Training Center; a National Clinical Nutrition Research Unit; the Special Center for Research in Arteriosclerosis; the MacLean Center for Clinical Medical Ethics; the Bucksbaum Institute for Clinical Excellence; the Joseph P. Kennedy Jr. Intellectual and Developmental Disabilities Research Center; the Center for Health and the Social Sciences; and the Clinical Pharmacology Center.

It is also the site of two additional national clinical research units and has widely recognized research programs on digestive diseases, anti-cancer medications, cell biology of cardiac and skeletal muscle, transplantation biology, lipoprotein-cell surface interactions, nuclear medicine and imaging, and receptors and response proteins in reproductive tissue.

The medical center is supported by its critical care transport helicopter team, UCAN, which celebrated its 30th anniversary in 2013. It was the first dedicated medical helicopter program in the Chicago area when it began in 1983, and is the only area program to fly with a flight physician.

Requests for an application and other inquiries should be addressed to the Admissions Department, The University of Chicago Pritzker School of Medicine, 924 E. 57th Street, BSLC 104, Chicago, IL 60637. Email:pritzkeradmissions@bsd.uchicago.edu

NORTHSHORE UNIVERSITY HEALTH SYSTEM

Headquartered in Evanston, Ill., NorthShore University HealthSystem (NorthShore) is a comprehensive, fully integrated, healthcare delivery system that serves the greater North Shore and northern Illinois communities. The system includes four Hospitals – Evanston Hospital, Glenbrook Hospital, Highland Park Hospital and Skokie Hospital. In addition, the health system has more than 2,400 affiliated physicians, including a 600-physician, multispecialty physician group practice with over 70 office locations - NorthShore University HealthSystem Medical Group. Further, NorthShore is committed to excellence in its academic mission and supports teaching and research as the principal teaching affiliate for the University of Chicago Pritzker School of Medicine.

The NorthShore University HealthSystem Research Institute focuses on clinical and translational research, including leadership in outcomes research and clinical trials.

The HealthSystem has significant capabilities in a wide spectrum of clinical programs, including neurosciences, cancer, heart, orthopaedics, high-risk maternity and pediatrics. NorthShore is a national leader in the implementation of innovative technologies, including electronic medical records, (EMR). In 2003, the HealthSystem was among the first in the country to successfully launch a system

wide EMR with demonstrable benefits in quality, safety and service to patients. NorthShore has been recognized by multiple national organizations for this notable achievement.

COMBINED MD/PHD PROGRAMS IN THE DIVISION OF THE BIOLOGICAL SCIENCES AND PRITZKER SCHOOL OF MEDICINE

The University of Chicago's Pritzker School of Medicine has an exceptionally rich tradition of interdisciplinary scholarship. Each year, typically 15 to 20 percent of the graduating medical school class also graduates with a PhD. In the spirit of this tradition, the Pritzker School of Medicine offers a wide selection of joint degree programs for individuals interested in the critical interface of medicine, biological sciences, and society.

Students interested in combining clinical and biomedical research can combine their MD training with education toward a PhD in one of the degree granting units (see section on Basic Sciences) within the Biological Sciences Division. The Pritzker School of Medicine is also home to several highly competitive and award winning NIH funded MD/PhD training programs including the Medical Scientist Training Program (MSTP) and the Growth and Development Training Program (GDTP). Students interested in pursuing a PhD degree in the Humanities or Social Sciences can do so as part of a unique MD-PhD program in Medicine, Social Sciences and Humanities (MESH). Students may also graduate with additional master degrees in business, law or policy.

Medical Scientist Training Program

The University of Chicago Medical Scientist Training Program is a challenging interdisciplinary training program in biomedical sciences which leads to an MD from the Pritzker School of Medicine and to a PhD in the Interdisciplinary Scientist Training Program (ISTP). Our trainees graduate prepared to assume successful leadership roles in the evolving world of 21st century academic biomedicine. Being one of the earliest programs to obtain federal funding in 1967, the MSTP at the University of Chicago is currently one of the longest running in the country.

The MD is awarded through the Pritzker School of Medicine, one of the top 10 graduate schools in the nation. With the introduction of the Pritzker Initiative in Autumn 2009, students will be educated in smaller classes with more individual attention from faculty, with an emphasis on active learning and scholarship, will be integrated among disciplines when possible, and in an atmosphere that highlights the relationship between basic and clinical sciences.

For their graduate work, trainees will be part of the ISTP, the degree-granting arm of the MSTP. This program is a novel, adaptable mechanism for students to obtain highly-integrated, interdisciplinary training. Trainees will be part of a flexible PhD program that offers superb educational opportunities and rigorous training in the highly integrated environment of Chicago Biomedicine at The University of Chicago. The ISTP also provides a programmatic identity that fosters a seamless progression of our students through the medical and graduate phases of their training.

The program is designed for students who seek broad careers in biomedical related research and a desire to apply both clinical and research expertise to solve the most pressing problems in medical science. Typically students begin their full-time PhD research after completion of their first year of medical studies and return to medical school after they have successfully defended their PhD thesis. On average, MSTP trainees complete both degrees in 8 years.

GROWTH, DEVELOPMENT AND DISABILITIES TRAINING PROGRAM

The Growth, Development and Disabilities Training Program (GDDTP) is a unique opportunity available to University of Chicago medical students who decide to pursue an advanced PhD degree after they have started medical school. The program began over 40 years ago and in 2003 received the first NICHD Mentor Award for Excellence in Research Training.

Entry into the program is available for students who have completed two years (occasionally one year) of medical studies. Students wishing to be considered for the program generally acquire relevant laboratory experience, fulfill at least some graduate courses requirements and seek out a research sponsor and graduate degree unit during their first two years of medical studies, in anticipation of their application to the program.

The program is unique in that it offers medical students the opportunity to pursue a PhD degree after they have started medical school. This represents a major opportunity for students at the Pritzker School of Medicine, who frequently become so enthusiastic about research during their first or second year of medical school that they decide to take a leave from medical studies to pursue a PhD degree. A wide variety of PhD degree granting units is available to trainees, most often in the Biological Sciences Division.

Students interested in the program may submit formal applications in the winter quarter of their first or second year of medical studies. When all necessary supporting material, including transcripts and letters of recommendation, is received, the students undergo two formal interviews. Decisions are announced in the spring, with appointment to the grant in July. Demonstrated interest and commitment to basic research, as evidenced by prior experience and accomplishment, as well as strong academic record, are major criteria for selection.

Trainees in the program receive a maximum of five years of support which generally includes three years of support during the PhD phase and the remainder of the MD training (the two clinical years). Financial aid covers full tuition, fees and a stipend supplemented to national competitive levels to support living expenses.

For further information about this program, please visit: http:// pritzker.uchicago.edu/jointdegrees/gdtp/

MD-PHD PROGRAM IN MEDICINE, SOCIAL Sciences and Humanities (MESH)

The program is based on the premise that physicians should acquire special competence in another area of scholarship in order to address the overlapping social, economic, scientific, ethical, legal and humanistic problems which medicine as an enterprise, and as a profession, faces today.

Doctoral studies may be pursued in any of the departments within the social sciences (including Anthropology, Economics, History, Philosophy, Political Science, Psychology or Sociology) or humanities, in the Committee on Social Thought or the Conceptual and Historical Studies of Science Division, or the schools of divinity or public policy. Research may also be conducted through the Center for Health and the Social Sciences, the Morris Fishbein Center for the Study of the History and Science of Medicine, or the MacLean Center for Clinical Medical Ethics. Following completion of their doctoral studies, students in the program are expected to return to medical school to resume work toward the MD degree.

For further information about this program, please visit: http:// pritzker.uchicago.edu/jointdegrees/mesh/



The Division of the Humanities

Dean

- Martha T. Roth Dean of Students
- Martina Munsters

Students in the Division of the Humanities investigate the varied achievements of the human mind in language and literature, music, the visual arts, and philosophy. These investigations can range from the methods of the established humanistic disciplines to the newer alliances of humanities and social sciences, from the history of a civilization to the philosophy of science, from the aesthetics of a literary genre to the broader cultural occasions that bring the visual arts into contact with linguistic theory or musicology into contact with anthropology. The division regards a multiplicity of questions and approaches as the hallmark of its intellectual life and encourages its students to share in this diversity.

The academic units of the division guide and support the students' scholarly interests and inquiry and are correspondingly varied. These programs of study are described in detail in this section of the Announcements.

The University is known for its interdisciplinary approach. Students cross disciplines easily by taking courses in different fields as well as through participation in Graduate Workshops, established under the auspices of the Council on Advanced Studies. These interdisciplinary workshops bring together students and faculty in the Divinity School, the Division of the Humanities, and the Division of Social Sciences for ongoing and collaborative exchange of ideas around particular areas of interest. Interdisciplinary work also takes place in many different venues such as the Centers for Area Studies, Interdisciplinary Centers, and Interdisciplinary Programs. The interdisciplinary and area centers are described in another section of these Announcements.

Admission to the Division

The Division of the Humanities invites applications from students whose breadth of academic experience and fitness for the specific field of study suggest the potential for scholarly achievement. In general, only applicants holding the bachelors degree or equivalent, with excellent academic records, are admitted. Faculty recommendations and the applicant's statement of purpose are carefully weighed. Research papers, publications, and other works may also be considered by the admissions committees during their evaluations. The admissions selection committee for each department reviews all the applications submitted by the December deadline for admission for autumn quarter of the following year. During this selection, all available places and financial aid are allocated for the following academic year. An offer of admission is made only for the next academic year and cannot be deferred. Most programs, particularly those with intensive language requirements, are designed to start in the autumn quarter.



Master of Arts Program in the Humanities

Director

- Malynne Sternstein, Associate Professor of Russian and East European Studies, Associate in Cinema and Media Studies, Affiliate in Germanic Studies and Chair of the Fundamentals Program in the College
 - **Deputy Director**
- Hilary Strang, Lecturer, English Language and Literature

The Master of Arts Program in the Humanities (MAPH) is an intensive one-year interdisciplinary program leading to the A.M. degree. MAPH is designed to address the diverse needs and interests of intellectual generalists and specialists who may benefit from a year of intensive work in the humanities. Many MAPH students are recent college graduates. Others are professionals at mid-career, freelance writers, or performers. They hold undergraduate degrees from public and private institutions throughout the world in disciplines ranging from biology to English to marketing. Others come with extensive experience in non-academic fields, including independent film-making, politics, science, non-profit work, and business.

Many students in MAPH plan to continue their studies at the doctoral level in preparation for a career in university teaching and research. For these students, MAPH provides an ideal setting for clarifying their academic and professional goals and offers a year of intensive preparation for competitive Ph.D. programs.

For students interested in careers at cultural institutions and in cultural policy, publishing, journalism, business, politics, or secondary school or community college teaching and the full spectrum of the nonprofit sector, MAPH's emphasis on critical writing, analytical thinking, scholarly research, and flexible cultural perspectives is invaluable.

DEGREE REQUIREMENTS

Requirements for the A.M. degree include:

- The fall quarter MAPH Core Course, Foundations of Interpretive Theory (known to MAPH students as "Core"). Core begins two weeks before regular University classes and covers seminal works by thinkers such as Freud, Lacan, and Marx. It is taught by the MAPH Director and Deputy Director and may include guest lectures by distinguished faculty members from different disciplines. The course is designed to give MAPH students a shared base for their further study.
- Seven elective courses chosen from the Division of the Humanities, Social Sciences, or the other divisions and professional schools. The choice of these courses is left largely to the student, although a program of study will be designed in consultation with and approved by the student's preceptor and other faculty advisers. Some students concentrate their courses in one field of

study; others take a wide-ranging variety of courses in multiple disciplines. Most programs of study fall somewhere in between these two extremes.

• A master's thesis of 25 to 35 pages, produced under the supervision of a faculty thesis adviser and a preceptor, and completed toward the end of the spring quarter. In conjunction with thesis preparation, students take a thesis workshop, which involves small group meetings focused on the development of thesis topics and the writing of the thesis. MAPH thesis projects range from traditional research papers to creative works accompanied by a critical assessment.

PRECEPTORS

Preceptors are advanced graduate students or recent Ph.D. graduates who oversee the progress of 10-12 MAPH students. Each student is assigned a preceptor for the academic year. In addition to serving as a general adviser, the preceptor leads small discussion groups in connection with the Core course and leads the winter and spring thesis workshops. Preceptors also may teach courses in the winter and spring quarters specially designed for MAPH students.

ADMISSION

Applicants to MAPH must meet the general divisional requirements for admission and must submit a critical writing sample of no more than 15 pages. Students applying to the MAPH Creative Writing Option must also submit a substantial creative writing sample in their chosen genre (e.g., several poems, a short story, a chapter from a work of longer fiction in progress, a play, or a 10-15 page work of creative nonfiction).

To apply, click here (https://humanities.uchicago.edu/students/admissions/apply-now).

Contact

MAPH Website: http://maph.uchicago.edu/ Email: ma-humanities@uchicago.edu Phone: (773) 834-1201

MASTER OF ARTS PROGRAM IN THE HUMANITIES COURSES MAPH 30100. Foundations of Interpretive Theory. 100 Units. MAPH 30200. Thesis Writing Workshop. 000 Units.

MAPH 30400. Thesis Writing Workshop. 100 Units.

MAPH 33000. Methods and Issues in Cinema Studies. 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard. Instructor(s): Staff Terms Offered: Autumn Equivalent Course(s): ENGL 48000,CMST 40000

MAPH 33700. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction;* and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): D. Morgan Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): ARTH 28600, ARTH 38600, ARTV 26600, CMLT 22500, CMLT 32500, CMST 48600, ENGL 29600, ENGL 48900, CMST 28600

MAPH 36000. History of International Cinema I: Silent Era. 100 Units.

This course introduces what was singular about the art and craft of silent film. Its general outline is chronological. We also discuss main national schools and international trends of filmmaking.

Instructor(s): Y. Tsivian Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): ARTH 28500,ARTH 38500,ARTV 26500,ARTV 36500,CMLT 22400,CMLT 32400,CMST 48500,ENGL 29300,ENGL 48700,CMST 28500

MAPH 40000. Human Rights I: Philosophical Foundations of Human Rights. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 30100,PHIL 21700,PHIL 31600,HIST 29301,HIST 39301,INRE 31600,LAWS 41200,LLSO 25100,HMRT 20100

MAPH 44319. Writing Images/Picturing Words. 100 Units.

What is the relationship between reading and looking? To what extent are all texts images, and all images texts? What are the cognitive, phenomenological, social, and aesthetic consequences of foregrounding the pictorial aspect of alphabetical characters? How do textual and visual images compare to our mental visualizations? In this arts studio course, students will construct original works of literary and visual art that "picture language" in order to investigate the overlapping functions of text and image. Studying works by contemporary visual artists like Alison Knowles and Jenny Holzer, and practicing poets such as Susan Howe and Tan Lin, we will frame our artistic and literary practice within the ongoing conversation between word and image in modern culture. The course will feature visits to our studio by contemporary poets and visual artists, who will provide critiques of student work and discussion of their own ongoing projects. Faculty members working at the intersection of word and image will also visit the class to help us frame our creative practice within a critical, historical, and theoretical context. Students will submit a final project, which may be accompanied by a critical background essay, at the end of the term.

Instructor(s): S. Reddy and J. Stockholder Terms Offered: Spring Prerequisite(s): Consent of instructor required. Interested students, please email faculty a paragraph about your background and interest in the material. Equivalent Course(s): CDIN 44319,ENGL 44319,ARTV 44319

MAPH 46000. Teaching in the Community College. 100 Units.

Community colleges serve as an important entry point to higher education for many Americans. As open-access institutions, they take students regardless of their performance in high school or its equivalent and serve as a second educational chance for many. Because community colleges are often heavily subsidized by taxpayers, and because classes are relatively small and taught by credentialed faculty, students have an opportunity for a low-cost, high-quality education. Many MAPH students identify with the community college's academic mission and ideals of democratic access.

MAPH 47600, "Teaching in the Community College," prepares students both for the teaching-job market and the classroom. Students examine the history and social location of the community college and the sometimes troubling contradictions embedded in its mission. The course raises some core questions of teaching and educational justice, introducing key figures in critical pedagogy and some important voices in recent debates in higher education. Students also prepare a teaching portfolio, including a sample syllabus, resume, and cover letter, and lead a teaching demonstration. MAPH students in this course can look forward to a reception with local community college administrators and faculty.

Instructor(s): Jason Evans Terms Offered: Winter

Note(s): Open only to MAPH students. Instructor consent required.



Master of Arts in Latin American Studies - Humanities

DIRECTOR

Brodwyn Fischer, Department of History and the College

STUDENT AFFAIRS COORDINATOR (PROGRAM ADVISOR)

Jamie Gentry

e-mail: jagentry@uchicago.edu phone: 773.702.8420

Please see the pages for the Center for Latin American Studies (p. 56) for the list of the Latin American Studies faculty, also available at o (http://clas.uchicago.edu/page/people)n the CLAS website (http://maclas.uchicago.edu.).

The Center for Latin American Studies administers a Master of Arts degree program in Latin American Studies. The Master of Arts program is a one year program of graduate studies that provides students with a thorough knowledge of the cultures, history, politics, and languages of the region. Students benefit from various resources that put the University of Chicago at the forefront of research and scholarship on Latin America, including world renowned faculty, top quality library resources, graduate workshops, and field research grant opportunities. Please see the Center for Latin American Studies pages for full details on Center resources. The Center also administers a Bachelor of Arts (major and minor) in Latin American Studies, and a BA to MA degree program (for details please see t (http:// clas.uchicago.edu/page/degree-programs)he CLAS degree programs webpages (https://clas.uchicago.edu/page/degree-programs)).

The master's program attracts students who will benefit from interdisciplinary training in a highly individualized and flexible program. Each student works closely with faculty and the program advisor to design a customized curriculum, define an area of scholarly research, and write a master's thesis. Students take advantage of the program's flexibility to advance their academic and/or career objectives. Some students approach a research interest from a multidisciplinary perspective. Others strengthen their training in a single discipline as it relates to Latin American Studies, or explore new fields.

Through the M.A. Proseminar, the required common core of the master's program, students gain a critical understanding of the major theoretical approaches, principal research methods, and current trends in Latin American Studies. During the autumn and winter quarters of the Proseminar students develop the proposal for their master's thesis. The master's thesis is meant to demonstrate the student's ability to apply formal training in Latin American Studies toward a specific and original research problem. Primary Latin Americanist faculty at the University of Chicago serve as guest lecturers in the Proseminar to introduce students to their research.

The master's program provides students with the opportunity to develop and enhance skills and knowledge appropriate for careers related to Latin America or as preparation for further graduate work or professional training. Graduates of the program enter or return to careers for which the master's degree is increasingly an entry-level requirement, including secondary and higher education, government, business, and various cultural organizations and non-profit agencies. Others enter doctoral and professional degree programs with support and advice from Latin American Studies staff and faculty.

Admission to the Master's Program

Prospective students to the Master of Arts program in Latin American Studies may apply to the program through the Division of the Social Sciences or through the Division of the Humanities and will receive the degree from the division through which they have been admitted.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online: Division of the Humanities (http://humanities.uchicago.edu/students/ admissions/apply-now)

Social Sciences Division (https://apply-ssd.uchicago.edu/apply)

Students whose first language is not English must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about these tests may be obtained from the Educational Testing Service, Princeton, NJ 08540.

Students who wish to earn a Ph.D. degree should apply to a degree program in one of the graduate departments or committees in the Division of the Humanities or the Division of the Social Sciences. Foreign students should be advised that in the United States completion of a master's degree program is generally not a prerequisite to entering a Ph.D. program.

PROGRAM REQUIREMENTS

Upon entering the program, students will work under academic direction of the CLAS Student Affairs Coordinator and the CLAS Postdoctoral Lecturer to develop a specific program of study, cultivate their research interests, and identify a faculty advisor for their master's thesis. The basic components of the master's program are described below.

LANGUAGES

A fundamental requirement of the program is proficiency in one of the spoken languages (other than English) of Latin America and the Caribbean.

This requirement normally will be met in Spanish or Portuguese. However, substitution of an Amerindian language (such as Aymara, K'iche' Maya, or Yucatec Maya) or a language spoken in the Caribbean (such as Haitian Kreyol) is permissible with the approval of the program advisor. Petitions for substitution will be evaluated in light of the student's prior competency and curricular program and the adequacy of instructional resources in the substitute language. Advanced Proficiency Examinations will be administered to evaluate the entering student's language skills. Students usually meet the language requirement through the Advanced Proficiency Examination in Spanish or Portuguese.

COURSE REQUIREMENTS

The standard course requirement is nine quarter courses, to be met as follows: the M.A. Proseminar in Latin American Studies; five courses in Latin American and Caribbean Studies; and three disciplinary elective courses. Students are expected to fulfill the language requirement through proficiency examination, and complete the master's program in three quarters of course work.

THE MA PROSEMINAR IN LATIN AMERICAN STUDIES

Through the MA Proseminar, the required common core of the master's program, students gain an introduction to the variety of disciplinary approaches, discourses, and foci that fall under the large rubric of Latin American Studies. The Proseminar introduces students to specialists in the field at the University of Chicago and to the research and investigation in which they are involved. Led by the Postdoctoral Lecturer in Latin American Studies, the Proseminar meets during the Autumn and Winter quarters.

5 Latin American Content Courses

Each quarter CLAS compiles a list of University-wide courses with Latin American content. Courses which focus on disciplinary, methodological or comparative topics (such as *International Relations Theory* or *Indigeneity*) may also be counted toward this requirement, provided the student completes a paper or other major project treating a Latin American theme. Students choose their content courses in consultation with the Program Advisor and the CLAS Postdoctoral Lecturer.

3 DISCIPLINARY ELECTIVE COURSES

These courses may have Latin American content, but they are often taken in order to gain a specific disciplinary grounding, to explore a particular theoretical framework, or to develop skills in a particular research methodology. Non-degree graduate level courses taken and completed at the University prior to admission to the master's program may be used in fulfillment of elective requirements, upon approval of the Program Advisor. Students choose their elective courses in consultation with the Program Advisor and the CLAS Postdoctoral Lecturer.

Credits towards the Master of Arts in Latin American Studies must be taken at the graduate level (courses designated as 30000 or above). However, certain lower level courses may be accepted, at the discretion of the program advisor. All course requirements can be met in three academic quarters.

COURSES

Courses pertinent to the Latin American area are offered through the individual departments and committees of the Divisions of the Social Sciences and the Humanities, and through the University's professional schools. Please refer to the listings in these Announcements and in the quarterly Time Schedules for specific offerings. Additionally, special courses are offered by senior visiting Latin Americanist faculty through the Center's Tinker Visiting Professorship. Each quarter the Center compiles a comprehensive list of Latin American and Caribbean courses to be offered at the University available on the CLAS webpage (http://clas.uchicago.edu/page/courses) or through classes.uchicago.edu.

THE MASTER'S THESIS

In addition to the course requirements outlined above, every master's degree candidate is required to submit a master's thesis. This paper is meant to demonstrate the student's ability to apply formal training in Latin American and Caribbean studies toward a specific research problem developed over the course of the program. The research and writing of the thesis will be conducted under the guidance of a faculty advisor and the CLAS Postdoctoral Lecturer. A student may register for the course LACS 40300 Master's Paper Preparation, which is arranged on an individual basis with the faculty advisor for the project. This course, while optional, may be counted as one of the five required Latin American Studies core courses.

FOR ADDITIONAL INFORMATION ABOUT THE MASTER OF ARTS IN LATIN AMERICAN STUDIES PROGRAM, PLEASE SEE VISIT THE CLAS WEBSITE (HTTP://CLAS.UCHICAGO.EDU/ PAGE/ABOUT) OR CALL CLAS STUDENT AFFAIRS COORDINATOR JAMIE GENTRY AT (773) 702-8420.

TENTATIVE COURSE OFFERINGS FOR 2015-16.

*For a continually updated list of course offerings, please visit the Center for Latin American Studies webpage (http://maclas.uchicago.edu/page/courses) or classes.uchicago.edu

LACS 16100. Introduction to Latin American Civilization I. 100 Units.

Autumn Quarter examines the origins of civilizations in Latin America with a focus on the political, social, and cultural features of the major pre-Columbian civilizations of the Maya, Inca, and Aztec. The quarter concludes with an analysis of the Spanish and Portuguese conquest, and the construction of colonial societies in Latin America.

Instructor(s): E. Kourí Terms Offered: Autumn Equivalent Course(s): ANTH 23101,CRES 16101,HIST 16101,HIST 36101,LACS 34600,SOSC 26100

LACS 16200. Introduction to Latin American Civilization II. 100 Units.

Winter Quarter addresses the evolution of colonial societies, the wars of independence, and the emergence of Latin American nation-states in the changing international context of the nineteenth century.

Instructor(s): M. Tenorio Terms Offered: Winter

Equivalent Course(s): ANTH 23102,CRES 16102,HIST 16102,HIST 36102,LACS 34700,SOSC 26200

LACS 16300. Introduction to Latin American Civilization III. 100 Units.

Spring Quarter focuses on the twentieth century, with special emphasis on the challenges of economic, political, and social development in the region. Instructor(s): B. Fischer Terms Offered: Spring

Equivalent Course(s): ANTH 23103,CRES 16103,HIST 16103,HIST 36103,LACS 34800,SOSC 26300

LACS 22501-22502-22503. Elementary Haitian Kreyol I-II-III.

This three-course sequence will provide students with an in-depth study of the Haitian Kreyol language in its modern context, with emphasis on developing students' proficiency in speaking and writing, and in listening and reading comprehension. The course will also provide necessary cultural and historical context.

LACS 22501. Elementary Haitian Kreyol I. 100 Units.

Instructor(s): Lecturer Terms Offered: Autumn 2015 Equivalent Course(s): LACS 32501

LACS 22502. Elementary Haitian Kreyol II. 100 Units. Instructor(s): Lecturer Terms Offered: Winter 2016 Equivalent Course(s): LACS 32502

LACS 22503. Elementary Haitian Kreyol III. 100 Units. Instructor(s): Lecturer Terms Offered: Spring 2015 (tentative) Equivalent Course(s): LACS 32503

LACS 22502-22503. Elementary Haitian Kreyol II-III.

LACS 22502. Elementary Haitian Kreyol II. 100 Units.

Instructor(s): Lecturer Terms Offered: Winter 2016 Equivalent Course(s): LACS 32502

LACS 22503. Elementary Haitian Kreyol III. 100 Units.

Instructor(s): Lecturer Terms Offered: Spring 2015 (tentative) Equivalent Course(s): LACS 32503

LACS 22503. Elementary Haitian Kreyol III. 100 Units.

Instructor(s): Lecturer Terms Offered: Spring 2015 (tentative) Equivalent Course(s): LACS 32503

LACS 24512-24513-24514. Intermediate Haitian Kreyol I-II-III.

This three-course sequence will enhance students' understanding of Haitian Kreyol with continued study of the language in its modern context, with emphasis on developing students' proficiency in speaking, writing, listening, and reading comprehension at an intermediate level.

LACS 24512. Intermediate Haitian Kreyol I. 100 Units. Terms Offered: Autumn Equivalent Course(s): LACS 34512

LACS 24513. Intermediate Haitian Kreyol II. 100 Units. Terms Offered: Winter Equivalent Course(s): LACS 34513

LACS 24514. Intermediate Haitian Kreyol III. 100 Units. Terms Offered: Spring Equivalent Course(s): LACS 34514

LACS 24513. Intermediate Haitian Kreyol II. 100 Units.

Terms Offered: Winter Equivalent Course(s): LACS 34513

LACS 24514. Intermediate Haitian Kreyol III. 100 Units.

Terms Offered: Spring Equivalent Course(s): LACS 34514

LACS 29700. Reading and Research in Latin American Studies. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Consent of faculty supervisor and program adviser Note(s): Students are required to submit the College Reading and Research Course Form. Typically taken for a quality grade. Equivalent Course(s): LACS 40100

LACS 29801. BA Colloquium. 100 Units.

This colloquium, which is led by the preceptor and BA adviser, assists students in formulating approaches to the BA essay and developing their research and writing skills, while providing a forum for group discussion and critiques. Graduating students present their BA essays in a public session of the colloquium during the Spring Quarter.

Terms Offered: Autumn, Winter, Spring

Note(s): Required of students who are majoring in Latin American Studies. Students must participate in all three quarters but register only in Autumn Quarter.

LACS 29900. Preparation of the BA Essay. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Consent of faculty supervisor and program adviser. Students are required to submit the College Reading and Research Course Form. Note(s): Typically taken for a quality grade.

LACS 40100. Reading and Research in Latin American Studies. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer

Prerequisite(s): Consent of faculty supervisor and program adviser Note(s): Students are required to submit the College Reading and Research Course Form. Typically taken for a quality grade. Equivalent Course(s): LACS 29700

LACS 40300. MA Paper Pre: Latin American Studies. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Instructor Consent required

LACS 40501. MA Proseminar. 100 Units.

Required course for the master's in Latin American Studies degree program. Students will gain an introduction to the variety of disciplinary approaches, discourses, and foci that fall under the large rubric of Latin American Studies. The proseminar introduces students to specialists in the field at the University o fChicago and to the research and investigation in which they are involved. Open only to program students.

Terms Offered: Autumn



MASTER OF ARTS IN MIDDLE EASTERN STUDIES - HUMANITIES

Director

- Hakan Karateke
 Deputy Director
- Orit Bashkin Deputy Director for Academic Programs
- Paul E. Walker Associate Director
- Thomas E. R. Maguire Project Assistant
- Brittany Ciboski
 Public Education Project Director
- Alexander Barna

Please see entry for Center for Middle Eastern Studies for the list of Middle Eastern Studies faculty, also available at http://cmes.uchicago.edu/.

The Center for Middle Eastern Studies offers an interdisciplinary Master of Arts program designed for students who wish to use their knowledge of the Middle East in careers other than university teaching and research. The program is also suitable for students considering an academic career who have not had the appropriate academic background for direct entrance into a doctoral program. Language and area studies preparation may be supplemented by relevant course work in a professional school or department. Students may be admitted to the Master of Arts program in either the Division of the Social Sciences or the Humanities and will receive the degree from the division through which they have registered. Students with significant previous training in Middle Eastern or Islamic studies who wish to earn a doctoral degree leading to careers in research and college or university teaching should apply for admission directly to one of the graduate doctoral departments or committees of the University.

There are two tracks — modern and ancient — for the MA program in Middle Eastern Studies. The modern program covers the time period from the rise of Islam until the present. The ancient track, offered in collaboration with the faculty of the Department of Near Eastern Languages and Civilizations, focuses on the cultures and languages of the ancient Near East. The application process, degree requirements, and the rules and conditions for financial aid are similar for both programs.

ADMISSION

Applicants for the Master of Arts in Middle Eastern Studies are expected to meet the graduate admission requirements of the University and of the division to which they apply. In addition, applicants to the Middle Eastern Studies program must submit an academic writing sample. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Students must enter the program in the autumn quarter. Although the program is designed for full time students, applications from those who can attend only on a part time basis will be considered.

HOW TO APPLY THROUGH THE DIVISION OF HUMANITIES

The application process for admission and financial aid for all Humanities graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (http:// humanities.uchicago.edu/students/admissions/apply-now).

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Program requirements

The requirements are satisfactory completion of:

- Six quarters of a Middle Eastern (ancient or modern) language (through at least two year proficiency);
- One quarter core colloquium: Approaches to the Study of the Middle East, or Approaches to the Study of the Ancient Near East;
- Three quarters of an approved integrated Middle Eastern survey course.
- Seven courses in relevant electives;
- One course in thesis preparation, or reading and research;
- A master's thesis.

Only courses taken for a quality grade count toward fulfilling the requirements. No P or R grades will be accepted.

Elective courses may concentrate on one area or explore several of the fields of ancient or modern Middle Eastern studies such as, for example, Archaeology, Cuneiform Studies, Egyptology, Semitic linguistics, Arabic, Persian or Turkish literature, as well as related disciplines such as Art History, Anthropology, Classics, History, Linguistics, Political Science and Sociology.

LANGUAGE

Placement interviews will be given so that entering students may register for courses at the appropriate level of instruction. The languages offered include: Akkadian, Arabic, Armenian, Egyptian (Ancient), Hebrew (classical and modern), Hittite, Sumerian, and Uzbek.

CORE COURSES

For the modern track MA, all students are required to take the core colloquium Approaches to the Study of Middle East (CMES 30001). Students must enroll in one

of the following three quarter sequences: Islamic History & Society (NEHC 31000, 31100, 31200/HIST 35704, 35804, 35904), or Islamic Thought & Literature (NEHC 30601, 30602, 30603/ SOSC 22000, 22100, 2220). For the ancient track MA, students are required to take the core colloquium Approaches to the Study of the Ancient Near East and must enroll in the three quarter sequence: Ancient Near Eastern History & Society (NEHC 30001, 30002, 30003).

MASTER'S THESIS

Students are required to submit a master's thesis that should deal with a problem relevant to the student's intended career and should give evidence of the specialized disciplinary aspects of his or her training. The student's program adviser and a faculty member with special interest in the subject of the paper will guide the research and writing of the paper and judge whether it exhibits proof of competence in the field. During the writing of the paper, the student will register for a thesis preparation or reading and research course. The thesis title will be listed on the student's transcript.



DEPARTMENT OF ART HISTORY

Chair

Christine Mehring

Professors

- Charles Cohen
- Darby English
- Tom Gunning
- Christine Mehring
- William J. T. Mitchell
- Richard Neer
- Joel M. Snyder
- Yuri Tsivian
- Wu Hung

Associate Professors

- Persis Berlekamp
- Claudia Brittenham
- Matthew Jesse Jackson
- Aden Kumler
- Wei-cheng Lin
- Katherine Taylor
- Martha Ward

Assistant Professors

- Niall Atkinson
- Patrick Crowley
- Chelsea Foxwell
- Cécile Fromont
- Megan Sullivan

Harper Schmidt Collegiate Assistant Professor

- Amy Thomas
- Tatsiana Zhurauliova

Emeritus Faculty

- Neil Harris
- Reinhold Heller
- Robert S. Nelson
- Linda Seidel
- Barbara Stafford

Visiting Professor

• Jas' Elsner, Corpus Christi College, University of Oxford

The department offers a program for the study of the history and theory of art, leading to the degree of Doctor of Philosophy. We provide a forum for exploring the visual arts of European, Near Eastern, Asian, African, and American civilizations. The department seeks to cultivate knowledge of salient works of art, of the structures within which they are produced and used, and of the ways in which the visual environment in the broadest sense generates, acquires, and transmits meaning. We encourage the exploration of diverse approaches. Ways of addressing and analyzing the range of materials that constitute visual culture are emphasized in lectures, seminars, and workshops through the oral and written presentation of research and inquiry into specific objects, periods, and issues.

Admission

A student wishing to enter the graduate program should have a sound undergraduate education in the humanities and liberal arts, preferably but not necessarily with a major in the history of art. It is highly recommended that students have usable skills in French, German, or other major languages relevant to the student's area of focus. More specific information about appropriate languages can be found on the department's website. Applicants are normally required to submit Graduate Record Examination (GRE) aptitude scores. Both applicants with a B.A. and applicants who bring an M.A. in Art History from another institution are welcome to apply for admission to the Ph.D. program. The department grants M.A. degrees but does not have an independent M.A. program.

The combined application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional office of the Dean of Students. The application and instructions, deadlines and department specific information is available online at: http://humanities.uchicago.edu/prospective/#admissions|the-application

Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The department sets specific requirements for language skills, course distribution, and procedures leading to the completion of a dissertation. These are worked out individually, in accordance with a student's interests, in consultation with the student's major faculty advisor and the director of graduate studies. Ordinarily they include proficiency in two foreign languages and eighteen courses, at least twelve of which are in art history, distributed between major and minor fields. These courses are taken during a two-year period and include seminars in methodology and historiography. Independent research work in the student's area of interest completes the program and guides the development of a dissertation proposal.

After completing course work, including a qualifying paper written over two quarters, the student prepares for a written examination testing knowledge in his or her major field of study and probable area of dissertation research. Successful completion of these preliminary examinations and departmental approval of the dissertation proposal qualifies the student for admission to candidacy. This identifies the final, most challenging and gratifying stage of doctoral study, the research and writing of the dissertation, an original contribution of scholarly or critical significance. Because the requirements for the programs in art history are regularly reviewed and revised, applicants should consult the departmental handbook for up-to-date statements: http://arthistory.uchicago.edu/graduate/ department-handbook.

THE DEGREE OF MASTER OF ARTS

The objective of the program is the Ph.D. degree. Doctoral students in the program are eligible for the M.A. degree after completing the following requirements: one foreign language required for the student's field; nine one-quarter courses at the University of Chicago, which include Methodology and meet the first-year distribution requirements; and approval of the qualifying paper from both readers.

Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study in a number of areas of interest to students. Further details about the MAPH program are available at http://maph.uchicago.edu/

COURSES

For more information on recently taught courses, please see the course description page of the departmental website at: http://arthistory.uchicago.edu/courses.

ART HISTORY COURSES

ARTH 31313. Video Art: The Analog Years. Theory, Technology, Practice. 100 Units.

The course gives a critical introduction to early video and television art—from the proto-televisual impulses in the historical avant-gardes to the increasing proximity between analog and digital technologies in video art in the late 1970s and early 1980s. We will focus on the various technical aspects of analog video, as well as on artistic practice and early writings on the subject. Topics may include the technics and politics of time; video, feedback systems, and ecology; the reconfiguration of the artist's studio; guerilla politics and alternative TV; video and autobiography; the relation between video and painting; the musical history of video; the invention of new machines; and video as a "television viewer."

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): CMST 28703, CMST 38703, ARTH 21313

ARTH 32611. The Politics of Luxury in the Middle Ages. 100 Units.

This course explores conspicuous consumption, the love of costly things, the lure and power of precious materials, and the important role played by the arts in the definition of status, authority, influence, and pleasure in the Middle Ages. Investigating a series of episodes from the history of medieval luxury, we will explore how precious objects participated in western medieval theological conceptions of gifting as well as politically charged "secular" practices of medieval gift-culture, and how the patronage of works of art served a variety of ideological and social aims, and we will scrutinize the implicit aesthetics and notions of value congealed in works of art and "ars." Not least, the course aims to interrogate how a changing politics of luxury contributed to changing conceptions of the status of the artwork and the artist over the course of the Middle Ages.

Instructor(s): A. Kumler Terms Offered: Winter

Prerequisite(s): Knowledge of art history &/or medieval studies very helpful. Students interested in the course MUST attend the first day of class to remain enrolled or to add the course. Requires consent No Equivalent Course(s): ARTH 22611

ARTH 33603. Grace, Love, and Pleasure. Painting in Eighteenth Century France. 100 Units.

The easing of political life and the relaxation of private morals which came to characterize the long reign of Louis XV (1715–1774) was mirrored by the development of a new conception of art, an art more intimate, decorative, generally amorous, and often erotic. It is these last two related dimensions which are the basis of a new visual aesthetic which constitutes the subject matter of this course. Through the exploration of contemporary novels and theater, as well as contemporary critical and philosophical writings, we will demonstrate how both the sensual and the erotic become essential components of the century's cultural ethos. Artistic subjects, the mechanisms to represent them, their metaphorical stakes, and their phenomenological effects on the beholder will therefore be considered as the expression of a particular historical and ideological context. It is in this context that love became the symbol of a king who privileged peace against war, and where emotional pleasure triumphed over moralizing values and asserted itself as a new aesthetic category.

Instructor(s): S. Caviglia-Brunel Terms Offered: Winter

Note(s): Students who take this course for French credit must do the readings and assignments in French.

Equivalent Course(s): FREN 26303, FREN 36303, GNSE 23603, GNSE 33603, ARTH 23603

ARTH 33801. Soundscapes of the Early Modern City. 100 Units.

This course focuses mainly on the late medieval and Renaissance soundscapes in Italian cities, but owing to the nature of the scholarship, we will be focusing as well on some modern examples as well. The conceptual framework on which it is based explores a variety of theoretical frameworks that have contributed to the construction of the soundscape as an urban phenomenon. It will explore such premodern themes as the acoustic construction of sacred and secular space, bells and bell towers, the visual and aural aspects of early modern time-keeping practices, ritual forms of music and singing in the public sphere, the auditory practices of civic devotion, the phenomena of mendicant preaching and public storytelling, as well as more modern and industrial soundscapes, such as noise and the circulation of information through urban communication networks.

Instructor(s): N. Atkinson Terms Offered: Winter

Equivalent Course(s): ARTH 23801

ARTH 34812. Museums and Art. 100 Units.

This course considers how the rise of the art museum in the 19th and 20th centuries affected the making of modern art and the viewing of past art. It is not designed to be a survey course, but rather a historical investigation of certain issues and developments. We will concentrate on the following: what has been said to happen to objects when they are uprooted and moved into the museum; how and why museums have changed display practices so as to get viewers to look at art in new ways; what artists have understood museums to represent and how they have responded to that understanding in their work and their display preferences. Though reference will be made to the contemporary art world, the focus will be on materials and case studies drawn from the French Revolution through the 1960s. French, German, English, and American museums will be featured. Instructor(s): M. Ward Terms Offered: Spring Equivalent Course(s): ARTH 24812

ARTH 35105. Chichen Itza. 100 Units.

The Art and Architecture of Chichen Itza. This course investigates the visual culture of Chichen Itza, one of ancient Mesoamerica's most cosmopolitan cities. Thriving in the centuries after the collapse of the lowland Maya kingdoms, the city of Chichen Itza articulated a new political and cosmological vision of authority, drawing on traditions from all over Mesoamerica, past and present, to create an innovative visual synthesis. This course will investigate Chichen Itza's most famous architectural and sculptural monuments in the light of new epigraphic and chronological discoveries, paying close attention to questions of innovation, repetition, and serial production.

Instructor(s): C. Brittenham Terms Offered: Autumn Equivalent Course(s): LACS 25101,LACS 35101,ARTH 25105

ARTH 35202. Visual Encounters in the Global Renaissance. 100 Units.

This course examines the visual, material, and political encounters between Europeans and peoples from Africa, Asia, and the Americas between the era of European expansion inaugurated circa 1450 to the abolitionist period of the mid-1800s. It seeks to bring a multicultural framework to the understanding of the early modern period. We will examine the role of images, material exchange, and visual reckoning in the early modern institutions and endeavors that helped shape our current world: the Atlantic slave trade, envisioning the other in European and non-European art, religious encounters and conflicts, visual and material exchange in scientific explorations, imperialism and colonialism. Special attention will be given to the enduring effects of these interactions in contemporary European societies and emphasis brought to a critical consideration of the idea of the Renaissance as a keystone of histories of 'Western' art, culture, and science. Instructor(s): C. Fromont Terms Offered: Autumn Equivalent Course(s): ARTH 25202

ARTH 35500. Avant-Garde in East Central Europe. 100 Units.

The avant-gardes of the "other" Europe are the mainstay of this course which focuses especially, but not exclusively, on the interwar avant-gardes of Austria, Czechoslovakia, Hungary, Poland, Romania, Slovenia, and Yugoslavia. A comparative framework is employed whenever lucrative to comprehend the East/ Central European movements in the wider context of the European avant-garde. The course also traces the development and legacy (political and artistic) of these avant-gardes in their contemporary scenes. Plastic, verbal, and performative arts (including film) are studied.

Instructor(s): Malynne Sternstein Terms Offered: Spring Equivalent Course(s): REES 33141,ARTH 25500,CMST 25100,CMST 35100,ISHU 28401,ISHU 38401,REES 23141

ARTH 35810. Global Abstraction. 100 Units.

This course investigates twentieth-century abstraction as a global phenomenon, focusing on the period from 1945 through the 1960s. Case studies will be drawn primarily from the United States, Europe, Latin America, and East Asia, but individual research projects from other regions will be welcome. Themes and questions to be addressed include: the repetition of historical avant-garde strategies such as the grid, the monochrome, and non-compositional order in Europe, the United States, and South America; the global reception and adaptation of Abstract Expressionism; distinct understandings of gesture, mark-making, and subjectivity; the meaning and use of color; the relationship of abstraction to industry and design; the deployment of abstraction as a "weapon of the Cold War" and a strategy of internationalization; and autochthonous definitions of abstraction outside the West. Artists and groups to be studied include: Jackson Pollock, Barnett Newman, Ellsworth Kelly, Agnes Martin, Zero, Blinky Palermo, Georges Mathieu, Lucio Fontana, Neoconcretism, Alejandro Otero, Gutai, and Tansaekhwa. Instructor(s): M. Sullivan Terms Offered: Winter Equivalent Course(s): LACS 25810, LACS 35810, ARTH 25810

ARTH 36600. Early 20th-Century Urban Visions. 100 Units.

It is hard to understand contemporary architectural debate about how cities should develop without knowing its origins in the influential city planning proposals developed by architects and planners in pre-World War II Europe and North America. This course studies those foundations, looking at the period when modernist architects and intellectuals proclaimed the obsolescence of the metropolis just as it came to dominate the modern landscape. We will examine a variety of strategies devised to order or replace the metropolis during the late nineteenth and early twentieth centuries, ranging from the City Beautiful movement in Chicago, Camillo Sitte's influential critique of Vienna's Ringstrasse, and the English garden city alternative Lewis Mumford championed for the New York region, to Le Corbusier's Plan Voisin for Paris and Frank Lloyd Wright's Broadacre City model displayed in New York's Rockefeller Center. We conclude with urban renewal in New York and Chicago, and Jane Jacobs's reaction. Course readings are in primary sources. Focusing on particular projects and their promulgation in original texts and illustrations, as well as in exhibitions and film, we will be especially concerned with their polemical purposes and contexts (historical, socio-cultural, professional, biographical) and with the relationship between urbanism and architecture. Instructor(s): K. Taylor Terms Offered: Autumn

Note(s): This course does not meet the general education requirement in the dramatic, musical, and visual arts.

Equivalent Course(s): ARTH 26600

ARTH 36902. Prints and Privacy. 100 Units.

Although prints are generally understood as a medium permitting wide dissemination of visual imagery, they also have a strong association with the private sphere. Whether used as aids to religious devotion, circulated anonymously as tools of political subversion, or given as cherished tokens of individual esteem, they were often viewed in intimate surroundings in the company of like-minded people. Drawing exclusively from the Smart Museum's permanent collection, and grounded in the close study of original works of art, this course will consider the historical use of prints as a private mode of communication and artistic expression. Our geographic and chronological span will be Europe from 1500 to 1900, but the course will not be presented as a survey; instead, we will focus on key figures and moments, also taking note of changes in print collecting over the period. Artists to be investigated include Dürer, Rembrandt, Goya, and Delacroix, among many others. Apart from the standard course requirements, students will have the option to help prepare a small exhibition of prints.

Instructor(s): A. Leonard Terms Offered: Winter Equivalent Course(s): ARTH 26902

ARTH 36905. Movies and Madness. 100 Units.

We propose to investigate representations of madness in fictional, documentary, and experimental film. We divide the topic this way to emphasize the different dimensions of cinematic address to questions of mental illness, and the ways that film genres imply distinct formal and epistemological conventions for the representation of insanity. Documentary ranges from instructional and neutral reportage, to polemical, essayistic interventions in the politics of psychiatry and the asylum, the actual conditions of mental illness in real historical moments. Documentary also includes the tendency in new media for "the mad" to represent themselves in a variety of media. With experimental film, our aim will be to explore the ways that the cinematic medium can simulate experiences of mania, delirium, hallucination, obsession, depression, etc., inserting the spectator into the subject position of madness. We will explore the ways that film techniques such as shotmatching, voice-over, montage, and special effects of audio-visual manipulation function to convey dream sequences, altered states of consciousness, ideational or perceptual paradoxes, and extreme emotional states. Finally, narrative film we think of as potentially synthesizing these two strands of cinematic practice, weaving representations of actual, possible, or probable situations with the special effects of mad subjectivity. Our emphasis with narrative film will be to focus—not simply on the mentally ill subject as hero or monster-but on the institutional situation of madness, its place in a social and disciplinary context. Put simply, we want to consider films that portray both insanity and the sanatorium, both the deranged subject and the asylum, both the madwoman and the (often male) psychiatrist, both the irrational subject and the rational system. The overall aim of the seminar, then, is to raise the question of what movies bring to madness that was not representable in pre-cinematic media such as theater, opera, and literature, and what it was that the subject of madness brought to cinema, not only as a thematic issue but as defining possibility of film form as such. A more specific aim will be to establish a context for focusing on American Cold War movies, as well as more recent films that look back to the Cold War era, and films that directly address the anti-psychiatry movement of the 1960s. (H)

Instructor(s): W. J. T. Mitchell, J. Hoffman Terms Offered: Autumn Prerequisite(s): Third- or fourth-year standing

ARTH 37201. Visual and Material Culture of Modern Shanghai. 100 Units.

The course maps the material and visual culture of Shanghai between its establishment as a treaty port in 1842 and the Japanese invasion of China proper in 1937, a century in which the metropolis was reputed for its material extravagance, cultural lavishness, and visual splendors. We will sample through vestiges of material culture including architecture, fine and decorative arts, photography, printed matters, and etc. Meanwhile, we will examine the metamorphosis of research approaches that interpret and reassess Shanghai's history and politics, urban life, media and public sphere, literary and popular culture, multiethnic communities, and so forth. Moreover, the class will evaluate new media projects that virtually restore the city and material life of Shanghai in modern times (e.g. virtualshanghai.net/), and the students will have the opportunity to curate with digital tools their own exhibits of certain facets of Shanghai's material and visual culture.

Instructor(s): Y. Zhu Terms Offered: Autumn Equivalent Course(s): EALC 27201,EALC 37201,ARTH 27201

ARTH 37215. Public Sculpture. 100 Units.

This class examines sculpture made for public spaces since World War II, with a particular emphasis on public art in Chicago and on campus. We will read foundational texts on postwar sculpture; test the relevance of theories of the public; consider the role of commemoration, site-specificity, context, architecture, and photography; and examine questions of censorship, vandalism, and conservation. Significant portions of the class will involve on-site case studies, including sculptures in Millennium Park, Henry Moore's Nuclear Energy, Wolf Vostell's Concrete Traffic, Giuseppe Penone's Ideas of Stone, and Jean Dubuffet's Monument with Standing Beast. The class will also include conversations and hands-on sessions with experts, including the Campus Art Coordinator and staff at the nonprofit organization Public Art Chicago and at the City of Chicago's Department of Cultural Affairs. Students will research documentation, conduct interviews, and contribute texts to the website (and app) in progress on UChicago Public Art at http://arts.uchicago.edu/uchicago-public-art. Creative projects are possible in consultation with the instructor. This course requires several trips to offsite locations; please make sure your schedule allows for occasional travel time before and after class.

Instructor(s): C. Mehring Terms Offered: Spring Equivalent Course(s): ARTH 27215

ARTH 37304. Photo/Modernism/Esthetic. 100 Units.

The course presents the history of photographic practices in the United States, beginning in the late 19th century and extending into the 1980s, aimed at gaining an audience for photographs within museums of art. The issues under study include the contention over claims about medium specificity, notions of photographic objectivity, a peculiarly photographic esthetics, the division of photography into two categories—art vs. documentary—and the role of tradition and canon formation in the attempted definition of the photographic medium.

Instructor(s): J. Snyder Terms Offered: Winter

Equivalent Course(s): ARTH 27304

ARTH 38002. Islamic Art and Architecture of the Medieval Perso-Turkic Courts (11th–15th Centuries) 100 Units.

This course considers art and architecture patronized by the Seljuk, Mongol, and Timurid courts from Anatolia to Central Asia from the eleventh to the fifteenth centuries. While the princes of these courts were of Turkic and/or Mongol origin, they adopted many of the cultural and artistic expectations of Perso-Islamicate court life. Further, many objects and monuments patronized by these courts belong to artistic histories variously shared with non-Islamic powers from the Byzantine Empire to China. Questions of how modern scholars have approached and categorized the arts and architecture of these courts will receive particular attention. Each student will write a historiographic review essay with a research component.

Instructor(s): P. Berlekamp Terms Offered: Winter

Equivalent Course(s): NEHC 28002, NEHC 38002, ARTH 28002

ARTH 38402. The Art of the Maya Tomb. 100 Units.

Over the past 70 years, archaeologists have discovered a number of spectacular burials of ancient Maya kings, queens, and nobles, who went to their graves adorned with jades and elegant textiles, surrounded by painted vessels full of foodstuffs and other offerings. Many other works of Maya art in museums and private collections were likely also removed from tombs, unfortunately under less controlled and documented circumstances. What can these objects teach us about how the Maya understood death and the afterlife? How did the assemblages of objects in the tombs of identifiable historical figures address the shared beliefs of all Mesoamericans as well as particular historical and political circumstances? How did Maya tombs — and beliefs about death — change over time? This course will address these and other questions through a series of case studies of archaeologically excavated tombs, considering logics of sacrifice and assemblage, the relationship between tomb interior and exterior, attitudes towards the past reflected in the burial of heirlooms, and practices of ancestor veneration and commemoration. Instructor(s): C. Brittenham Terms Offered: Spring

Equivalent Course(s): LACS 28402, LACS 38402, ARTH 28402

ARTH 38500. History of International Cinema I: Silent Era. 100 Units.

This course introduces what was singular about the art and craft of silent film. Its general outline is chronological. We also discuss main national schools and international trends of filmmaking.

Instructor(s): Y. Tsivian Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): ARTH 28500,ARTV 26500,ARTV 36500,CMLT 22400,CMLT 32400,CMST 48500,ENGL 29300,ENGL 48700,MAPH 36000,CMST 28500

ARTH 38600. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): D. Morgan Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): ARTH 28600,ARTV 26600,CMLT 22500,CMLT 32500,CMST 48600,ENGL 29600,ENGL 48900,MAPH 33700,CMST 28600

ARTH 40200. Art History Proseminar. 100 Units.

How do we do art history? What is it? What are its premises and where does it come from? This seminar will explore the historical foundations, formulations and applications of current art historical methods, as well as the foundations of the art historical discipline as it emerged from the late 19th and early 20th centuries. Both theory and practice will be considered through select texts, with special focus on art history as a distinct scholarly discipline today. Rather than attempting to cover a comprehensive history of the methodological and historiographic traditions, the readings will attempt to present a coherent, if highly complex and conflictive, narrative that remains open to continued interrogation by its practitioners. Required of all first year ARTH PhD students.

Instructor(s): M. Sullivan Terms Offered: Autumn

Note(s): Required of all first year Art History PhD students.

ARTH 40301. Modernism/Postmodernism/Everythingism. 100 Units.

The post–World War II era of decolonialization, the 1989 collapse of the Soviet Bloc, and the dawn of the globally networked 21st century could be described as marking three stages in the transition of the Euro-American art industry from a culture grounded in modernist notions of cultural experience toward the contemporary horizon of what might be called "everythingism"—with postmodernism serving as a placeholder somewhere in between. Or, at least, this is the narrative that our course will examine as we explore various aspects of visual art's production and theorization over the past 50 years.

Instructor(s): M. Jackson Terms Offered: Winter Equivalent Course(s): ARTV 40301

ARTH 41313. Media Archeology vs. Media Aesthetics. 100 Units.

The course stages an encounter between media archeology and media aesthetics, two distinct but related research perspectives that are at times seen as incommensurable approaches to the media technological environment. Media archeology focuses on the non-human agencies and complex machinic arrangements that are at work in technologies whose microtemporal operations cannot be grasped by human perception: media archeology typically refuses phenomenological approaches. In contrast, media aesthetics focuses on the phenomenological interface between machine systems and human perception and sensation, and various forms of cultural and political negotiations of a lifeworld that is increasingly dominated by technologies that both store and produce time. We will read key texts from both fields and discuss how we may understand their differences as well as their points of intersection.

Instructor(s): I. Blom Terms Offered: Autumn Equivalent Course(s): CMST 47801

ARTH 42200. Medieval Word and Medieval Image. 100 Units.

The relationship between word and image has been a central concern for medieval art history and medieval studies for several decades. Attending to this development in the historiography of the Middle Ages, we will explore how medieval thinkers, makers, and works imagined and re-imagined relationships between words and images (and, at times, the world). Our conceptual framework will include writings by authors both medieval and modern. We will pursue an interrelated series of questions. What does it mean to "read" an image? What place does the centrality of "the Word" in medieval Christian culture leave for images and objects? Is a notion of visual (as opposed to textual) literacy an operative category in the Middle Ages? Is text always prior when we examine and interpret medieval images? What is the place of iconography in a twenty-first century medieval art history? In short: the seminar offers an idiosyncratic "crash course" in the history of medieval semiotics, focused on the tension and/or collaboration of word image as modes of signification in the period. The aim of the course is to grapple with questions rather than to attempt definitive answers. The seminar requires close reading, close looking, and engaged discussions of selected works of art and texts. Instructor(s): A. Kumler Terms Offered: Spring

ARTH 42402. Traveling Seminar: Art, Power, & Patronage in Naoshima. 100 Units.

Few places are more representative of the contemporary Japanese art world's challenges following the 1980s economic bubble than Japan's "art island," Naoshima, in the Seto Inland Sea. Home to the Naoshima Contemporary Art Museum, the Lee Ufan Museum, the Tadao Andō Museum, and several others since the late 1990s, the eight square mile island in Japan's peaceful Inland Sea region at first seems to be a relatively predictable case of global contemporary art tourism, with an international array of art ranging from James Turrell to Yayoi Kusama. But the art island project is also an extension of the socially and environmentally committed, often rural and site-based contemporary art that has become Japan's least exportable (both literally and theoretically) contribution to contemporary art discourses. Building off a weeklong trip to the Seto Inland Sea region, this course argues that Naoshima has a long prehistory in the use of local conjunctions of power and patronage to make an international statement. We will also discuss socially committed Japanese contemporary artists' alienation from or resistance to the Western or global contemporary art world. In addition to comparing Naoshima with other "art sites" worldwide, we will also explore the long history of art patronage in the Inland Sea region in search of recurring motives and themes. Instructor(s): C. Foxwell Terms Offered: Autumn

ARTH 42511. Origin of the Fetish. 100 Units.

Instructor(s): C. Fromont Terms Offered: Winter

ARTH 42911. 21st Century Art. 100 Units.

Instructor(s): M.J. Jackson Terms Offered: Spring Equivalent Course(s): ARTV 39901

ARTH 43300. Roman Mannerism. 100 Units.

This seminar explores the historiography of Mannerism as a concept and the selective study of Roman art between Raphael and Caravaggio. Instructor(s): C. Cohen Terms Offered: Autumn

ARTH 44002. COSI Objects & Materials Seminar. 100 Units.

Team-taught between Northwestern, the Art Institute of Chicago and University of Chicago, this course focuses on sustained, close engagement with art objects in the AIC collection and the methods and questions such inquiry raises. Students will be introduced to basic techniques of stylistic and scientific analysis as well as recent theoretical debates that resituate art history as a study of physical things as well as their disembodied images. Required for all first-year art history graduate students. Open to first year ARTH PhD students.

Instructor(s): M. Ward Terms Offered: Winter

Note(s): Open to first year Art History PhD students.

ARTH 48201. Florentine Topographies: Art, Architecture, and Urban Life. 100 Units.

The site of some of the most widely recognizable monuments of western art history and the home to some of the most famous artists, writers, designers, thinkers, and cultural patrons of early modern culture, Florence has long occupied a central place in a larger pan-European discourse of Modernity, Beauty, and the Individual Subject. As a result, the city itself has come to occupy a mythic position as a central hub of Western intellectual culture: uprooted from its geographical specificity by the circulation of such proper names as Machiavelli, Leonardo, Michelangelo, and unmoored from its historical heritage by the disorienting complexities of modern mass tourism. Therefore, this course seeks to re-integrate the "Renaissance" into the urban context from which it emerged, to defamiliarize it so that it can be looked at from other perspectives. It focuses on the city itself as the protagonist of some of the most important experiments in art, architecture, and urban development and shows how they were intimately connected to a lively and engaged social body. By approaching images and monuments through the spatial practices by which they were encountered by Renaissance society (rituals of conflict, contests, economic exchange, religious devotion, urban politics, identity formation, among others), students will gain a more nuanced understanding of the links between a localized urban culture and a larger intercultural and cross-temporal exchange of ideas. Instructor(s): N. Atkinson Terms Offered: Spring

ARTH 48610. Pop Art, Then and Now. 100 Units. Instructor(s): D. English Terms Offered: Winter Equivalent Course(s): AMER 48610

ARTH 49700. The Archive: Materiality, Aesthetics, Visual Culture. 100 Units. In this research-intensive graduate seminar, students will engage with a range of methods, questions, and approaches to conducting archival research in filmic, paper and print, and internet databases, and in both American and foreign contexts. While some class content will unfold around archival materials related to French film and art practice between 1930-1950, and to the discursive transformations around concepts of materiality and visual aesthetics therein, we will also explore a range of texts on archival methodology; selected texts on archival theory; and case-studies foregrounding modes of archival discovery, evaluation, and interpretation. With the aim of training students for "deep dive" explorations of material and visual culture, students will be expected to conduct original research on a topic of their own design beginning in week 2. To be considered for this seminar, interested students should thus submit a short (1-2 paragraph) research proposal prior to registration. Proposals do not have to focus on French or Francophone topics, nor do they have to be fully developed. They must, however, propose a set of coherent and exploratory, if tentative, questions or propositions that the student will explore through intensive archival research. Proposals should be sent to jenniferwild@uchicago.edu at least 2 weeks prior to spring quarter 2016. Instructor(s): J. Wild Terms Offered: Spring Equivalent Course(s): FREN 49100, CMST 69110

ARTH 49709. Skyscrapers. 100 Units. Instructor(s): K. Taylor Terms Offered: Winter



Department of Cinema and Media Studies

Core Faculty

Chair

• James Chandler, Barbara E. and Richard J. Franke Distinguished Service Professor, Department of English, Department of Cinema and Media Studies, Committee on the History of Culture, and the College

Professors

- James Chandler, Barbara E. and Richard J. Franke Distinguished Service Professor, Department of English, Department of Cinema and Media Studies, Committee on the History of Culture, and the College
- Tom Gunning, Edwin A. and Betty L. Bergman Distinguished Service Professor, Department of Art History, Department of Cinema and Media Studies, and the College
- David Levin, Professor, Department of Germanic Studies, Department of Cinema and Media Studies, the Committee on Theater and Performance Studies, and the College
- Richard Neer, William B. Ogden Distinguished Service Professor in Art History, Cinema and Media Studies and the College
- David Rodowick, Department of Cinema and Media Studies, and the College
- Jacqueline Stewart, Department of Cinema and Media Studies, and the College
- Yuri Tsivian, William Colvin Professor, Department of Art History, Department of Slavic Languages and Literatures, Department of Comparative Literature, Department of Cinema and Media Studies, and the College

Associate Professors

- Robert Bird, Department of Slavic Languages and Literatures, Department of Cinema and Media Studies, and the College
- James Lastra, Department of Cinema and Media Studies, Department of English Language and Literature, and the College
- Rochona Majumdar, Department of Cinema and Media Studies, Department of South Asian Languages and Civilizations, and the College
- Daniel Morgan, Department of Cinema and Media Studies, and the College
- Jennifer Wild, Department of Cinema and Media Studies, Department of South Asian Languages and Civilizations, and the College

Assistant Professors

- Xinyu Dong, Department of Cinema and Media Studies and the College; affiliated faculty at the Center for East Asian Studies
- Salomé Skvirsky, *Department of Cinema and Media Studies and the College* Professors of Practice
- Judy Hoffman Lecturers

• Dominique Bluher Visiting Faculty & Scholars

AFFILIATED FACULTY

- Paola Iovene, Assistant Professor in Chinese Literature, East Asian Languages and Civilizations
- Patrick Jagoda, Assistant Professor, Department of English Language and Literature and the College
- Loren Kruger, *Professor, Department of English Language and Literature and the College*
- Laura Letinsky, Professor, Department of Visual Arts and the College
- Joel Snyder, Professor, Department of Art History and the College
- Catherine Sullivan, Assistant Professor, Department of Visual Arts and the College

Staff

- Hank Sartin, Department Coordinator
- Joy Miller, Department Assistant

The Graduate Program in Cinema and Media Studies

The Department of Cinema and Media Studies offers a Ph.D. program that focuses on the history, theory, and criticism of film and related media. Faculty are drawn from a wide range of departments and disciplines, primarily in the humanities. In addition to offering its own doctoral degree, the Department offers courses and guidance to students who specialize in film and related media within other graduate programs or who pursue a joint degree.

Centering on the cinema, the graduate program provides students with the critical skills, research methods, and an understanding of the debates that have developed within cinema studies as a discrete discipline. At the same time, the study of cinema and related media mandates an interdisciplinary approach in a number of respects. The aesthetics of film is inextricably linked to the cultural, social, political, and economic configurations within which the cinema emerged and which it in turn has shaped. Likewise, the history of the cinema cannot be separated from its interaction with other media. Just as it is part of a wholly new culture of moving images and sounds that includes television, video, and digital technologies, the cinema draws on earlier practices of instantaneous photography and sound recording and, in a wider sense, those media that are more often described as the fine arts (painting, sculpture, architecture, literature, theater, and music). Finally, the interdisciplinary orientation of the program entails an emphasis on the diversity of film and media practices in different national and transnational contexts and periods and thus an understanding of the cinema as a historically variable and rich cultural form.

The Film Studies Center, located on the third floor of Cobb Hall, serves as a resource for course related and individual research and as a forum for cinema and media related activities.

FELLOWSHIPS

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students are expected to complete sixteen courses during their course of study, of which a minimum of eleven have to be listed among the offerings of the Department of Cinema and Media Studies. These Cinema and Media Studies courses will include:

- 1. Three required courses originating in the department:
 - : an introduction to research methods, key concepts, and theoretical approaches, using case studies to introduce students to debates and issues in the field.
 - CMST 48500 History of International Cinema I: Silent Era, and CMST 48600 History of International Cinema II: Sound Era to 1960: a two quarter survey course that is designed as both a beginning level graduate and an upper level undergraduate course.
- 2. Eight elective courses in the Department of Cinema and Media Studies.

A sample program for students entering the department without previous graduate study in cinema and media studies would consist in the following:

- First year: A total of seven courses; the three required courses, a minimum of two elective courses in the Department of Cinema & Media Studies, and two further elective courses.
- Second year: A total of six courses; a minimum of four elective courses in the Department of Cinema and Media Studies, and two further elective courses. Of these six courses, three must be designated as advanced courses.
- Third year: A total of three courses; at least one Ph.D. research seminar in the Department of Cinema and Media Studies, and two elective courses.

Students entering the program with an M.A. from another institution or another program may ask to be exempt from some of these requirements. Such requests will be handled on an individual basis. Students wishing to waive requirements must get the approval of their adviser and the Director of Graduate Studies.

FIELDS EXAMINATION

Students entering the program without previous graduate study in Cinema and Media Studies are expected to take their fields examination by the end of the third year; students entering with an M.A. may be encouraged to take the examination earlier. All candidates for the Ph.D. in Cinema and Media Studies must complete comprehensive examinations after completing the required course work.

- 1. The exam will be comprised of two parts: a written exam, and an oral defense. The student will select the exam committee in consultation with the graduate adviser.
- 2. The written exam will be comprised of three (3) equally weighted areas defined by three "lists" covering three areas of study.
 - These areas will be defined by generally canonical criteria: genre, period, nationality, movements, etc., but are not prescribed by the department.
 - Alternately, one area may be defined by the student as a way of tailoring a list to a special research interest.
 - CMS faculty will supervise the development of the lists to ensure that central texts are not omitted, that the lists cover an appropriate range of materials, including films, and that a balance of issues, periods, debates, etc. are engaged by the student. At least two members of the exam committee must be department members.
 - Each list will include approximately 30 "items." An item is a flexible unit that may be a book, a group of articles, a group of films, or, at times, a single [substantial] work the number and nature of an "item" will be negotiated between faculty member and student.
 - To ensure consistency, all lists will be approved by the chair or designated faculty delegate. At least four weeks prior to the scheduled exam, the student should return a completed approval form and a copy of the approved lists to the Cinema and Media Studies office, Gates-Blake 418. *Approval forms are available from the CMS office an on the CMS website.* Essay questions will be prepared by the faculty in advance of the written exam date.
- 3. The student will determine the sequence in which the written exam will be administered, specifying which list will comprise the first portion of the exam, which the second, and which the third. At 9:00 a.m. on a mutually selected date the department coordinator will email or otherwise deliver to the student the first question or questions of the written exam. The student will return the completed essay by 5:00 p.m. the next day. The remaining two portions of the exam will be sent to the student at 9:00 a.m. on subsequent days, at his or her own pace, returning the exams the next day, by 5:00 p.m. The student will finish the written exam no later than two weeks after the starting date.
- 4. Prior to the time of the written exam, the student will turn in a sample syllabus for a course based upon one or more of the lists. The syllabus will be discussed as part of the oral defense.
- 5. The faculty committee and the student will meet for an oral defense shortly after the written exam has been completed. Faculty will have evaluated the written portion, and will come with questions that respond to the written work. However, other aspects of the list will be considered fair game. The oral exam will last approximately 1.5 hours.

Foreign Language Requirement

Given the highly international nature of the field of cinema and media studies, proficiency in two modern foreign languages has to be demonstrated by earning High Passes on the University's Foreign Language Reading Examinations. The first of these two languages must be either French or German, and proficiency should be demonstrated by the beginning of the Autumn quarter of the student's second year. The second language will be chosen in consultation with the graduate advisor, and proficiency must be demonstrated before the student will be permitted to take the Fields Examination.

TEACHING

Graduate students in the Department of Cinema and Media Studies are expected to teach as part of their professional training. Positions within the department include course assistantships in a variety of courses, including survey courses; lecturer positions teaching freestanding undergraduate courses; and BA project supervising. Students should expect to act as both course assistants and as lecturers during their time in the program. Further information on teaching in CMS and other opportunities to teach at the University of Chicago can be found in the CMS Graduate Student Handbook and be obtained from the Office of the Dean of Students.

DISSERTATION PROPOSAL

Before being admitted to candidacy, students must write a dissertation proposal under the supervision of the dissertation committee.

DISSERTATION

Upon completion of the dissertation, the student will defend it orally before the members of the dissertation committee.

For further information concerning Cinema and Media Studies, please see http:// cms.uchicago.edu or contact the Department Coordinator at (773) 834-1077 or via email at cine-media@uchicago.edu.

Application and Financial Aid

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered by the Divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at:http://humanities.uchicago.edu/students/admissions

Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

COURSES

The following list represents courses that the department plans to offer during the 2014-2015 academic year. For up-to-date information about course offerings, please visit the department's courses page at http://cms.uchicago.edu/courses.

CINEMA AND MEDIA STUDIES COURSES

CMST 32302. Rome in Film and Literature. 100 Units.

We shall analyze films and fictional works that reflect both realities and myths about the "Eternal City," Rome. Classical Rome will not be studied; instead the focus will be on a trajectory of works, both written and cinematic, that are set in and explore late nineteenth to late twentieth-century Rome. The goal is to analyze some of the numerous diverse representations of modern Rome that portray historical, political, subjective, and/or fantastical/mythopoetic elements that have interacted over time to produce the palimpsest that is the city of Rome. Books by D'Annunzio, Moravia, Pasolini and Malerba; films by Fellini, Visconti, Rossellini, Bertolucci, Pasolini, and Moretti.

Instructor(s): R. West Terms Offered: Winter

Note(s): Taught in English; Italian majors will read the texts in the original Italian. Equivalent Course(s): CMST 23202,ITAL 33203,ITAL 23203

CMST 33404. French Cinema of the '20s and '30s. 100 Units.

In our study of two decades in the history of French cinema, we will track the rise of the poetic realist style from the culture of experimentation that was alive in both the French film industry and its surrounding artistic and literary landscape. As an exercise in the excavation of a history of film style, we will consider the salient features of the socio-political, cultural, theoretical, and critical landscape that define the emergence and the apex of poetic realism, and that reveal it as a complicated nexus in the history of film aesthetics. Main texts by Dudley Andrew and Richard Abel will accompany a wide range of primary texts. Films by Epstein, L'Herbier, Buñuel, Dulluc, Dulac, Gance, Clair, Vigo, Feyder, Renoir, Duvivier, Allégret, Carné, Grémillon. This class is cross-listed with the Department of Romance Language and Literatures and may be taken for French language credit in which class the student will follow the French language requirements for the course.

Instructor(s): J. Wild Terms Offered: Winter

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): CMST 23404

CMST 33905. Creative Thesis Workshop. 100 Units.

This seminar will focus on how to craft a creative thesis in film or video. Works-inprogress will be screened each week, and technical and structural issues relating to the work will be explored. The workshop will also develop the written portion of the creative thesis. The class is limited to seniors from CMS and DOVA, and MAPH students working on a creative thesis.

Instructor(s): Judy Hoffman Terms Offered: Autumn, Winter

Prerequisite(s): CMST 23930; CMST 23931 or 27600; departmental approval of senior creative thesis project.

Equivalent Course(s): ARTV 23905, ARTV 33905

CMST 33930. Documentary Production I. 100 Units.

This class is intended to develop skills in documentary production so that students may apply for Documentary Production II. Documentary Production I focuses on the making of independent documentary video. Examples of various styles of documentary will be screened and discussed. Issues embedded in the documentary genre, such as the ethics and politics of representation and the shifting lines between fact and fiction will be explored. Pre-production methodologies, production, and post-production techniques will be taught. Students will be expected to develop an idea for a documentary video, crews will be formed, and each crew will produce a five-minute documentary. Students will also be expected to purchase an external hard drive.

Instructor(s): J. Hoffman Terms Offered: Autumn

Note(s): Prior or concurrent enrollment in CMST 10100 recommended Equivalent Course(s): ARTV 23930,ARTV 33930,HMRT 25106,HMRT 35106

CMST 33931. Documentary Production II. 100 Units.

This course focuses on the shaping and crafting of a nonfiction video. Students are expected to write a treatment detailing their project. Production techniques focus on the handheld camera versus tripod, interviewing and microphone placement, and lighting for the interview. Postproduction covers editing techniques and distribution strategies. Students then screen final projects in a public space.

Instructor(s): J. Hoffman Terms Offered: Winter

Prerequisite(s): CMST 23930/ARTV 23930

Equivalent Course(s): CMST 23931, ARTV 33931

CMST 34107. Hindi Cinema: from Bombay to Bollywood. 100 Units.

This course maps the transformation of the Hindi film industry in India. Starting out as a regional film production center, how did the Bombay film industry and Hindi cinema gain the reputation of being the leader of Indian cinema? This despite the fact that most critical acclaim, by the state and film critics, was reserved for "art cinema." Through an analysis of Hindi films from the 1950s to the present we map the main trends of this complex artistic/industrial complex to arrive at an understanding of the deep connect between cinema and other social imaginaries. Instructor(s): R. Majumdar Terms Offered: Winter

Equivalent Course(s): SALC 30509,CMST 24107,GNSE 20509,SALC 20509

CMST 34108. Indian Art Cinema. 100 Units.

What do we mean when we refer to "art films" in the Indian context? Is it fair to refer to the body of film works that come under this rubric as Indian national cinema? Through a close analysis of films by Satyajit Ray, Ritwik Ghatak, Mrinal Sen, Shyam Benegal, Mani Kaul, Basu Chatterjee, M. S. Sathyu, Girish Kasaravalli, and Aparna Sen, this course will analyze the different currents in Indian art cinema. Instructor(s): R. Majumdar Terms Offered: Spring

Equivalent Course(s): SALC 30510,CMST 24108,SALC 20510

CMST 34505. Russian Cinema. 100 Units.

Russian cinema occupies an important and distinctive place within world film culture. It rose to prominence in the 1920s through the revolutionary (in all senses) films and film theory of Sergei Eisenstein, Vsevolod Pudovkin, Dziga Vertov, and others, and maintained its distinction through the early years of socialist realism, a unique media system in which film was recognized, in Lenin's saying, as "the most important of the arts." After Stalin's death, Russian film re-captivated its revolutionary energy amidst the "Soviet new wave," characterized by the films of Mikhail Kalatozov, Sergei Paradzhanov, and Andrei Tarkovsky. In recent years, film has continued to play a crucial role in defining and animating a post-Soviet cultural identity, both through poetic filmmakers such as Aleksandr Sokurov and through genre films. We will survey this history, from 1917 right up to the present moment, with a selection of the most energizing films and theoretical writings by their makers. We will examine how a national style gets established and maintained; how film form and film style have responded to the pressures of ideology and power; how film art has served both as a tool of colonialization and identity-formation; and how film artists have negotiated the pressures of cultural tradition (including that of the Russian novel) and the world film market.

Instructor(s): R. Bird Terms Offered: Winter

Equivalent Course(s): REES 26048, REES 36048, CMST 24505

CMST 34611. Cities in Sinophone Cinemas. 100 Units.

From the treaty port of Shanghai to the imperial capital of Beijing, from the precolonized city of Taipei to the floating city of Hong Kong, and from an anonymous city in inland China to global Chinatowns, cities in Chinese-language cinemas at once reflect and participate in the historical transformations of modern China and the negotiation between national, local, and cosmopolitan identities. Meanwhile, throughout its history, the motion-picture medium has shown an affinity with the city as an audio-visual ensemble, which in turn has provided constant inspiration for cinematic experimentation. Taking the chronotope of the sinophone city as an entry point, this course participates in both the ongoing discussion of cinematic cities and the emerging discourse on the phonic articulation and visual mediation of a global sinophone culture. No knowledge of Chinese is required.

Instructor(s): X. Dong Terms Offered: Spring

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): EALC 34611, EALC 24611, CMST 24611

CMST 34801. Iranian Cinema. 100 Units.

An overview of the history of Iranian cinema from the 1970s to the present, including major directors, genres, and trends, aesthetics, and the economics of the film industry. We will analyze films as artistic constructs and as the works of particular auteurs, while also considering larger questions such as how the political and social history of modern Iran is reflected in its films, particularly what impact the revolution of 1979 has had on the cinematic art, using film as a lens to judge the social impact of the revolution. We look at representations of gender and class, the role of urban and rural space in the imaginary, the interaction of literature and film, the enormous constraints of censorship, the blurring of ficticity and facticity in Iranian film. We will focus on feature films made in Iran, but also touch upon documentaries and Iranian-hyphenated films made in diaspora.

Instructor(s): F. Lewis Terms Offered: Spring

Equivalent Course(s): CMST 24801, NEHC 30710, NEHC 20710

CMST 35100. Avant-Garde in East Central Europe. 100 Units.

The avant-gardes of the "other" Europe are the mainstay of this course which focuses especially, but not exclusively, on the interwar avant-gardes of Austria, Czechoslovakia, Hungary, Poland, Romania, Slovenia, and Yugoslavia. A comparative framework is employed whenever lucrative to comprehend the East/ Central European movements in the wider context of the European avant-garde. The course also traces the development and legacy (political and artistic) of these avant-gardes in their contemporary scenes. Plastic, verbal, and performative arts (including film) are studied.

Instructor(s): Malynne Sternstein Terms Offered: Spring

Equivalent Course(s): REES 33141,ARTH 25500,ARTH 35500,CMST 25100,ISHU 28401,ISHU 38401,REES 23141

CMST 35531. Framing the I: Autobiography and Film. 100 Units.

Cinema offers almost endless ways of telling one's own story—diaries, confessions, album, travelogues, accounts of a distressing period, letters, searches for one's origins, autobiographies, self-portraits, work notes, autofictions—and filmmakers continually create new hybrid forms that innovate or transgress former "genres." This seminar examines film history's various modes of autobiographical discourse in the context of philosophical and psychoanalytic considerations of the self as well as of experiments in literary and pictorial self-representation.

Instructor(s): D. Bluher Terms Offered: Winter

Prerequisite(s): PQ: CMST 10100 Introduction to Film Analysis or consent of instructor.

Equivalent Course(s): CMST 25531

CMST 36405. D. W. Griffith. 100 Units.

Instructor(s): Y. Tsivian Terms Offered: Spring

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): FNDL 26405, CMST 26405

CMST 37205. Film Aesthetics. 100 Units.

This course will examine two main questions: what bearing or importance does narrative film have on philosophy? Could film be said to be a form of philosophical thought? a form moral reflection? of social critique? Second, what sort of aesthetic object is a film? This question opens on to several others: what is the goal of an interpretation of a film? Is there a distinct form of cinematic intelligibility? What difference does it make to such questions that Hollywood films are commercial products, made for mass consumer societies? What role does the "star" system play in our experience of a film? We will raise these questions by attempting close readings of the films of Alfred Hitchcock. Films to be discussed: Shadow of a Doubt; Notorious; Strangers on a Train; Rear Window; Vertigo; North by Northwest; Psycho; Marnie. Selected critical readings will also be discussed. Instructor(s): J. Conant, R. Pippin Terms Offered: Spring Equivalent Course(s): CMST 27205,PHIL 30208,PHIL 20208

CMST 37206. Movement. 100 Units.

Movement is central to the history of cinema, from its earliest origins and antecedents to the GoPro and related videos that currently populate YouTube, and to the history of thinking about it. This course investigates the various ways in which movement has appeared and been talked about. Combining philosophical, critical, and historical readings with careful analysis of films, we will cover topics that include the appeal of the moving image itself, movement that exists within the world shown in the frame, problems posed by the history of camera movement, and different technologies for recording and producing movement. Readings will include Bergson, Eisenstein, Merleau-Ponty, McLaren, Michotte, Deleuze, and Gunning; films will be from the Lumière Brothers, Murnau, Renoir, Mizoguchi, Ophuls, Breer, Gehr, Raimi, Malick, and others.

Instructor(s): D. Morgan Terms Offered: Spring

Prerequisite(s): PQ: CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): CMST 27206

CMST 37240. Contemporary Film Theory I: Ideology and Critique. 100 Units.

This two-part course provides a critical and historical survey of the major questions, concepts, and trends in film theory since 1968. Contemporary Film Theory I will examine theories of ideology and cinema, political modernism, and counter-cinema through the critical reading of important texts and films from Latin America, France, and the United Kingdom.

Instructor(s): D.N. Rodowick Terms Offered: Winter

Prerequisite(s): PQ: CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Note(s): Courses can be taken independently of each other.

Equivalent Course(s): CMST 27240

CMST 37241. Contemporary Film Theory II: Spectatorship and Its Discontents. 100 Units.

This two-part course provides a critical and historical survey of the major questions, concepts, and trends in film theory since 1968. Organized broadly around questions of film, ideology, and spectatorship, weekly readings, films, and discussion will examine how the study of film in the last forty years has been influenced by semiology, psychoanalysis, Marxism, postmodernism, feminism, critical race studies, gay and lesbian criticism, and post-colonial theory, especially with respect to theories of spectatorship.

Instructor(s): D.N. Rodowick Terms Offered: Spring

Prerequisite(s): PQ: CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Note(s): Courses can be taken independently of each other. CMST 27240 is not a prereq of this course.

Equivalent Course(s): CMST 27241

CMST 37600. Introduction to Black and White Film Photography. 100 Units.

Photography is a familiar medium due to its ubiquitous presence in our visual world, including popular culture and personal usage. In this class, students learn technical procedures and basic skills related to the 35mm camera, black and white film, and print development. They also begin to establish criteria for artistic expression. We investigate photography in relation to its historical and social context in order to more consciously engage the photograph's communicative and expressive possibilities. Course work culminates in a portfolio of works exemplary of the student's understanding of the medium. Field trips required.

Instructor(s): A. Clark Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Note(s): Camera and light meter required.

Equivalent Course(s): ARTV 34000, CMST 27600, ARTV 24000

CMST 37602. Photography I. 100 Units.

Instructor(s): L. Letinsky Terms Offered: Spring Prerequisite(s): ARTV 10100, 10200, or 10300; and 24000. Note(s): Camera and light meter required. Courses taught concurrently and can be repeated as part of an ongoing, developing photographic project. Equivalent Course(s): ARTV 34401,CMST 27602,ARTV 24401

CMST 37702. Photography II. 100 Units.

Instructor(s): L. Letinsky Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200, or 10300; and 24000.

Note(s): Camera and light meter required. Courses taught concurrently and can be repeated as part of an ongoing, developing photographic project.

Equivalent Course(s): ARTV 34402, CMST 27702, ARTV 24402

CMST 37803. Digital Media Theory. 100 Units.

This course introduces students to the critical study of digital media and participatory cultures, focusing on the late twentieth and early twenty-first centuries. Subfields and topics may include history of technology, software studies, platform studies, videogame studies, electronic literature, social media, mobile media, network aesthetics, hacktivism, and digital publics. We will also think about ways that new media theory has intersected with, ignored, and complicated work coming from critical theory, especially transnational, feminist, Marxist, and queer theory. Readings may include work by theorists such as Ian Bogost, Wendy Chun, Alexander Galloway, Mark Hansen, Katherine Hayles, Friedrich Kittler, Alan Liu, Lev Manovich, Franco Moretti, Lisa Nakamura, Rita Raley, and McKenzie Wark. Through a study of contemporary media theory, we will also think carefully about emerging methods of inquiry that accompany this area of study, including multimodal and practice-based research. In addition to short assignments, students will focus on a final project that will take the form of either an experimental research paper or a creative digital media piece with included commentary (e.g., a piece of electronic fiction, a Machinima film, a digital visualization, a Game Design Document, or a videogame). Students need not be technologically gifted or savvy, but a wide-ranging imagination and interest in new media culture will make for a more exciting quarter.

Instructor(s): P. Jagoda Terms Offered: Autumn Equivalent Course(s): ENGL 32313

CMST 37820. Aesthetics of Media: Image, Music, Text. 100 Units.

Designed for advanced undergraduates and first year graduate students, the course will take up the image/sound/text complex as a foundational issue in aesthetics and media. Our aim will be to ask why this particular triangulation of media aesthetics has been so enduring and powerful, ranging all the way from Aristotle's dramatic triad of opsis, melos, lexis, to Nelson Goodman's semiotic distinctions between "score, script, and sketch," to Friedrich Kittler's reflections on technology in Gramaphone, Film, Typewriter. We will ask whether Michel Foucault's famous division of the archaeology of knowledge into the "seeable and sayable" needs to be completed by the "singable," and what logic links Kittler's technical triad to Lacan's registers of the Symbolic, Imaginary, and Real, or C.S. Peirce's division of the sign into symbol, index, and icon. We will investigate a range of examples, from the Wagnerian notion of the Gesamstkunstwerk to the role of sound in cinema to the modernist impulse to "purify" the arts with practices that would "hunt them back to their mediums," as Clement Greenberg notoriously expressed it. At every point, we will raise the question of what is at stake politically, morally, and aesthetically in efforts to segregate, synthesize, or place artistic modes in conflict and competition. Students will be expected to give a show and tell performance, or to write a short reference article on a key concept in media theory for the Glossary of Keywords in Media Theor

Instructor(s): W. J. T. Mitchell Terms Offered: Winter

Note(s): Screening T 7-9:50 A term paper or project will also be required. Visual artists, writers, and musicians are cordially welcome. (H)

Equivalent Course(s): CMST 27820, AMER 12800, AMER 32800, ENGL 12810, ARTV 35401, ENGL 32810

CMST 38006. Minimalist Experiment in Film and Video. 100 Units.

This multilevel studio will investigate minimalist strategies in artists' film and video from the late 1960s to the present day. Emphasis will be placed on works made with limited means and/or with "amateur" formats such as Super-8 and 16mm film, camcorders, Flip cameras, SLR video, and iPhone or iPad. Our aim is to imagine how to produce complex results from economical means. Important texts will be paired with in class discussion of works by artists such as Andy Warhol, Yoko Ono, Kurt Kren, Jack Goldstein, Larry Gottheim, Bruce Baillie, James Benning, John Baldessari, Morgan Fisher, Stan Douglas, Matthew Buckingham, Sam Taylor-Wood, and others.

Instructor(s): D.N. Rodowick Terms Offered: Autumn Equivalent Course(s): ARTV 33805,CMST 28006,ARTV 23805

CMST 38007. Data Visualization: Aesthetics, Intent, and Practice. 100 Units.

This course investigates how data visualizations are made and used today. Addressing a lack of both critical attention and technical literacy in how our society engages with increasingly common and sophisticated data-driven representations, we will retrace some history of the form as well as investigate its production and consumption. From uses in the sciences to economics to the popular media, data visualization serves various purposes framed by divergent intentions. Through reading, discussion, and crucially, team-based production, we will examine these myriad forms. While the course will not dwell on the deep computational details of data processing and requires no special technical skills, we will introduce various methodologies for creation and distribution such as D3, Processing, and P5.js. Projects and critique resulting from these inquiries enable an understanding for how any data visualization is the result of countless subjective judgments, design decisions, and persuasive intentions.

Instructor(s): J. Salavon and G. Kindlmann Terms Offered: Winter Equivalent Course(s): CDIN 40333,CMSC 33950,ARTV 40333

CMST 38703. Video Art: The Analog Years. Theory, Technology, Practice. 100 Units.

The course gives a critical introduction to early video and television art—from the proto-televisual impulses in the historical avant-gardes to the increasing proximity between analog and digital technologies in video art in the late 1970s and early 1980s. We will focus on the various technical aspects of analog video, as well as on artistic practice and early writings on the subject. Topics may include the technics and politics of time; video, feedback systems, and ecology; the reconfiguration of the artist's studio; guerilla politics and alternative TV; video and autobiography; the relation between video and painting; the musical history of video; the invention of new machines; and video as a "television viewer."

Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): ARTH 31313, CMST 28703, ARTH 21313

CMST 38801. Digital Imaging. 100 Units.

This studio course introduces fundamental tools and concepts used in the production of computer-mediated artwork. Instruction includes a survey of standard digital imaging software and hardware (i.e., Photoshop, scanners, storage, printing, etc), as well as exposure to more sophisticated methods. We also view and discuss the historical precedents and current practice of media art. Using input and output hardware, students complete conceptually driven projects emphasizing personal direction while gaining core digital knowledge.

Instructor(s): J. Salavon Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 22500, ARTV 32500, CMST 28801

CMST 39002. Motion Pictures in the Human Sciences. 100 Units.

This course will examine the relationship between moving images, particularly motion-picture films, and the human sciences, broadly construed, from the early days of cinema to the advent of functional magnetic resonance imaging (fMRI). It will use primary source documents alongside screenings to allow students to study what the moving image meant to researchers wishing to develop knowledge of mind and behavior, and what they thought film could do that still photography and unmediated human observation could not. The kinds of motion pictures we will study will vary widely, from infant development studies to psychiatric films, from documentaries to research films, and from films made by scientists or clinicians as part of their laboratory or therapeutic work to experimental films made by seasoned filmmakers. We will explore how people used the recordings they made in their own studies, in communications with other scientists, and for didactic and other purposes. We will also discuss how researchers' claims about mental processes—perception, memory, consciousness, and interpersonal influence—drew on their understandings of particular technologies.

Instructor(s): A. Winter Terms Offered: Spring

Equivalent Course(s): HIST 25208, HIST 35208, HIPS 25208, CHSS 35208, CMST 29002

CMST 40000. Methods and Issues in Cinema Studies. 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard. Instructor(s): Staff Terms Offered: Autumn Equivalent Course(s): ENGL 48000,MAPH 33000

CMST 47801. Media Archeology vs. Media Aesthetics. 100 Units.

The course stages an encounter between media archeology and media aesthetics, two distinct but related research perspectives that are at times seen as incommensurable approaches to the media technological environment. Media archeology focuses on the non-human agencies and complex machinic arrangements that are at work in technologies whose microtemporal operations cannot be grasped by human perception: media archeology typically refuses phenomenological approaches. In contrast, media aesthetics focuses on the phenomenological interface between machine systems and human perception and sensation, and various forms of cultural and political negotiations of a lifeworld that is increasingly dominated by technologies that both store and produce time. We will read key texts from both fields and discuss how we may understand their differences as well as their points of intersection. Instructor(s): I. Blom Terms Offered: Autumn

Equivalent Course(s): ARTH 41313

CMST 48500. History of International Cinema I: Silent Era. 100 Units.

This course introduces what was singular about the art and craft of silent film. Its general outline is chronological. We also discuss main national schools and international trends of filmmaking.

Instructor(s): Y. Tsivian Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): ARTH 28500,ARTH 38500,ARTV 26500,ARTV 36500,CMLT 22400,CMLT 32400,ENGL 29300,ENGL 48700,MAPH 36000,CMST 28500

CMST 48600. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction;* and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): D. Morgan Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): ARTH 28600,ARTH 38600,ARTV 26600,CMLT 22500,CMLT 32500,ENGL 29600,ENGL 48900,MAPH 33700,CMST 28600

CMST 61101. Birth of a Nation. 100 Units.

This seminar explores the history and resonance of D. W. Griffith's epic Birth of a Nation, 100 years after its release in 1915. Based on Thomas Dixon's novels The Leopard's Spots (1902) and The Clansman (1905) and their theatrical adaptations, the film's landmark stylistic innovations, unprecedented publicity and box office performance, and heavily protested representations of U.S. slavery and its aftermath have generated critical questions about the relationships between politics and film aesthetics that continue to animate our understanding of the "power" of the moving image. We will explore the film's style and its popular and critical reception, and the challenges it poses for film historiography. We will examine the film within Griffith's oevre (including his previous antebellum and Civil War dramas like His Trust and His Trust Fulfilled [1911]), and subsequent works including Intolerance (1916), his reflection on the Birth's contentious circulation. Topics explored include uses of blackface in the silent era; strategies of literary adaptation; the Dunning school of the Reconstruction era and critical responses (e.g., W. E. B. Du Bois and others); the careers of the film's cast and crew; film censorship and protest ; silent film historiography and Birth's prominent place in it; cinematic responses to the film, especially by African American filmmakers, from Emmett Scott's Birth of a Race (1918) to Oscar Micheaux's Within Our Gates (1920) to Spike Lee's Bamboozled (2000)

Instructor(s): J. Stewart Terms Offered: Autumn Equivalent Course(s): AMER 61101

CMST 67205. Deleuze, Philosophy and the Image. 100 Units.

The Image is a concept that returns and varies across Gilles Deleuze's philosophical works. In this seminar, we will work through Deleuze's characterization of the Image in its varying forms—image of thought, thought without image, movementimage, time-image, the visible and the expressible, Idea and percept, and sensation and figure, among others. Of special concern will be Deleuze's arguments concerning the relation of philosophy to art. Readings will include selections from Proust and Signs, Difference and Repetition, Foucault, Cinema 1 and Cinema 2, Logic of Sensation, What is Philosophy?, and perhaps other texts. Reading knowledge of French is recommended but not required. Instructor(s): D.N. Rodowick Terms Offered: Autumn

CMST 67310. Philosophy and Film. 100 Units.

This seminar addresses the intersection of aesthetics, post-analytic philosophy, and cinema. We are interested in a range of questions organized around issues of style and ethics; in particular, we hope to explore the role that criteria play in aesthetic judgments, and how these criteria might relate to the ones that support other sorts of judgments (about skepticism and the external world; seriousness; and the historical past). Our wager is that cinema can generate such questions and demonstrate both their significance and their mutual interrelation. Rather than rehearsing arguments to the effect that cinema can attain the condition of philosophy, we hope to chart new routes of analytic description. To that end we will work through films by Mizoguchi, Welles, Chaplin, Lubitsch, Bresson, Godard, Malick, and Baillie, with readings from Cavell, Burch, Wittgenstein, Aumont, Austin, Chion and others.

Instructor(s): D. Morgan, R. Neer Terms Offered: Winter

CMST 67504. Cinema, Play, Modernity. 100 Units.

In this seminar we explore the idea of an international "ludic cinema" in the first half of the twentieth century. Our goal is two-fold: on the one hand, we will identify the trajectory of a ludic modernism in film history by rereading canons and introducing underexposed films; on the other hand, we will examine the interdisciplinary writings on the notion of play, ranging from anthropology and psychology to education and literary studies, through the prism of cinematic modernity. Readings include seminal texts by Walter Benjamin, Johan Huizinga, Roger Caillois, D. W. Winnicott, and Gregory Bateson, as well as more recent scholarly works by Miriam Hansen, Bill Brown, David Bordwell and Kristine Thompson. Films include early short and experimental films, city symphonies, American slapstick comedies, and films by Ernst Lubitsch, Jean Renoir, Frank Capra, Fei Mu, Yasujiro Ozu, and Jacques Tati.

Instructor(s): X. Dong Terms Offered: Winter

CMST 68004. Issues in Sound Studies. 100 Units.

Instructor(s): J. Lastra Terms Offered: Autumn

CMST 68400. Style and Performance from Stage to Screen. 100 Units. Instructor(s): Y. Tsivian Terms Offered: Winter CMST 69110. The Archive: Materiality, Aesthetics, Visual Culture. 100 Units. In this research-intensive graduate seminar, students will engage with a range of methods, questions, and approaches to conducting archival research in filmic, paper and print, and internet databases, and in both American and foreign contexts. While some class content will unfold around archival materials related to French film and art practice between 1930-1950, and to the discursive transformations around concepts of materiality and visual aesthetics therein, we will also explore a range of texts on archival methodology; selected texts on archival theory; and case-studies foregrounding modes of archival discovery, evaluation, and interpretation. With the aim of training students for "deep dive" explorations of material and visual culture, students will be expected to conduct original research on a topic of their own design beginning in week 2. To be considered for this seminar, interested students should thus submit a short (1-2 paragraph) research proposal prior to registration. Proposals do not have to focus on French or Francophone topics, nor do they have to be fully developed. They must, however, propose a set of coherent and exploratory, if tentative, questions or propositions that the student will explore through intensive archival research. Proposals should be sent to jenniferwild@uchicago.edu at least 2 weeks prior to spring quarter 2016. Instructor(s): J. Wild Terms Offered: Spring Equivalent Course(s): ARTH 49700, FREN 49100



DEPARTMENT OF CLASSICS

Chair

- Mark Payne Professors
- Clifford Ando
- Elizabeth Asmis
- Shadi Bartsch-Zimmer
- Alain Bresson
- Christopher A. Faraone
- Jonathan M. Hall
- Michèle Lowrie
- Mark Payne
- James M. Redfield
- Peter White

Associate Professors

- Michael I. Allen
- Helma J. Dik
- David G. Martinez
- Sofia Torallas-Tovar
- David L. Wray

Assistant Professors

- Sarah Nooter Emeritus Faculty
- Walter R. Johnson
- D. Nicholas Rudall
 - Affiliated Faculty
- Agnes Callard, Philosophy
- Patrick (Patch) Crowley, Art History
- Michael Dietler, Anthropology
- Jas' Elsner, Divinity School
- Elizabeth Gebhard, Director of Excavations, Isthmia
- Janet Johnson, Near Eastern Languages and Civilizations
- Walter Kaegi, History
- Gabriel Richardson Lear, Philosophy
- Bruce Lincoln, Divinity School
- Boris Maslov, Comparative Literature
- Glenn Most, Committee on Social Thought
- Brian Muhs, Near Eastern Languages and Civilizations

- Richard Neer, Art History
- Martha Nussbaum, Philosophy and Law
- Wendy Olmsted, Humanities
- Richard Payne, Near Eastern Languages and Civilizations
- Dennis Pardee, Near Eastern Languages and Civilizations
- James Redfield, Committee on Social Thought
- Kent Rigsby, Emeritus, Duke University
- Robert Ritner, Near Eastern Languages and Civilization
- Martha Roth, Near Eastern Languages and Civilizations
- David Schloen, Near Eastern Languages and Civilizations
- Laura Slatkin, Committee on Social Thought
- Jonathan Z. Smith, Humanities
- Jeffrey Stackert, Divinity School
- Justin Steinberg (http://rll.uchicago.edu/faculty/steinberg), Romance Languages and Literatures
- Matthew Stolper, Near Eastern Languages and Civilizations
- Christopher Woods, Near Eastern Languages and Civilization
- Theo van den Hout, Near Eastern Languages and Civilizations

The **Department of Classics** offers advanced study in the civilizations of the ancient Mediterranean, including literature and literary theory, history, philosophy, religion, science, art, and archaeology. The programs of the department lead to the Ph.D. degree and seek to prepare students for careers in teaching and research. They allow students to explore areas with which they are unfamiliar, as well as to strengthen their knowledge in those in which they have already developed a special interest.

The Classics faculty consists of active scholars, expert in one or more areas of classical studies. Apart from their influence through books and articles, the faculty has long been identified with the publication of *Classical Philology*, one of the leading journals devoted to classical antiquity. The diverse graduate student body at the University include students in a number of programs outside the Department of Classics who are also engaged in the study of the ancient world. The Oriental Institute, the Divinity School, the Committee on Social Thought, and the Departments of Art History, History, Linguistics, and Near Eastern Languages & Civilizations all have programs that focus on aspects of the classical period. The workshops supported by the Council for Advanced Studies, where graduate students, faculty, and visiting scholars present work in progress, are a further means of scholarly collaboration and training. The department currently sponsors workshops entitled Ancient Societies, Metaphor, Rhetoric and Poetics, and Ancient Philosophy, which involve participants from other areas as well.

Research and Library Resources

The library system of the University contains over six million volumes. Classics has been one of the strongest parts of this collection since its first formation in 1891,

when the University purchased the entire stock of an antiquarian bookstore in Berlin that specialized in classical philology, archaeology, and science. Apart from current monographs, the library receives more than seven hundred serials devoted to ancient Greece and Rome and subscribes to the full range of electronic databases useful to ancient studies. May of these are available off-site to members of the university community via proxy server. Major editions of classical texts printed from the Renaissance through the eighteenth century are available in the Department of Special Collections, which also houses collections of Greek and Latin manuscripts and a large reference library devoted to paleography, manuscript catalogues, and facsimiles.

FELLOWSHIPS

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component. Graduate students may also apply for fellowships which aid students during the writing of Ph.D. dissertations and for travel grants that support visits to libraries, collections, and archaeological research sites in Europe and the Near East.

TEACHING OPPORTUNITIES

At the University of Chicago, graduate students have a variety of teaching opportunities including as independent instructors. The Center for Teaching and Learning conducts a series of workshops and forums designed for graduate students to build skills in lecturing, leading discussions, and focusing writing assignments. The Little Red Schoolhouse, a nationally famous writing program, prepares graduate students to teach writing to undergraduate students.

Teaching opportunities lie in four areas. The first is in classics, where students who have completed the first two years of coursework may apply to serve as course assistants alongside regular faculty in the beginning Greek and Latin and ancient civilization sequences. Experienced course assistants may apply to teach independently in the first or second year language courses. Graduate students also have a broad role in the summer Greek and Latin Institute, and in the Graham School of General Studies, for which they are encouraged to offer courses of their own design (some recent courses have been devoted to the *Iliad, the Odyssey,* and *the Aeneid*).

The second area of teaching is through the Writing Program. The program offers three kinds of renewable teaching positions: Lectors in Academic and Professional Writing, Writing Interns in the Humanities Common Core, and Writing Tutors for the College Tutoring Program. All Writing Program instructors take a quarter-long course in the pedagogy of writing before they start teaching, and during their first quarter of teaching, they work closely with experienced writing program personnel as writing interns in the humanities and social sciences core courses of the College.

A third area of teaching is serving as the graduate assistant for the College's tenweek Study Abroad program in Athens, which is regularly staffed by faculty from the Classics Department. The graduate assistant serves as both a course assistant and a resident assistant and as an instructor for a course entitled Readings in Attic Greek.

Finally, at the most advanced level, graduate students are eligible to teach sections of the humanities core sequence. All teaching is remunerated proportional to the teaching responsibility and normally includes remission of tuition.

Programs of Study

The department offers Ph.D. degrees in Classical Languages and Literatures, the Ancient Mediterranean World, Ancient Greek and Roman Philosophy, and Transformations of the Classical Tradition, as well as a joint Ph.D. in Social Thought and Classics.

Ph.D. Program in Classical Languages and Literatures

The curriculum in Classical Languages and Literatures emphasizes excellence in the Greek and Latin languages and training for scholarly investigation. Various kinds of courses are offered to meet the students' needs and desires. Some are devoted to the reading of texts, with emphasis on the linguistic structure. Others stress literary, historical, or philosophical interpretation. Several seminars each year, which deal with Greek and Latin texts and are often related to current research interests of the faculty, invite students to think deeply about an aspect of antiquity and provide training in the writing of scholarly research papers. A synoptic view is furnished by a two quarter sequence devoted in alternate years to Greek and to Latin literature. These survey courses are designed to help the student acquire skill in the rapid reading of Greek and Latin. Students may also pursue individual interests by taking courses offered outside the department, and may, in special circumstances, arrange for independent study.

Applicants to the Program in Classical Languages & Literatures should have a strong background in Greek and Latin. Students with undergraduate degrees in other fields are encouraged to apply if their scholarly interests lie in classics and if they have begun intensive study to make up any deficiencies in Greek and Latin. All graduate students are expected to demonstrate proficiency in reading French and German, one language for the A.M. degree and the second for the Ph.D.; entering students should have begun this preparation if they are not already competent.

The Ph.D. Program in Classical Languages and Literatures is designed for five years, the first two being devoted to a full load of nine courses, the third to preparing for comprehensive examinations and the dissertation proposal, and the final two to the dissertation itself.

In the first year of the Classical Languages and Literatures program, students regularly take one of the survey courses, a prose composition course, two seminars, at least two courses in the minor language, and other courses (often in other departments such as Art History, Linguistics, Near Eastern Languages & Civilizations, etc.) to meet special interests. Students are required to take the translation exam in the language of the survey sequence at the end of this year.

This is also the year to pass the first modern language exam in French or German. Students who complete their coursework and pass the French or German exam are awarded the A.M. in Classical Languages and Literatures.

The second year is similar, usually with a major focus on the second survey course and such courses as may allow students to explore new areas; in the spring, students are required to pass the second language translation examination. In the third year, students are expected to finish any remaining coursework and requirements; by the beginning of the fourth year they should have passed two two-hour oral comprehensive examinations in the history, literature, of Greco-Roman antiquity. In the third year students should also develop a topic for their dissertation though participation in the dissertation writing workshop, with the expectation that the dissertation proosal be approved by the faculty at the beginning of the fourth year, and completed during the fourth and fifth years.

Ph.D. Program in the Ancient Mediterranean World

The Program in the Ancient Mediterranean World (formerly the Committee on the Ancient Mediterranean World) was founded in 1975 with the intention of bringing together faculty whose fields of study, ranging from the ancient Near East and the ancient Greek world to late antiquity, adjoin and overlap chronologically and geographically. While these fields require mastery of relevant languages, the Program in the Ancient Mediterranean World is focused less on texts than on contexts; it offers students an opportunity to use philological skills in historical and cultural explorations. Most students in this program are in the areas of ancient history, history of ancient religions, Greek and Near Eastern studies, or late antiquity.

Although not primarily a language program, students in the Program in the Ancient Mediterranean World are required to take competency examinations in two ancient languages and should therefore have a strong background in at least one. All graduate students are expected to demonstrate proficiency in reading French and German, one language for the A.M. degree and the second for the Ph.D.; entering students should have begun this preparation if they are not already competent.

The Graduate Program in the Ancient Mediterranean World is designed to allow students to custom build an interdisciplinary course of study that satisfies their own intellectual interests while remaining true to the rigorous and thorough training that is expected of University of Chicago graduates.

The first two years of study towards the Ph.D. are spent engaged in coursework. In consultation with the PAMW Graduate Advisor, students will devise a program of courses that range across, but are not limited to, the language, history, and culture of the Graeco-Roman worlds, Egypt, and the Near East. Students are expected to familiarize themselves with various aspects of the ancient world (literature, philosophy, history, art and archaeology, and religion) and are encouraged to explore various methodological and theoretical approaches derived from other disciplines, especially the social sciences. The centerpiece of the program in these first two years is the two-quarter Ancient Mediterranean Seminar, co-taught by two PAMW Faculty members, which is designed to introduce students to issues of historical method while studying a topic that changes annually. A series of Methods Workshops familiarizes students with important ancillary skills such as literary criticism, papyrology, palaeography, epigraphy, and writing academic reviews.

At the end of the second year of study, students assemble a committee of three Faculty members who will advise them as they prepare for the Field Examination, which is sat before the end of the third year. The Field Examination is intended to test broad competency and knowledge in one ancient culture area (the major) as well as requisite research skills in connection with two more specialized topics (the minors).

Students are also expected to demonstrate competence in two modern languages (normally French and German) and two ancient languages, the first of which must be examined before the end of the second year and the second before the end of the fourth year.

Once the Field Examination is completed, the student assembles a Dissertation Committee of three faculty members (who may, or may not, be the same as the members of the Field Examination committee). The Committee will assist the student in preparing a Dissertation Proposal, which must be presented within a year of the Field Examination. The final Dissertation is defended before members of the Department and interested members of other Departments. The curriculum is designed so that all requirements can be fulfilled within six years.

Ph.D. Program in Ancient Greek and Roman Philosophy

The study of ancient Greek and Roman philosophy is inherently interdisciplinary. Scholars must be able to situate philosophical texts in their broader cultural context. They must also be alive to the way a given text engages with and contributes to its philosophical tradition. Finally, they must be able to communicate effectively with scholars trained in either Classics or Philosophy. Thus, a student who plans to specialize in ancient philosophy ought to receive an interdisciplinary training. The Program in Ancient Greek and Roman Philosophy allows students to enroll either in the PhD program in Classics or in the PhD program in Philosophy but with the requirement that they will take certain courses in the department in which they are not enrolled. The program is a joint program in the sense that the faculty of both departments are committed to training students in the other department and in the sense that the students will develop a working relationship with each other, both through participation in seminars and in the Ancient Greek and Roman Philosophy workshop.

The Ph.D. Program in Ancient Greek and Roman Philosophy is designed to be completed in six years, the first two being devoted to a full load of nine courses, the third and fourth to completing course work and examinations, and the final two to the dissertation. In the first year, students regularly take one of the survey courses, a prose composition course, two quarters of seminar work, at least one of which must be in ancient philosophy, one course in the Philosophy department that deals with a topic other than Greek or Roman Philosophy, and one course in the minor language. Students are required to take the qualifying exam in the language of the survey sequence at the end of this year and also the first modern language exam in French or German. Students who complete their coursework and pass the French or German exam are awarded the A.M. in Classical Languages and Literatures. The second year is similar; in the spring, students are required to pass the second language qualifying examination. In the third year, students are required to take two additional graduate courses on a philosophical topic and the special field exam, which is a written examination on a Greek or Latin philosophical text (complete or an excerpt) of the candidate's own choosing. In the fourth year and fifth year students should expect to develop a topic for the dissertation, and to begin writing the dissertation. The dissertation should be completed in the sixth year.

PH.D. PROGRAM IN TRANSFORMATIONS OF THE CLASSICAL TRADITION

The Ph.D. Program in Transformations of the Classical Tradition enables students to approach the long history of classical thought and literature by following a course of study tailored to their particular interests.

The first two years of study towards the Ph.D. are spent on coursework. In consultation with the Director of Graduate Studies and the TCLT program Chair, students will devise a program of courses that focus on, but are not limited to, key texts in literature, philosophy, historiography, and political theory in either Greek or Latin, and the reception, development, and transformation of these texts in one of the modern languages. During their first two years, students must also satisfy the requirements for their second ancient and modern language.

Students entering the program are introduced to the methodological opportunities of studying the long history of the classical tradition in a two quarter introductory seminar, co-taught by two TCLT faculty members, one of whom will be a member of the Classics faculty, and the other from one of our partner disciplines: Art History, the Committee on Social Thought, Comparative Literature, Germanic Studies, History, Philosophy, Political Science, Romance Languages & Literatures, and the Divinity School. In the third year, students progress to an oral examination in their chosen field of study, followed by the dissertation proposal workshop, and the submission of the dissertation proposal. The fourth and fifth years are devoted to dissertation writing and the curriculum is designed so that all requirements can be fulfilled within six years.

THE JOINT PH.D. PROGRAM IN SOCIAL THOUGHT AND CLASSICS

The Joint Ph.D. Program in Social Thought and Classics is intended for students whose study of a particular issue or text from the ancient Greek and Roman world requires a broadly interdisciplinary approach alongside a professional mastery of philological skills. Those interested in pursuing this joint degree program must first be admitted in EITHER the Committee on Social Thought OR the Department of Classics and must complete at minimum the two quarter literature survey (Greek or Latin) offered by the Department of Classics, with an average grade of B or higher. Application shall then be made to the second department and, provided that the standards of admission to that department are met, students will be admitted to joint degree status. Their original department, however, will remain their sole department for purposes of registration and financial aid (including dissertation fellowships).

Students admitted to the joint degree program must satisfy both all the normal requirements for the A.M. and Ph.D. in Classical Languages and Literatures and all the normal requirements for the A.M. and Ph.D. in Social Thought. However, the Social Thought language requirement of a high level pass in a foreign language exam will be automatically met by the requirements of the Classics program. Likewise the Social Thought teaching requirements will be automatically met by the higher teaching requirements of the Classics program. Students with joint degree status will be required to offer at least a majority of non-classical texts on the Social Thought Fundamentals Examination. The dissertation proposal will have to be approved by both departments and the dissertation committee will normally include three faculty, at least one of whom will come from each department.

The Degree of Master of Arts

Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study in a number of areas of interest to students. MAPH students take courses with students in the Ph.D. programs. Further details about the MAPH program are available at http://maph.uchicago.edu/

APPLICATION

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http://humanities.uchicago.edu/students/admissions.

Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at https://internationalaffairs.uchicago.edu/, or call them at (773) 702-7752.

COURSES

The two quarter surveys of Greek and Latin literature, and Greek and Latin prose composition, are offered in alternate years. The courses listed below are offered regularly, normally on a three-year rotating basis. In addition, new courses are frequently introduced, especially seminars and classics courses, and these cannot be predicted very far in advance. In recent years, courses included seminars on Early Rome, Tragedy and the Tragic, A History of Rhetoric, Greek Tragedy in Africa, Juvenal, The Ancient Economy, Oral Poetries, The Poetry of Death, Security in Latin Literature, Stoics and Epicureans, and Holderlin and the Greeks.

Greek

Iambic and Elegiac Poetry. Greek Philosophy. Greek Tragedy. Lyric and Epinician Poetry. Greek Epic. Greek Oratory. Hellenistic and Imperial literature. Greek Comedy. Greek Historians.

Latin

Roman Elegy. Roman Novel. Virgil. Post-Virgillian Epic Roman Historians. Roman Comedy. Lucretius. Roman Satire. Roman Oratory.

CLASSICS - CLASSICS COURSES

CLAS 31200. History and Theory of Drama I. 100 Units.

A survey of major trends and theatrical accomplishments in Western drama from the ancient Greeks through the Renaissance: Aeschylus, Sophocles, Euripides, Aristophanes, medieval religious drama, Marlowe, Shakespeare, Jonson, along with some consideration of dramatic theory by Aristotle, Horace, Sir Philip Sidney, Dryden. The course features voluntary but highly recommended end-ofweek workshops in which individual scenes will be read aloud dramatically and discussed. Assignments at mid-quarter and at the end of the quarter will give the option of two substantial essays, or (in place of either or both) the putting on of a short scene in cooperation with some other members of the class. Acting skill is not required; the point is to discover what is at work in the scene and to write up that process in a somewhat informal report. **(D)**

Instructor(s): D. Bevington Terms Offered: Autumn

Prerequisite(s): Preference given to students with third- or fourth-year standing. Note(s): Students should register for this course by the discussion section. You will automatically be enrolled in the lecture. Course meets the General Ed requirment in the Dramatical, Musical and Visual Arts

Equivalent Course(s): CLCV 21200,CMLT 20500,CMLT 30500,ENGL 31000,TAPS 28400,ENGL 13800

CLAS 31515. Colloquium: : Late Antique Mediterranean 1. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. Will continue in winter quarter.

Instructor(s): W. Kaegi Terms Offered: Autumn

Prerequisite(s): Upper-level undergraduates with consent of instructor; meets with HIST 71005.

Equivalent Course(s): HIST 71005, ANCM 31515, HIST 41005

CLAS 31516. Colloquium: Late Antique Mediterranean 2. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. In the winter quarter, we focus on research topics for the colloquium paper.

Instructor(s): W. Kaegi Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor; meets with HIST 71006.

Equivalent Course(s): ANCM 31516, NEHC 41005, HIST 41006

CLAS 31915. The Present Past in Greece since 1769. 100 Units.

This discussion-based course will explore how conceptions of the ancient past have been mobilized and imagined in the political, social, and cultural discourses of modern Greece from the lead up to the War of Independence through to the present day. Among the themes that will be addressed are ethnicity and nationalism; theories of history; the production of archaeological knowledge; and the politics of display.

Instructor(s): J. Hall Terms Offered: Winter Equivalent Course(s): HIST 21006,HIST 31006,CLCV 21915,ANCM 31915

CLAS 32115. Carolingian Renaissance. 100 Units.

The Carolingian Renaissance flowered thanks to the leadership of a new royal (AD 751) and then (from Christmas 800) imperial dynasty. Expansive political and cultural initiatives reshaped Europe into a distinct space, not least, though paradoxically, through its fragmentation after AD 843. We shall study the actors and trends at play, the important role of Classical models and Latin book culture, and consider the relevant sources in all their physical, textual, and imaginative variety. Instructor(s): M. Allen Terms Offered: Winter

Equivalent Course(s): CLCV 22115,HIST 22115,HIST 32115,RLST 21610

CLAS 32515. Athenian Democracy and its Critics. 100 Units.

This course explores the ancient Athenian experience of democracy through the writings of some of its staunchest partisans and fiercest critics. The course introduces students to the ideology and institutions of Athenian democracy. We investigate topics such as the role of popular institutions in politics, including the Assembly and the Popular Courts; Athens' extensive system of political accountability; and the democratic values that the Athenians took as justification for their politics and way of life. The course also analyzes some of the critical responses Athenian democracy provoked. Topics covered include the relationship between democracy and tyranny; Athenian democracy and imperialism; and the role of rhetoric in democratic decision-making. Readings include works by ancient historians, philosophers, dramatists, and rhetoricians, as well as modern scholars. (A)

Instructor(s): M. Landauer Terms Offered: Spring Equivalent Course(s): PLSC 42501

CLAS 32615. Knowledge and Politics. 100 Units.

Instructor(s): M. Landauer Terms Offered: Spring

CLAS 32815. Conquerors of the Ancient World, from Cyrus to Islam. 100 Units.

From the Achaemenids (sixth century BCE) to Islam (seventh century CE), this class will examine the cases of the great conquerors of the ancient world: Cyrus, Alexander, Caesar, Justinian, Muawiyah I. What motivated them? Were they only creatures of circumstances or creators or circumstances? Were they great civilizers or brutal destroyers of civilizations? How can we assess the long term impact of the creation of empires? The class will invite to a broader discussion on the role of individuals as history-makers and on the role of war to shape history. It will also examine the still present consequences of the great deeds of these conquerors. All ancient texts will be analyzed in translation

Instructor(s): A. Bresson Terms Offered: Winter

CLAS 33315. History of Skepticism, Pre-Socratic Greece to Enlightenment. 100 Units.

Doubt has been a fundamental tool from the foundations of Western philosophy, used by radicals and orthodox thinkers, skeptics and system-builders, theologians and scientists. Philosophical skepticism and its evolving palette of intellectual tools shaped the ancient philosophical schools of Greece and Rome, the solidification of early Christian doctrine, the scholastic debates of the later Middle Ages, the neoclassical explosions of the Renaissance, the "new philosophy" of the seventeenth century, the radical projects of the Enlightenment, and the advent of the modern scientific method. This course reviews the history of systematic philosophical doubt, focusing on primary source readings from Sextus Empiricus and Cicero to William of Ockham and the Averroist controversies, to Montaigne, Descartes, Bacon, and Diderot. Undergraduate writing assignments focus on polishing advanced writing ability through short assignments targeting concision, critical thinking, and journalistic writing skills with creative elements. Enrolled graduate students will be invited to additional graduate-only discussions and have supplementary assignments, including secondary source and historiographical readings and selfdesigned customized research papers. Both undergraduates and graduate students from outside the Department of History are welcome. Instructor(s): A. Palmer Terms Offered: Autumn

Equivalent Course(s): CLCV 23315

CLAS 33608. Aristophanes' Athens. 100 Units.

This course will focus on nine of Aristophanes' plays in translation (*Acharnians; Wasps; Clouds; Peace; Birds; Lysistrata; Thesmophoriazousai; Frogs;* and *Ploutos*) in order to determine the value Old Comedy possesses for reconstructing sociohistorical structures, norms, expectations, and concerns. Among the topics to be addressed are the performative, ritual, and political contexts of Attic comedy, the constituency of audiences, the relationship of comedy to satire, the use of dramatic stereotypes, freedom of speech, and the limits of dissent.

Instructor(s): J. Hall Terms Offered: Winter

Equivalent Course(s): ANCM 33900,CLCV 23608,FNDL 23608,HIST 30803,HIST 20803

CLAS 33815. Plato's Legacies. 100 Units.

Some of the most significant efforts to question political theory's core concepts, unsettle its approaches, and expose its dangerous ideals have depended on major reinterpretations of Plato's thought. This course investigates the broad critical impulse to treat Plato as the originator of political positions and interpretive assumptions that late modernity frequently seeks to critique and less often to celebrate. We consider the charges of essentialism, authoritarianism, and foundationalism, among others, and ask to what (if any) extent considerations of the texts' historical contexts and dramaturgical conditions have factored into these assessments. Readings will include works by Popper, Strauss, Arendt, Derrida, Castoriadis, Wolin, Irigaray, Cavarero, Butler, and Rancière alongside Plato's dialogues. Students are expected to be familiar with Plato's thought upon enrolling. (A) Instructor(s): D. Kasimis Terms Offered: Winter Equivalent Course(s): PLSC 43801

CLAS 34216. Plato's Republic. 100 Units.

This course is devoted to reading and discussion of Plato's *Republic* and some secondary work with attention to justice in the city and the soul, war and warriors, psychology, education, theology, poetry, gender, eros, and cities in speech and actually existing cities. (A)

Instructor(s): N. Tarcov Terms Offered: Winter Prerequisite(s): Consent of instructor required. Equivalent Course(s): FNDL 23915,PLSC 33915,LLSO 23915,CLCV 24216,PLSC 23915

CLAS 34515. Money and the Ancient Greek World. 100 Units.

The ancient Greek world saw an innovation the consequences of which are still familiar to everyone: coinage. This was first a currency of precious metal. But the ancient Greek world also saw the invention of fiduciary money. This course will examine the special forms taken by money in the ancient Greek world. It will give an introduction to Greek numismatics. Above all, it will analyze the policies of the states towards coinage, as well as the philosophical debates to which the specific forms of money gave rise in the ancient Greek world. Ancient texts will be analyzed both in original language and in translation.

Instructor(s): A. Bresson Terms Offered: Spring Equivalent Course(s): CLCV 24515

CLAS 35315. Jews in Graeco Roman Egypt. 100 Units.

This course will revise the sources, literary and documentary, for the history of the Jews in Egypt from the 5th cent. BCE (the Elephantine papyri) to the 4th cent CE (Jews and Christians in Egypt). We will revise both the papyrological evidence and the literary evidence that we have for each period, and will focus on historical and social questions. The sources will be read in translation.

Instructor(s): S. Torallas-Tovar Terms Offered: Autumn

Equivalent Course(s): NEHC 30485, RLST 20485, HIJD 30485, JWSC 20485, CLCV 25315, NEHC 20485

CLAS 35415. Text into Data: Digital Philology. 100 Units.

Instructor(s): H. Dik Equivalent Course(s): CLCV 25415

CLAS 35606. Lucretius and Marx. 100 Units.

Lucretius was a follower of Epicurus, whom Marx called "the greatest representative of Greek enlightenment." In his poem *On the Nature of Things*, Lucretius seeks to convert his fellow Romans to an Epicurean way of life. He explains in detail what the world is made of (atoms) and that there is no reason to fear the gods or death. Marx wrote his doctoral dissertation on Epicurus and Lucretius. He was especially enthusiastic about the idea, which was developed by Lucretius, that humans are free to shape their own lives.

Instructor(s): E. Asmis Terms Offered: Autumn Prerequisite(s): Consent of instructor is required. Equivalent Course(s): CLCV 25606,FNDL 24211,LLSO 25606

CLAS 35808. Roman Law. 100 Units.

The course will treat several problems arising in the historical development of Roman law: the history of procedure; the rise and accommodation of multiple sources of law, including the emperor; the dispersal of the Roman community from the environs of Rome to the wider Mediterranean world; and developments in the law of persons. We will discuss problems like the relationship between religion and law from the archaic city to the Christian empire, and between the law of Rome and the legal systems of its subject communities.

Instructor(s): C. Ando Terms Offered: Spring Equivalent Course(s): CLCV 25808

CLAS 37506. Archaic Greece. 100 Units.

In order to understand the institutions, ideals, and practices that characterized Greek city-states in the Classical period, it is necessary to look to their genesis and evolution during the preceding Archaic period (ca. 700–480 BC). This course will examine the emergence and early development of the Greek city-states through a consideration of ancient written sources, inscriptions, material artifacts, and artistic representations as well as more recent secondary treatments of the period. General topics to be covered will include periodization, the rise of the polis, religion, warfare, the advent and uses of literacy, tyranny, and the emergence of civic ideology.

Instructor(s): J. Hall Terms Offered: Autumn

Equivalent Course(s): HIST 20303, HIST 30303, CLCV 27506, ANCM 27506

CLAS 38315. Theories of Narrative. 100 Units.

This class serves as an introduction to critical approaches to narrative, story-telling, and discourse analysis. While the emphasis will be on the Formalist-Structuralist tradition (Shklovsky, Propp, Tomashevsky, Jakobson, Benveniste, Barthes, Genette), we will also discuss works by Plato, Aristotle, Bakhtin, Benjamin, Auerbach, Pavel, Banfield, Silverstein, and others. Part of our task will be to test these approaches against narratives produced in different genres and historical periods (authors will include Pindar, Apuleius, Pushkin, Leskov, and Nabokov). Students will have the option of either writing a research paper or doing a final exam. Required books for this class are: V. Propp, The Morphology of the Folktale (Austin: U. of Texas Press); G. Genette, Narrative Discourse: An Essay in Method (Ithaca: Cornell UP); R. Barthes, S/Z (New York: Hill and Wang). Instructor(s): Boris Maslov Terms Offered: Spring

Equivalent Course(s): REES 33158,CMLT 38300

CLAS 41416. Seminar: Late Antique Mediterranean 2. 100 Units. In the winter quarter we focus on research topics for the seminar paper. Instructor(s): W. Kaegi Terms Offered: Winter Prerequisite(s): HIST 71005 (Autumn); meets with HIST 41006

Equivalent Course(s): ANCM 41416, HIST 71006

CLAS 42014. The Reception of Philosophy in the Roman Period. Units.

The philosophy of the Greeks and Romans in the first century BCE and first two centuries CE has often been labeled "eclectic". This seminar will be an attempt to get away from this label. What we will focus on is the reception of earlier philosophy by a number of thinkers. On the Roman side, we will give attention to Cicero, Musonius, and Seneca; on the Greek side, we will read Dio of Prusa, Plutarch, and Galen. Each of these thinkers developed an approach of his own, consisting in a transformation of past ideas. The seminar will investigate what is new about each approach. Knowledge of Greek or Latin is not required. Instructor(s): E. Asmis Terms Offered: Autumn

CLAS 42815. Aeschylus and the Birth of Drama. 100 Units.

In this advanced seminar we will undertake an in-depth study of different aspects of the surviving corpus of Aeschylus (including meter, dialect, narrative, thematics, plot-construction, and ritual context), while placing it in a comparative context of early forms of drama and varieties of choral performance attested across the world. In addition to discussing all of Aeschylus's surviving works in English translation, we will read at least two of his plays in Greek (most likely, Agamemnon and Seven Against Thebes). We will also read important scholarship on Aeschylus. Advanced knowledge of Greek is a prerequisite.

Instructor(s): Boris Maslov Terms Offered: Spring Equivalent Course(s): CMLT 42804

CLAS 45716. Seminar: Ghosts, Demons and Supernatural Danger in the Ancient World. 100 Units.

This two-quarter graduate seminar, which fulfills the seminar requirement for graduate students in the Department of Classics' Program in the Ancient Mediterranean World, will examine the ancient discourses on and the ritual remedies for supernatural danger in Persian, Greek, Norse, Roman and other cultures. The first quarter will be devoted to guided reading and discussion while the second quarter will be reserved for writing a major research paper. Students, by arrangement with the instructor, will also be permitted to enroll for just the first quarter and write a shorter paper or take-home exam. Instructor(s): C. Faraone, B. Lincoln Terms Offered: Winter

Equivalent Course(s): ANCM 45716

CLAS 45913. Seminar: Greek Medical Writings, Sem: Ancient medical writings in context. 100 Units.

Ancient medicine is intimately linked with philosophical investigation. From the beginning, it fed philosophical theory as well as adapted it to its own use. It also offers a valuable insight into how ordinary humans lived their lives. Medical practice takes us into the homes of the Greeks and Romans, while shedding light on their fears and aspirations. The extant literature is voluminous. There is, first of all, the Hippocratic corpus, a diverse collection of medical writings that drew inspiration from the reputed founder of scientific medicine, Hippocrates. These writings offer a unique insight into the first stages of the creation of a science. Later, Galen established the foundation of Western medicine by his brilliant dissections. As it happens, he was extremely voluble; and he took care to have his spoken words passed on in writing. As a result, we learn much more than just medical theory: we know how physicians competed with one another, and how they related to their patients. In sum, this seminar will study a selection of medical writings, conjointly with some philosophical and literary writings, in an attempt to gauge the intellectual and social significance of ancient medicine. Some knowledge of Greek will be useful. , Ancient medicine is intimately linked with philosophical investigation. From the beginning, it fed philosophical theory as well as adapted it to its own use. It also offers a valuable insight into how ordinary humans lived their lives. Medical practice takes us into the homes of the Greeks and Romans, while shedding light on their fears and aspirations. The extant literature is voluminous. There is, first of all, the Hippocratic corpus, a diverse collection of medical writings that drew inspiration from the reputed founder of scientific medicine, Hippocrates. These writings offer a unique insight into the first stages of the creation of a science. Later, Galen established the foundation of Western medicine by his brilliant dissections. As it happens, he was extremely voluble; and he took care to have his spoken words passed on in writing. As a result, we learn much more than just medical theory: we know how physicians competed with one another, and how they related to their patients. In sum, this seminar will study a selection of medical writings, conjointly with some philosophical and literary writings, in an attempt to gage the intellectual and social significance of ancient medicine. Some knowledge of Greek will be useful. E. Asmis. Winter.

Instructor(s): E. Asmis Terms Offered: Winter, Winter. Equivalent Course(s): ,BIBL 45913

CLAS 47515. Atheism and the Greeks. 100 Units.

Was atheism and invention of the eighteenth century? Noone in the eighteenth century thought so. This series of seminars will explore anew a series of key texts in the history of ancient atheism (including Sophocles' Oedipus Rex, the 'Sisyphus fragment', book X of Plato's Laws, Lucretius and Lucian) in the quest for the atheists of Greek antiquity. How widespread was the phenomenon? Was it at all coherent? What were the differences between its ancient and modern varieties? Instructor(s): T. Whitmarsh Terms Offered: Autumn

CLAS 49000. Prospectus workshop. 100 Units.

A workshop for students who have completed coursework and qualifying exams, it aims to provide practical assistance and a collaborative environment for students preparing the dissertation prospectus. It will meet bi-weekly for two quarters. Instructor(s): M. Lowrie Terms Offered: Autumn. winter

CLAS 49000. Prospectus workshop. 100 Units.

A workshop for students who have completed coursework and qualifying exams, it aims to provide practical assistance and a collaborative environment for students preparing the dissertation prospectus. It will meet bi-weekly for two quarters. Instructor(s): M. Lowrie Terms Offered: Autumn. winter

CLASSICS - GREEK COURSES

GREK 31100. Elegiac Poetry. 100 Units.

This course is a study of poems composed over several centuries in elegiac and iambic meters. Readings will include works by Archilochus, Callinus, Semonides, Hipponax, and Callimachus.

Terms Offered: Will be offered 2016-17

Prerequisite(s): GREK 20300 or equivalent

Equivalent Course(s): GREK 21100

GREK 31200. Philosophy: Plato's Phaedrus. 100 Units.

The *Phaedrus* is one of the most fascinating and compelling of Plato's Dialogues. Beginning with a playful treatment of the theme of erotic passion, it continues with a consideration of the nature of inspiration, love, and knowledge. The centerpiece is one the the most famous of the Platonic myths, the moving description of the charioteer and its allegory of the vision, fall, and incarnation of the soul. Terms Offered: Will be offered 2016-17 Prerequisite(s): GREK 20300 or equivalent Equivalent Course(s): GREK 21200,BIBL 31200

GREK 31300. Tragedy. 100 Units.

This course is an introduction to Aeschylean drama, seen through the special problems posed by one play, *Prometheus Bound*. Lectures and discussions are concerned with the play, the development and early form of Attic drama, and philosophical material. Modern Aeschylean scholars are also read and discussed. Terms Offered: Will be offered 2016-17

Prerequisite(s): GREK 20300 or equivalent

Equivalent Course(s): GREK 21300

GREK 31700. Lyric and Epinician Poetry. 100 Units.

This course will examine instances of Greek lyric genres throughout the archaic and classical periods, focusing on the structure, themes and sounds of the poetry and investigating their performative and historical contexts. Readings will include Alcman, Sappho, Alcaeus, Anacreon, Ibycus, Alcaeus, Simonides, Bacchylides, Pindar and Timotheus. In Greek.

Instructor(s): S. Nooter Terms Offered: Autumn Prerequisite(s): GREK 20300 or equivalent Equivalent Course(s): GREK 21700

GREK 31800. Greek Epic. 100 Units.

This course is a reading of Book 3 of the *Argonautica* of Apollonius of Rhodes. We consider character, story world, and the presence of the poet as we endeavor to understand what has become of epic poetry in the hands of its Hellenistic inheritors. Instructor(s): C. Faraone Terms Offered: Spring Prerequisite(s): Two years or more of Greek. Equivalent Course(s): GREK 21800

GREK 31900. Greek Oratory. 100 Units.

"With Isocrates, Greek artistic prose reached its technical perfection," says L. R. Palmer in *The Greek Language*. Yet Isocrates has not found nearly so prominent a place in the university curriculum as have Demosthenes and Lysias. This course will attempt to give the great orator his due. We will start with his speech on Helen, comparing it with Gorgias' famous *Encomium*. We will also read the *ad Demonicum*, which became something of a handbook in later Hellenistic and Roman-period schools, and the *Panegyricus*. We will consider carefully Isocratean language and diction, and why it has merited such sustained praise among connoisseurs of Greek prose style, ancient and modern. We will also emphasize the centrality of Isocrates' contribution to Greek paideia.

Terms Offered: Spring

Prerequisite(s): Two years or more of Greek.

Equivalent Course(s): GREK 21900

GREK 32314. Hellenistic/Imperial Literature. 100 Units.

This course features selections from the poetry and/or prose of the Hellenistic and Imperial periods. This year we will read selections from Hellenistic poetry, with a particular focus on the Hymns of Callimachus.

Terms Offered: Will be offered 2017-18

Equivalent Course(s): GREK 22314

GREK 32400. Greek Comedy: Aristophanes. 100 Units.

We will read in Greek Aristophanes' *Frogs*, a play widely admired as an early instance of clever literary criticism and creative metatheatricality that brings its audience into the underworld and suggests several fantasies of salvation, a play whose production marks the end of the great century of Greek drama. Reading will include translation as well as secondary readings.

Terms Offered: Will be offered 2017-18

Prerequisite(s): GREK 20300 or equivalent

Equivalent Course(s): GREK 22400, HIST 20403, HIST 30403

GREK 32500. Greek Historians: Herodotus. 100 Units.

We will read Herodotus' Egyptian Logos with attention to the language and style of the author, as well as his interpretatio Graeca of Egyptian religion, culture, and civilization.

Instructor(s): D. Martinez Terms Offered: Autumn Prerequisite(s): At least two years of Greek. Equivalent Course(s): GREK 22500

GREK 32700. Survey of Greek Literature I. 100 Units.

Greek poetry, including drama, from Homer to Callimachus. Lectures and discussions will be concerned chiefly with genre, style, meter, and rhetorical structure. There will be some close study of passages chosen to exemplify problems of interpretation or to display the major themes in each poet's work. ,We will cover Greek poetry, including drama, from Homer to Callimachus. Classes will be concerned chiefly with genre, style, meter, and literary tropes with some discussion of the scholarly history on these texts. There will be some close study of passages chosen to exemplify problems of interpretation or to display the major themes in each poet's work.

Instructor(s): ,S. Nooter Terms Offered: Offered 2015-2016,Autumn

GREK 32700. Survey of Greek Literature I. 100 Units.

Greek poetry, including drama, from Homer to Callimachus. Lectures and discussions will be concerned chiefly with genre, style, meter, and rhetorical structure. There will be some close study of passages chosen to exemplify problems of interpretation or to display the major themes in each poet's work. ,We will cover Greek poetry, including drama, from Homer to Callimachus. Classes will be concerned chiefly with genre, style, meter, and literary tropes with some discussion of the scholarly history on these texts. There will be some close study of passages chosen to exemplify problems of interpretation or to display the major themes in each poet's work.

Instructor(s): ,S. Nooter Terms Offered: Offered 2015-2016,Autumn

GREK 32800. Survey of Greek Literature II. 100 Units.

A study of the creation of the canonical Greek prose style in the 5th and 4th centuries. Rapid reading and translation exercises. Instructor(s): H. Dik Terms Offered: Offered 2015-2016

GREK 33900. Ancient Greek Hymns. 100 Units.

We will study the evolution of Greek hymns from the Homeric Hymns and the earliest epigraphic evidence down to the hymns of Callimachus and the cult hymns to Isis in the Hellenistic period, including as well choral hymns in archaic lyric and Greek tragedy.

Instructor(s): C. Faraone Terms Offered: Spring Equivalent Course(s): GREK 23900

GREK 34400. Greek Prose Composition, Greek Prose Comp. 100, Units.

This course focuses on intensive study of the structures of the Greek language and the usage of the canonical Greek prose, including compositional exercises. ,This course focuses on intensive study of the structures of the Greek language and the usage of the canonical Greek prose, including compositional exercises Instructor(s): Helma Dik,H. Dik,E. Asmis Terms Offered: Spring,Winter Prerequisite(s): Consent of instructor,

GREK 34400. Greek Prose Composition, Greek Prose Comp. 100, Units.

This course focuses on intensive study of the structures of the Greek language and the usage of the canonical Greek prose, including compositional exercises. ,This course focuses on intensive study of the structures of the Greek language and the usage of the canonical Greek prose, including compositional exercises Instructor(s): Helma Dik,H. Dik,E. Asmis Terms Offered: Spring,Winter Prerequisite(s): Consent of instructor,

GREK 35000. Mastering Greek. 100 Units.

Instructor(s): H. Dik Terms Offered: Autumn Equivalent Course(s): GREK 25000

GREK 35615. History of the Greek Language. 100 Units.

Greek is one of the oldest continuously written languages: We have testimonies of it across three millennia. This course will review the various stages of this language from its first written texts (Mycenaean Greek) to Medieval and Modern Greek, including the Greek dialects, the rise of the Koiné, Biblical Greek, and the contact of Greek with other languages through history. We will read and discuss texts from all phases, including literary texts, epigraphy, papyri, and medieval manuscripts. Two years previous study of Greek is a requirement for enrollment. Instructor(s): S. Torallas-Tovar Terms Offered: Winter Equivalent Course(s): GREK 25615

GREK 36615. Lucian. 100 Units.

Lucian's works offer critical perspectives on Hellenic identity and the hypocrisies of intellectual life in the Roman Empire. Several of his works will be read in Greek, and others will be read in translation. These will be paired with works by other authors who held perspectives similar to his: an epigram by Meleager of Gadara, fragments from the autobiography of Nicolaus of Damascus, and short selections from Tatian's Against the Greeks. The critical perspectives of these authors, all of them from the Near Eastern provinces of the empire, will also be situated with respect to mainstream figures of the 'Second Sophistic' as constructed by Philostratus. Instructor(s): J. Secord Terms Offered: Winter Equivalent Course(s): GREK 26615

GREK 37100. Origen of Alexandria. 100 Units.

It is difficult to conceive of doing justice to the vast scope of Origen's work in one quarter, but we will do our best to sample generous selections from the Greek text of his exegetical, homiletic, and doctrinal writing, including a substantive selection from his Treatise on Prayer and perhaps the section of the Dialogue with Heracleides preserved among the Tura papyri. We will of course focus on Origen as the greatest exponent of the allegorical method of biblical interpretation and its Platonic underpinnings. We will also consider carefully the style of his Greek and his position as a Christian apologist.

Instructor(s): D. Martinez Terms Offered: Spring Prerequisite(s): At least three years of Greek or consent of instructor Equivalent Course(s): BIBL 49800,GREK 27100

GREK 40112. Sophocles, Oedipus at Colonus. 100 Units.

A close literary and philological analysis of one of the most extraordinary of all Greek tragedies. While this play, in its many dimensions, will offer more than adequate material for classroom analysis and discussion, some attention will also be directed to its reception.

Instructor(s): G. Most Terms Offered: Winter 2013 Prerequisite(s): Greek or consent of instructor Equivalent Course(s): CMLT 35903,SCTH 35901

GREK 43900. Greek Hymns. 100 Units.

Instructor(s): C. Faraone Terms Offered: Spring

CLASSICS - LATIN COURSES

LATN 31100. Roman Elegy. 100 Units.

This course examines the development of the Latin elegy from Catullus to Ovid. Our major themes are the use of motifs and topics and their relationship to the problem of poetic persona.

Terms Offered: Will be offered 2016-17 Equivalent Course(s): LATN 21100,CMLT 21101,CMLT 31101

LATN 31200. Roman Novel. 100 Units.

We shall read from various Latin texts that participate in the tradition of the Ancient novel.

Terms Offered: Will be offered 2016-17 Equivalent Course(s): LATN 21200

LATN 31300. Vergil. 100 Units.

Vergil, *Aeneid*. Since many students have greater familiarity with the first half of the *Aeneid*, we will focus on the second half. Books 8, 10, and 12 will be read in entirety in Latin, with substantial selections from books 7, 9, and 11; we will also read the whole poem in translation. Topics of interest include: foundation and refoundation, the epic genre, the relation of myth to history, contemporary politics, and the social function of literature.

Terms Offered: Will be offered 2016-17 Equivalent Course(s): LATN 21300,FNDL 25201

LATN 31800. Roman Historian. 100 Units.

Primary readings are drawn from the later books of the *Annals*, especially book 11, in which Tacitus describes the reign of Claudius and early reign of Nero. Parallel accounts and secondary readings are used to help bring out the methods of selecting and ordering data and the stylistic effects that typify a Tacitean narrative. Terms Offered: Winter

Prerequisite(s): LATN 20300 or equivalent Equivalent Course(s): LATN 21800

LATN 31900. Roman Comedy. 100 Units.

Plautus' *Pseudolus* is read in Latin, along with secondary readings that explain the social context and the theatrical conventions of Roman comedy. Class meetings are devoted less to translation than to study of the language, plot construction, and stage techniques at work in the *Pseudolus*.

Terms Offered: Spring

Prerequisite(s): LATN 20300 or equivalent Equivalent Course(s): LATN 21900

LATN 32100. Lucretius. 100 Units.

We will read selections of Lucretius' magisterial account of a universe composed of atoms. The focus of our inquiry will be: how did Lucretius convert a seemingly dry philosophical doctrine about the physical composition of the universe into a gripping message of personal salvation? The selections will include Lucretius' vision of an infinite universe, of heaven, and of the hell that humans have created for themselves on earth.

Terms Offered: Will be offered 2017-18. Equivalent Course(s): LATN 22100,FNDL 24212

LATN 32200. Roman Satire. 100 Units.

The object of this course is to study the emergence of satire as a Roman literary genre with a recognized subject matter and style. Readings include Horace *Satires* 1.1, 4, 6, and 10 and 2.1, 5 and 7; Persius 1 and 5; and Juvenal 1 and 3. Terms Offered: Will be offered 2017-18. Equivalent Course(s): LATN 22200

LATN 32300. Roman Oratory. 100 Units.

Two of Cicero's speeches for the defense in the criminal courts of Rome receive a close reading in Latin and in English. The speeches are in turn considered in relation to Cicero's rhetorical theory as set out in the *De Oratore* and in relation to the role of the criminal courts in Late Republican Rome.

Terms Offered: Will be offered 2017-18.

Equivalent Course(s): LATN 22300

LATN 33400. Boethius: Consolation of Philosophy. 100 Units.

The *Consolation of Philosophy*, which Boethius wrote in prison after a life of study and public service, offers a view on Roman politics and culture after Rome ceased to be an imperial capital. The *Consolation* is also a poignant testament from a man divided between Christianity and philosophy. About 70 pages of the text are read in Latin, and all of it in English. Secondary readings provide historical and religious context for the early sixth century AD.

Instructor(s): P. White Terms Offered: Spring Prerequisite(s): Latin 20300 or equivalent Equivalent Course(s): LATN 23400

LATN 45815. Sem: Dissidence in Augustan Rome. 100 Units.

This seminar will explore the (literary) ways in which politically subordinate classes in post-Augustan Rome could express criticism of the imperial regime, its ideology, and its constraints. We will be reading material in Latin from Lucan, Petronius, Seneca, Tacitus, Pliny and Suetonius as well as secondary sources on the techniques of dissent.

Instructor(s): S. Bartsch-Zimmer. Terms Offered: Winter



Department of Comparative Literature

Chair

Françoise Meltzer, Comparative Literature

Professors

- Arnold Davidson, Philosophy
- Frederick de Armas, Romance Languages & Literatures
- Loren A. Kruger, English Language & Literature
- Françoise Meltzer, Comparative Literature
- Thomas Pavel, Romance Languages & Literatures
- Haun Saussy, Comparative Literature
- Michael Sells, Divinity School
- Joshua Scodel, English Language & Literature

Associate Professors

- Sascha Ebeling, South Asian Languages & Civilizations
- Lawrence Rothfield, English Language & Literature
- David Wray, Classics

Assistant Professors

- Leah Feldman, Comparative Literature
- Boris Maslov, Comparative Literature
- Olga Solovieva, Comparative Literature

Emeritus Faculty

- David Bevington, English Language & Literature
- Walter R. Johnson, Classics
- Michael Murrin, English Language & Literature
- Kenneth J. Northcott, Germanic Studies
- Frantisek Svejkovsky, Slavic Languages & Literatures
- Robert von Hallberg, Comparative Literature
- Edward Wasiolek, Slavic Languages & Literatures
- Anthony C. Yu, Divinity

The Department of Comparative Literature is organized to facilitate the study of literature unrestricted by national boundaries and the conventional demarcations of subject matter. The department makes every effort to arrange a course of studies fitted to the individual student's background and interest. Students may choose from courses offered by the department, as well as those offered by relevant departments in the Division of the Humanities and in some cases those offered by other divisions. Students are expected to read relevant texts in the original languages. The time period leading to the master's degree may be used to explore areas of interest by the student, as well as to strengthen areas of established interest and competence. Students pursue the Ph.D. in one of two tracks of learning and training:

- 1. National literatures
- 2. Literature and other disciplines

Track 1 is a program of studies of one national literature (the major) in its historical entirety and of a second national literature (the minor) in a specified area. Track 2 will consist of the study of a literature or some part of that literature and its relationship to another discipline such as sociology, psychoanalysis, philosophy, or religion. It is assumed that whichever option the student chooses, an international perspective on the relevant problem will be sought and maintained. Students will be provided with individual counseling to help them formulate programs of study that will answer to their needs and interests. There are no formal boundaries to the extent and nature of these interests, although the department will require that programs be coherently conceived and responsibly carried out.

The Degree of Master of Arts

The objective of the program is the Ph.D. degree. Doctoral students in the program are eligible for the M.A. degree after completing the following requirements: For students entering the program in the fall 2003 and after, a program of eight graduate level courses (one full academic year), all of which must be taken for a letter grade; the required two quarter sequence; and demonstrated competence (high proficiency in a graduate literature course or high pass in a University examination) in two foreign languages, one of which must be either French or German. The remaining six quarter courses are normally divided among two literatures, although a student may, with department permission, place greater emphasis on one literature or on some special interest. Satisfactory completion of the MA requirements will be based on a student's grade record and performance in the required two quarter sequence.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Programs leading to the doctor's degree in the department will be organized for students possessing the M.A. who have shown unusual competence and who wish to prepare themselves for teaching and scholarly investigation in comparative literature. Students are required to take six graduate level courses in their second year of Ph.D. study and two in their third year. Students are also required to write a minimum of two substantial papers the second year, and one the third year. Copies of these papers must be submitted to the graduate chair.

In the two years of post-M.A. courses, students may take no more than one of the required courses per year for a Pass/Fail grade (i.e., one of the six required graduate level courses for the first year of post-M.A. doctoral level study, and one of the two required graduate level courses in the second year of doctoral level study).

Before the student is recommended for admission to candidacy for the doctor's degree he or she must pass satisfactorily an oral examination after completion of eight Ph.D. level courses. This examination will be based on one of the following two options.

Track I requires The National Literature Oral. This is an examination based on no fewer than 60 titles in the major literature and no fewer than 30 titles in the minor literature. The list for the major literature will cover all periods and genres. The list for minor literature will cover the major texts of the approved period or genre.

Track II requires The Field Oral. This is an oral examination on a representative list of approximately 70-90 titles in a given comparative field, such as literature and anthropology, literature and art, literature and film, literature and history, literature and linguistics, literature and music, literature and psychology, literature and sociology, literature and religion, literature and science. Texts chosen for this exam are to be distributed evenly between the two disciplines.

For admission to candidacy the same language requirements hold for BOTH tracks. These are as follows: either high proficiency in one language (=normally one graduate literature course) + two University reading exams in two additional languages (with a high pass on both) OR two high proficiency (graduate literature courses) in two languages. In both tracks one of those languages must be either French or German. All graduate students who wish to fulfill the language requirement through graduate course work must pick up a form in the departmental office to be filled out by the instructor after the course work has been completed. No student will get credit for the language requirement by course work without the instructor's completion of such a form. The form will rate the student's general knowledge of the language with almost exclusive emphasis on reading.

Before entering candidacy students will be asked to present and discuss their dissertation proposals at a proposal hearing attended by their dissertation committee and other interested faculty. After entering candidacy students will participate in a colloquium, normally in the fifth quarter after their admission to candidacy, in which they will discuss with their dissertation committee the current state of the dissertation and outline their plans and schedule for further progress. Students are strongly urged to join appropriate workshops and present dissertation chapters on a regular basis to such workshops. After satisfying the above requirements, the candidate is expected to pursue independent research under the direction of a member of the faculty culminating in the writing of a doctoral dissertation. The candidate must conclude his or her studies by defending successfully this dissertation in an oral final examination.

For additional information about the Comparative Literature program, please see http://complit.uchicago.edu/.

APPLICATION

The department requires a writing sample of no more than 25 pages, usually a critical essay written during the student's college years.

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http:// humanities.uchicago.edu/students/admissions Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552. Our application process is now entirely online. Please do not send any materials in hard copy. All materials should be submitted through the online application (http:// humanities.uchicago.edu/students/admissions/apply-now).

COMPARATIVE LITERATURE COURSES

CMLT 30500. History and Theory of Drama I. 100 Units.

A survey of major trends and theatrical accomplishments in Western drama from the ancient Greeks through the Renaissance: Aeschylus, Sophocles, Euripides, Aristophanes, medieval religious drama, Marlowe, Shakespeare, Jonson, along with some consideration of dramatic theory by Aristotle, Horace, Sir Philip Sidney, Dryden. The course features voluntary but highly recommended end-ofweek workshops in which individual scenes will be read aloud dramatically and discussed. Assignments at mid-quarter and at the end of the quarter will give the option of two substantial essays, or (in place of either or both) the putting on of a short scene in cooperation with some other members of the class. Acting skill is not required; the point is to discover what is at work in the scene and to write up that process in a somewhat informal report. **(D)**

Instructor(s): D. Bevington Terms Offered: Autumn

Prerequisite(s): Preference given to students with third- or fourth-year standing. Note(s): Students should register for this course by the discussion section. You will automatically be enrolled in the lecture. Course meets the General Ed requirment in the Dramatical, Musical and Visual Arts

Equivalent Course(s): CLAS 31200,CLCV 21200,CMLT 20500,ENGL 31000,TAPS 28400,ENGL 13800

CMLT 30600. History and Theory of Drama II. 100 Units.

A survey of major trends and theatrical accomplishments in Western drama from the late-seventeenth century into the twentieth: Molière, Goldsmith, Ibsen, Chekhov, Strindberg, Wilde, Shaw, Brecht, Beckett, Stoppard. Attention will also be paid to theorists of the drama, including Stanislavsky, Artaud, and Grotowski. The winterquarter course, like the autumn-quarter course, features voluntary but highly recommended end-of-week workshops in which individual scenes will be read aloud dramatically and discussed. Assignments at mid-quarter and at the end of the quarter will give the option of two substantial essays, or (in place of either or both) the putting on of a short scene in cooperation with some other members of the class. Acting skill is not required; the point is to discover what is at work in the scene and to write up that process in a somewhat informal report. Crosslisted courses are designed for advanced undergraduates and graduate students. **(D)** Instructor(s): D. Bevington Terms Offered: Winter

Prerequisite(s): Third- or fourth-year standing

Note(s): May be taken in sequence with ENGL 13800/31000 or individually. Students should register for this course by the discussion section. You will automatically be enrolled in the lecture. Course meets the General Ed requirment in the Dramatical, Musical and Visual Arts. History and Theory of Drama I is not a prerequisite. Equivalent Course(s): CMLT 20600,ENGL 31100,TAPS 28401,ENGL 13900

CMLT 31101. Roman Elegy. 100 Units.

This course examines the development of the Latin elegy from Catullus to Ovid. Our major themes are the use of motifs and topics and their relationship to the problem of poetic persona.

Terms Offered: Will be offered 2016-17 Equivalent Course(s): LATN 21100,CMLT 21101,LATN 31100

CMLT 31703. The Politics of Hybridity. 100 Units.

This course will explore the construct of hybridity through the development of anticolonial and postcolonial theory. In nuancing the distinction between these intellectual traditions and their respective formations in the contexts of decolonization, the Cold War, and the US academy, we will consider the work of Fanon, Césaire, C. L. R. James, Said, Spivak, Young, Bhabha, Glissant, Khatibi, and others.

Instructor(s): Leah Feldman Terms Offered: Winter Equivalent Course(s): CMLT 21703

CMLT 32400. History of International Cinema I: Silent Era. 100 Units.

This course introduces what was singular about the art and craft of silent film. Its general outline is chronological. We also discuss main national schools and international trends of filmmaking.

Instructor(s): Y. Tsivian Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): ARTH 28500, ARTH 38500, ARTV 26500, ARTV 36500, CMLT 22400, CMST 48500, ENGL 29300, ENGL 48700, MAPH 36000, CMST 28500

CMLT 32500. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): D. Morgan Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): ARTH 28600,ARTH 38600,ARTV 26600,CMLT 22500,CMST 48600,ENGL 29600,ENGL 48900,MAPH 33700,CMST 28600

CMLT 33301. Balkan Folklore. 100 Units.

Vampires, fire-breathing dragons, vengeful mountain nymphs. 7/8 and other uneven dance beats, heart-rending laments, and a living epic tradition. This course is an overview of Balkan folklore from historical, political, and anthropological perspectives. We seek to understand folk tradition as a dynamic process and consider the function of different folklore genres in the imagining and maintenance of community and the socialization of the individual. We also experience this living tradition firsthand through visits of a Chicago-based folk dance ensemble, "Balkan Dance."

Instructor(s): A. Ilieva

Equivalent Course(s): ANTH 25908, ANTH 35908, CMLT 23301, NEHC 20568, NEHC 30568, REES 36800, REES 26800

CMLT 33310. Classical Art in the Literature of the Renaissance and Early Modern Italy, Spain, and France. 100 Units.

As classical statues emerged from the ground as if they were corpses revived by ancient necromancers, delight and curiosity concerning these artistic findings spread from Renaissance Italy to the rest of Europe. Even so, there was one aspect that was missing. The great paintings of antiquity were mostly lost due to their fragility. Only some of the wall paintings of later periods remained. Thus, the names and works of famous Greek painters came to be known mainly through Pliny's *Natural History*. This course will focus on three of these painters, whose works, although destroyed, are preserved in writing and ekphrasis: Apelles, Timanthes, and Zeuxis. We will investigate how they come to be painted and described anew in the art and literature of the Renaissance and Early Modern periods, from Vasari to Rubens; and from Boscán and Tirso de Molina to Cervantes and Montaigne. Instructor(s): F. de Armas Terms Offered: Spring

Note(s): Although the course is taught in English, students need to have a reading knowledge of Spanish.

Equivalent Course(s): SPAN 33300,CMLT 23310,SPAN 23300

CMLT 34505. The Bakhtin Mystery: Text, Context, and Authorship. 100 Units. The Bakhtin Circle was an informal alliance of several young thinkers, formed amid the tumult of the Russian revolution, swiftly forced into silence after a brief efflorescence in the 1920s, and rediscovered with aplomb in the 1960s. Despite their broad influence in recent decades, basic issues of authorship, originality and coherence continue to dominate scholarship on Bakhtin and his colleagues. We will survey the corpus of texts originating in the Bakhtin Circle, not only those published under the name of Mikhail Bakhtin, but also the explicitly Marxist texts published under the names of Pavel Medvedev and Valentin Voloshinov but frequently attributed to Bakhtin. At issue in the course is not only the historiography and interpretation of the Bakhtin corpus, but also the origins of critical theory, the dynamics of theoretical collaboration, and methods of attribution. We will also be interested in the potential that these writings hold for constructing a viable theory of literary forms today. Our first task will be to establish the sources, contexts and development of Bakhtin's early work, including "Toward a Philosophy of the Act," "Art and Answerability" and Problems of Dostoevsky's Art. We will then examine the works published by Medvedev and Voloshinov, using the mystery of their authorship to frame questions concerning the organization of intellectual activity. . .Read more on complit.uchicago.edu Instructor(s): Boris Maslov; Robert Bird Terms Offered: Winter

Equivalent Course(s): REES 33147

CMLT 35903. Sophocles, Oedipus at Colonus. 100 Units.

A close literary and philological analysis of one of the most extraordinary of all Greek tragedies. While this play, in its many dimensions, will offer more than adequate material for classroom analysis and discussion, some attention will also be directed to its reception.

Instructor(s): G. Most Terms Offered: Winter 2013 Prerequisite(s): Greek or consent of instructor Equivalent Course(s): GREK 40112,SCTH 35901

CMLT 38300. Theories of Narrative. 100 Units.

This class serves as an introduction to critical approaches to narrative, story-telling, and discourse analysis. While the emphasis will be on the Formalist-Structuralist tradition (Shklovsky, Propp, Tomashevsky, Jakobson, Benveniste, Barthes, Genette), we will also discuss works by Plato, Aristotle, Bakhtin, Benjamin, Auerbach, Pavel, Banfield, Silverstein, and others. Part of our task will be to test these approaches against narratives produced in different genres and historical periods (authors will include Pindar, Apuleius, Pushkin, Leskov, and Nabokov). Students will have the option of either writing a research paper or doing a final exam. Required books for this class are: V. Propp, The Morphology of the Folktale (Austin: U. of Texas Press); G. Genette, Narrative Discourse: An Essay in Method (Ithaca: Cornell UP); R. Barthes, S/Z (New York: Hill and Wang).

Instructor(s): Boris Maslov Terms Offered: Spring Equivalent Course(s): CLAS 38315,REES 33158

CMLT 38815. Literature as Trial. 100 Units.

The affinities between literary and judicial practice seem as old as literature itself. Countless literary works take the form of a trial, revolve around a case or trial scene, or negotiate competing ways of seeing and talking. What is the relationship between judgment and poetic form? Can "trial" be understood as a distinct form of discourse? What role can the literary play in the legal process? Is there a privileged relationship between the trial and the dramatic genre? Can literature be a training for judgment? Are there specifically poetic forms of justice? Readings include Sophocles, Dante, Shakespeare, Kleist, Kafka, Arendt, Weiss, Derrida, Coetzee.

Instructor(s): F. Klinger Terms Offered: Autumn

Equivalent Course(s): GRMN 38815, CMLT 28815, SCTH 38816, GRMN 28815

CMLT 39302. South Asian Aesthetics: Rasa to Rap, Kamasutra to Kant. 100 Units.

This course introduces students to the rich traditions of aesthetic thought in South Asia, a region that includes (among others) the modern-day states of India, Pakistan, Afghanistan, Bangladesh, Nepal and Sri Lanka. By engaging with theories of art, literature and music from the Indic and Indo-Persian traditions, we will attempt to better understand what happens in an aesthetic experience. A central concern will be thinking about how much any aesthetic tradition, be it South Asian or other, is rooted in the particular epistemic and cultural values of the society that produced it; we will therefore explore how ideas from the South Asian tradition can help us to understand not only South Asian material, but art in other societies as well, and to re-think the boundaries of 'aesthetic' thought. Class discussion, small group work, and individual presentations will be regular features of the class. Two sessions will include performances by, and discussions with, performing artists (dancers and musicians). We will also make one visit to the Art Institute Chicago. Instructor(s): T. Williams Terms Offered: Spring

Equivalent Course(s): SALC 49300, CMLT 29302, SALC 29300

CMLT 42804. Aeschylus and the Birth of Drama. 100 Units.

In this advanced seminar we will undertake an in-depth study of different aspects of the surviving corpus of Aeschylus (including meter, dialect, narrative, thematics, plot-construction, and ritual context), while placing it in a comparative context of early forms of drama and varieties of choral performance attested across the world. In addition to discussing all of Aeschylus's surviving works in English translation, we will read at least two of his plays in Greek (most likely, Agamemnon and Seven Against Thebes). We will also read important scholarship on Aeschylus. Advanced knowledge of Greek is a prerequisite.

Instructor(s): Boris Maslov Terms Offered: Spring Equivalent Course(s): CLAS 42815

CMLT 43351. Poetry and Theory: Mallarmé 100 Units.

This course will undertake a close reading (in French) of seminal texts (essays and translation as well as poems) by Mallarmé. We will also read older critical interpretations (Mauron, Sartre, H. Friedrich, Robert Greer Cohn, Scherer, J-P Richard, Poulet, eg) and more contemporary theorists (Derrida, Blanchot, De Man, Jameson, Johnson, Kristeva, Rancière, bersani, Zizek). Finally, we will read him in conjunction with some other, more or less overtly philosophical texts (Heidegger, Badiou, Nietzsche, Meschonnic, e.g.). Reading knowledge of French is REQUIRED, though the course will be conducted in English.

Instructor(s): Françoise Meltzer and Jean-Luc Marion Terms Offered: Spring Equivalent Course(s): DVPR 43351,FREN 43351

CMLT 50104. Blood Libel: Damascus to Riyadh. 100 Units.

This course examines the Blood-Libel from the thirteenth-century to the present, with special focus upon the Damascus Affair of 1840 and its repercussions in the modern Middle Eastern and European contexts and in polemics today among Muslims, Christians and Jews. We will review cases and especially upon literary and artistic representations of ritual murder and sacrificial consumption alleged to have been carried out by Waldensians, Fraticelli, witches, and Jews, with special attention to the forms of redemptive, demonic, and symbolic logic that developed over the course of the centuries and culminated in the wake of the Damascus Affair. Each participant will be asked to translate and annotate a sample primary text, ideally one that has not yet been translated into English, and to use that work as well in connection with a final paper.

Instructor(s): M. Sells Terms Offered: Autumn

Prerequisite(s): Willingness to work on a text from one of the following languages--Latin, German, French, Italian, Spanish, Polish, Hungarian, Russian, Arabic, Modern Greek, or Turkish--at whatever level of proficiency one has attained. This course fulfills the autumn core requirement for first year PhDs in Comparative Literature Equivalent Course(s): ISLM 41610

CMLT 50105. Literary Criticism from Plato to Burke. 100 Units.

This seminar will explore Western literary criticism from Plato to the late eighteenthcentury conceived of as a prehistory of comparative literature as a discipline. The course will take as its particular lens the critical treatment of epic in some of the following authors: Plato, Aristotle, Longinus, Horace, Montaigne, Tasso, Giraldi, Sidney, Boileau, Le Bossu, St. Evremond, Dryden, Addison, Voltaire, Fielding, and Burke. The course will also examine both twentieth-century comparative approaches to epic (e.g., Auerbach, Curtius, Frye) and more recent debates within comparative literature with an eye to continuities and discontinuities in critical method and goals.

Instructor(s): J. Scodel Terms Offered: Autumn Equivalent Course(s): ENGL 52502

CMLT 50200. Seminar: Catharsis and Other Aesthetic Responses. 100 Units.

This seminar examines the ramifications of catharsis, tedium and other responses to texts and images, in other words it investigates the relationship between effect and affect. Beginning with Aristotle and present day responses to catharsis, we will investigate the kinds of aesthetic response invoked by tragic drama and theory (esp Hegel), realism (Lukacs, Bazin and Brecht), as well as theories of pleasure (Barthes, Derrida) and tedium (Heidegger and again Barthes). We will conclude with a test case, exploring the potential and limitations of catharsis as an appropriate response to the textual and cinematic representation of trauma and reckoning in post dictatorship Chile, particularly through the critical work of Tomas Moulián and Nelly Richard. The focus will be on theoretical texts but some reference will be made to literary and cinematic material by Sophocles, Shakespeare, Brecht, Renoir, and Guzmán. Because an essential part of the discussion will be the problem of translating key terms from one language to another as well as from one theoretical discourse and/or medium to another, the seminar is reserved for PhD students with a working knowledge of one or more of the following languages: French, German, Spanish and/or classical Greek.

Instructor(s): Loren Kruger Terms Offered: Spring Note(s): Comp Lit Ph.D. core course Equivalent Course(s): ENGL 59304

CMLT 50201. Seminar: Contemporary Critical Theory. 100 Units.

This course will examine some of the salient texts of postmodernism. Part of the question of the course will be the status and meaning of "post"-modern, poststructuralist. The course requires active and informed participation. Instructor(s): Francoise Meltzer Terms Offered: Winter Note(s): Comp Lit core course. 2nd part of sequence. Equivalent Course(s): DVPR 50201

CMLT 56702. Postcolonial Constellations. 100 Units.

This course trains graduate-level students in postcolonial theory and literature, and it contends that we can best understand postcolonial studies neither in terms of a canon of literary works nor in terms of a discrete historical moment but as a set of key questions and debates that have shaped methods of literary and cultural interpretation and intellectual inquiry over the three decades in which postcolonial literary and culture studies have coalesced (and now, perhaps disintegrated) as a field. We will consider topics such as writing and resistance, postcolonial literary revisions, mimicry and hybridity, and gender. We will also consider whether "postcolonial literature" as a category has a future in the discipline of English literary studies, particularly in light of the ongoing sense of crisis theorists in the field have identified and the ascendance of terms such as "planetarity," "global Anglophone literature," and "world literature." What is the status of the global in the postcolonial, and vice-versa? What is gained or lost when we revise or abandon the term postcolonial? What conceptual significance does the nation-state retain when we talk about global literature? Authors and critics will include Emily Apter, Homi Bhabha, Aimé Césaire, Dipesh Chakrabarty, Michelle Cliff, Frantz Fanon, Leela Gandhi, Édouard Glissant, Mohsin Hamid, Bessie Head, Isabel Hofmeyr, C.L.R. James, Achille Mbembe, Walter Mignolo, V.S. Naipaul, Ngugi wa Thiong'o, among others.

Instructor(s): S. Thakkar Terms Offered: Spring Equivalent Course(s): ENGL 66702



Department of East Asian Languages and Civilizations

Chair

- Michael K. Bourdaghs Director of Graduate Studies
- Paul Copp Director of Undergraduate Studies
- Paola Iovene

Professors

- Michael K. Bourdaghs
- Donald Harper
- James Ketelaar (also with History)
- Haun Saussy (also with Comparative Literature)
- Edward L. Shaughnessy
- Hung Wu (also with Art History)
- Judith Zeitlin

Associate Professors

- Guy S. Alitto (also with History)
- Susan Burns (also with History)
- Paul Copp
- Kyeong Hee Choi
- Jacob Eyferth (also with History)
- Paola Iovene
- Yung-ti Li

Assistant Professors

- Ariel Fox
- Hoyt Long

Senior Lecturers

- Fangpei Cai
- Harumi Lory
- Hiroyoshi Noto
- Youqin Wang
- Jun Yang

Lecturers

- Yoko Katagiri
- Ji Eun Kim
- Yi-Lu Kuo

- Meng Li
- Misa Miyachi
- Laura Skosey
- Shan Xiang
- Dongfeng Xu

Emeritus Faculty

- George Chih Chao Chao
- Norma Field
- Harry Harootunian, History
- Ping Ti Ho, History
- Tetsuo Najita, History
- David T. Roy
- Tsuen Hsuin Tsien
- Anthony C. Yu, Divinity

Program Description

The Department of East Asian Languages and Civilizations is a multidisciplinary department, with faculty specialists in history, art, philosophy, languages, linguistics, literature, and religions, that offers a program of advanced study of the traditional and modern cultures of China, Japan, and Korea. At the same time, students are encouraged to pursue their interests across traditional disciplinary lines by taking courses in other departments in the Divisions of the Social Sciences and the Humanities.

The Department admits applicants only for the Ph.D. degree, and does not offer a terminal M.A. program. Students who arrive with a master's degree will be expected to fulfill the requirement outlined for Scholastic Residence. Students interested in a terminal M.A. degree should contact the University of Chicago <u>Master of Arts</u> <u>Program in the Humanities</u> or the <u>Master of Arts Program in Social Sciences</u>.

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

During the first two years, students take nine courses each year. Depending on students' interests and preparation, some of the coursework may take place outside the Department. It may also include work in language, either the primary language of study or a secondary one, whether East Asian or not, as well as in a second East Asian civilization. Many students may also wish to spend one or more years in Japan, China, Taiwan, or Korea to achieve language mastery or do research for their dissertation. Teaching opportunities for students are also available.

After the Ph.D. qualifying exam, which consists of both an oral and written component, acceptance of a dissertation proposal admits a student to candidacy. Students are expected to write and defend dissertations that make original

contributions to knowledge. The degree is conferred upon the successful defense of the completed dissertation.

Contact

Dawn Brennan, Department Coordinator Wieboldt Hall, Room 301 1050 East 58th Street Chicago, IL 60637 **Phone:** 773.702.1255 ealc@uchicago.edu **Website:** ealc.uchicago.edu

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at: http:// humanities.uchicago.edu/students/admissions.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

For additional information about the East Asian Languages and Civilizations program, please see http://ealc.uchicago.edu or call (773) 702-1255.

Program Requirements

The requirements are filled in three stages: Masters Degree Requirements (for students entering with or without an M.A. in East Asian Studies), Ph.D. Candidacy Requirements, and Ph.D. Degree Requirements.

Master's Degree Requirements

- 1. Complete eighteen courses
 - a. One course must be EALC 65000 Directed Translation
 - b. No more than two courses taken for an "R" or "P" grade
 - c. Two non-specialization East Asian Civilization courses
- 2. No outstanding Incompletes
- 3. Courses or Placement at the third year level of one East Asian Language.
- 4. One M.A. thesis or two M.A. papers

Ph.D. Candidacy Requirements

- 1. Second East Asian Language
- 2. Mastery of Languages required for primary research
- 3. Proficiency in any additional languages required for research

- 4. Pass PhD Qualifying Exams
- 5. Defense and approval of Dissertation Proposal

Once the student has passed the dissertation proposal defense, the Department will certify that the student has met all the requirements for Admission to Candidacy (all requirements for degree with the exception of the dissertation). The Department will submit paperwork to the Office of the Dean of Students that recommends that the student be admitted to candidacy for the PhD degree. This status is sometimes known at All But Dissertation (A.B.D.).

Ph.D. Degree Requirements

- 1. Admission to Ph.D. Candidacy
- 2. Approval and Defense of the Dissertation

Joint Ph.D. Program in East Asian Cinema

The Program in Cinema and Media Studies and the Department of East Asian Languages and Civilizations have formed a joint Ph.D. program in East Asian cinema at the University of Chicago. The University has long-standing engagement with both Film and East Asian studies and has already graduated a number of scholars who are changing the field of East Asian cinema around the world. The purpose of this degree program is to provide the best possible training in the methods, languages, and cultural contexts needed to undertake original research on specific topics in East Asian cinema and media studies. Students interested in following this course of study will first apply directly to either the Program in Cinema and Media Studies or to the Department of East Asian Languages and Civilizations.

You can see up-to-date course listings at our website, ealc.uchicago.edu, or on the registrar's Times Schedules at http://timeschedules.uchicago.edu/.

EAST ASIAN LANGUAGES & CIVILIZATIONS - CHINESE COURSES

CHIN 30100-30200-30300. Advanced Modern Chinese I-II-III.

The goal of this sequence is to help students develop advanced proficiency in reading, listening, speaking, and writing. This sequence emphasizes more advanced grammatical structures. We begin with discussion in Chinese on topics relevant to modern China and then shift to authentic Chinese texts in an effort to better prepare students to deal with original Chinese source materials. Discussion in Chinese required. The class meets for five one-hour sessions a week.

CHIN 30100. Advanced Modern Chinese I. 100 Units.

Terms Offered: Autumn Prerequisite(s): CHIN 20300, or placement, or consent of instructor Equivalent Course(s): CHIN 20401

CHIN 30200. Advanced Modern Chinese II. 100 Units.

Terms Offered: Winter Prerequisite(s): CHIN 20401, or CHIN 30100, or placement, or consent of instructor Equivalent Course(s): CHIN 20402

CHIN 30300. Advanced Modern Chinese III. 100 Units.

Terms Offered: Spring Prerequisite(s): CHIN 20402, or CHIN 30200, or placement, or consent of instructor Equivalent Course(s): CHIN 20403

CHIN 30200. Advanced Modern Chinese II. 100 Units.

Terms Offered: Winter Prerequisite(s): CHIN 20401, or CHIN 30100, or placement, or consent of instructor Equivalent Course(s): CHIN 20402

CHIN 30300. Advanced Modern Chinese III. 100 Units.

Terms Offered: Spring Prerequisite(s): CHIN 20402, or CHIN 30200, or placement, or consent of instructor Equivalent Course(s): CHIN 20403

CHIN 40800-40900-41000. Readings in Literary Chinese I-II-III.

Readings in Literary Chinese I-II-III

CHIN 40800. Readings in Literary Chinese I. 100 Units.

This course involves advanced readings in classical Chinese with selections from philosophical and historical writings. Instructor(s): D. Harper Terms Offered: Autumn Prerequisite(s): CHIN 21000, or placement, or consent of instructor Equivalent Course(s): CHIN 20508

CHIN 40900. Readings in Literary Chinese II. 100 Units.

Prerequisite(s): CHIN 40800, or CHIN 20508, or placement, or consent of instructor Note(s): Not offered every year; quarters vary.

Equivalent Course(s): CHIN 20509

CHIN 41000. Readings in Literary Chinese III. 100 Units.

Prerequisite(s): CHIN 40900, or CHIN 20509, or placement, or consent of instructor Note(s): Not offered every year; quarters vary.

Equivalent Course(s): CHIN 20510

CHIN 40900. Readings in Literary Chinese II. 100 Units.

Prerequisite(s): CHIN 40800, or CHIN 20508, or placement, or consent of instructor Note(s): Not offered every year; quarters vary.

Equivalent Course(s): CHIN 20509

CHIN 41000. Readings in Literary Chinese III. 100 Units.

Prerequisite(s): CHIN 40900, or CHIN 20509, or placement, or consent of instructor Note(s): Not offered every year; quarters vary. Equivalent Course(s): CHIN 20510

CHIN 41100-41200-41300. Fourth-Year Modern Chinese I-II-III.

This sequence introduces a range of influential literary works and scholarly essays on Chinese cultural and social issues from the 1920s to the 1990s. Students not only expand their vocabulary and knowledge of grammatical structures but also learn sophisticated speaking and writing skills through intensive readings and discussions. The class meets for three one-hour sessions a week.

CHIN 41100. Fourth-Year Modern Chinese I. 100 Units.

Terms Offered: Autumn Prerequisite(s): CHIN 30300, or CHIN 20403, or placement, or consent of instructor Equivalent Course(s): CHIN 20501

CHIN 41200. Fourth-Year Modern Chinese II. 100 Units.

Terms Offered: Winter Prerequisite(s): CHIN 41100, or CHIN 20501, or placement, or consent of instructor Equivalent Course(s): CHIN 20502

CHIN 41300. Fourth-Year Modern Chinese III. 100 Units.

Terms Offered: Spring Prerequisite(s): CHIN 41200, or CHIN 20502, or placement, or consent of instructor Equivalent Course(s): CHIN 20503

CHIN 41200. Fourth-Year Modern Chinese II. 100 Units.

Terms Offered: Winter Prerequisite(s): CHIN 41100, or CHIN 20501, or placement, or consent of instructor Equivalent Course(s): CHIN 20502

CHIN 41300. Fourth-Year Modern Chinese III. 100 Units.

Terms Offered: Spring Prerequisite(s): CHIN 41200, or CHIN 20502, or placement, or consent of instructor Equivalent Course(s): CHIN 20503

CHIN 51100-51200-51300. Fifth-Year Modern Chinese I-II-III.

This sequence is designed to prepare students for academic research and activities in a Chinese language environment. Modern classic essays, documentary film and TV broadcasts will be included among the teaching materials. Students will learn not only general listening, speaking and reading skills but also academic writing. Class meets for three one-hour sessions each week. Students can arrange two additional one-on-one tutorial sessions to prepare for assigned language projects.

CHIN 51100. Fifth-Year Modern Chinese I. 100 Units.

Terms Offered: Autumn Prerequisite(s): CHIN 41300, or CHIN 20503, or placement, or consent of instructor Equivalent Course(s): CHIN 20601

CHIN 51200. Fifth-Year Modern Chinese II. 100 Units.

Terms Offered: Winter Prerequisite(s): CHIN 51100, or CHIN 20601, or placement, or consent of instructor Equivalent Course(s): CHIN 20602

CHIN 51300. Fifth-Year Modern Chinese III. 100 Units.

Terms Offered: Spring Prerequisite(s): CHIN 51200, or CHIN 20602, or placement, or consent of instructor Equivalent Course(s): CHIN 20603

CHIN 51200-51300. Fifth-Year Modern Chinese II-III.

CHIN 51200. Fifth-Year Modern Chinese II. 100 Units. Terms Offered: Winter Prerequisite(s): CHIN 51100, or CHIN 20601, or placement, or consent of instructor

Equivalent Course(s): CHIN 20602

CHIN 51300. Fifth-Year Modern Chinese III. 100 Units.

Terms Offered: Spring Prerequisite(s): CHIN 51200, or CHIN 20602, or placement, or consent of instructor Equivalent Course(s): CHIN 20603

CHIN 51300. Fifth-Year Modern Chinese III. 100 Units.

Terms Offered: Spring Prerequisite(s): CHIN 51200, or CHIN 20602, or placement, or consent of instructor Equivalent Course(s): CHIN 20603

East Asian Languages & Civilizations - Japanese Courses

JAPN 30100-30200-30300. Advanced Modern Japanese I-II-III.

The third year marks the end of the basic modern language study. Our goal is to help students learn to understand authentic written and spoken materials with reasonable ease. The texts are all authentic materials with some study aids. Classes conducted in Japanese. The class meets for three eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

JAPN 30100. Advanced Modern Japanese I. 100 Units.

Terms Offered: Autumn Prerequisite(s): JAPN 20300, or placement, or consent of instructor Equivalent Course(s): JAPN 20401

JAPN 30200. Advanced Modern Japanese II. 100 Units.

Terms Offered: Winter Prerequisite(s): JAPN 20401, or JAPN 30100, or placement, or consent of instructor Equivalent Course(s): JAPN 20402

JAPN 30300. Advanced Modern Japanese III. 100 Units.

Terms Offered: Spring Prerequisite(s): JAPN 20402, or JAPN 30200, or placement, or consent of instructor Equivalent Course(s): JAPN 20403

JAPN 30200. Advanced Modern Japanese II. 100 Units.

Terms Offered: Winter Prerequisite(s): JAPN 20401, or JAPN 30100, or placement, or consent of instructor Equivalent Course(s): JAPN 20402

JAPN 30300. Advanced Modern Japanese III. 100 Units.

Terms Offered: Spring Prerequisite(s): JAPN 20402, or JAPN 30200, or placement, or consent of instructor Equivalent Course(s): JAPN 20403

JAPN 30800-30900-31000. Reading Scholarly Japanese I-II-III.

This course focuses on the reading of scholarly Japanese materials with the goal of enabling students to do independent research in Japanese after the course's completion. The materials are selected from a wide range of disciplines covering the past three centuries

JAPN 30800. Reading Scholarly Japanese I. 100 Units.

Terms Offered: Autumn Prerequisite(s): JAPN 20300, or placement, or consent of instructor

JAPN 30900. Reading Scholarly Japanese II. 100 Units.

Terms Offered: Winter Prerequisite(s): JAPN 20300, or placement, or consent of instructor

JAPN 31000. Reading Scholarly Japanese III. 100 Units.

Terms Offered: Spring Prerequisite(s): JAPN 20300, or placement, or consent of instructor

JAPN 30900. Reading Scholarly Japanese II. 100 Units.

Terms Offered: Winter Prerequisite(s): JAPN 20300, or placement, or consent of instructor

JAPN 31000. Reading Scholarly Japanese III. 100 Units.

Terms Offered: Spring Prerequisite(s): JAPN 20300, or placement, or consent of instructor

JAPN 35506. Gender and Japanese History. 100 Units.

This course explores issues of gender within Japanese history from ancient to modern times, with a focus on the period from the eighteenth to the twentieth centuries.

Instructor(s): S. Burns Terms Offered: Spring

JAPN 39000. Introduction to Classical Japanese. 100 Units.

Introduction to the grammar and style of premodern Japanese through a variety of literary texts. Emphasis will be placed on extensive grammatical analysis and translation. Work with original manuscripts will also be introduced as the course progresses.

Instructor(s): R. Jackson Terms Offered: Autumn

Prerequisite(s): Three years modern Japanese or consent of instructor Equivalent Course(s): JAPN 19000

JAPN 40500-40600-40700. Fourth-Year Modern Japanese I-II-III.

This course is intended to improve Japanese reading, speaking, writing, and listening ability to the advanced high level as measured by the ACTFL (American Council on the Teaching of Foreign Languages) Proficiency Guidelines. Weekly assignments require students to tackle modern Japanese texts of varying length and difficulty. Organized around a range of thought-provoking themes (from brain death and organ transplants to Japanese values on work and religion), reading assignments include academic theses in psychology and anthropology, literary texts, and popular journalism. After each reading, students are encouraged to discuss the topic in class. Videos/DVDs are used to improve listening comprehension skills. There are also writing assignments. The class meets for two eighty-minute sessions a week.

JAPN 40500. Fourth-Year Modern Japanese I. 100 Units.

Terms Offered: Autumn Prerequisite(s): JAPN 20403, or JAPN 30300, or placement, or consent of instructor Equivalent Course(s): JAPN 20500

JAPN 40600. Fourth-Year Modern Japanese II. 100 Units.

Terms Offered: Winter Prerequisite(s): JAPN 20500, or JAPN 40500, or placement, or consent of instructor Equivalent Course(s): JAPN 20600

JAPN 40700. Fourth-Year Modern Japanese III. 100 Units.

Terms Offered: Spring Prerequisite(s): JAPN 20600, or JAPN 40600, or placement, or consent of instructor Equivalent Course(s): JAPN 20700

JAPN 40600. Fourth-Year Modern Japanese II. 100 Units.

Terms Offered: Winter Prerequisite(s): JAPN 20500, or JAPN 40500, or placement, or consent of instructor Equivalent Course(s): JAPN 20600

JAPN 40700. Fourth-Year Modern Japanese III. 100 Units.

Terms Offered: Spring Prerequisite(s): JAPN 20600, or JAPN 40600, or placement, or consent of instructor Equivalent Course(s): JAPN 20700

East Asian Languages & Civilizations - Korean Courses

KORE 30100-30200-30300. Advanced Korean I-II-III.

This course introduces a wide selection of authentic reading materials from Korean newspaper articles, college-level textbooks, and literary prose as an entry point to discuss topics and issues in Korean society, culture, and history. The primary objective is further enhancement of advanced reading comprehension, composition writing, and presentational skills. In addition, Chinese character (Hanja) lessons are incorporated into each lesson with the purpose of expanding vocabulary to the advanced level. The class meets for two eighty-minute sessions a week. All courses in this sequence must be taken for a quality grade.

KORE 30100. Advanced Korean I. 100 Units.

Terms Offered: Autumn Prerequisite(s): KORE 20300, or placement, or consent of instructor Equivalent Course(s): KORE 20401

KORE 30200. Advanced Korean II. 100 Units.

Terms Offered: Winter Prerequisite(s): KORE 20401, or KORE 30100, or placement, or consent of instructor Equivalent Course(s): KORE 20402

KORE 30300. Advanced Korean III. 100 Units.

Prerequisite(s): KORE 20402, or KORE 30200, or placement, or consent of instructor

Equivalent Course(s): KORE 20403

KORE 30200. Advanced Korean II. 100 Units.

Terms Offered: Winter Prerequisite(s): KORE 20401, or KORE 30100, or placement, or consent of instructor Equivalent Course(s): KORE 20402

KORE 30300. Advanced Korean III. 100 Units.

Prerequisite(s): KORE 20402, or KORE 30200, or placement, or consent of instructor Equivalent Course(s): KORE 20403

KORE 42100. Korean Contemporary TV and Language. 100 Units.

This content-based language course is designed to meet the needs of high-advanced level students of Korean, including international/heritage language students who have studied in Korea up to the primary school levels. We study and analyze genres of Korean TV programs on the internet (e.g., such dramas as soap operas and sitcoms, entertainment talk shows, children's shows, news programs). Main discussion topics are sociolinguistics and socio-cultural issues (e.g., speech levels, honorifics and address terms, language and gender, pragmatics and speech acts, language and nationalism).

Prerequisite(s): KORE 20403 or KORE 30300, or placement, or consent of instructor Equivalent Course(s): KORE 22100

KORE 42200. Contemporary Korean Society and History through Fiction and Film. 100 Units.

This content-based language course is designed to meet the needs of high-advanced level students of Korean, including international/heritage language students who have studied in Korea up to the primary school levels. We analyze cultural and historical issues in contemporary Korea through four contemporary short novels and related film and media. Other goals are to foster fluency, accuracy, and comprehension in reading authentic contemporary texts, as well as advancing language skills for formal presentation, discussion, and writing.

Prerequisite(s): KORE 20403 or KORE 30300, or placement, or consent of instructor Equivalent Course(s): KORE 22200

KORE 42300. Changing Identity of Contemporary Korean through Film and Literature. 100 Units.

This content-based language course is designed to meet the needs of high-advanced level students of Korean, including international/heritage language students who have studied in Korea up to the primary school levels. In particular, we deal with how contemporary Korean society can be understood through the diverse perspectives of emergent minority groups. Topics include Korean language and identity, gender and sexuality, and Korea as a multi-ethnic society. Class activities include watching contemporary films featuring minorities in Korea. We also read essays written by minorities (e.g., Korean-Japanese, Russian-Korean) and Korean social activists. Student are encouraged to foster their own views on contemporary social issues through diverse activities of discussion, debate, presentation, and writing.

Prerequisite(s): KORE 20403, or KORE 30300, or placement, or consent of instructor Equivalent Course(s): KORE 22300

KORE 53100. Microeconomics and the Korean Economy. 100 Units.

Terms Offered: Spring Prerequisite(s): KORE 22100, or KORE 22200, or KORE 22300 Equivalent Course(s): KORE 23100

EAST ASIAN LANGUAGES & CIVILIZATIONS COURSES

EALC 34305. Autobiographical Writings, Gender, and Modern Korea. 100 Units. This course explores the intersections between gender, the genre of autobiography, forms of media (written, oral, visual), and historical, cultural, and political contexts of modern Korea. The students read theoretical writings on autobiography and gender as well as selected Korean autobiographical writings while being introduced to Korean historical contexts, especially as they relate to the practice of publication in a broader sense. The course places its focus on the female gender—on the relationship between Korean women's life-experience, self-formation, and writing and other creative activities, while dealing with the gender relationship in general, although some relevant discussions on the male gender proceeds in parallel. Instructor(s): K. Choi Terms Offered: Winter Equivalent Course(s): GNDR 25300,EALC 24305

EALC 34330. Short Stories from a Late Ming Collection. 100 Units.

This course will explore Feng Menglong's three collections of vernacular stories: *Illustrious Words to Instruct the World* (1620), *Comprehensive Words to Warn the World* (1624), and *Constant Words to Awaken the World* (1627). Known collectively as the "Three Words," these immensely popular and influential volumes map the social whole of late imperial China, tracking the friendships, romances, schemes, and follies of merchants and monks, students and courtesans, emperors and farmers. Alongside close readings of selected stories, we will examine the structure, sources, and publication history of the collections and locate them in a broader discussion of the meanings and functions of vernacular literature. All readings available in English.

Instructor(s): A. Fox Terms Offered: Winter Equivalent Course(s): FNDL 24330,EALC 24330

EALC 34500. Reading Qing Documents. 100 Units.

Reading and discussion of nineteenth- and early twentieth-century historical political documents, including such forms as memorials, decrees, local gazetteers, diplomatic communications, essays, and the like.

Instructor(s): G. Alitto Terms Offered: Winter

Equivalent Course(s): HIST 24500, HIST 34500, EALC 24500

EALC 34607. Chinese Independent Documentary Film. 100 Units.

This course explores the styles and functions of Chinese independent documentary since 1989, with particular attention to the social and political contexts that underpin its flourishing in Mainland China and Taiwan. We will discuss the ways in which recent Chinese documentaries challenge current theories of the genre, how they redefine the relationship between fiction and non-fiction, and the problems of media aesthetics, political intervention, and ethics of representation that they pose. We will look at their channels of circulation in Asia and elsewhere, and will discuss the implications and limits of the notion of independence. Readings will include theorizations of the documentary genre in relation to other visual media and narrative forms, analyses of specific works, and discussions on the impact of digital media.

Instructor(s): P. Iovene Terms Offered: Winter Equivalent Course(s): EALC 24607

EALC 34611. Cities in Sinophone Cinemas. 100 Units.

From the treaty port of Shanghai to the imperial capital of Beijing, from the precolonized city of Taipei to the floating city of Hong Kong, and from an anonymous city in inland China to global Chinatowns, cities in Chinese-language cinemas at once reflect and participate in the historical transformations of modern China and the negotiation between national, local, and cosmopolitan identities. Meanwhile, throughout its history, the motion-picture medium has shown an affinity with the city as an audio-visual ensemble, which in turn has provided constant inspiration for cinematic experimentation. Taking the chronotope of the sinophone city as an entry point, this course participates in both the ongoing discussion of cinematic cities and the emerging discourse on the phonic articulation and visual mediation of a global sinophone culture. No knowledge of Chinese is required.

Instructor(s): X. Dong Terms Offered: Spring

Prerequisite(s): CMST 10100, ARTH 20000, ENGL 10800, ARTV 25300, or consent of instructor.

Equivalent Course(s): CMST 34611, EALC 24611, CMST 24611

EALC 34630. Ethnic Minorities in Modern Chinese Literature and Film. 100 Units. This graduate seminar will explore the representation of ethnic minorities in China from the 19th century to the present. We will examine a wide-range of texts including travelogues, novels, and films, combined with critical readings on notions of minority and ethnicity.

Terms Offered: Winter

EALC 34708. Frontiers and Expansion in Modern China. 100 Units.

A study of frontier regions, migration, and border policies in Qing (1644–1912) and twentieth-century China, focusing on selected case studies. Cases will include both actual border regions (where Qing/China was adjacent to some other polity it recognized), ethnically diverse internal frontiers, and places where migrants moved into previously uninhabited regions (e.g., high mountains). Topics include the political economy and geopolitics of migration and frontier regions, the formation of ethnic and national identities in frontier contexts, borderland society (e.g., marriage, social stratification, and social mobility), and the environmental effects of migration. Assignments for undergraduates are two short papers, a midterm (which can be waived under certain circumstances), a final, and class participation; requirements for graduate students are negotiable, but will include roughly twenty pages of writing and no in-class exams.

Instructor(s): K. Pomeranz Terms Offered: Spring Equivalent Course(s): HIST 34608,EALC 24708,HIST 24608

EALC 34740. East Asian Texts in the Age of Digital Reproduction. 100 Units.

This course is intended as a theoretical and methodological introduction to the study of East Asian texts as digital media. We will begin by considering the history of how East Asian writing entered the digital age and the ways it has been technically encoded. From here, we will consider how the creation of large digital corpora has changed how scholars engage with the historical archive and what opportunities these corpora might offer for new computational approaches to the study of literature and history. This will involve a broad overview of text mining tools and their application to other literatures; a theoretical consideration of the kinds of interpretation these tools allow for; and actual practice with analyzing literary texts in Chinese and Japanese. No previous programming experience is required.

Instructor(s): H. Long Terms Offered: Spring

Prerequisite(s): Undergraduates interested in taking the course must consult with the instructor in advance. Some knowledge of Chinese or Japanese language is required.

Equivalent Course(s): EALC 24740

EALC 35401. Confucius and Laozi. 100 Units.

In this course we will begin with reading two of the foundational texts of the Chinese philosophical tradition: the Lunyu or Analects of Confucius and the Daode jing or Classic of the Way and Virtue ascribed to Laozi. In addition to considering what these texts may have meant to their writers, we will also consider how they were written and how that writing may have influenced what they meant both to their writers and to their earliest readers. We will also take account of recent manuscript discoveries of these texts and what they might mean for their histories. Instructor(s): E. Shaughnessy Terms Offered: Spring Equivalent Course(s): EALC 25401,FNDL 25401

EALC 35600. Gender and Modernity in Colonial Korea. 100 Units.

No knowledge of Korean language required. This course deals with literary, journalistic, and visual texts produced in and about colonial Korea with a view to exploring the construction of masculinity and feminity in the context of colonial modernity, colonialism, and nationalism from other national and racial contexts. Instructor(s): K. Choi Terms Offered: Winter

Equivalent Course(s): GNSE 25600, GNSE 35600, EALC 25600

EALC 35811. Foundations of Chinese Buddhism. 100 Units.

An introduction to the Buddhism of premodern China, examined through lenses of philosophy, texts, and art. We will examine important sources for the major currents of Chinese Buddhist thought and practice stretching from the earliest days of the religion in China through around the 13th century (with some attention to modern connections), giving special consideration to major textual and artistic monuments, such as translated scriptures, Chan literature, and the cave-shrines of Dunhuang. Instructor(s): P. Copp Terms Offered: Autumn 2015 Equivalent Course(s): RLST 22501,EALC 25811

EALC 36201. Medicine and Culture in Modern East Asia. 100 Units.

This course will focus on the cultural history of medicine in China, Japan, and Korea from the mid-nineteenth century to the 1980s. We will be concerned with tracing the circulation of new medical knowledge and understanding its cultural and social implications. Topics to be explored include the introduction of "Western medicine" and its impact for "traditional" medicine; the struggles over public health, gender, medicine, and modernity; consumer culture; and medicine. No knowledge of an East Asian language is required, but those with reading skills will be encouraged to utilize them.

Instructor(s): S. Burns Terms Offered: Autumn Equivalent Course(s): HIST 24206,EALC 26201,HIST 34206

EALC 36510. The Chinese Classics. 100 Units.

The course will survey the first three of the Chinese Classics, the Yi jing or Classic of Changes, Shu jing or Classic of Documents, and Shi jing or Classic of Poetry, in three different moments of their histories: when they were first created, when they were canonized as classics, and when they were treated as the timeless wisdom at the heart of China's traditions. All readings will be done in English, and will include both primary documents and some secondary readings. Instructor(s): E. Shaughnessy Terms Offered: Winter

Equivalent Course(s): EALC 26510

EALC 36650. China's Classic of Documents. 100 Units.

The Classic of Documents (Shang shu or Shu jing) is one of China's three main classics, and its authenticity has long been the focus of the most important debate among Chinese historians. This course will combine readings of individual chapters of the text and discussion of the text's role in the Chinese historiographical, literary, and philosophical traditions. We will also take account of the newly published Qinghua manuscripts and consider the evidence they present regarding this debate. Instructor(s): E. Shaughnessy Terms Offered: Autumn Prerequisite(s): literary chinese Equivalent Course(s): EALC 26650

EALC 37201. Visual and Material Culture of Modern Shanghai. 100 Units.

The course maps the material and visual culture of Shanghai between its establishment as a treaty port in 1842 and the Japanese invasion of China proper in 1937, a century in which the metropolis was reputed for its material extravagance, cultural lavishness, and visual splendors. We will sample through vestiges of material culture including architecture, fine and decorative arts, photography, printed matters, and etc. Meanwhile, we will examine the metamorphosis of research approaches that interpret and reassess Shanghai's history and politics, urban life, media and public sphere, literary and popular culture, multiethnic communities, and so forth. Moreover, the class will evaluate new media projects that virtually restore the city and material life of Shanghai in modern times (e.g. virtualshanghai.net/), and the students will have the opportunity to curate with digital tools their own exhibits of certain facets of Shanghai's material and visual culture.

Instructor(s): Y. Zhu Terms Offered: Autumn

Equivalent Course(s): EALC 27201, ARTH 37201, ARTH 27201

EALC 37907. Asian Wars of the Twentieth Century. 100 Units.

This course examines the political, economic, social, cultural, racial, and military aspects of the major Asian wars of the twentieth century: the Pacific War, the Korean War, and the Vietnam War. At the beginning of the course we pay particular attention to just war doctrines and then use two to three books for each war (along with several films) to examine alternative approaches to understanding the origins of these wars, their conduct, and their consequences.

Instructor(s): B. Cumings Terms Offered: Spring

Equivalent Course(s): HIST 27900, CRES 27900, EALC 27907, HIST 37900

EALC 38400. Communities, Media, and Selves in Modern Chinese Literature. 100 Units.

This course examines the ways in which authors, editors, and public intellectuals redefined the social function of literature and sought to build communities of readers in early 20th century China. We will combine close readings of texts with a survey of important institutions and concepts, familiarizing ourselves with the literary circles and associations, the journals and publishers, and the notions of self and community that shaped literary practices in a tumultuous period. How are we to rethink the relationship between literary writing—per se a highly individualized and often solitary activity—with the forms of sociality, collaborative practices, and global networks of translation in which it was historically embedded? What are the visions of community that the texts themselves sought to promote? What are, in the final analysis, the relevant contexts for the study of modern Chinese literature? Our explorations will be both historical and historiographical, and will touch on the main debates that shape modern Chinese literary studies today.

Instructor(s): P. Iovene Terms Offered: Autumn

Equivalent Course(s): EALC 28400

EALC 39900. Early Modern Japanese History. 100 Units.

This course introduces the basic narrative and critical discourses of the history of early modern Japan, roughly from 1500 to 1868. The course examines the emergence of the central power that unified feudal domains and explores processes of social, cultural, and political changes that transformed Japan into a "realm under Heaven." Some scholars consider early modern Japan as the source of an indigenous birth of capitalism, industrialism, and also of Japan's current economic vitality, while others see a bleak age of feudal oppression and isolation. We will explore both sides of the debate and examine the age of many contradictions.

Instructor(s): N. Toyosawa Terms Offered: Spring Equivalent Course(s): HIST 24112,HIST 34112,EALC 19900

EALC 39903. Knowledge, Culture, and Subjectivity since Early Modern Japan. 100 Units.

This seminar focuses on the development of the idea of common knowledge and common values that were shared by ordinary people from the mid-Tokugawa to the early Meiji eras. Intellectuals, scholars, and the elite in society initially provided ordinary people with moral teachings, proper etiquette, and objective representations of the physical and natural world. But while these intellectual activities shaped the growth of the reading public in the Tokugawa era and the public in the Meiji era, we will also consider how ordinary people participated in defining such intellectual activities and shaped their own cultural expressions. By extending our analyses of print culture to the early Meiji era, we will comparatively explore ways in which the circulation of knowledge and information strengthened sociability, while enriching popular interests in the notions of freedom and political rights. Prior knowledge of Japanese history is recommended.

Instructor(s): N. Toyosawa Terms Offered: Spring

Prerequisite(s): Prior knowledge of early modern Japanese history is recommended. Open to grads and undergrads.

Equivalent Course(s): EALC 29903

EALC 39909. History of Chinese Theater. 100 Units.

This course covers the history of Chinese theater from its emergence as a fullfledged art form in the 10th to 11th centuries (the Northern Song) up through its incorporation into modern urban life and nationalist discourse in the first decades of the 20th century (the Republican period). In addition to reading selections from masterpieces of Chinese dramatic literature such as *Orphan of Zhao, Romance of the Western Chamber,* and *The Peony Pavilion,* we will pay particular attention to the different types of venues, occasions, and performance practices associated with different genres of opera at different moments in time. A central theme will be the changing status of the entertainer and the cultural meanings assigned to acting. All texts to be read in English translation.

Instructor(s): J. Zeitlin Terms Offered: Winter

Note(s): An additional graduate session may be offered weekly or biweekly if there is sufficient demand.

Equivalent Course(s): TAPS 28454

EALC 40502. Seminar: Modern Chinese History I. 100 Units.

Instructor(s): Jacob Eyferth Terms Offered: Winter

Prerequisite(s): This two-quarter graduate seminar examines the social and cultural history of twentieth-Century China from the last decades of the Qing to the death of Mao and the early post-Mao reforms. Topics will include the social, political, and economic transformations of the late nineteenth century, the rise of modern mass media and mass politics, urban and rural revolutions, the transformations of everyday life under the Guomindang and Communist regimes, political campaigns under Mao, and the changes taking place after Mao's death. We will pay more attention to changes at the grassroot level of society than to politics at the highest level, even though the latter cannot be entirely ignored. In the first quarter we will read a combination of English-language studies and Chinese documents. We will also discuss what published and unpublished sources are available for different periods; how the Chinese archives are structured; and how to read official documents. The winter quarter will be devoted to the preparation of a research paper.

Equivalent Course(s): HIST 76003

EALC 40503. Seminar: Modern Chinese History 2. 100 Units.

The winter quarter will be devoted to the preparation of a research paper. Instructor(s): J. Eyferth Terms Offered: Winter Prerequisite(s): HIST 76001 Equivalent Course(s): HIST 76004

EALC 42400. Sem: Mod Korean Hist 1. 100 Units.

By modern, we mean Korea since its "opening" in 1876. We read about one book per week in the autumn. Before each session, one student will write a three- to fourpage paper on the reading, with another student commenting on it. In the winter, students present the subject, method, and rationale for a significant research paper. Papers should be about forty pages and based in primary materials; ideally this means Korean materials, but ability to read scholarly materials in Korean, Japanese, or Chinese is not a requirement for taking the seminar. Students may also choose a comparative and theoretical approach, examining some problems in modern Korean history in the light of similar problems elsewhere, or through the vision of a body of theory.

Instructor(s): B. Cumings Terms Offered: Autumn Equivalent Course(s): HIST 75601

EALC 42401. Sem: Mod Korean Hist 2. 100 Units.

Students present the subject, method, and rationale for a significant research paper. Papers should be about forty pages and based in primary materials; ideally this means Korean materials, but ability to read scholarly materials in Korean, Japanese, or Chinese is not a requirement for taking the seminar. Students may also choose a comparative and theoretical approach, examining some problems in modern Korean history in the light of similar problems elsewhere, or through the vision of a body of theory.

Instructor(s): B. Cumings Terms Offered: Winter Prerequisite(s): HIST 75601, part 1 Equivalent Course(s): HIST 75602

EALC 43000. Censorship in East Asia: The Case of Colonial Korea. 100 Units.

This course examines the operation and consequences of censorship in the Japanese Empire, with focus on its effects in colonial Korea. It begins with two basic premises: first, both the Japanese colonial authorities' measures of repression, and the Korean responses to them, can be understood as noticeably more staunch and sophisticated when compared to any other region of the Empire; and second, the censorship practices in Korea offers itself as a case that is in itself an effective point of comparison to better understand other censorship operations in general and the impact of these operations across different regions. With a view to probing an inter- and intra-relationship between censorship practices among a variety of imperial/colonial regions, this course studies the institutions related to censorship, the human agents involved in censorship-both external and internal-and texts and translations that were produced in and outside of Korea, and were subject to censorship. Overall, the course stresses the importance of establishing a comparative understanding of the functions of censorship, and on the basis of this comparative thinking we will strive to conceptualize the characteristics of Japanese colonial censorship in Korea.

Instructor(s): K. Choi Terms Offered: Winter Equivalent Course(s): EALC 23001,CRES 33001

EALC 43410. The Plays of the Suzhou School. 100 Units.

This course will examine an influential group of early Qing playwrights often referred to as the Suzhou School. In a departure from the romances that dominated elite drama, these playwrights depicted the social discord and political turmoil that came to define the early Qing urban experience — from neighborhood scandals and legal disputes to tax riots and pirate raids. In our readings of scenes from their plays, we will pay particular attention to the ways in which these playwrights engage with the contemporary and the local. We will also draw on memoirs, short stories, and gazetteers in order to situate both the writing and the staging of these plays within early Qing literary production.

Instructor(s): A. Fox Terms Offered: Spring

Prerequisite(s): Graduates only. Reading knowledge of classical Chinese.

EALC 44410. Contemporary Japanese Media Studies. 100 Units.

This course will survey recent scholarship in Japanese media studies. Topics covered include magazine publishing, the popular music industry, censorship, subcultural studies, and film and television. The period covered will stretch from the early twentieth century through the contemporary period.

Instructor(s): M. Bourdaghs Terms Offered: Autumn

Prerequisite(s): Most assigned readings will be in Japanese.

EALC 44721. The Question of Minor Literature in Modern Japan. 100 Units.

This seminar investigates the question of minor literature as a structural, discursive, and conceptual problem in modern Japanese literature. Of particular interest will be the ways that writers and artists sought to identify with, or assume the voice of, those occupying minor and marginal positions in the imagined hierarchy of the literary and/or social world. Lines of hierarchical differentiation we will consider include class, ethnicity, geography, gender, dialect, and literary form itself. Literary texts will be paired with theoretical work from the fields of comparative literature, sociology of culture, and postcolonialism so as to acquaint students with various approaches to "minor literature" as an object of literary and historical analysis. Primary texts will be in Japanese.

Terms Offered: Winter

Prerequisite(s): Japanese reading ability required. Grad only. Note(s): H. Long

EALC 45800. Readings in Chinese Buddhist Texts. 100 Units.

This quarter we will focus on Chan (a.k.a. "Zen") literature, especially the *Linji lu* ("Record of Linji"), one of the central texts of Chan Buddhism. As we study our text, we will also explore the transformations in Chan literature and thought that accompanied the rise of vernacular Chan writings in the Northern Song period (960–1127), in part by comparison with earlier texts in the literary language. Instructor(s): Copp Terms Offered: Winter

Prerequisite(s): Reading ability in literary Chinese is a requirement. Note(s): Grad students only

EALC 51001. Text and Labor in Chinese Handwork. 100 Units.

An introduction to the Buddhism of premodern China, examined through lenses of philosophy, texts, and art. We will examine important sources for the major currents of Chinese Buddhist thought and practice stretching from the earliest days of the religion in China through around the 13th century (with some attention to modern connections), giving special consideration to major textual and artistic monuments, such as translated scriptures, Chan literature, and the cave-shrines of Dunhuang. Instructor(s): Jacob Eyferth and Donald Harper Terms Offered: Spring Equivalent Course(s): HIST 44102

EALC 52301. Sem: Japanese Hist 2. 100 Units.

In the second quarter, we focus on research topics for student writing the seminar paper.

Instructor(s): J. Ketelaar Terms Offered: Winter Prerequisite(s): HIST 76601, part 1

Equivalent Course(s): HIST 76602

EALC 56301. Colloquium: Readings in Modern Chinese History. 100 Units.

Reading and discussion of classics of English language historical literature in modern Chinese history from 1965 through to 2015. Emphasis is on historiographical changes during each period and how they are are manifest in each work. The requirements of this course are reading and class discussion of the monograph assigned each week, and writing an informed review essay of it. The final requirement is a twenty-five page term paper in which the student will construct an analytical history of the historical literature of the period. Instructor(s): G. Alitto Terms Offered: Autumn Equivalent Course(s): HIST 56301

EALC 56401. Colloquium: Readings in Modern Chinese Intellectual History. 100 Units.

Reading and discussion of classics of English language historical literature in modern Chinese intellectual history from 1965 through to 2015. Emphasis is on historiographical changes during each period and how they are are manifest in each work. The requirements of this course are reading and class discussion of the monograph assigned each week, and writing an informed review essay of it. The final requirement is a twenty-five page term paper in which the student will construct an analytical history of the historical literature of the period. Instructor(s): G. Alitto Terms Offered: Winter Equivalent Course(s): HIST 56401

EALC 59700. Thesis Research. 100 Units.

For course description contact East Asian Languages.,

EALC 59700. Thesis Research. 100 Units.

For course description contact East Asian Languages.,

EALC 60000. Reading Course. 100 Units.

EALC 65000. Directed Translation. 100 Units.

For course description contact East Asian Languages.

EALC 70000. Advanced Study: East Asian. Units.

For course description contact East Asian Languages.



Department of English Language and Literature

Chair

- Frances Ferguson
 Professors
- Lauren G. Berlant
- Bill Brown
- James K. Chandler
- Maud Ellmann
- Frances Ferguson
- Elaine Hadley
- Loren A. Kruger
- William J. T. Mitchell
- Joshua Keith Scodel
- Kenneth W. Warren
 Associate Professors
- Hillary Chute
- Janice Knight
- James Lastra
- John Mark Miller
- Deborah Lynn Nelson
- Srikanth Reddy
- Lawrence Rothfield
- Lisa C. Ruddick
- Jennifer Scappettone
- Eric Slauter

Assistant Professors

- Adrienne Brown
- Timothy Campbell
- Rachel Galvin
- Timothy Harrison
- Patrick Jagoda
- Heather Keenleyside
- Benjamin Morgan
- John Muse
- Julie Orlemanski
- Zachary Samalin

- David C. Simon
- Richard So
- Christopher Taylor
- Sonali Thakkar Emeritus Faculty
- David Bevington
- Elizabeth Helsinger
- Richard Allen Strier
- William Veeder
- Christina von Nolcken

Professor of Practice

- John Wilkinson Lecturers
- Alexis Chema Postdoctoral Fellows
- Edgar Garcia Humanities Teaching Scholar
- Brady Smith

Graduate students in English work with a distinguished faculty of critics and scholars to develop their own interests over a broad range of traditional and innovative fields of research. The program aims to attain a wide substantive command of British, American, and other English language literatures. In addition to specializations in the full range of chronologically defined fields, the program includes generous offerings in African American Studies, gender studies, the graphic novel, and cinema and other media studies. Students are also trained in textual studies, editing, literary and cultural history, and a variety of critical theories and methodologies. The interests of both faculty and students often carry through to neighboring disciplines like anthropology, sociology, history, art history, linguistics, and philosophy. The University provides a supportive environment for advanced studies of this kind.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The program leading to the Ph.D. degree aims primarily to prepare students for independent work as teachers, scholars, and critics by developing their abilities to pose and investigate problems in the advanced study of literatures in English and in film. Departmental requirements are designed to lead to the doctorate in five to six years. Course work, the preparation of oral fields examinations, workshops, teaching, and the dissertation introduce students to a variety of textual modes, critical methodologies, and historical/cultural problems; provide extensive practice in research, discussion, argument, and writing; and develop pedagogical skills through supervised teaching. While a student's progress will be carefully monitored and periodically evaluated by individual advisors and the department, all students will be accepted into the program on the assumption that they will proceed to the Ph.D.

In the first two years of the Ph.D. program, students are required to enroll in six graduate courses each year (including at least two seminars the first year and three the second year). All first-year students also participate in a one-quarter colloquium designed to introduce theoretical and practical questions posed by the study of literature (through readings in a range of theoretical and literary texts). In the autumn of their third year students will also take a one quarter course in various approaches to the teaching of literature and composition.

Note: Students entering with an M.A. degree in English will be asked to complete at least one year of coursework (six courses, including at least three seminars) plus two additional courses in their second year, participate in the fall quarter colloquium, and take the fall quarter course on teaching in either their second or third years.

Students in their third and fourth years will normally teach at least one quarterlong course each year: initially as course assistants in departmental courses for undergraduates or as bachelor's paper supervisors; then as instructors in courses of their own design. Students may also be employed as writing tutors, assistants in introductory humanities and social sciences core courses, instructors in the College Writing Program course in expository writing (which provides its own training in the teaching of composition), or as teachers at other area colleges and universities. The department believes that both training and experience in teaching is an important part of the graduate program.

THE DEGREE OF MASTER OF ARTS

Students seeking a master's degree should apply to the Master of Arts Program in the Humanities (MAPH), a three-quarter program of interdisciplinary study in a number of areas of interest to students, including literature and film. MAPH permits students to take almost all of their courses in the English Department, sharing classes with students in the Ph.D. program. The resulting degree is equivalent to a master's in English. Further details about the MAPH program are available at http:// maph.uchicago.edu/

INQUIRIES

For more information on the department's programs and requirements, please see the Department of English website at http://english.uchicago.edu/ or call the Department Coordinator, at (773) 702-8537.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http:// humanities.uchicago.edu/students/admissions. Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). (Current minimum scores, etc., are provided with the application.) For more information, please see the Office of International Affairs website at https://internationalaffairs.uchicago.edu/, or call them at (773) 702-7752.

English Language & Literature Courses

ENGL 30807. Fashion & Change: Theory of Fashion. 100 Units.

This course will explore the way Modernist writers theorized interracial encounter and intimacies. Considering both the direct and indirect conversations taking place between writers across the color line during the early 20th century, we will examine the shared and divergent concerns, styles, and forms emerging from writers grappling with the desires, failures and fantasies of interracial encounter. Potential authors include Gertrude Stein, Nella Larsen, William Faulkner, Zora Neale Hurston, Carl Van Vechten, Richard Wright, and Wallace Thurman. Instructor(s): T. Campbell Terms Offered: Spring

ENGL 31000. History and Theory of Drama I. 100 Units.

A survey of major trends and theatrical accomplishments in Western drama from the ancient Greeks through the Renaissance: Aeschylus, Sophocles, Euripides, Aristophanes, medieval religious drama, Marlowe, Shakespeare, Jonson, along with some consideration of dramatic theory by Aristotle, Horace, Sir Philip Sidney, Dryden. The course features voluntary but highly recommended end-ofweek workshops in which individual scenes will be read aloud dramatically and discussed. Assignments at mid-quarter and at the end of the quarter will give the option of two substantial essays, or (in place of either or both) the putting on of a short scene in cooperation with some other members of the class. Acting skill is not required; the point is to discover what is at work in the scene and to write up that process in a somewhat informal report. **(D)**

Instructor(s): D. Bevington Terms Offered: Autumn

Prerequisite(s): Preference given to students with third- or fourth-year standing. Note(s): Students should register for this course by the discussion section. You will automatically be enrolled in the lecture. Course meets the General Ed requirment in the Dramatical, Musical and Visual Arts

Equivalent Course(s): CLAS 31200,CLCV 21200,CMLT 20500,CMLT 30500,TAPS 28400,ENGL 13800

ENGL 31001. Advanced Writing Workshop. 100 Units.

The Advanced Writing Workshop consists of several workshops led by an English faculty member. Students will take a paper from a previous class and revise it; the revisions will be read by other students in the workshop, along with at least two faculty.

Instructor(s): J. Scappettone Terms Offered: Autumn

Prerequisite(s): Second- and third-year English PhD students only.

ENGL 31100. History and Theory of Drama II. 100 Units.

A survey of major trends and theatrical accomplishments in Western drama from the late-seventeenth century into the twentieth: Molière, Goldsmith, Ibsen, Chekhov, Strindberg, Wilde, Shaw, Brecht, Beckett, Stoppard. Attention will also be paid to theorists of the drama, including Stanislavsky, Artaud, and Grotowski. The winterquarter course, like the autumn-quarter course, features voluntary but highly recommended end-of-week workshops in which individual scenes will be read aloud dramatically and discussed. Assignments at mid-quarter and at the end of the quarter will give the option of two substantial essays, or (in place of either or both) the putting on of a short scene in cooperation with some other members of the class. Acting skill is not required; the point is to discover what is at work in the scene and to write up that process in a somewhat informal report. Crosslisted courses are designed for advanced undergraduates and graduate students. **(D)** Instructor(s): D. Bevington Terms Offered: Winter

Prerequisite(s): Third- or fourth-year standing

Note(s): May be taken in sequence with ENGL 13800/31000 or individually. Students should register for this course by the discussion section. You will automatically be enrolled in the lecture. Course meets the General Ed requirment in the Dramatical, Musical and Visual Arts. History and Theory of Drama I is not a prerequisite. Equivalent Course(s): CMLT 20600,CMLT 30600,TAPS 28401,ENGL 13900

ENGL 32313. Digital Media Theory. 100 Units.

This course introduces students to the critical study of digital media and participatory cultures, focusing on the late twentieth and early twenty-first centuries. Subfields and topics may include history of technology, software studies, platform studies, videogame studies, electronic literature, social media, mobile media, network aesthetics, hacktivism, and digital publics. We will also think about ways that new media theory has intersected with, ignored, and complicated work coming from critical theory, especially transnational, feminist, Marxist, and queer theory. Readings may include work by theorists such as Ian Bogost, Wendy Chun, Alexander Galloway, Mark Hansen, Katherine Hayles, Friedrich Kittler, Alan Liu, Lev Manovich, Franco Moretti, Lisa Nakamura, Rita Raley, and McKenzie Wark. Through a study of contemporary media theory, we will also think carefully about emerging methods of inquiry that accompany this area of study, including multimodal and practice-based research. In addition to short assignments, students will focus on a final project that will take the form of either an experimental research paper or a creative digital media piece with included commentary (e.g., a piece of electronic fiction, a Machinima film, a digital visualization, a Game Design Document, or a videogame). Students need not be technologically gifted or savvy, but a wide-ranging imagination and interest in new media culture will make for a more exciting quarter.

Instructor(s): P. Jagoda Terms Offered: Autumn Equivalent Course(s): CMST 37803

ENGL 32810. Aesthetics of Media: Image, Music, Text. 100 Units.

Designed for advanced undergraduates and first year graduate students, the course will take up the image/sound/text complex as a foundational issue in aesthetics and media. Our aim will be to ask why this particular triangulation of media aesthetics has been so enduring and powerful, ranging all the way from Aristotle's dramatic triad of opsis, melos, lexis, to Nelson Goodman's semiotic distinctions between "score, script, and sketch," to Friedrich Kittler's reflections on technology in Gramaphone, Film, Typewriter. We will ask whether Michel Foucault's famous division of the archaeology of knowledge into the "seeable and sayable" needs to be completed by the "singable," and what logic links Kittler's technical triad to Lacan's registers of the Symbolic, Imaginary, and Real, or C.S. Peirce's division of the sign into symbol, index, and icon. We will investigate a range of examples, from the Wagnerian notion of the Gesamstkunstwerk to the role of sound in cinema to the modernist impulse to "purify" the arts with practices that would "hunt them back to their mediums," as Clement Greenberg notoriously expressed it. At every point, we will raise the question of what is at stake politically, morally, and aesthetically in efforts to segregate, synthesize, or place artistic modes in conflict and competition. Students will be expected to give a show and tell performance, or to write a short reference article on a key concept in media theory for the Glossary of Keywords in Media Theor

Instructor(s): W. J. T. Mitchell Terms Offered: Winter

Note(s): Screening T 7-9:50 A term paper or project will also be required. Visual artists, writers, and musicians are cordially welcome. (H)

Equivalent Course(s): CMST 27820,CMST 37820,AMER 12800,AMER 32800,ENGL 12810,ARTV 35401

ENGL 33000. Academic and Professional Writing (The Little Red Schoolhouse) 100 Units.

Instructor(s): L. McEnerney, K. Cochran, T. Weiner Terms Offered: Winter, Spring Prerequisite(s): Third- or fourth-year standing

Note(s): This course does not count towards the ISHU program requirements. May be taken for P/F grading by students who are not majoring in English. Materials fee \$20.

Equivalent Course(s): ISHU 23000, ENGL 13000

ENGL 33639. Irish Modernism. 100 Units.

Instructor(s): M. Ellmann Terms Offered: Autumn

ENGL 34319. Picturing Words/Writing Images (Studio) 100 Units.

What is the relationship between reading and looking? Images in mind and images on paper—words in mind and on the page—we will explore the intersection of these different ways to think, read, and look, as we make poems, drawings, paintings, etc., in class. We will investigate the problem of representing language as it is expressed in the work produced in class. Studying works by contemporary visual artists like Jenny Holzer and Ann Hamilton, and practicing poets such as Susan Howe and Tom Phillips will inform our investigation. The course will feature visits to our studio by contemporary poets and visual artists, who will provide critiques of student work and discussion of their own ongoing projects. These visitors will help to frame our artistic and literary practice within the ongoing conversation between word and image in modern culture. We will ask, what are the cognitive, phenomenological, social, and aesthetic consequences of foregrounding the pictorial/visual aspect of alphabetical characters? (C, H)

Instructor(s): J. Stockholder, S. Reddy Terms Offered: Autumn Prerequisite(s): Third- or fourth-year standing. Previous experience in an arts studio or creative writing course recommended, but not required.

ENGL 34801. Frank O'Hara & Friends. 100 Units.

This class will focus on the earlier poetry of Frank O'Hara, John Ashbery, Barbara Guest and James Schuyler, and position it in the artistic milieu of New York City in the late 1950s and early 1960s.

Instructor(s): J. Wilkinson Terms Offered: Winter

ENGL 35419. What Was Fiction? Being Imaginary in the Middle Ages. 100 Units. This course investigates fictionality before the rise of the fact. How did medieval writers and readers understand - and how did they experience - explicitly imaginary phenomena, or what C. S. Lewis called "the marvellous-known-to-befiction"? Against what was medieval fictionality defined? How significant was its etymology - from fingere, to fashion or form? What role did fictional thinking, or thinking about fiction, play in (for instance) scholastic disputation, philosophical speculation, claims to historical authority, portrayals of the pagan gods, evasions of censure or censorship, religious devotion, or instances of literary reflexivity? How might "fictional thinking" in the Middle Ages intersect present-day debates - about cognition, about the ontology of possible worlds, and about the history of epistemological regimes? Finally, is it even valid to talk about medieval fiction? Or might it be a distorting anachronism to stretch one category around such phenomena as mimesis, virtuality, counterfactuality, example, ideal, lie, trope, figure, experimentum, romance, fabula, phantasm, invention, and dream? Readings encompass a wide range of medieval texts and modern theory, with an emphasis on Middle English literature.

Instructor(s): J. Orlemanski Terms Offered: Spring

ENGL 35451. Uneasy Intimacies: Interracial Modernism. 100 Units.

This course will explore the way Modernist writers theorized interracial encounter and intimacies. Considering both the direct and indirect conversations taking place between writers across the color line during the early 20th century, we will examine the shared and divergent concerns, styles, and forms emerging from writers grappling with the desires, failures and fantasies of interracial encounter. Potential authors include Gertrude Stein, Nella Larsen, William Faulkner, Zora Neale Hurston, Carl Van Vechten, Richard Wright, and Wallace Thurman. Instructor(s): A. Brown Terms Offered: Spring

ENGL 37321. Shakespeare Studies: Lear/Lears. 100 Units.

This course will study the text(s), sources, literary afterlife, and critical history of what is perhaps Shakespeare's greatest play. We will pay special attention to the "two-text" hypothesis, and will read the narrative and dramatic sources, Tate's Restoration adaptation, and some of the major criticism of the play from the 18th century to today, comparing different kinds of criticism ("character," New Critical, "old historicist," psychoanalytic, political, feminist, New Historicist). The course will therefore serve as an introduction to the history of Shakespeare studies and to the history of post-eighteenth century literary criticism as much as it will be a study of one play. We will consider at least two film versions (Brook and Kozintsev). Participants will be expected to do a minimum of two seminar presentations plus a long paper

Instructor(s): R. Strier Terms Offered: Winter

ENGL 40701. Early Modern Natality. 100 Units.

This course explores how birth, infancy, and other forms of radical beginning were given discursive shape in sixteenth- and seventeenth-century England. In light of the increasing importance accorded to natality and its conceptual cognates—highlighted in the work of such thinkers as Hannah Arendt, Michel Henry, Adriana Caverero, and Giorgio Agamben, among others—we will read works of literature, philosophy, and medicine from early modernity, a period obsessed with phenomena akin to what we now call natality. Topics will include the recovery of human experiential newness in the writings of John Milton, Thomas Traherne, and Henry Vaughan; the philosophical appropriation of the new in René Descartes and John Locke; and the politics and practice of midwifery (Jane Sharp) as it related to the increasing medicalization of birth and infancy.

Instructor(s): T. Harrison Terms Offered: Spring

ENGL 41901. Richer & Poorer: Income Inequality. 100 Units.

Instructor(s): E. Hadley Terms Offered: Winter

ENGL 41920. Aestheticism & Decadence. 100 Units.

This course surveys the aesthetic and decadent movements in art and literature in the late-nineteenth and early-twentieth century. We will examine the work of writers and artists who argued that the creation or experience of beauty should be considered the highest human value, as well as some of the important philosophical arguments that support or challenge this notion. We will take aestheticism to be not only a historical formation specific to the turn of the nineteenth century, but also an affective disposition toward the world whose political potential and difficulties persist today. Authors, artists, and philosophers may include: Charles Baudelaire, J.-K. Huysmans, Walter Pater, Oscar Wilde, Vernon Lee, Sarojini Naidu, Richard Wagner, James Whistler, Immanuel Kant, Friedrich Nietzsche, and Theodor W. Adorno.

Instructor(s): B. Morgan Terms Offered: Autumn

ENGL 42417. Lyric Forms from Blake to Hardy. 100 Units.

This course will study forms of lyric poetry in the poetic practices and the prose reflections of nineteenth-century British poets. Setting aside twentieth century, rather restrictive understandings of lyric, we will attempt to recover the more diverse understandings of lyric's forms, effects, and possibilities with which poets from the late eighteenth to the end of the nineteenth century worked, with particular interest in lyric as a social form, as a sounded performance, and as a visual (both art and print-mediated) experience. Using selected romantic poems as a point of departure (Blake's Songs of Innocence and Experience and Wordsworth's and Coleridge's Lyrical Ballads, together with Keats's odes and adaptations of romance and a few of Shelley's odes), we will follow such forms as the ode, the ballad, the song, and the sonnet through the rest of the century, looking also at Victorian inventions or adaptations of the idyl, the sestina, the rondeau, the ballade, and various forms of dramatic lyric, particularly the dramatic monologue. Victorian poets may include Emily Brontë, Tennyson, Robert Browning, Dante Gabriel and Christina Rossetti, William Morris, Swinburne, Hopkins, and Hardy. We will also consider key essays, short fictions, or reviews (by Wordsworth, Shelley, Keats, Arthur Hallam, J. S. Mill, Browning, DG Rossetti, Hopkins, Swinburne), and modern reflections on the nature of lyric (and of rhyme and meter)... Instructor(s): E. Helsinger Terms Offered: Winter

ENGL 43204. Coll: Capitalism & Climate Change—History, Society, Literature. 100 Units.

The concept of the Anthropocene introduces the idea of the human species as a geological agent, capable of altering the life supporting system of the whole planet through anthropogenic climate change. Paradoxically, the bad news of the Anthropocene is also a moment of intellectual exhilaration for the social sciences and humanities. The Anthropocene forces us to rethink some of the most fundamental concepts in scholarship, such as modernity, growth, justice, and scale in light of new pressing problems of carbon emissions, mitigation, and adaptation. We will approach these questions from a variety of perspectives, including ethics, history, science, and literature.

Instructor(s): F. Albritton Jonsson Terms Offered: Spring Prerequisite(s): Advanced undergraduates with consent of instructor. Equivalent Course(s): HIST 43203

ENGL 43901. Women, Writing, and Spirituality in Colonial America. 100 Units. We will analyze the writings, speeches, public performances, devotional objects and practices, and the recorded testimonies of selected American women religionists and authors, focusing on the relationship between spirituality, gender, literary production, and alternative practices of gaining a public "voice." We will read a variety of genres, including trial transcripts, heresiographies, advice manuals, conversion and captivity narratives, letters, poems, and diaries. Our selections will be attentive to such issues as class affiliation, the production of public and "domestic" utterance, and the disciplining of female speech. Among the authors included: Anne Bradstreet, Mary Rowlandson, Anne Lee, Emily Dickinson. We will also explore the trials of Anne Hutchinson, the disruptive religious performances of Quakers, and Shaker expressive modes of spirit drawing and dancing. Instructor(s): J. Knight Terms Offered: Spring

ENGL 44319. Writing Images/Picturing Words. 100 Units.

What is the relationship between reading and looking? To what extent are all texts images, and all images texts? What are the cognitive, phenomenological, social, and aesthetic consequences of foregrounding the pictorial aspect of alphabetical characters? How do textual and visual images compare to our mental visualizations? In this arts studio course, students will construct original works of literary and visual art that "picture language" in order to investigate the overlapping functions of text and image. Studying works by contemporary visual artists like Alison Knowles and Jenny Holzer, and practicing poets such as Susan Howe and Tan Lin, we will frame our artistic and literary practice within the ongoing conversation between word and image in modern culture. The course will feature visits to our studio by contemporary poets and visual artists, who will provide critiques of student work and discussion of their own ongoing projects. Faculty members working at the intersection of word and image will also visit the class to help us frame our creative practice within a critical, historical, and theoretical context. Students will submit a final project, which may be accompanied by a critical background essay, at the end of the term.

Instructor(s): S. Reddy and J. Stockholder Terms Offered: Spring Prerequisite(s): Consent of instructor required. Interested students, please email faculty a paragraph about your background and interest in the material. Equivalent Course(s): CDIN 44319,MAPH 44319,ARTV 44319

ENGL 44600. Introduction to Cultural Policy Studies. 100 Units.

The course is designed to move beyond the values debate of the culture wars in order to focus on how culture here defined as the arts and humanities can be evaluated analytically as a sector, an object of policy research. In what sense can it be said that there is a national interest or public interest in culture? What is the rationale for government intervention in or provision for the arts and humanities? Is it possible to define the workings of culture in a way that would permit one to recommend one form of support rather than another, one mode of collaboration or regulation over another? Is it possible to measure the benefits (or costs) economic, social, and political of culture? We will begin by reading some classic definitions of culture and more recent general policy statements, then address a series of problematic issues that require a combination of theoretical reflection and empirical research.

Equivalent Course(s): PPHA 39600

ENGL 45406. Emily Dickinson. 100 Units.

Instructor(s): J. Knight Terms Offered: Autumn Equivalent Course(s): AMER 45406

ENGL 45502. Critical Race Studies. 100 Units.

This course offers a graduate-level introduction to recent and new theories of racial formation and culture/literature. Topics include race and the contemporary novel; race and new media; comparative racialization. There has recently been an explosion of work in race studies and this course will attempt to make sense of that resurgence, particularly how it bears on the study of literature and culture. Instructor(s): R. So Terms Offered: Autumn

ENGL 47905. Contemporary Latino/a Poetry. 100 Units.

From Julia de Burgos' feminist poems of the 1930s to poetry of the Chicano Movement, Nuvorican performance poetry, and contemporary "Avant-Latino" experiments, this course explores the eclectic forms, aesthetics, and political engagements of Latin@ poetry in the 20th and 21st centuries. We'll examine multimedia and performance modes (the boundaries between page and stage), experimentalism, bilingualism, code-switching, self-translation, and the imbrication of aesthetics and politics in the development of Latin@ poetry. In the process, we'll debate the usefulness of the term "Latino" to unite writers of disparate backgrounds and tendencies. Theoretical readings will be drawn from the fields of poetry and poetics, Latin@ Studies, Latin American Studies, postcolonial studies, critical race theory, and Hemispheric Studies, as we explore Latin@ poetry in the context of migration and pluri-national affiliations; globalization, neoliberalism, and US foreign policy; Latin@ poetry's response to technological and socio-political change; its critique of ideologies around race, gender, and sexuality; and its dialogue with indigenous, Latin American, North American, and European literatures. Instructor(s): R. Galvin Terms Offered: Autumn Equivalent Course(s): AMER 47905

ENGL 48000. Methods and Issues in Cinema Studies. 100 Units.

This course offers an introduction to ways of reading, writing on, and teaching film. The focus of discussion will range from methods of close analysis and basic concepts of film form, technique and style; through industrial/critical categories of genre and authorship (studios, stars, directors); through aspects of the cinema as a social institution, psycho-sexual apparatus and cultural practice; to the relationship between filmic texts and the historical horizon of production and reception. Films discussed will include works by Griffith, Lang, Hitchcock, Deren, Godard. Instructor(s): Staff Terms Offered: Autumn

Equivalent Course(s): MAPH 33000,CMST 40000

ENGL 48700. History of International Cinema I: Silent Era. 100 Units.

This course introduces what was singular about the art and craft of silent film. Its general outline is chronological. We also discuss main national schools and international trends of filmmaking.

Instructor(s): Y. Tsivian Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): ARTH 28500,ARTH 38500,ARTV 26500,ARTV 36500,CMLT 22400,CMLT 32400,CMST 48500,ENGL 29300,MAPH 36000,CMST 28500

ENGL 48900. History of International Cinema II: Sound Era to 1960. 100 Units.

The center of this course is film style, from the classical scene breakdown to the introduction of deep focus, stylistic experimentation, and technical innovation (sound, wide screen, location shooting). The development of a film culture is also discussed. Texts include Thompson and Bordwell's *Film History: An Introduction*; and works by Bazin, Belton, Sitney, and Godard. Screenings include films by Hitchcock, Welles, Rossellini, Bresson, Ozu, Antonioni, and Renoir.

Instructor(s): D. Morgan Terms Offered: Winter

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): CMST 28500/48500 strongly recommended

Equivalent Course(s): ARTH 28600, ARTH 38600, ARTV 26600, CMLT 22500, CMLT 32500, CMST 48600, ENGL 29600, MAPH 33700, CMST 28600

ENGL 50400. Teaching Undergraduate English (Pedagogy) 100 Units.

This course seeks to provide a setting in which graduate students, prior to their first formal teaching assignment at this institution, can explore some of the elements of classroom teaching of English. The course, for purposes of focus and with the recognition that not all our students will teach at the graduate level, is intended primarily as an introduction to teaching undergraduate English. While emphasizing the practical issues of classroom instruction, the class includes theoretical readings on pedagogy, which help the students to reflect on and speak to their practice. The course will provide significant opportunities in conceptualizing, designing, and running a college-level course in English: e.g., the opportunity to lead a mock-classroom discussion, to construct a sample syllabus, to grade a common paper. Instructor(s): E. Hadley Terms Offered: Winter

Note(s): This course is required for third-year English PhD students who entered the program without an MA. Second-year students who entered the program with an MA may take the course with instructor consent.

ENGL 51000. PhD Colloquium. 100 Units.

This course provides a theoretical and practical introduction to advanced literary studies. Readings are drawn from four modes of inquiry that helped to produce our discipline and that continue to animate scholarship in the present – namely, philology, criticism, aesthetics, and genealogy. In addition, participants will complete several short assignments meant to familiarize them with common skills and practices of literary studies.

Instructor(s): J. Orlemanski Terms Offered: Autumn Prerequisite(s): For first-year English Ph.D. students

ENGL 52502. Literary Criticism from Plato to Burke. 100 Units.

This seminar will explore Western literary criticism from Plato to the late eighteenthcentury conceived of as a prehistory of comparative literature as a discipline. The course will take as its particular lens the critical treatment of epic in some of the following authors: Plato, Aristotle, Longinus, Horace, Montaigne, Tasso, Giraldi, Sidney, Boileau, Le Bossu, St. Evremond, Dryden, Addison, Voltaire, Fielding, and Burke. The course will also examine both twentieth-century comparative approaches to epic (e.g., Auerbach, Curtius, Frye) and more recent debates within comparative literature with an eye to continuities and discontinuities in critical method and goals.

Instructor(s): J. Scodel Terms Offered: Autumn Equivalent Course(s): CMLT 50105

ENGL 53408. Romanticism. 100 Units.

This course on British Romanticism will consider how writers in the period recast the understanding of the sources of imaginative and social energies. We'll take up writing by Joseph Priestley, Anna Laetitia Barbauld, Jeremy Bentham, William Wordsworth, and Samuel Taylor Coleridge in an effort to understand the kind of epochal shift that Michel Foucault describes in .

Instructor(s): F. Ferguson Terms Offered: Autumn

ENGL 55405. Multidisciplinary Study of American Culture. 100 Units.

This seminar surveys the study of American culture as it is currently practiced at the University of Chicago. Seminar members read and discuss recent work by faculty specialists from the Humanities, the Social Sciences, the Divinity School, and the Law School at Chicago. Though interested in how different disciplines frame questions and problems, we will be attuned to convergences in themes, approaches, and methods. During the last half of our seminar meetings our authors will join us for a focused discussion of their work. Many of our guests will also deliver public lectures the day before visiting the seminar.

Instructor(s): E. Slauter Terms Offered: Spring

Note(s): This is a Scherer Center Seminar. MAPH students can take this course. Consent required for MA and JD students.

Equivalent Course(s): HIST 62304,HCHR 48800,RLIT 48800,AMER 50001,LAWS 93803

ENGL 55960. Staging Modernism. 100 Units.

This course examines the close but conflicted relationship between modernism and the stage. Theater provided both a crucial venue for modernist experimentation, and a series of powerful tropes that shaped modernist thought, including play, histrionic display, confrontation, and performance. At the same time, it threatened to falsify or corrupt aesthetic autonomy, one of the cornerstones of the movement. This seminar will consider the various ways modernism was staged in plays and manifestos by Büchner, Ibsen, Chekhov, Marinetti, Wilde, Yeats, O'Neill, Brecht, Stein, and Beckett, and in critical writings by Wagner, Maeterlinck, Appia, Craig, Marinetti, Eliot, Artaud, and Benjamin. Recent criticism to include Puchner, Chaudhuri, Moi, Krasner, Jannarone, Kurnick, Worthen, and Rebecca Schneider. Instructor(s): J. Muse Terms Offered: Autumn

ENGL 58011. The Rules of Satire. 100 Units.

What are the formal rules that constitute the protean thing we call satire--what are the laws of that genre, as we might put it--and what are the social or legal rules by which it should abide? Do the latter rules exist? Is there any possibility for generalization about them, or are they strictly context-dependent, like so much else in satire? How, in different contexts, do we understand the constitution of the taboo? Those are the central questions of this seminar. It will be obvious that idea for this course derives partly contemporary debates about Charlie Hebdo and the Interview (and more generally about the contemporary cultural climate: the Danish cartoons, Jon Stewart and Steven Colbert keeping the American Left sane for a decade and a half). And it derives partly from an interest in finding new ways to connect eighteenth and nineteenth culture to our own moment in ways that can spur new thinking, criticism, and scholarly work. We will proceed selectively by taking up a series of cases. To launch the course, we will spend a fair amount of time on Jonathan Swift, about whom Edward Said never finished his intended book. Other writers might include Pope, Voltaire, Laurence Sterne, Jane Austen, Byron, Twain, Wilde--though we will attend to some of the classical precedents for modern satire. Instructor(s): J. Chandler Terms Offered: Winter

ENGL 59304. Seminar: Catharsis and Other Aesthetic Responses. 100 Units.

This seminar examines the ramifications of catharsis, tedium and other responses to texts and images, in other words it investigates the relationship between effect and affect. Beginning with Aristotle and present day responses to catharsis, we will investigate the kinds of aesthetic response invoked by tragic drama and theory (esp Hegel), realism (Lukacs, Bazin and Brecht), as well as theories of pleasure (Barthes, Derrida) and tedium (Heidegger and again Barthes). We will conclude with a test case, exploring the potential and limitations of catharsis as an appropriate response to the textual and cinematic representation of trauma and reckoning in post dictatorship Chile, particularly through the critical work of Tomas Moulián and Nelly Richard. The focus will be on theoretical texts but some reference will be made to literary and cinematic material by Sophocles, Shakespeare, Brecht, Renoir, and Guzmán. Because an essential part of the discussion will be the problem of translating key terms from one language to another as well as from one theoretical discourse and/or medium to another, the seminar is reserved for PhD students with a working knowledge of one or more of the following languages: French, German, Spanish and/or classical Greek.

Instructor(s): Loren Kruger Terms Offered: Spring Note(s): Comp Lit Ph.D. core course Equivalent Course(s): CMLT 50200

ENGL 61410. Cognitive Approaches to Modernism. 100 Units.

The literary styles defined by the term high modernism are designed to put enormous pressure on the cognitive capacities of readers, a fact that mind-centered narrative theory has newly confirmed. Why did this taste for difficult texts emerge in the early twentieth century, for an elite group of readers? What kinds of aesthetic pleasure and psychological insight are enabled by modernist poetic and narrative styles? And what are the differences between traditional formalism and current formal analysis informed by cognitive neuroscience and cognitive linguistics? In this course, we will explore these questions by reading intensively in current scholarship on twentieth-century poetry and fiction, with a special focus on cognitive studies. We also will read a number of theoretical texts by neuroscientists, cognitive linguists, and contemporary psychoanalysts and attachment theorists who are absorbing the findings of cognitive science into their own theoretical domains. The literary-critical methods to be considered include formalist narratology, cognitive narrative theory, and cognitive linguistic approaches to poetry. Throughout the term, we will place the theoretical readings alongside short modernist literary texts, by way of inquiring into the potential literary-critical consequences of the theories. We will also have a cornerstone fictional text, Mrs. Dalloway. Instructor(s): L. Ruddick Terms Offered: Winter

ENGL 64802. Slumming & Spectatorship: Urban Voyeurism & 19th-C Literature. 100 Units.

This course will explore interconnections between the political, sexual, affective, and aesthetic dimensions of the 19th century literature of urban tourism and social reform, from the leering flaneur to cross-dressing reporters and feminist reformers. Our central texts will include George Gissing's The Nether World, Henry Mayhew's London Labour and the London Poor, Zola's L'Assommoir, and George Orwell's later Down and Out in Paris and London, as well as reformatory works such as James Greenwood's scandalous "A Night in a Workhouse" and numerous texts from the fin-de-siècle feminist movement. In addition, we will read recent historical scholarship on 19th century slum tourism (e.g. Seth Koven and Judith Walkowitz), as well as theories of sexuality, affect and class formation, including works by Lauren Berlant, Eve Kosofsky Sedgwick and Pierre Bourdieu.

Instructor(s): Z. Samalin Terms Offered: Spring

ENGL 65007. Assemblage. 100 Units.

Assemblage names a composition practice in the plastic, visual, and literary arts. It also names a mode of conceptualizing non-aesthetic forms. This course will begin by focusing on the different semantic and pragmatic values of assemblage in archaeology, architecture, anthropology, human geography, and social theory (where Deleuze and Guattari's notion of agencement has played an especially prominent role). We will then turn our attention to an art exhibition, "The Art of Assemblage" (MOMA, 1961); to the work of particular artists (Joseph Cornell, Robert Rauschenberg, Louise Nevelson); and to William Carlos William's "compiled" epic, Paterson (1946-1963). The course's overarching question asks: How might we understand the relation between assemblage as an artistic practice and assemblage deployed as an analytical concept? And how we do we assess the discrepancies between organic and inorganic form? We will move out from the primary cases, and move backwards and forwards from the 1960s-out to Language poetry and language art, backwards to Coleridge's theory of "organic form" and Poe's "Philosophy of Composition," and forwards to some text-based digital fiction and some contemporary art installations. Students will give one short and one long presentation, and will write a final paper (on an object or archive from any historical period).

Instructor(s): B. Brown Terms Offered: Spring

ENGL 65203. The Literature of Trauma. 100 Units. Instructor(s): L. Berlant Terms Offered: Winter Equivalent Course(s): GNSE 31900

ENGL 66702. Postcolonial Constellations. 100 Units.

This course trains graduate-level students in postcolonial theory and literature, and it contends that we can best understand postcolonial studies neither in terms of a canon of literary works nor in terms of a discrete historical moment but as a set of key questions and debates that have shaped methods of literary and cultural interpretation and intellectual inquiry over the three decades in which postcolonial literary and culture studies have coalesced (and now, perhaps disintegrated) as a field. We will consider topics such as writing and resistance, postcolonial literary revisions, mimicry and hybridity, and gender. We will also consider whether "postcolonial literature" as a category has a future in the discipline of English literary studies, particularly in light of the ongoing sense of crisis theorists in the field have identified and the ascendance of terms such as "planetarity," "global Anglophone literature," and "world literature." What is the status of the global in the postcolonial, and vice-versa? What is gained or lost when we revise or abandon the term postcolonial? What conceptual significance does the nation-state retain when we talk about global literature? Authors and critics will include Emily Apter, Homi Bhabha, Aimé Césaire, Dipesh Chakrabarty, Michelle Cliff, Frantz Fanon, Leela Gandhi, Édouard Glissant, Mohsin Hamid, Bessie Head, Isabel Hofmeyr, C.L.R. James, Achille Mbembe, Walter Mignolo, V.S. Naipaul, Ngugi wa Thiong'o, among others.

Instructor(s): S. Thakkar Terms Offered: Spring Equivalent Course(s): CMLT 56702



Department of Germanic Studies

People

Department Chair

- Eric Santner Director of Undergraduate Studies
- Colin Benert Director of Graduate Studies
- Florian Klinger
 Department Coordinator
- Michelle Zimet
 Professors
- David J. Levin
- Eric L. Santner
- David E. Wellbery Associate Professors
- Christopher J. Wild Assistant Professors
- Margareta Ingrid Christian
- Florian Klinger

Senior Lecturers

- Catherine Baumann
- Kimberly Kenny
- Sunny Yudkoff
- **Emeritus Faculty**
- Reinhold Heller
- Samuel Jaffe
- Kenneth J. Northcott
- Hildegund Ratcliffe
 - Affiliated Faculty
- Philip V. Bohlman, Ph. D., Mary Werkman Professor of the Humanities and of Music; Chair of the Committee on Jewish Studies Interests: German-Jewish and German-American ethnomusicology; theory and history of folksong.
- John W. Boyer, Ph. D., Martin A. Ryerson Distinguished Service Professor of History; Dean of the College

Interests: German and Austrian history, 18th century to the present; religion and politics in modern European history; European urban history.

- Daniel Brudney, Ph. D., Associate Professor of Philosophy Interests: Marx, German philosophy, Frankfurt School.
- James Conant, Ph. D., Professor of Philosophy Interests: Kierkegaard, Heidegger, Wittgenstein.
- Kathleen Conzen, Ph. D., Professor of History Interests: German-American history and the history of international migration.
- Constantin Fasolt, Ph. D., Karl J. Weintraub Professor of History; Master of the Social Sciences Collegiate Division; Deputy Dean of the Division of the Social Sciences; Associate Dean of the College Interests: Early modern German history.
- Michael Forster, Ph. D., Professor of Philosophy Interests: Herder, Hegel.
- Michael Geyer, Ph. D., Samuel N. Harper Professor of German and European History

Interests: German history of the 19th and 20th centuries with special interest in contemporary German and European affairs.

- Andreas Glaeser, Ph. D., Associate Professor of Sociology Interests: Theories of culture and identity; with reference to Germany mostly post-unification controversies, social memory and architecture, reality construction processes among civil servants in authoritarian regimes.
- Gary Herrigel, Ph. D., Associate Professor of Political Science Interests: Political economy of advanced industrial states (Germany, USA, Japan), German political and industrial history in the 19th and 20th centuries, social and political theory.
- Berthold Hoeckner, Ph. D., Associate Professor of Music and the Humanities Interests:19th century Austro-German music; Lyrik und Lied; Romantische Musikästhetik; Wagner; Adorno and music.
- Loren Kruger, Ph. D., Professor, Department of English; Department of Comparative Literature; Committee on African Studies; Committee on Cinema and Media Studies; Committee on Theatre and Performance Studies Interests: German literature 18th century to present (esp. drama); GDR and contemporary Germany; Brecht, Heiner Müller, Marxism; the Cold War; Frankfurt School; "Das andere Deutschland."
- Jonathan Lear, Ph. D., John U. Nef Distinguished Service Professor at the Committee on Social Thought and in the Department of Philosophy Interests: Freud, Wittgenstein, Heidegger.
- Francoise Meltzer, Ph. D., Mabel Greene Meyers Professor of French, Comparative Literature, and the Divinity School; Acting Director of the Franke Institute for the Humanities

Interests: German romanticism, philosophy.

• Paul Mendes-Flohr, Ph. D., Professor of Modern Jewish Thought in the Divinity School, Committee on Jewish Studies; Associate Faculty in the Department of History

Interests: German-Jewish intellectual history.

- Glenn W. Most, Ph. D., Visiting Professor in the Committee on Social Thought Interests: German literature and philosophy since the 18th century.
- Robert B. Pippin, Ph. D., Raymond W. and Martha Hilpert Gruner
 Distinguished Service Professor; Committee on Social Thought and Department
 of Philosophy
 Interactor Konth Common Idealism. Nieterscher Heidensern Medamiter Theorem

Interests: Kant; German Idealism; Nietzsche; Heidegger; Modernity Theory.

- Moishe Postone, Ph. D., Raymond W. and Martha Hilpert Gruner Distinguished Service Professor of History; Committee on Jewish Studies Interests: Marx, Frankfurt School, contemporary European social theory, contemporary German affairs (with particular focus on issues of anti-semitism and the relation of the Nazi past to postwar German society and culture).
- Robert Richards, Ph. D., Morris Fishbein Professor of the History of Science and Medicine; Professor in the Departments of Philosophy, History, Psychology, and the Committee on Conceptual and Historical Studies of Science Interests: German Romanticism, history and philosophy of science.
- Jerrold Sadock, Ph. D., Glen A. Lloyd Distinguished Service Professor, Department of Linguistics
 Interests: Cermanic languages (Scandinavian, Yiddish)

Interests: Germanic languages (Scandinavian, Yiddish).

- Malynne Sternstein, Ph. D., Associate Professor of Slavic Languages and Literatures Interests: Central European Studies, Literary, Psychoanalytic and Cultural Theory; Art and Media Theory
- David Tracy, Ph. D., Andrew Thomas Greeley and Grace McNichols Greeley Distinguished Service Professor of Catholic Studies and Professor of Theology and the Philosophy of Religion in the Divinity School; Committee on Social Thought

Interests: 19th century German philosophy and theology.

WEBSITE

https://german.uchicago.edu/

OVERVIEW

The graduate program in Germanic Studies at the University of Chicago stresses an interdisciplinary model of study, long an emphasis at this University, which allows students to construct fields of research in fresh ways. In order to draw on the University's strengths, both inside and outside the department, students are encouraged to work not only with departmental and affiliated faculty but with faculty throughout the University whose courses are of relevance to their particular interests. The University's Workshops (non-credit, interdepartmental seminars that meet biweekly) offer a further avenue for interdisciplinary work. Students are also encouraged to participate in the department's colloquia and lecture/discussions.

Language courses taught in the department include German, Norwegian, and Yiddish.

Application and Financial Support

Applicants to the Department of Germanic Studies should have a solid background in German language and culture. Students with undergraduate degrees in other fields are encouraged to apply, but must include with their application a list of relevant German/Germanic courses as well as a letter of recommendation from a faculty member able to evaluate their level of German language competency. Such students will be asked to make up deficiencies in their language preparation before entry into the graduate program. All entering students whose native language is not German are required to pass an ACTFL (American Council on the Teaching of Foreign Languages) oral proficiency examination in German during their first quarter in the program.

Admission to the department is competitive. Fellowships for a small number of highly qualified students includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component. These awards are renewable for up to five years. The Department of Germanic Studies has some funds to support students in summer projects, travel, and research. In addition, the Norwegian Culture Program Endowment Fund provides some money for research and travel support for students interested in Norwegian language and culture. Finally, competitive fellowships are available for a final year of writing the dissertation.

Applications to the program must include a writing sample of not more than twenty pages, in German or English; Graduate Record Exam scores from the general examination; TOEFL (Test Of English as a Foreign Language) scores, if applicable; and three letters of recommendation.

The application process for admission and financial aid for all graduate students is administered through the divisional office of the Dean of Students (http:// humanities.uchicago.edu/prospective). The Application for Admission and Financial Aid, with instructions, deadlines and department-specific information is available on the **Graduate Student Online Application page**. Please note that the application and all supporting materials are to be submitted online. Questions pertaining to admissions and aid should be directed to: humanitiesadmissions@uchicago.edu or (773) 702-1552.

DEGREE REQUIREMENTS

The following is an outline of the main features of the graduate program. If you need additional information, please write directly to the Department of Germanic Studies (http://german.uchicago.edu/graduate).

Students in the Department of Germanic Studies are admitted into the Ph.D. program of study. Students interested in a one-year interdisciplinary Master's program in Germanic Studies should contact the Master of Arts Program in the Humanities (http://humanities.uchicago.edu/depts/maph). Study towards the M.A. degree, normally completed after the first year, is intended as an introductory period, a time for both faculty and students to decide on the suitability of an extended graduate program. All students entering the Ph.D. program with a master's degree from another institution will undergo an informal evaluation at the end of their first year in the department to assess their progress and to plan their further course of study.

DEGREE OF MASTER OF ARTS

COURSE WORK

Three quarters of course work and a total of eight courses are required during the first year of study. These include the mandatory pedagogy course ("Acquisition and Teaching of Foreign Languages"). A completed M.A., which includes the pedagogy courses and a "superior" rating on the German oral proficiency test, are prerequisites for teaching appointments. Besides the pedagogy course, students must take at least one course each quarter from departmental faculty, and at least two additional courses from departmental faculty during the year. The remaining courses could contain little or no Germanic material and may be taken primarily for methodological, theoretical, or historical interest. Course selections must receive the approval of the Director of Graduate Studies (http://german.uchicago.edu/ graduate). All courses must be taken for a letter grade. We expect students to develop a broad historical sense of German culture through coursework as well as their own background reading. The primary aim of the master's year is for students to explore a variety of materials, approaches and problems.

Language Examination

Students who do not achieve a "superior" rating on the oral proficiency examination in German (to be taken early in their first quarter) will be advised to undertake further language training or to take other steps to improve their skills; they will be re-tested during the second quarter.

M.A. Exam

The purpose of the M.A. exam is to test students' ability to work with concepts central to the discipline, to articulate literary-historical arguments, to discuss significant patterns that extend beyond individual texts, and to articulate how such concepts relate to the interpretation of individual works. In addition, the exam establishes a useful foundation of knowledge upon which the student can build in later studies.

The examination takes place in the eighth week of Spring Quarter of the student's first year of graduate study. Its basis is a list of some twenty to twenty-five texts selected by the student in consultation with the two members of the student's M.A. exam committee. (The committee—consisting of two members of the department's core faculty—is to be designated by the Director of Graduate Studies (http://

german.uchicago.edu/graduate) in consultation with the student.) This list reflects a category of literary research such as a genre, a period, or a general concept bearing on a mode of writing. Examples of the former might be "The Bourgeois Tragedy" or "Modern Urban Short Prose" or "The Elegy." Periods can be variously conceived: Enlightenment, Realism, Weimar Republic. General concepts are more abstract categories such as "narrative" or "performance" or "argumentative writing." Lists could also be organized along thematic lines or in terms of a traditional narrative subject. The point is that the list be designed so as to sustain a process of coherent intellectual inquiry. In addition to the 20-25 primary texts, the list includes a representative cross-section of secondary literature addressing the topic under study.

The examination itself has two components:

- a) a take-home written examination, and
- b) an oral examination approximately one hour in length.

The take-home component consists of three essays (of two and one half, never more than three double-spaced pages) written in answer to questions devised by the faculty. These questions offer the student an opportunity to demonstrate her/his ability to explore various intellectual issues raised by the list as a whole as well as by specific works on the list. Students will receive these questions on Friday morning of the eighth week of classes and hand in their completed essays by 5:00 p.m. the following Monday. The oral examination is devoted to a critical discussion of the students' three essays as well as to works included on the list but not addressed in the written part of the examination. It will take place one week after the written exam. Following a forty-minute discussion of the essays, the student and the faculty examination committee will assess the student's overall progress, including course work.

A crucial aspect of the M.A. examination is planning and advising. Students should choose their examiners and have one planning meeting with each examiner by the eighth week of Autumn Quarter. Students should choose examiners and design the lists with a view to the seminars they plan to attend throughout the year. Students must submit their lists for approval at the end of the fourth week of Winter Quarter. Two weeks after submission, they should meet with their examiners to discuss preparation for the exams. During Spring Quarter, students should meet with their examiners twice prior to the exam in order to discuss questions arising from their readings. Of course, throughout the process students are encouraged to discuss questions arising from their readings with other faculty members, both inside and outside the Department of Germanic Studies.

First Year: Time Schedule for M.A. Exam

Fall, Week 8 - Choose examiners Winter, Week 4 - Submit exam list for approval Winter, Week 7 - Arrange to meet with examiners to discuss exam preparation Spring, Week 8 - Written exam Spring, Week 9 - Oral exam

THE DEGREE OF DOCTOR OF PHILOSOPHY

The Ph.D. phase of study will be self-designed to a greater extent than the M.A phase. Students who enter with an M.A. from another university will be required to take one pedagogy course in their first year ("Acquisition and Teaching of Foreign Languages"). This requirement may be waived by the department if a student can demonstrate that equivalent work was successfully completed at another institution. Completion of the course (or a departmental waiver), together with a "superior" rating on the oral proficiency interview in German taken early in the first quarter (or re-taken later if necessary), are prerequisites for teaching appointments.

COURSE WORK

Students will establish a balance of course work and individual preparation that best suits their intellectual agenda. Course selections, however, must be approved by the Director of Graduate Studies (http://german.uchicago.edu). A minimum number of eight courses over two years, not including the pedagogy course, is required. All of these courses must be taken for credit. Six must be taken for a letter grade. The remaining two may be taken Pass/Fail. Typically, the two post-M.A. years (during which students will also be teaching) will look as follows: two seminars each quarter the first year; at least one seminar each quarter for the fall and winter quarters of the second year; exams in the spring quarter of the second year. In this way students will have ample time during the second Ph.D. year to prepare for the exams.

LANGUAGE EXAMINATION

All students are required to pass one university foreign language reading examination (usually in French, ancient Greek, Latin, Russian, Spanish, Turkish, or Italian) before taking their Ph.D. oral exams. Students whose dissertation work requires them to read original texts in a language not listed above may petition the department and division to accept that language instead.

Ph.D. Examinations

Students will complete the Ph.D. exams in three stages. During the last quarter of the first Ph.D. year and the following summer, students are asked to begin assembling a Ph.D. major field list (of about 50 works) and two annotated syllabi for future courses—one undergraduate, one graduate—that they would like to teach. An important part of the job market portfolio, the syllabi are to demonstrate the student's ability to 'translate' some of their research interests into viable seminars and to explain their choices. The syllabi should include a rationale for the design of the course. The two courses should be on topics other than the major field, although they may intersect with it. The major field list should be organized around a broad topic such as "Discourses of Madness from Kant to Musil", "Worldly Provincialism: German Realism 1850-1900", or "The Aesthetics of Sacrifice in Post-war German Literature and Art." Students should then group their 50 works into several clusters according to particular themes or sets of questions. Students are invited to consult with as many faculty members as possible as they work on these materials. They should also arrange for an exam committee of three faculty: two faculty members (normally both members of the department) to compose and evaluate the written examination questions, and a third faculty member (from either the departmental or affiliated faculty) to serve as an additional examiner for the oral exam.

At the beginning of the fall quarter of the second Ph.D. year, students will submit preliminary exam lists and both syllabi to the faculty committee they have chosen and to the graduate advisor. (In many cases, students will actually wish to submit one of these syllabi for the annual Tave competition in the winter quarter. (The Stuart Tave Teaching Fellowship allows graduate students to teach a free-standing, self-designed undergraduate class.)

The four-hour, open-book, written exam will be taken no later than the 7th week of spring quarter. Six weeks prior to the exam, each student will submit to the exam committee and to the graduate advisor a list of categories and questions that indicate what he or she considers to be the salient issues of the major field. Faculty will use this list as a guide in preparing the exam. Within two weeks of the exam, the committee, joined by the third member, will meet with the student for an hour-long discussion that will encompass the exam, the two syllabi, and plans for the dissertation. Students should work on their dissertation proposals over the summer and schedule the formal proposal defense at the beginning of the fall quarter of the third Ph.D. year. For further details regarding the Ph.D. examinations, students are encouraged to consult with the graduate advisor.

Second Ph.D. Year: Time Schedule for Ph.D. Exam

Fall, Week 3 - Preliminary exam list and syllabi

Spring, Week 2 - Submit list of questions/categories designed to help you organize and think about the texts on your major field; these should be submitted to the exam committee and the DGS

Spring, Week 7 - Written exam

Spring, Week 9 - One hour long discussion of written exam, syllabi, major field list, and dissertation plans

DISSERTATION PROPOSAL

After the Ph.D. examination, a student identifies and selects a dissertation committee. One member of the committee is chosen as the dissertation advisor and primary reader, and the others as second and third readers. A proposal ought not attempt to predict the final conclusions of the project before the research is fully under way. Instead, it should attempt to divide the project into subordinate questions and to rank the parts of the project in terms of priority. It should include a preliminary bibliography, a potential chapter structure and should indicate a rough timetable for the research and writing of the dissertation. The proposal of 20-25 pages should be problem-driven, question-oriented, and should contextualize the project within current debates in the field. The student will then have an opportunity to discuss the project in a PROPOSAL DEFENSE with the dissertation committee. This should be done not later than one quarter after the Ph.D. examination. Students should file copies of their examination lists and proposal with the department administrator.

The dissertation proposal is due no later than one quarter after passing Ph.D. examinations.

WRITING THE DISSERTATION

After the proposal has been approved by the readers, the student should plan on spending the remainder of the fourth year researching and reading. Some students may spend this time away; others may choose to remain in Chicago to work closely with their readers. We encourage students to try to complete the dissertation during the fifth year, if possible. All students should complete the dissertation by the end of the sixth year.

TEACHING IN THE COLLEGE

Graduate students in the Department of Germanic Studies at the University of Chicago will enter the job market with a solid basis in current pedagogical theory and practice as well as a range of teaching experiences in a variety of classroom settings. Teaching in the undergraduate language program is an integral part of the graduate program.

Before they begin teaching, graduate students must participate in a graduate seminar on pedagogy ("Acquisition and Teaching of Foreign Languages"). This course is an introduction to foreign language acquisition and to the theoretical models underlying current methods, approaches and classroom practices. Syllabus and test design and lesson planning are also treated. All participants do two days of observation and two days of supervised teaching in a first-year class.

Graduate students have the opportunity to teach in the beginning and intermediate German language program (http://german.uchicago.edu/graduate). They have full responsibility for the courses they teach, including syllabus design, day-to-day instruction, test design, grading and all other record keeping. Input from the graduate students is also critical in the ongoing implementation and revision of the curriculum. Internal grant monies have been made available to support the development of an on-line writing project designed by graduate students, as well as other curricular innovations.

Graduate students also have the opportunity to work as on-site coordinators and/or instructors in study-abroad programs in Vienna and Freiburg (http:// german.uchicago.edu/graduate). The preparation of students for study-abroad and their reintegration into the curriculum is an ongoing process in which graduate students, in their roles as instructors, are deeply involved.

Each fall there is an orientation for all graduate students who will teach that year. It is held in conjunction with the Center for Teaching and Learning (http:// teaching.uchicago.edu) and deals with general procedural and pedagogical issues as well as specific course objectives and practices. This inter-departmental cooperation also includes jointly held workshops and seminars on different topics in the field of second language teaching, offered by University of Chicago faculty and experts from other institutions.

Germanic Studies - German Courses

GRMN 33300. Reading German for Research Purposes. 100 Units.

This rigorous course begins with an introduction to grammar and vocabulary enabling students to read and comprehend German. Students then perform a series of process exercises designed to practice the specific skills they need to use German for research. Students able to work with texts and journals in their own discipline to complete these exercises. Graduate students who take and perform well in this course will be able to read in a foreign language reading, and will also master skills they useful as scholars in their field. The course also prepares student for the graduate reading exam. No previous knowledge of German necessary. Instructor(s): James McCormick Terms Offered: Winter and Spring

GRMN 35116. Yiddish Literature Between the World Wars. 100 Units.

This course provides an introduction to the major authors, themes, and literary styles of Yiddish prose between the two World Wars. In the wake of WWI—or "The Catastrophe" as it was known in Yiddish—writers tried to make sense of the new cultural, linguistic and political landscapes with which they were met. The result is a body of texts in which discharged soldiers, urban migrants, struggling poets, committed communists and dissolving rabbinical dynasties compete for power and attention. We will examine these issues in texts produced in the shifting centers of Yiddish modernism: Moscow, Berlin, Warsaw and New York. We begin with Sholem Aleichem's "Tevye the Dairyman", published as the First World War was coming to an end and we conclude with a novel by Yankev Glatshteyn, published only months after the German invasion of Poland. This discussion-based course will presume no previous knowledge of Yiddish literature or language. Taught in English. Yiddish readers will meet for an additional weekly session.

Instructor(s): S. Yudkoff Terms Offered: Spring

Equivalent Course(s): YDDH 35116, GRMN 25116, JWSC 25116, YDDH 25116

GRMN 35316. Enlightenment and Religion. 100 Units.

As Kant's famous coinage of Enlightenment as "man's emergence from his selfincurred immaturity" (Ausgang aus der selbstverschuldteten Unmündigkeit) indicates, it understood itself as a decidedly secular project as much of this immaturity was deemed religious. Furthermore, it liked to stylize its emergence as similarly "self-incurred" and autonomous, for instance when it excised Satan from the story of the Fall and understood man's disobedience as an act of emancipation brought about by his free will. As recent research on the role of religion in the Lessing, Herder, Hamann, and Mendelssohn. Enlightenment has revealed, this is, not surprisingly, a myth and far from the reality of their complicated relationship. Given the many different 'Enlightenments' and religious ecologies in 18thcentury Europe, this seminar will focus on the German context with an eye to its specific confessional constellations as well as enlightened movements. We will concentrate on a few exemplary thinkers and issues to dissect the complex and often contradictory logic of secularization: Lessing, Hamann, Herder, and Mendelssohn as examples for the first category, the 'Enlightenment Bible,' the origin of evil (theodicy) and the story of the Fall, conversion and Bildung, aesthetic media as examples for the latter.

Instructor(s): C. Wild Terms Offered: Spring

Prerequisite(s): Readings in German and discussions in English (or German upon request).

GRMN 36216. Domestic Tragedy. 100 Units.

From its inception in ancient Greece tragedy feeds on a transgression. The ideology and economy of kleos (glory) predicates that the male hero seeks the accumulation of excellence and prestige elsewhere, far from home on the battlefield, so that he can reap the fruits of his heroic labor in peace upon his return (nostos). Like Homer's Odyssey, in which its eponymous hero turns his home into a battlefield when he slays his wife's suitors, tragedy routinely violates the relegation of violence to a distant place by letting it back into the house (oikos). What makes these tragedies tragic, is then the return of violence into the home. The seminar will trace the contradictory double coding of the house/home in tragedy as a place of refuge and safety as well as a site of unthinkable, because familial violence. We will start by reading a few representative Greek tragedies alongside Aristotle's Poetics, then make a stopover in Early Modern theater (probably Shakespeare and Racine) in order to arrive at Bourgeois tragedy, which conceived itself programmatically as domestic. We will examine French examples of the genre (Diderot) as well their German counterparts (Lessing, Schiller, and), and end with its latest flowering in Scandinavia (Ibsen, Strindberg).

Instructor(s): C. Wild Terms Offered: Winter

Prerequisite(s): Readings and discussions in English.

GRMN 36316. Waiting. 100 Units.

In this course we explore figures and figurations of waiting. We will concentrate on moments of deceleration and distraction; on representations of passivity, abeyance, and postponement. By studying characters who hesitate and cannot act, we will examine the nature of action, decision, and event. Furthermore, we will ask what kind of temporality underlies waiting. By tracing waiters in their many incarnations, we will ask whether it is possible to make out an advantage (epistemological, emotional, etc.) to this temporal stance and the negative connotations it usually invokes. Wherein lies the promise of waiting and inaction? Readings include: Schiller, Schlegel, Novalis, Eichendorff, Büchner, Nietzsche, Kracauer, Blanchot. Instructor(s): M. Christian Terms Offered: Spring 2016 Equivalent Course(s): GRMN 26316

GRMN 36516. Heidegger's Being and Time. 100 Units.

A study of Being and Time, directed at novice, returning, or perennial readers of Heidegger. We will supplement the main text with passages from the lectures on The Basic Problems of Phenomenology and The Fundamental Concepts of Metaphysics, next to some essay work. It is recommended to read the book in preparation for the class. While the ability to use the German original is not a requirement, Heidegger's thinking will demand rigorous attention to the poetics of the work.

Instructor(s): F. Klinger Terms Offered: Winter

GRMN 37915. Liturgical and Secular Time. 100 Units.

The seminar will focus on the notion of liturgical time as developed by Franz Rosenzweig in the last part of his magnum opus, The Star of Redemption. New thinking about the political theological aspects of liturgical practices will also be examined, above all in the work of Giorgio Agamben. We will ultimately want to investigate the intersection of liturgical and messianic time in the figure of Sabbath rest.

Instructor(s): E. Santner, P. Mendes-Flohr Terms Offered: Autumn Equivalent Course(s): HIJD 43805

GRMN 38815. Literature as Trial. 100 Units.

The affinities between literary and judicial practice seem as old as literature itself. Countless literary works take the form of a trial, revolve around a case or trial scene, or negotiate competing ways of seeing and talking. What is the relationship between judgment and poetic form? Can "trial" be understood as a distinct form of discourse? What role can the literary play in the legal process? Is there a privileged relationship between the trial and the dramatic genre? Can literature be a training for judgment? Are there specifically poetic forms of justice? Readings include Sophocles, Dante, Shakespeare, Kleist, Kafka, Arendt, Weiss, Derrida, Coetzee.

Instructor(s): F. Klinger Terms Offered: Autumn

Equivalent Course(s): CMLT 28815, CMLT 38815, SCTH 38816, GRMN 28815

GRMN 40415. Sex and the Absolute: Hegel and Freud. 100 Units.

This "compact seminar" will stage an encounter between these two remarkably heterogeneous thinkers. On the one hand, we have the man who extolled the powers of reason and knowledge to the point of raising the claim to absolute knowledge, and on the other hand, the man who devoted his career to entities that present the cracks of reason and knowledge, the unconscious, the drives, desires, traumas. The bottom-line of the course will be the exploration of the spirit (or the demon) of negativity and the trajectory that the very notion of negation accomplished between Hegel and Freud, underlying so much of what is going on in contemporary philosophy.

Instructor(s): E. Santner, M. DOlar Terms Offered: Autumn



DEPARTMENT OF LINGUISTICS

Chair

• Lenore Grenoble

Professors

- Diane Brentari
- Victor Friedman
- Susan Gal, Anthropology
- Anastasia Giannakidou
- John Goldsmith
- Lenore Grenoble
- Chris Kennedy
- Jason Merchant
- Salikoko Mufwene
- Michael Silverstein, Anthropology
- Alan Yu

Associate Professors

- Karlos Arregi Director of Graduate Studies
- Amy Dahlstrom
- Jason Riggle

Assistant Professors

- Itamar Francez
- Yarolsav Gorbachov
- Greg Kobele
- Ming Xiang

Emeritus Faculty

- Howard I. Aronson, Slavic Languages & Literatures
- Bill Darden, Slavic Languages & Literatures
- Gene B. Gragg, Oriental Institute
- Paul Friedrich, Anthropology
- Eric P. Hamp, Linguistics
- Carolyn G. Killean, Near Eastern Languages & Civilizations
- Colin P. Masica, South Asian Languages & Civilizations
- G. David McNeill, Psychology
- Jerrold Sadock, Linguistics

Since 1926, the Department of Linguistics at the University of Chicago has been at the center of the development of the field, counting among its faculty linguists of the first rank such as Sapir and Bloomfield. It is theory-oriented with a deep empirical interest in languages. One of its outstanding characteristics is its commitment to a wide range of approaches to the study of language. Interdisciplinary, interdepartmental study is encouraged, and students regularly work with faculty in several other departments. Students are expected to become active researchers as soon as possible after their arrival here. Many students come with strong undergraduate training in linguistics, or with a Master's degree; others come with strong training in fields such as philosophy, mathematics, or a particular language or language group. The faculty are involved in synchronic and diachronic research on languages from around the world. These varied interests are reflected in the topics of the dissertations that have been written in the Department.

Program

The University of Chicago operates on the quarter system. The graduate program in linguistics leading to the PhD degree is intended to be completed in five years. Graduate students normally register for three courses per quarter, three quarters per year. They generally take three to four years of coursework. In the first year, students take nine courses, three of their choosing as well as the following six obligatory courses: LING 30101 Phonological Analysis I, LING 30102 Phonological Analysis II, LING 30201 Syntactic Analysis I, LING 30202 Syntactic Analysis II, LING 30301 Semantics and Pragmatics I, and LING 30302 Semantics and Pragmatics II; they must also enroll in the colloquium series course (P/F). In subsequent years, students have a great deal of flexibility in course selection, though their programs of study must include the following: one course each in historical linguistics and morphology; a "methods" course (field methods, mathematical methods, etc.); and one advanced course in each of the following areas:

- Phonetics/phonology
- Syntax/semantics/pragmatics
- Socio-historical linguistics

In years two and three, when students are writing qualifying papers, they must also take the Research Seminar.

A large proportion of courses offered in the Linguistics Department are advanced courses that are open to all students. The topics of these courses change from year to year, in reflection of the ongoing research interests of both faculty and graduate students, and cover areas of current interest in the field at large. Students are also free to take courses related to their research interests that are offered by other departments in the University.

In the second and third years, students continue taking courses and write two qualifying papers under faculty supervision. In addition to these major landmarks, students are required to pass reading examinations in two scholarly languages (normally French, German, Spanish, Chinese, Japanese, or Russian, though others may be substituted upon petition to the department), and to satisfy a non-Indo European language requirement. Upon completion of the qualifying papers and language requirements and defense of a dissertation proposal, students are admitted to candidacy for the PhD; the only remaining requirement is the dissertation. The University of Chicago offers several joint doctoral programs. Such options currently exist between the Department of Linguistics and the Department of Anthropology, the Department of Comparative Human Development, the Department of Psychology, the Department of Near Eastern Languages and Civilizations, the Department of Slavic Languages and Literatures, and the Department of Philosophy. Students from other departments who wish to apply for a joint PhD in Linguistics may do so only after completing the six foundational courses (Phonological Analysis 1, 2; Syntactic Analysis 1, 2; and Semantics and Pragmatics 1, 2).

APPLICATION AND ADMISSION

Completed applications for admission and aid, along with all supporting materials, are due in mid-December for the academic year that starts in the following Autumn.

Four parts of the application are critically important and should accompany the application: the student's academic record, letters of recommendation submitted by persons able to describe the student's achievements and promise, the student's statement of purpose, which describes the intellectual issues and subjects which they hope to explore at Chicago, and a sample of pertinent written work that demonstrates the applicant's research interests or capabilities. The sample may consist of published essays, class term papers, or a B.A. or M.A. thesis, or some combination of all of these. The student's academic record is documented through official transcripts, but applicants are also encouraged to submit as supplemental material an 'annotated transcript': a file they create that lists all the courses they have taken which are relevant to graduate study in linguistics, with the grade received, the full name of the instructor, major texts used or studied, and a brief (no more than five sentences) description of the material covered in the course. Such a supplemental file is more informative for judging the preparation of an applicant than is the official transcript.

Students whose first language is not English must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about these tests may be obtained from the Educational Testing Service, Princeton, NJ 08540.

When completing the application form, it is of benefit to the applicant to be as specific as possible in describing his or her research interests. General comments are of relatively little use; applicants are encouraged to discuss specific linguistic subject matters that they are interested in or have worked on.

If an applicant knows faculty members with whom he or she might work, the latter's names should be given as well. The faculty of the Linguistics Department would be happy to answer any questions that prospective students may have. Please contact them individually regarding their research or classes, or contact the Director of Graduate Studies for more general or administrative questions. Contact information is available at the Linguistics Department website (http://linguistics.uchicago.edu).

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http:// humanities.uchicago.edu/students/admissions

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

LINGUISTICS - BASQUE COURSES

LINGUISTICS - LINGUISTICS COURSES

LING 30101. Phonological Analysis I. 100 Units.

This course introduces cross-linguistic phonological phenomena and methods of analysis through an indepth examination of fundamental notions that transcend differences between theoretical approaches: contrast, neutralization, natural classes, distinctive features, and basic non-linear phonological processes (e.g., assimilation, harmony, dissimilation).

Instructor(s): Diane Brentari Terms Offered: Autumn

LING 30102. Phonological Analysis II. 100 Units.

This course is intended for students with a strong background in phonology. We will explore the major themes of phonological theory from 1870 to today, focusing on such questions as the distinction between phonology and morphophonology, the nature of phonological representations, and the character of hard and soft contraints on phonological representations.

Instructor(s): John Goldsmith Terms Offered: Winter Prerequisite(s): LING 30101

LING 30201. Syntactic Analysis I. 100 Units.

This course is an introduction to basic goals and methods of current syntactic theory through a detailed analysis of a range of phenomena, with emphasis on argumentation and empirical justification. Major topics include phrase structure and constituency, selection and subcategorization, argument structure, case, voice, expletives, and raising and control structures.

Instructor(s): Greg Kobele Terms Offered: Autumn

LING 30202. Syntactic Analysis II. 100 Units.

This course is a continuation of Syntactic Analysis-1. The emphasis will be on A'-movement and ellipsis operations within the framework of Principles and Parameters and the Minimalist Program. Although we will examine different types of movement and ellipsis constructions, as well as their interactions, the objective will be to understand to what extent we can develop a general theory of syntax. The course will have a strong cross-linguistic aspect to it, examining data from Irish, Austronesian languages, Mayan languages, Wolof, Russian, Romance, Germanic, and others. The topics will include wh-movement in questions, relative clauses, and other constructions, islands and other constraints on movement, sentence fragments (sluicing, split questions), VP-ellipsis, and gapping. Instructor(s): Karlos Arregi Terms Offered: Winter

Prerequisite(s): LING 30201

LING 30301. Semantics and Pragmatics I. 100 Units.

This is the first in a two-course sequence designed to provide a foundation in the scientific study of all aspects of linguistic meaning. The first quarter focuses primarily on pragmatics: those aspects of meaning that arise from the way that speakers put language to use, rather than through the formal properties of the linguistic system itself, which is the domain of semantics. However, a central goal of the course will be to begin to develop an understanding of the relation between pragmatics and semantics, by exploring empirical phenomena in which contextual and conventional aspects of meaning interact in complex but regular and welldefined ways, and by learning analytical techniques that allow us to tease these two aspects of linguistics meaning apart.

Instructor(s): Anastasia Giannakidou Terms Offered: Autumn

LING 30302. Semantics and Pragmatics II. 100 Units.

This is the second in a two-course sequence designed to provide a foundation in the scientific study of all aspects of linguistic meaning. The second quarter focuses on the syntax-semantics interface and cross-linguistic semantics. The class will introduce in detail a theory of the way in which the meaning of complex linguistic expressions is formed compositionally from the meaning of constituent parts, and the interaction of semantic and syntactic composition. This theory will form the basis for exploring some empirical questions about the systematicity of crosslinguistic variation in the encoding of meaning.

Instructor(s): Itamar Francez Terms Offered: Winter Prerequisite(s): LING 30301

LING 31000. Morphology. 100 Units.

Looking at data from a wide range of languages, we will study the structure of words. We will consider the nature of the elements out of which words are built and the principles that govern their combination. The effects of word structure on syntax, semantics, and phonology will be examined. We will think critically about the concepts of morpheme, inflection, derivation, and indeed, the concept of word itself.

Instructor(s): Amy Dahlstrom Terms Offered: Spring Prerequisite(s): LING 20001 Equivalent Course(s): ANTH 37500

LING 31100. Language in Culture I. 100 Units.

Among topics discussed in the first half of the sequence are the formal structure of semiotic systems, the ethnographically crucial incorporation of linguistic forms into cultural systems, and the methods for empirical investigation of "functional" semiotic structure and history.

Instructor(s): M. Silverstein Terms Offered: Autumn Prerequisite(s): Consent of instructor Equivalent Course(s): ANTH 37201,CHDV 37201,PSYC 47001

LING 31200. Language in Culture II. 100 Units.

The second half of the sequence takes up basic concepts in sociolinguistics and their critique.

Instructor(s): Susan Gal Terms Offered: Winter Prerequisite(s): Consent of instructor Equivalent Course(s): PSYC 47002,ANTH 37202

LING 31300. Historical Linguistics. 100 Units.

This course deals with the issue of variation and change in language. Topics include types, rates, and explanations of change; the differentiation of dialects and languages over time; determination and classification of historical relationships among languages, and reconstruction of ancestral stages. Instructor(s): Yaroslav Gorbachov Terms Offered: Spring Prerequisite(s): LING 20600/30600 & LING 20800/30800 or consent of instructor

LING 32870. Computational Semantics. 100 Units.

Please visit the Linguistics website for course description. Instructor(s): Greg Kobele Terms Offered: Autumn Equivalent Course(s): LING 22870

LING 33920. The Language of Deception and Humor. 100 Units.

In this course we will examine the language of deception and humor from a variety of perspectives: historical, developmental, neurological, and cross-cultural and in a variety of contexts: fiction, advertising, politics, courtship, and everyday conversation. We will focus on the (linguistic) knowledge and skills that underlie the use of humor and deception and on what sorts of things they are used to communicate.

Instructor(s): Jason Riggle Terms Offered: Spring Equivalent Course(s): LING 23920

LING 34015. Modality. 100 Units.

Modal information—information conveyed by sentences such as "Mary *might* be at home" or "Charles *ought* to give to the poor"—plays an outstanding role in everyday discourse and reasoning. The goal of this course is to explain and evaluate contemporary semantic theories of modality by discussing a wide range of linguistic phenomena from the perspective of these theories. After introducing possible worlds semantics for modality developed in modal logic, we will consider current theories of modal semantics within linguistics as well as the most important empirical areas of research. Throughout, we will keep an eye on the relation between modality and other topics that are prominent in linguistics and philosophy, including tense, conditionals, and discourse meaning. (B) Instructor(s): M. Willer Terms Offered: Spring

Equivalent Course(s): PHIL 34015,LING 24015,PHIL 24015

LING 34960. Creole Genesis and Genetic Linguistics. 100 Units.

In this seminar course we will review the "creole exceptionalism" tradition against the uniformitarian view, according to which creoles have emerged and evolved like other, natural and non-creole languages. We will situate creoles in the context of the plantation settlement colonies that produced them and compare their emergence specifically with that of languages such as English and the Romance languages in Europe. We will also compare these evolutions with those of new colonial varieties of European languages (such as Amish English, mainstream American English varieties, Brazilian Portuguese, and Québécois French) which emerged around the same time but are not considered creoles. Using the comparative approach (in evolutionary theory), we will assess whether the criteria used in the genetic classification of languages have been applied uniformly to creole and non-creole languages. In return, we will explore ways in which genetic creolistics can inform and improve genetic linguistics (including historical dialectology). Instructor(s): Salikoko Mufwene Terms Offered: Autumn Prerequisite(s): LING 21300/31300 (Historical Linguistics), LING 26310/36310 (Contact Linguistics), or consent of the instructor.

Equivalent Course(s): LING 24960

LING 35160. Themes in the Development of 20th Century Linguistics. 100 Units.

This course will be based on a book I am writing with Bernard Laks : "Language and the Mind: Encounters in the Mind Fields." We will explore the nature of rupture and continuity in academic disciplines, from the period 1870 to 1970. The main topics will be the rapid changes in linguistics, psychology, and (some elements of) philosophy in the period from 1870 to 1940, the rise of the cybernetics movement and cognitive psychology in the post-World War II world, and the origins of generative grammar.

Instructor(s): John Goldsmith Terms Offered: Autumn Equivalent Course(s): LING 25160

LING 35780. Automodular Morphology. 100 Units.

Please visit the Linguistics website for course description. Instructor(s): Jerry Sadock Terms Offered: Spring

LING 37300. Discourse Analysis. 100 Units.

Survey of approaches to analyzing language in context, including interactional sociolinguistics, politeness theory, ethnography of communication, speech act theory, information structure, topic and focus, empathy and deixis, cohesion and narrative structure.

Instructor(s): Amy Dahlstrom Terms Offered: Autumn

LING 37700. Language, Culture, and Thought. 100 Units.

Survey of research on the interrelation of language, culture, and thought from the evolutionary, developmental, historical, and culture-comparative perspectives with special emphasis on the mediating methodological implications for the social sciences.

Instructor(s): J. Lucy Terms Offered: Spring

Prerequisite(s): Grad status, Undergrads in 3rd or 4th year, or permission of instructor.

Note(s): CHDV Distribution, B*, C*; 2*, 3*, 5*

Equivalent Course(s): ANTH 27605, ANTH 37605, CHDV 31901, PSYC 21950, PSYC 31900, LING 27700, CHDV 21901

LING 38370. African Languages. 100 Units.

One-third of world languages are spoken in Africa, making it an interesting site for studying linguistic diversity and language evolution. This course presents the classification of different African language families and explains their historical development and interactions. It also presents the most characteristic features of African languages, focusing on those that are common in Africa but uncommon among other world languages. Additionally, the course addresses the issue of language dynamics in relation to socioeconomic development in Africa. Using living audio and written material, students will familiarize themselves with at least one major language selected from the Niger-Congo family, the most prevalent family in sub-Saharan Africa. This is a general introduction course with no specific prerequisites.

Instructor(s): Fidele Mpiranya Terms Offered: Autumn Equivalent Course(s): LING 28370

LING 38600. Computational Linguistics. 100 Units.

This is a course in the Computer Science department, intended for upper-level undergraduates, or graduate students, who have good programming skills. There will be weekly programming assignments in Python. We will look at several current topics in natural language processing, and discuss both the theoretical basis for the work and engaging in hands-on practical experiments with linguistic corpora. In line with most current work, our emphasis will be on systems that draw conclusions from training data rather than relying on the encoding of generalizations obtained by humans studying the data. As a consequence of that, in part, we will make an effort not to focus on English, but to look at a range of human languages in our treatments.

Instructor(s): J. Goldsmith Terms Offered: Spring Prerequisite(s): CMSC 12200, 15200 or 16200, or by consent Equivalent Course(s): CMSC 35050,LING 28600,CMSC 25020

LING 40310. Experimental Methods. 100 Units.

This course will cover the basic methods for experimental studies, including experimental design, data collection and statistical analysis. To demonstrate different design and analysis tools, we will look at data set from different types of studies, including self-paced reading, acceptability judgment, eye tracking, ERP, etc. Students will also gain hands-on experience on different paradigms. Instructor(s): Ming Xiang Terms Offered: Winter

LING 42100. Seminar: Semantics. 100 Units.

Please visit the Linguistics website for course topic and description. Instructor(s): Anastasia Giannakidou, Spring Terms Offered: Winter Note(s): This course has a different topic each quarter it is offered.

LING 42300. Seminar: Historical Linguistics. 100 Units.

Please visit the Linguistics website for course topic and description. Instructor(s): Yaroslav Gorbachov Terms Offered: Spring Prerequisite(s): LING 21300/31300 or ANTH 47300 (Historical Linguistics) or consent of instructor

Note(s): This course has a different topic each quarter it is offered.

LING 44400. Lexical Functional Grammar. 100 Units.

This is an intermediate level syntax class. The course covers the nontransformational, lexicalist approach to syntax developed by Joan Bresnan and colleagues since 1982.

Instructor(s): Amy Dahlstrom Terms Offered: Autumn Prerequisite(s): At least one course in syntax. Equivalent Course(s): LING 24450

LING 46000. Seminar: Syntax. 100 Units.

Winter 2016 Topic: Ellipsis. The seminar explores recent and classic work on the structural, licensing, and identity conditions on ellipsis, examining semantic, syntactic, and mixed approaches. We will look at 40 years of mixed results: on the one hand, sets of facts that seem to indicate that identity is only semantic (or that the parallelism or recoverability conditions are stated over semantic representations), such as sloppy identity, category switches, implicit arguments, 'vehicle change' effects, etc., and on the other hand, facts that point to a syntactic identity requirement (voice mismatches in sluicing, code-switched ellipsis, Warner/ Potsdam facts, Dahl puzzles, etc.). Readings will include both theoretical and experimental work.

Instructor(s): Jason Merchant Terms Offered: Winter

Prerequisite(s): Graduate student in Linguistics of consent of instructor Note(s): This course has a different topic each quarter it is offered.

LING 47300. Linguistic Epidemiology. 100 Units.

The title of this course comes from Nick Enfield's work on linguistic epidemiology in South Asia, where he explores the semantics and grammar of contact in an epidemiological, population-based model of language contact and change. Here we will consider both semantic and morphosyntactic change, and examine models of linguistic transmission and distribution, including usage-based and biological models of language variation and change and transmission.

Instructor(s): Lenore Grenoble Terms Offered: Winter

Prerequisite(s): LING 31300 (Historical Linguistics) or LING 36310 (Contact Linguistics), or permission from the instructor

LING 47900. Research Seminar. 100 Units.

The course aims to guide students on their research in a structured way and to present professionalization information crucial to success in the field. The course is organized largely around working on the research paper, with the goal of making it a conference-presentable and journal-publishable work. Topics covered include abstracts, publishing, handouts, presentation skills, course design, creating and maintaining a CV, cover letters, webpages, and in general everything that is required for you to successfully compete for jobs in linguistics.

Instructor(s): Anastasia Giannakidou Terms Offered: Winter

LING 50510. Seminar: Psycholinguistics. 100 Units.

Please visit the Linguistics website for course topic and description. Instructor(s): Ming Xiang Terms Offered: Winter Note(s): This course has a different topic each quarter it is offered.

LING 52015. Indexicals. 100 Units.

Indexical expressions — those whose reference and content can shift from context to context, such as 'I', 'now', 'here', 'she', and 'today' — and indexical attitudes have played a prominent role in theoretical reflections on language and the mind. In this class, we will consider the philosophical and linguistic implications of indexicality, starting with Kaplan's theory of indexicals and then taking a close look at Perry's and Lewis's seminal arguments that indexicals and indexical thoughts pose exciting problems for traditional views about propositions and attitudes. We will then ask to what extent their observations have important consequences for epistemology, ethics, and other areas of philosophy outside of philosophy of language and mind, but also consider critical perspectives on the Perry-Lewis tradition. Throughout the quarter we will keep an eye on the relation between perspectival thought and talk and the more general phenomenon of subjectivity. (II) Instructor(s): M. Willer Terms Offered: Spring

Equivalent Course(s): PHIL 52015

LING 52400. Seminar: Phonology. 100 Units.

Please visit the Linguistics website for course topic and description Instructor(s): Jason Riggle Terms Offered: Autumn Prerequisite(s): LING 30102 or instructor's consent Note(s): This course has a different topic each quarter it is offered.

LING 52700. Seminar: Morphology and Semantics. 100 Units.

Autumn 2015 Topic: Morpho-Semantics. Although the issue of compositionality (the hypothesis that the meaning of complex expressions in based on the meanings of its component parts) is traditionally addressed with respect to phrases and sentences, similar questions arise in the study of word and morpheme meaning. Traditionally, formal semantic work has paid relatively little attention to compositionality within words, and research on theoretical morphology has typically not been based on formal theories of meaning. In the last two decades, prompted partly by the development of Distributed Morphology, a grammatical framework that enriches and complicates the possible interactions between morphology, syntax and semantics, compositionally below the word level has begun to acquire more prominence and attention from both morphologists and semanticists. Through a critical examination of some of this work, and the literature that forms the background for it, the class will attempt to map the different empirical and theoretical stakes involved in constructing a theory of the morphology-semantics interface that is both morphologically and semantically rigorous. The topics will include the semantics of inflectional categories (such as person) and the relation of syntactic categories (parts of speech) to meaning.

Instructor(s): Karlos Arregi & Itamar Francez Terms Offered: Autumn Note(s): This course has a different topic each quarter it is offered.

LINGUISTICS - MODERN GREEK COURSES

MOGK 30100. Elementary Modern Greek I. 100 Units. Instructor(s): C. Koutsiviti Terms Offered: Autumn Equivalent Course(s): MOGK 10100

MOGK 30200. Elementary Modern Greek II. 100 Units. Instructor(s): C. Koutsiviti Terms Offered: Winter Prerequisite(s): MOGK 10100/30100 or consent of instructor Equivalent Course(s): MOGK 10200

MOGK 30300. Elementary Modern Greek III. 100 Units. Instructor(s): C. Koutsiviti Terms Offered: Spring Prerequisite(s): MOGK 10200/30200 or consent of instructor Equivalent Course(s): MOGK 10300



Department of Music

Chair

- Anne Walters Robertson Professors
- Philip V. Bohlman
- Thomas Christensen
- Martha Feldman
- Robert L. Kendrick
- Marta Ptaszynska
- Anne Walters Robertson
- Augusta Read Thomas

Associate Professors

- Berthold Hoeckner
- Travis A. Jackson
- Steven Rings
- Lawrence Zbikowski
 Assistant Professors
- Seth Brodsky
- Melvin Butler
- Anthony Cheung
- Kaley Mason

Senior Lecturers

- Howard Sandroff
- Barbara Schubert

Lecturers

- Amy Briggs
- James Kallembach
- Philip Kloeckner Emeritus Faculty
- Easley R. Blackwood
- John Eaton
- Philip Gossett
- Shulamit Ran
- Don Randel

PROGRAMS OF STUDY

The Department of Music at the University of Chicago offers the degree of Doctor of Philosophy in three areas: composition, ethnomusicology and the history and theory of music.

The program in composition is designed to develop students' creative and technical abilities at writing new music. Students take individual composition lessons with faculty members, often studying with more than one faculty member in the course of their residence. Students also receive training in a wide variety of related areas and skills, including score reading and conducting, orchestration, musical analysis, twentieth century styles, historical periods and (optionally) computer generated sound synthesis. A portion of this training will lead to the development of a minor field in ethnomusicology, musicology, theory and analysis or research in computer music. There is a weekly seminar for all of the students in the composition program, designed to broaden the perspectives and address the problems of aspiring composers.

The program in ethnomusicology prepares students to carry out scholarship and writing about the place of music in various cultures. Students receive grounding in cultural theory, anthropology, ethnographic methods, problems in cross-cultural musical analysis, and a variety of world and popular musics. They also conduct fieldwork on some of these musics. The program is interdisciplinary, drawing upon course offerings in music, anthropology and a variety of area studies.

The program in music history and theory prepares students to carry out various kinds of scholarship and writing about music, especially (but not solely) in traditions of European and American repertories. Students may emphasize either the historical or theoretical side of scholarship, according to their interests, and may also choose to pursue a minor field in composition. Students emphasizing music history typically concentrate on varieties of musicology that include cultural history, textual criticism, stylistic studies, institutional history, hermeneutics and critical theory. Students emphasizing music theory typically concentrate on detailed analysis of individual works, clusters of works (by genre or composer, for example), theoretical systems and the history of theory. Most students who complete the Ph.D. in music history and theory seek academic employment, but others have gone on to work in fields such as publishing, operatic production, and commercial editing.

FELLOWSHIPS

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

COURSES

The following provides a general outline of educational opportunities and degree requirements in the programs, but in no way replaces the detailed information given to all prospective students and enrolled students in the department. Up to date

information about academic programs and courses is available on the website of the Music Department at http://music.uchicago.edu.

During the first two years of study students take a number of required offerings (numbered between 30000 and 39900) including analysis courses, proseminars in historical periods and in ethnomusicology, courses on particular skills and individual composition lessons, depending on their programs of study. At the same time they take seminars (numbered above 41000), which tend to be more specialized and more advanced. About half of a student's schedule consists of electives, which may include non-required courses in the department, courses given outside the department and reading courses (i.e. independent studies).

Students entering the program without a master's degree in music from another institution take fifteen courses during the first two years of registration (before taking comprehensive exams). Those entering with a master's degree from another institution normally take nine courses in the first year of registration (before taking comprehensive exams).

In addition to courses and other requirements (listed below), students who wish to obtain an M.A. must submit two seminar papers, or a composition of at least eight minutes, for approval by the faculty.

During the second two years of study, students in the scholarly programs are required to take three seminars, and students in composition are expected to develop a minor field of four courses. Standard minors for composition students include ethnomusicology, musicology, theory and analysis, or computer music research. After the comprehensive exams, students fulfill remaining requirements and begin work on the dissertation (see below).

Students entering their program of study without a master's degree in music can expect to complete their course work in three or four years. Those entering with a master's can expect to complete their course work in two or three years.

Comprehensive Examinations

Students ordinarily take comprehensive exams just prior to the beginning of the third year in the program. Students entering with a master's degree in music from another institution have the option of taking their exams at the beginning of their second year.

Students in composition take three comprehensive examinations:

- The composition of a work based on a set of given guidelines
- An oral examination on ten compositions from the repertory
- A close analysis of a single work or movement

Students in ethnomusicology take four comprehensive exams:

- Conceptual Foundations: essays covering broad issues of theoretical importance to ethnomusicology and musicology
- Cultural Area: essays demonstrating knowledge of a world musical cultural area

- The identification, from notation and by ear, of music from both European historical and world music traditions
- An additional exam consisting of:
 - A second cultural area
 - A close analysis of a musical work (in a world musical tradition or in the Western art-music tradition)
 - A historical period of European music corresponding to one of the three given to students in history and theory (see below)

Students in history and theory take four of the following eight examinations (within some distribution guidelines):

- Analysis of tonal music
- Analysis of atonal music
- The identification of music scores of from all periods of music in the European tradition
- Historical essays on music before 1600
- Historical essays on music from 1600 to 1800
- Historical essays on music since 1800
- Essays on the conceptual foundations of musical scholarship, including ethnomusicology
- Essays in music theory

While course work helps prepare students for comprehensive exams, students are expected to be enterprising in their efforts to determine both areas of weakness that they need to work on, and ways to synthesize and interrelate knowledge about history, repertory, theory, and so forth. Students should expect to spend an extended period of time engaged in intensive individual study in preparation for comprehensive exams, particularly during the summer before taking them.

Special Field Examination/ Dissertation Proposal

After having passed the comprehensive exams, students in music history and theory and in ethnomusicology also take a two-part oral exam at some time during the third or fourth year. For students in ethnomusicology, the first part of the oral tests the student's knowledge of, and ability for, synthetic thought within a selected area of world music. For all students, the exam is a defense of the dissertation prospectus, demonstrating the propriety and feasibility of the topic and the student's knowledge of the existing literature about it. Normally students take this exam in the third or fourth year. The exam is administered by the student's dissertation committee (often including a person from outside the department), with additional faculty members sometimes attending as well.

DISSERTATION

For students in music history and theory and in ethnomusicology the dissertation for the Ph.D. consists of a book length study that makes an original contribution

to research and thought. Students in composition must complete a large scale composition that shows professional competence, as well as a paper demonstrating ability to do advanced work in an area of musical scholarship (ordinarily the student's minor field), normally 30–50 pages in length. All students are required to defend the dissertation before receiving the degree.

Language Examinations

Language requirements are fulfilled through examinations testing the student's ability to translate about 400 words of a passage of medium difficulty from source materials or other musicological literature, using a dictionary. Three times per year the department administers examinations in French, German, Italian, and Latin. The department arranges for students to take other languages related to their research or compositional interests.

For the Ph.D. program in composition, one foreign language is required. (This requirement cannot be met by the composer's language of origin.) For the Ph.D. program in music history, three languages are required, one of which must be German. For the Ph.D. program in ethnomusicology, three languages are required. Students concentrating in theory are examined in German and one additional language. All master's degrees require one language.

MUSICIANSHIP EXAMINATIONS

Examinations in practical musicianship skills are administered by the Department of Music. These include examinations in basic musicianship skills and advanced musicianship skills. Examinations in basic musicianship include musical dictation, sight singing, and sight reading at the piano or another instrument in the Western musical tradition. Advanced musicianship skills include three skills to be realized at the piano (for students with advanced keyboard skills) or realized in written form (for students with no advanced keyboard skills): figured bass, reading of open vocal scores in old clefs and orchestral score reading (with a 24-hour preparation period). Other advanced musicianship skills are atonal dictation, transcription of music from oral or improvisatory traditions, improvisation in an improvisatory tradition, and playing in a University ensemble for at least one year concluding with a public concert. Students may petition to play in a recognized performing group other than official University ensembles. Students may also petition to fulfill the ensemble requirement through a solo performance in a university concert.

The number and kind of musicianship examinations for composition, ethnomusicology, history, and theory vary according to the respective programs as specified in the department's Graduate Curriculum. Musicianship examinations are given during each of the three quarters. There is no limit to the number of examinations a student may take at a single sitting, and no limit to the number of times that a student may retake a musicianship examination. The Department offers free, informal, non-credit instruction in these skills. Instruction will be offered on an individual basis. The Department is not obligated to offer instruction in the area chosen by the student. All departmental master's degrees require successful completion of two musicianship examinations, except composition, which requires successful completion of three.

Colloquium

The Department sponsors a colloquium series that typically includes four or five presentations each quarter, normally on Friday afternoons. Colloquium presentations are made by students and faculty in the Department and by visiting scholars or composers from elsewhere. As the most regular departmental occasion for intellectual dialogue and one of the most important opportunities for outside professional contact, colloquium is viewed as an important part of academic life in the Department. It is normally taken for credit during the second part of Scholastic Residence.

GRADUATE TEACHING

There exist a number of opportunities for teaching during students' graduate careers. The various teaching opportunities range from assistantships to individual course assignments for which students have virtually full responsibility. The kinds of courses taught or assisted by graduate students include those in history, appreciation, theory, ear training, and world music. In addition to these assignments, students may be nominated for Stuart Tave Teaching Fellowships in the Humanities Collegiate Division, which allow advanced graduate students in the humanities to teach upper level undergraduate courses in their own areas of research.

MUSIC THEORY MENTORING PARTNERSHIP

This program provides opportunities for graduate students in the Department of Music to serve as part time faculty at colleges and universities in the Chicago area. Participants will be hired by the institution to teach or assist in an undergraduate course in music theory or aural skills, and will be compensated at that institution's pay scale for part time faculty. Participants will be assigned a mentor who is a permanent member of the institution's theory faculty, and whose role will be to orient participants to the culture of the institution, and to provide guidance and feedback on syllabi, classroom presentations, grading, and so forth. Eligibility requirements for this program are two years of course work at the University of Chicago (one year if you entered with an MA); AND prior service as a Lecturer or a Course Assistant in a music course at the University of Chicago, or comparable experience at another institution. The program is open to students in ethnomusicology, composition, and historical musicology, as well as to those who are specializing as theorists. In addition to the music theory mentoring program, advanced students frequently secure part time teaching at other local institutions, or in the Graham School of General Studies.

Performing Activities

Candidates for degrees are encouraged to perform in one of the many groups sponsored by the department or in one of its recital venues. Performing organizations include the University Symphony Orchestra, the University Chamber Orchestra, the University Wind Ensemble, the New Music Ensemble, the University Chorus, the Motet Choir, the Jazz X-tet, the Central Javanese Gamelan and the Middle East Music Ensemble. Abundant professional and semi-professional opportunities exist throughout the metropolitan area for students who are accomplished performers. Recent departmental students have performed in the University's Rockefeller Chapel Choir, the Civic Orchestra of Chicago, the Chicago Sinfonietta, the Newberry Consort, and Contempo (the University of Chicago Chamber Players), among others.

Workshops

Students in the department frequently attend one of the many interdisciplinary workshops that are organized throughout the University as forums for intensive intellectual exchange between faculty and graduate students. Those that have recently attracted students in music have included (for example) the workshops on Medieval Art, Liturgy, and Music; the Renaissance; Music and Language; African American Studies; Chicago Public Spaces; History and Philosophy of Science, Economies of the Senses, and the Ethnomusicology Workshop (Ethnoise).

APPLICATION

Applicants to the programs in music history and theory and in ethnomusicology will be asked to submit two papers as samples of their previous works in addition to the usual application forms, transcripts, letters of recommendation, and GRE scores. Applicants in composition will be asked to submit scores, preferably three, and tapes when they are available.

In addition to their scholastic skills, students need at least a modicum of proficiency in fundamental musical skills in order to succeed in the program. It is expected that entering students have competence in playing a musical instrument or singing, as well as possess basic skills in ear training and music theory.

Prospective applicants seeking more detailed information about the course requirements, exams, etc. than is given here should write to the chair of the admissions committee in the Department of Music for a copy of the Graduate Curriculum. The address is: Department of Music, 1010 E. 59th St., Chicago, IL 60637, telephone: (773) 702-8484. We will also send more detailed materials on faculty interests and activities and (upon request) on performing groups.

Further information about the various aspects of the graduate program, such as course descriptions, the Graduate Curriculum, and the Graduate Student Handbook, can also be obtained from the Department of Music's home page on the World Wide Web, http://music.uchicago.edu. Students interested in the program can apply online.

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at http:// humanities.uchicago.edu/students/admissions. International students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

MUSIC COURSES

MUSI 30716. Opera as Idea and As Performance. 100 Units.

Is opera an archaic and exotic pageant for fanciers of overweight canaries or a relevant art form of great subtlety and complexity that has the power to be revelatory? In this course of eight sessions, jointly taught by Professor Martha Nussbaum and Anthony Freud, General Director of Lyric Opera of Chicago, we explore the multi-disciplinary nature of this elusive and much-maligned art form, with its four-hundred-year-old European roots, discussing both historic and philosophical contexts and the practicalities of interpretation and production in a very un-European, twenty-first-century city. Anchoring each session around a different opera, we will be joined by a variety of guest experts, including a director, conductor, designer, and singer, to enable us to explore different perspectives. The tentative list of operas to be discussed includes Monteverdi's The Coronation of Poppea, Mozart's Don Giovanni, Beethoven's Fidelio, Verdi's Don Carlos and Otello, Puccini's Tosca, Wagner's Lohengrin, Strauss's Elektra, and Britten's Bill Budd. Instructor(s): M. Nussbaum, Anthony Freud Terms Offered: Spring Note(s): Students do not need to be able to read music, but antecedent familiarity with opera would be extremely helpful. Enrollment will be limited to 50, although we will allow a small number of auditors as well. We will select the students by lottery, with quotas established within each relevant unit (undergraduates, Law students, graduate students).

Equivalent Course(s): MUSI 24416

MUSI 31506. Modal Analysis. 100 Units.

Instructor(s): Kaley Mason Terms Offered: Autumn

MUSI 31901. Introduction to Cognitive Musicology. 100 Units.

This course surveys recent research in music cognition and cognitive psychology and explores how it can be applied to music scholarship. We begin with a general review of research on categorization, analogy, and inferential systems. This review is paired with close readings of empirical literature drawn from cognitive science, neuroscience, and music psychology, as well as theoretical work in cognitive linguistics and cognitive anthropology. Student projects focus on applications of research in cognitive science to historical musicology, ethnomusicology, music theory, or music analysis. Weekly lab meetings required.

Instructor(s): L. Zbikowski Terms Offered: Various

Prerequisite(s): MUSI 15300 or equivalent. Open to nonmajors with consent of instructor.

Note(s): This course typically is offered in alternate years.

Equivalent Course(s): MUSI 25701

MUSI 32600. Pro-Seminar: Music 1700-1800. 100 Units.

Instructor(s): Martha Feldman Terms Offered: Autumn

MUSI 32800. Proseminar: Music from 1900-2000. 100 Units. Instructor(s): Seth Brodsky Terms Offered: Winter 2014

MUSI 33911. Jewish Music. 100 Units.

Few questions in ethnomusicology and music history remain as enigmatic and yet ideologically charged as, What is Jewish music? With responses ranging from claims that Jewishness defies representation with music to those that argue for a plurality possible only when Jewish culture appropriates the musics of constantly shifting historical contexts, Jewish music has acquired remarkably important resonance in the history of religions and in the meaning of modernity. In this proseminar we approach the richness and diversity of Jewish music as givens and as starting points for understanding of both the sacred and the secular in Jewish culture. The cultural contexts and soundscapes of Jewish music, thus, are not isolated, restricted, for example, to the synagogue or ritual practice, but rather they cross the boundaries between traditions, genres, and even religions. The sound materials and structures of Jewish music, say, the modal ordering of Arabic classical music that is standard for biblical cantillation in Israel, will be treated as complex phenomena that both influence and are influenced by the worlds around Jewish communities. Genres and musical practices will be examined in their full diversity, and we shall move across the repertories of liturgical, folk, art, and popular music. Instructor(s): P. Bohlman Terms Offered: Various

Equivalent Course(s): MUSI 23911

MUSI 34000. Composition Lessons. 100 Units.

This course consists of individual weekly composition lessons. Instructor(s): Athony Cheung, Marta Ptaszynska, August Read Thomas Terms Offered: Autumn, Winter, Spring

MUSI 34700. Introduction to Computer Music. 100 Units.

Instructor(s): H. Sandroff Terms Offered: Autumn

Prerequisite(s): Consent of instructor. Rudimentary musical skills (but not technical knowledge) required.

Note(s): Basic Macintosh skills helpful. This course is offered in alternate years. Equivalent Course(s): MUSI 26300

MUSI 34900. Contemporary Opera. 100 Units.

The course will explore the diversity of trends, aesthetics, and musical styles in opera after 1980 both in Europe and in America. Major emphasis will be placed on analysis of the most representative operas of that time. The selection of these operas was based on musical and artistic merit, historic importance, and cultural expression. Works that will be analyzed are operas based on Greek dramas (Aharony's *Oedipus* and LaCroix's *The Birds*); operas that represent surrealist trends, such as J. Cage's *Europeas* and Ligeti's *Grand Macabre*; psychological dramas found in the operas of Schnittke (*The Life with an Idiot*) and Nyman's *The Man Who Mistook His Wife for a Hat*; political dramas, such as Adams's *Nixon in China* and McManus's *Killing the Goat*; historical dramas, such as Glass's *Akhnaten*, Tan Dun's *Marco Polo*, and Ptaszynska's *Valldemosa*; operas written under Broadway influences, such as Ades's *Powder Her Face* and Daugherty's *Jackie O.*; and many more. Instructor(s): M. Ptaszynska Terms Offered: Various Prerequisite(s): 100-level music course or consent of instructor.

Equivalent Course(s): MUSI 22900

MUSI 38115. Orchestral Conducting. 100 Units.

This two-quarter introductory course focuses on the art as well as the craft of orchestral conducting. Designed primarily for undergraduate students who have had experience playing in an orchestra, wind ensemble, chamber group, or choral ensemble, the curriculum includes practical instruction, podium experience, background reading, and concert/conductor observation. Through a combination of classroom work, individual instruction, and supplemental ensemble sessions, students will gain significant practical experience in conducting. Weekly class meetings will incorporate singing, keyboard work, and instrumental participation by class members and guest musicians. Important technical exercises will be assigned every week, along with modest reading selections. Several short papers and classroom presentations will be assigned each quarter, in conjunction with background readings and classroom topics. The overall goal of the course is to promote the students' understanding and appreciation of the technical responsibilities and the artistic possibilities of the conductor's role, and to promote a basic proficiency in the craft of conducting an instrumental ensemble. Instructor(s): B. Schubert Terms Offered: Various

Note(s): This is a 2-quarter course, and 100 units will be awarded upon completion of the final quarter.

Equivalent Course(s): MUSI 28000

MUSI 44713. Music and Death in 17th-Century Europe, Post-Punk. 100 Units. Instructor(s): Robert Kendrick, Travis Jackson Terms Offered: Spring 2013, Autumn 2013



Department of Near Eastern Languages and Civilizations

http://nelc.uchicago.edu/ Chair

- Franklin D. Lewis
- Professors
- Orit Bashkin
- Fred M. Donner
- Cornell Fleischer
- McGuire Gibson, Oriental Institute
- Janet H. Johnson, Oriental Institute
- Hakan Karateke
- Dennis G. Pardee
- Robert K. Ritner, Oriental Institute
- Martha T. Roth, Oriental Institute
- Gil Stein, Oriental Institute
- Theo P. van den Hout, Oriental Institute
- John E. Woods, History

Associate Professors

- Petra Goedegebuure, Oriental Institute
- Rebecca Hasselbach, Oriental Institute
- Nadine Moeller, Oriental Institute
- Brian Muhs, Oriental Institute
- Tahera Qutbuddin
- Na'ama Rokem
- David Schloen, Oriental Institute
- A. Holly Shissler
- Christopher Woods, Oriental Institute
 Assistant Professors
- Ahmed El Shamsy Senior Lecturers
- Ariela Finkelstein
- Saeed Ghahremani

Lecturers

- Hala Abdel Mobdy
- Osama Abu-Eledam
- Kagan Arik

- Lakhdar Choudar
- Stuart Creason
- Noha Forster
- Hripsime Haroutunian
- Kay Heikkinen

Research Associates (Associate Professors)

- W. Raymond Johnson, Oriental Institute
- Donald S. Whitcomb, Oriental Institute Emeritus Faculty
- Lanny D. Bell, Oriental Institute
- Robert D. Biggs, Oriental Institute
- Menachem Brinker
- John A. Brinkman, Oriental Institute
- Richard L. Chambers
- Miguel Civil, Oriental Institute
- Robert Dankoff
- Peter F. Dorman, Oriental Institute
- Walter T. Farber, Oriental Institute
- Gene B. Gragg, Oriental Institute
- Norman Golb
- Harry A. Hoffner, Oriental Institute
- Halil Inalcik, History
- Wadad Kadi
- Heshmat Moayyad
- John R. Perry
- Jaroslav Stetkevych
- Matthew W. Stolper, Oriental Institute
- William Sumner, Oriental Institute
- Edward F. Wente, Oriental Institute
- K. Aslihan Yener, Oriental Institute

The Department

The work of the department encompasses the ancient civilizations of the Near East, Near Eastern Judaica, and the Islamic civilizations of the Middle East, including Egypt and North Africa, and the history, languages, and literatures of the modern Middle East.

The fields of study in which M.A. and Ph.D. programs are currently offered are, in the Ancient Section: Ancient Near Eastern History, Comparative Semitics, Cuneiform Studies (Assyriology, Hittitology, Sumerology), Egyptology, Hebrew Bible and the Ancient Near East, Near Eastern Art and Archaeology (Anatolian, Egyptian, Iranian, Islamic, Mesopotamian, Syro-Palestinian), Near Eastern Judaica, and Northwest Semitic Philology; and in the Medieval and Modern Section: Arabic Language and Literature, Islamic History and Civilization, Islamic Thought, Medieval Judaica and Judeo- Arabic, Modern Hebrew Language and Literature, Persian Language and Literature, and Ottoman and Turkish Studies. The department also has a joint program with Linguistics and offers courses in Armenian and Central Asian studies in collaboration with other departments at the University.

The department has two main objectives. First, it strives to provide the specific course work and training needed for its students to develop into outstanding scholars in their chosen fields. Second, it offers more general courses that provide its students a broader background in areas outside their specific fields while presenting students in other departments the opportunity to incorporate relevant Middle Eastern material into their own studies. The department also publishes the *Journal of Near Eastern Studies*, one of the leading academic journals in ancient Near Eastern and Islamic studies.

The Oriental Institute

The department is associated with the Oriental Institute (https://oi.uchicago.edu), a research institute dedicated to the study of the origin and development of civilization in the ancient Near East. The Institute maintains several expeditions in the field, and research projects are carried on in its headquarters at the University. Its research archives, manuscript collection, documents from Oriental Institute excavations, and similar materials are resources for the students in the department. The department's office is housed in the Oriental Institute building, and many of its members belong to the faculty of the Oriental Institute.

The Center for Middle Eastern Studies

The department is also associated with the Center for Middle Eastern Studies (https://cmes.uchicago.edu), which offers a master's degree in Middle Eastern studies and coordinates activities at the University dealing with the Middle East in the Islamic and modern periods. Many members of the department faculty are also members of the Center's executive committee; and the workshops, lectures, language circles, and similar activities of the Center are, like those of the Oriental Institute, a resource for the students in the department.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students with an undergraduate degree may apply directly to the department's Ph.D. program; a master's degree in a related field is not prerequisite. The department does not admit students for a terminal M.A. degree, although work done in the first two years of the Ph.D. program qualifies students to receive an M.A. degree. This interim M.A. normally requires the completion of 18 courses, of which 15 must be taken for a quality grade while three may be taken on a pass/ fail basis. All students must high pass one of the two required modern research language reading exams (typically French and German) before the beginning of their second year and complete an M.A. thesis in the second year.

At the end of the second year, all students are reviewed and a determination made as to whether they will be allowed to continue in the Ph.D. program. Students who do continue build upon the work used for the M.A. degree; normally the completion of additional 9-18 courses is required, depending on the field, before embarking upon research for the doctoral dissertation. Exact requirements vary by field, but all students must high pass their second modern research language reading exam before the beginning of their third year and pass a battery of comprehensive exams, usually at the end of their fourth year. A dissertation proposal of original research to be undertaken is presented to the faculty at a public hearing, usually in the fifth year; acceptance allows the student to be admitted to candidacy and to continue the research that will lead to the completed dissertation. A formal dissertation defense is required before the Ph.D. degree is awarded. For more information, please consult the NELC Rules & Requirements (http://nelc.uchicago.edu/graduate/rules-andrequirements).

Because the department believes that firsthand knowledge and experience of the Middle East are an essential part of a student's training, advanced students are encouraged to apply for grants to support study in a Middle Eastern country, whether for language acquisition, archaeological field work, or dissertation research.

INQUIRIES

Specific information about the department and its programs may be obtained from our website (http://nelc.uchicago.edu/) or by e-mail (ne-lc@uchicago.edu). Within the framework outlined above, individual requirements are established for each student in consultation with the faculty adviser and the section counselor.

Application

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department-specific information is available online at http://humanities.uchicago.edu/students/admissions.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

We encourage you to check our website at http://nelc.uchicago.edu/ particularly with regard to determining your field of study for your application. The application form has a place to indicate the department/program; from the pull down menu choose Near Eastern Languages and Civilizations. For field of specialization, please be sure to enter one of the fields of study exactly as listed on NELC's web page. We need these fields to sort information in our database. You may wish to specify your area of interest further in your statement of purpose.

COURSES

Modern Languages: Language acquisition is taught at the elementary and intermediate levels in modern Arabic, Armenian, Hebrew, Kazakh, Persian, Turkish, and Uzbek with advanced level courses in Arabic, Hebrew, and Turkish. A wide variety of literature courses are taught in the various languages.

Ancient Languages: Courses are offered in the fundamentals of Akkadian, Ancient Anatolian Languages, Egyptian, Ge'ez, Classical Hebrew, Sumerian, and Ugaritic, while more advanced courses cover specific genres of ancient texts dealing with religion, medicine, law, government, history, etc.

Near Eastern Art and Archaeology: Courses in Anatolian, Egyptian, Islamic, Mesopotamian, and Syro-Palestinian art and archaeology offer grounding in site archaeology and the material culture of the ancient Near East and include instruction on archaeological method and theory, landscape archaeology, computer applications, etc.

Near Eastern History and Civilization: A wide variety of courses cover the history, religion, law, literature (in translation), culture, and thought of the many ancient and modern civilizations of this region.

Please see the University's (http://timeschedules.uchicago.edu)*Time Schedules* for the most up-to-date and specific course offerings in a given quarter.

Near Eastern Languages & Civilizations - Akkadian Courses

AKKD 49900. Reading and Research: Akkadian,Reading and Research. 100 Units. Instructor(s): STAFF Terms Offered: ,Autumn, Winter, Spring Note(s): Select section from faculty list

AKKD 49900. Reading and Research: Akkadian,Reading and Research. 100 Units. Instructor(s): STAFF Terms Offered: ,Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - ANCIENT ANATOLIAN LANGUAGES COURSES

AANL 30126. Literary Analysis of Hittite Texts. 100 Units. cross listed AANL 20126 Instructor(s): P. Goedegebuure Terms Offered: Winter

AANL 30501. Lycian. 100 Units. Instructor(s): P. Goedegebuure Terms Offered: Winter Equivalent Course(s): ANCM 30800, AANL 20501

AANL 49900. Reading and Research. 100 Units. Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Prerequisite(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - ARABIC COURSES

ARAB 30201-30202-30203. High Intermediate Modern Standard Arabic I-II-III. This is a three course sequence in High Intermediate Modern Standard Arabic.

ARAB 30201. High Intermediate Modern Standard Arabic I. 100 Units. Instructor(s): N. Forster Terms Offered: Autumn Prerequisite(s): ARAB 20103 or equivalent Note(s): Open to qualified undergraduates with consent of the instructor

ARAB 30202. High Intermediate Modern Standard Arabic II. 100 Units. Instructor(s): N. Forster Terms Offered: Winter Prerequisite(s): ARAB 30201 or equivalent

ARAB 30203. High Intermediate Modern Standard Arabic III. 100 Units. Instructor(s): N. Forster Terms Offered: Spring Prerequisite(s): ARAB 30202 or equivalent

ARAB 30202-30203. High Intermediate Modern Standard Arabic II-III.

ARAB 30202. High Intermediate Modern Standard Arabic II. 100 Units. Instructor(s): N. Forster Terms Offered: Winter Prerequisite(s): ARAB 30201 or equivalent

ARAB 30203. High Intermediate Modern Standard Arabic III. 100 Units. Instructor(s): N. Forster Terms Offered: Spring Prerequisite(s): ARAB 30202 or equivalent

ARAB 30203. High Intermediate Modern Standard Arabic III. 100 Units. Instructor(s): N. Forster Terms Offered: Spring Prerequisite(s): ARAB 30202 or equivalent

ARAB 30301-30302-30303. High Intermediate Classical Arabic I-II-III.

This is a three-segment course offered in three quarters; Autumn, Winter and Spring. The main objective of the complete three segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues.

ARAB 30301. High Intermediate Classical Arabic I. 100 Units. Instructor(s): K. Heikkinen Terms Offered: Autumn Prerequisite(s): ARAB 20103 or equivalent **ARAB 30302. High Intermediate Classical Arabic II. 100 Units.** Instructor(s): K. Heikkinen Terms Offered: Winter Prerequisite(s): ARAB 30201 or equivalent

ARAB 30303. High Intermediate Classical Arabic III. 100 Units. Instructor(s): K. Heikkinen Terms Offered: Spring Prerequisite(s): ARAB 30302 or equivalent

ARAB 30302-30303. High Intermediate Classical Arabic II-III.

This is a three-segment course offered in three quarters; Autumn, Winter and Spring. The main objective of the complete three segment is to develop strong pedagogical strategies in the four Arabic language skills to acquire proficiency in handling Arabic classical texts. By the end of the three quarters students should know the distinctive features of classical Arabic texts and the various genres and sources of such texts. They will build strong command on expanded grammatical features and structural rules governing classical texts of different variations. Students will be able to produce written documents reflecting reading comprehension, personal opinions and text critique. Students should be able to make oral presentation and conduct research using electronic resources as well as traditional classical sources. The class is conducted entirely in Arabic with occasional use of English in translation and explanation of complex cultural and linguistic issues.

ARAB 30302. High Intermediate Classical Arabic II. 100 Units. Instructor(s): K. Heikkinen Terms Offered: Winter Prerequisite(s): ARAB 30201 or equivalent

ARAB 30303. High Intermediate Classical Arabic III. 100 Units. Instructor(s): K. Heikkinen Terms Offered: Spring Prerequisite(s): ARAB 30302 or equivalent

ARAB 30303. High Intermediate Classical Arabic III. 100 Units. Instructor(s): K. Heikkinen Terms Offered: Spring Prerequisite(s): ARAB 30302 or equivalent

ARAB 30352. Arabic Through Maghribi Literature. 100 Units.

Through a variety of texts (selected fragments from novels, short stories, book chapters), this course explores how Maghrebian writers express their ideas and reflect on their societies and other sentimental issues that occupy their minds (some of the writers may meet with students on Skype and answer their questions). The work of writers from various Arab countries in Maghreb will be discussed after being read thoroughly. Main themes will be examined to achieve full understanding of the text along with a discussion of media issues. Also this course exercises certain language aspects: reading, writing, grammatical, and speaking skills. Instructor(s): L. Choudar Terms Offered: Winter

Prerequisite(s): At least two year of Arabic study

ARAB 30390. Arabic in Social Context. 100 Units.

Designed for the advanced student of MSA, this course aims to improve listening comprehension and instill an awareness of the social associations accompanying different speech/writing styles. Students will intensively listen to audio /video materials clustered around the themes of diglossia and code-switching; gendered discourse; urban-rural; class. A heavily aural course, class activities will involve student presentations (group and solo), discussion groups, and to a lesser degree, textual analysis.

Instructor(s): N. Forster Terms Offered: Autumn Prerequisite(s): 3 years of Arabic or consent of instructor Note(s): This course is open to qualified undergraduate students

ARAB 30588. Media Arabic. 100 Units.

Media Arabic is a course designed for the advanced student of Modern Standard Arabic. The course objective is to improve students' listening comprehension skills. Students will advance toward this goal through listening to a variety of authentic materials from Arabic TV (on politics, literature, economics, education, women, youth, etc.).

Instructor(s): H. Abdel Mobdy Terms Offered: Winter Prerequisite(s): At least two years of Modern Standard Arabic Equivalent Course(s): ARAB 20588

ARAB 40101-40102. Advanced Arabic Syntax I-II.

This two-quarter sequence is an introduction to the classical Arabic language. It is useful for students whose research includes the reading of classical Arabic texts in varied fields such as literature, history, political science, theology and philosophy. In the class 1) rules of Arabic grammar are studied intensively, topic by topic; 2) parsing (i'rab) is an important component, with a view to understanding the structure of the language; 3) brief texts from different fields of classical Arabic are read focusing on their grammatical structure, and 4) some theory about the development of the grammatical genre is introduced, as are the basic features of prosody ('arud) and rhetoric (balagha).

ARAB 40101. Advanced Arabic Syntax I. 100 Units.

Instructor(s): T. Qutbuddin Terms Offered: Winter Prerequisite(s): Third-year Arabic or equivalent

ARAB 40102. Advanced Arabic Syntax II. 100 Units. Instructor(s): T. Qutbuddin Terms Offered: Spring Prerequisite(s): Third-year Arabic or equivalent

ARAB 40102. Advanced Arabic Syntax II. 100 Units. Instructor(s): T. Qutbuddin Terms Offered: Spring Prerequisite(s): Third-year Arabic or equivalent

ARAB 40392. Readings in the Sira Literature. 100 Units. Will cross list with Divinity School Instructor(s): F Donner Terms Offered: Spring Prerequisite(s): 3 years of Arabic

ARAB 40450. Qur'an, Hadith and Khutba. 100 Units.

Will be cross listed with ISLM, Comp Lit, Fundamentals Instructor(s): T. Qutbuddin Terms Offered: Winter Prerequisite(s): 3 years of Arabic

ARAB 49900. Reading and Research. 100 Units. Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring

Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - ARAMAIC COURSES

ARAM 49900. Reading and Research. 100 Units. Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring

Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - ARMENIAN COURSES

ARME 30102. Advanced Modern Armenian 2. 100 Units. Instructor(s): H. Haroutunian Terms Offered: Winter

ARME 30103. Advanced Modern Armenian 3. 100 Units. Instructor(s): H. Haroutunian Terms Offered: Spring

ARME 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - EGYPTIAN COURSES

EGPT 30120. Introduction to Demotic. 100 Units.

This course provides a basic introduction to the grammar, vocabulary, and orthographic styles of the administrative and literary stage of the Egyptian language and script used in the Late Period (into the Roman Empire). Instructor(s): J. Johnson Terms Offered: Winter Prerequisite(s): EGPT 10201 and/or EGPT 20210

Equivalent Course(s): ANCM 32100

EGPT 30121. Demotic Texts. 100 Units.

Building on the basic grammar, vocabulary, and orthographic styles learned in EGPT 30120, this course focuses on the reading and analysis of various Demotic texts.

Instructor(s): B. Muhs Terms Offered: Spring Prerequisite(s): EGPT 30120 or Consent of the Instructor

EGPT 49000. Thesis Research: Egyptology. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn 2013 Note(s): Select section from faculty list **EGPT 49900. Reading and Research: Egyptology. 100 Units.** Instructor(s): STAFF Terms Offered: Autumn Note(s): Selection section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - GE'EZ COURSES

GEEZ 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - HEBREW COURSES

HEBR 30501-30502-30503. Advanced Modern Hebrew I-II-III.

This course assumes that students have full mastery of the grammatical and lexical content at the intermediate level. However, there is a shift from a reliance on the cognitive approach to an emphasis on the expansion of various grammatical and vocabulary-related subjects. Students are introduced to sophisticated and more complex syntactic constructions, and instructed how to transform simple sentences into more complicated ones. The exercises address the creative effort on the part of the student, and the reading segments are longer and more challenging in both style and content. The language of the texts reflects the literary written medium rather than the more informal spoken style, which often dominates the introductory and intermediate texts.

HEBR 30501. Advanced Modern Hebrew I. 100 Units. Instructor(s): Staff Terms Offered: Autumn Prerequisite(s): HEBR 20503 or equivalent

HEBR 30502. Advanced Modern Hebrew II. 100 Units. Instructor(s): STAFF Terms Offered: Winter Prerequisite(s): HEBR 30501 or consent of instructor

HEBR 30503. Advanced Modern Hebrew III. 100 Units. Instructor(s): STAFF Terms Offered: Spring Prerequisite(s): HEBR 30502 or consent of instructor

HEBR 30502. Advanced Modern Hebrew II. 100 Units. Instructor(s): STAFF Terms Offered: Winter Prerequisite(s): HEBR 30501 or consent of instructor

HEBR 30503. Advanced Modern Hebrew III. 100 Units. Instructor(s): STAFF Terms Offered: Spring Prerequisite(s): HEBR 30502 or consent of instructor

HEBR 49900. Reading Course: Hebrew. 100 Units. Instructor(s): STAFF Terms Offered: Autumn Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - KAZAKH COURSES

KAZK 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - NEAR EASTERN ART AND ARCHAEOLOGY COURSES

NEAA 30006. Archaeology of the Ancient Near East-6; Egypt. 100 Units. This sequence provides a thorough survey in lecture format of the art and archaeology of ancient Egypt from the late Pre-dynastic era through the Roman period.

Instructor(s): N. Moeller Terms Offered: Winter

Note(s): This sequence does not meet the general education requirements in civilization studies.

NEAA 30035. Zooarchaeology. 100 Units.

This course introduces the use of animal bones in archaeological research. Students gain hands-on experience analyzing faunal remains from an archaeological site in the Near East. Topics include: (1) identifying, aging, and sexing animal bones; (2) zooarchaeological sampling, measurement, quantification, and problems of taphonomy; (3) computer analysis of animal bone data; and (4) reconstructing prehistoric hunting and pastoral economies (e.g., animal domestication, hunting strategies, herding systems, seasonality, pastoral production in complex societies). Instructor(s): G. Stein Terms Offered: Spring

Prerequisite(s): Introductory course in archaeology

Equivalent Course(s): NEAA 20035

NEAA 30091. Field Archaeology. 300 Units.

Instructor(s): N. Moeller Terms Offered: Autumn Note(s): This course is for students that will be overseas participating in an Archaeological Field Project. Consent of instructor required.

NEAA 30521. Archaeology of Coptic and Islamic Egypt. 100 Units.

This course is an exploration of the continuities of Egyptian culture after the Ptolemaic period down to modern times, a span of over 2000 years. Our emphasis is on the archaeology of Coptic and Islamic Egypt. The focus is on the role of medieval archaeology in amplifying the history of economic and social systems. It is this connective quality of archaeology that contributes to an understanding of Pharaonic culture and fills the gap between ancient and modern Egypt. Instructor(s): D. Whitcomb Terms Offered: Winter Prerequisite(s): Introductory course in archaeology Equivalent Course(s): NEAA 20521

NEAA 30523. Islamic Archaeology of Iraq and Iran. 100 Units. Instructor(s): D. Whitcomb Terms Offered: Autumn Equivalent Course(s): NEAA 20523

NEAA 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - NEAR EASTERN HISTORY AND CIVILIZATION COURSES

NEHC 30001. Ancient Near Eastern History and Society I: Egypt. 100 Units.

This course surveys the political, social, and economic history of ancient Egypt from pre-dynastic times (ca. 3400 B.C.) until the advent of Islam in the seventh century of our era.

Instructor(s): J. Johnson, B. Muhs Terms Offered: Autumn Equivalent Course(s): NEHC 20001

NEHC 30002. Ancient Near Eastern History and Society II: Mesopotamia. 100 Units.

This course introduces the history of Mesopotamia. We begin with the origins of writing and cities in Sumer (ca. 3200 BC); then cover the great empires of Assyria, Babylon, and Persia; and end with the arrival of Alexander the Great in the late fourth century BC.

Instructor(s): R. Payne Terms Offered: Winter Equivalent Course(s): NEHC 20002

NEHC 30004. Ancient Near Eastern Thought and Literature I: Mesopotamian Literature. 100 Units.

This course takes as its topic the literary tradition surrounding Gilgamesh, the legendary king of the Mesopotamian city-state of Uruk. The course will focus on the Babylonian Epic of Gilgamesh and its Sumerian forerunners, and their cultural and historical contexts. We will also read a number of Sumerian and Akkadian compositions that are thematically related to the Gilgamesh tradition, including Atrahasis, the Sumerian Flood story, and the Epics of Enmerkar and Lugalbanda, also of first dynasty of Uruk.

Instructor(s): S. Paulus Terms Offered: Autumn

Note(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): NEHC 20004

NEHC 30005. Ancient Near Eastern Thought and Literature II: Anatolian Literature. 100 Units.

This course will provide an overview of Anatolian/Hittite literature, as "defined" by the Hittites themselves, in the wider historical-cultural context of the Ancient Near East. In the course of discussions, we will try to answer some important questions about Hittite inscriptions, such as: why were they written down, why were they kept, for whom were they intended, and what do the answers to these questions (apart from the primary content of the texts themselves) tell us about Hittite society? Instructor(s): H. Haroutunian Terms Offered: Spring Note(s): Taking these courses in sequence is not required. This sequence meets the

Note(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies Equivalent Course(s): NEHC 20005

NEHC 30011. Ancient Empires I. 100 Units.

The first course of this three-course sequence focuses on the Hittite Empire. Instructor(s): H. Haroutunian Terms Offered: Autumn Note(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies. Equivalent Course(s): NEHC 20011,CLCV 25700,HIST 15602

NEHC 30012. Ancient Empires II: The Ottoman Empire. 100 Units.

The second course of this three-course sequence focuses on the Ottoman Empire. Instructor(s): H. Karateke Terms Offered: Winter

Note(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): NEHC 20012,CLCV 25800,HIST 15603

NEHC 30013. Ancient Empires III: The Egyptian Empire of the New Kingdom. 100 Units.

For most of the duration of the New Kingdom (1550–1069 BC), the ancient Egyptians were able to establish a vast empire and becoming one of the key powers within the Near East. This course will investigate in detail the development of Egyptian foreign policies and military expansion which affected parts of the Near East and Nubia. We will examine and discuss topics such as ideology, imperial identity, political struggle and motivation for conquest and control of wider regions surrounding the Egyptian state as well as the relationship with other powers and their perspective on Egyptian rulers as for example described in the Amarna letters. Instructor(s): Staff Terms Offered: Spring

Note(s): Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies.

Equivalent Course(s): NEHC 20013,CLCV 25900,HIST 15604

NEHC 30121. The Bible and Archaeology. 100 Units.

In this course we will look at how interpretation of evidence unearthed by archaeologists contributes to a historical-critical reading of the Bible, and vice versa. We will focus on the cultural background of the biblical narratives, from the stories of Creation and Flood to the destruction of the Jerusalem temple by the Romans in the year 70. No prior coursework in archaeology or biblical studies is required, although it will be helpful for students to have taken JWSC 20120 (Introduction to the Hebrew Bible).

Instructor(s): David Schloen

Note(s): This course may be used to fulfill the College's general education requirement in civilization studies.

Equivalent Course(s): NEHC 20121, RLST 20408, JWSC 20121

NEHC 30223. Narratives of Assimilation. 100 Units.

Engaging the concept of liminality-of a community at the threshold of radical transformation-the course analyzes how East Central European Jewry, facing economic uncertainties and dangers of modern anti-Semitism, seeks another diasporic space in America. Projected against the historical backdrop of the end of the nineteenth century and the twentieth century, the immigration narratives are viewed through the lens of assimilation, its trials and failures; in particular, we investigate how the creative self reacts to the challenges of radical otherness, such as the new environment, its cultural codes and language barriers. We discuss the manifold strategies of artistic (self)-representations of the Jewish writers, many of whom came from East Central European shtetls to be confronted with assimilation to the American metropolitan space and life style. During this course, we inquire how the condition called assimilation and its attendants-- secularization, acculturation, cosmopolitanism, etc.—is adapted or critically resisted according to the generational differences, a given historical moment or inherited strategies of survival and adaptation. We seek answers to the perennial question why some émigré writers react negatively to the social, moral and cultural values of the host country and others seize them as a creative opportunity. Students are acquainted with problems of cultural identity formation and cultural transmission through a wide array of artistic genres-a novel, short

Instructor(s): Bozena Shallcross

Note(s): This course may be used to fulfill the general education requirement in civilization studies.

Equivalent Course(s): REES 27003, REES 37003, RLST 26623, NEHC 20223, JWSC 20223

NEHC 30404-30406. Jewish Thought and Literature I-III.

Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies. Students in this sequence explore Jewish thought and literature from ancient times until the modern era through a close reading of original sources. A wide variety of works is discussed, including the Hebrew Bible (Old Testament) and texts representative of rabbinic Judaism, medieval Jewish philosophy, and modern Jewish culture in its diverse manifestations. Texts in English.

NEHC 30404. Jewish Thought and Literature I: Introduction to the Hebrew Bible. 100 Units.

Taking these courses in sequence is not required. This sequence meets the general education requirement in civilization studies. Students in this sequence explore Jewish thought and literature from ancient times until the modern era through a close reading of original sources. A wide variety of works is discussed, including the Hebrew Bible (Old Testament) and texts representative of rabbinic Judaism, medieval Jewish philosophy, and modern Jewish culture in its diverse manifestations. Texts in English.

Instructor(s): J. Stackert Terms Offered: Autumn

NEHC 30406. Jewish Thought and Literature III: Biblical Voices in Modern Hebrew Literature. 100 Units.

The Hebrew Bible is the most important intertextual point of reference in Modern Hebrew literature, a literary tradition that begins with the (sometimes contested) claim to revive the ancient language of the Bible. In this course, we will consider the Bible as a source of vocabulary, figurative language, voice and narrative models in modern Hebrew and Jewish literature, considering the stakes and the implications of such intertextual engagement. Among the topics we will focus on: the concept of language-revival, the figure of the prophetpoet, revisions and counter-versions of key Biblical stories (including the story of creation, the binding of Isaac and the stories of King David), the Song of Songs in Modern Jewish poetry.

Instructor(s): N. Rokem Terms Offered: Spring

NEHC 30406. Jewish Thought and Literature III: Biblical Voices in Modern Hebrew Literature. 100 Units.

The Hebrew Bible is the most important intertextual point of reference in Modern Hebrew literature, a literary tradition that begins with the (sometimes contested) claim to revive the ancient language of the Bible. In this course, we will consider the Bible as a source of vocabulary, figurative language, voice and narrative models in modern Hebrew and Jewish literature, considering the stakes and the implications of such intertextual engagement. Among the topics we will focus on: the concept of language-revival, the figure of the prophet-poet, revisions and counter-versions of key Biblical stories (including the story of creation, the binding of Isaac and the stories of King David), the Song of Songs in Modern Jewish poetry. Instructor(s): N. Rokem Terms Offered: Spring

NEHC 30485. Jews in Graeco Roman Egypt. 100 Units.

This course will revise the sources, literary and documentary, for the history of the Jews in Egypt from the 5th cent. BCE (the Elephantine papyri) to the 4th cent CE (Jews and Christians in Egypt). We will revise both the papyrological evidence and the literary evidence that we have for each period, and will focus on historical and social questions. The sources will be read in translation.

Instructor(s): S. Torallas-Tovar Terms Offered: Autumn

Equivalent Course(s): RLST 20485,HIJD 30485,JWSC 20485,CLCV 25315,CLAS 35315,NEHC 20485

NEHC 30501. Islamic History and Society I: The Rise of Islam and the Caliphate. 100 Units.

This course covers the period from ca. 600 to 1100, including the rise and spread of Islam, the Islamic empire under the Umayyad and Abbasid caliphs, and the emergence of regional Islamic states from Afghanistan and eastern Iran to North Africa and Spain.

Instructor(s): F. Donner Terms Offered: Autumn

Note(s): Taking these courses in sequence is recommended but not required. This sequence meets the general eduation requirement in civilization studies. Equivalent Course(s): HIST 25704,HIST 35704,ISLM 30500,RLST 20501,NEHC 20501

NEHC 30502. Islamic History and Society II: The Middle Period. 100 Units.

This course covers the period from ca. 1100 to 1750, including the arrival of the Steppe Peoples (Turks and Mongols), the Mongol successor states, and the Mamluks of Egypt and Syria. We also study the foundation of the great Islamic regional empires of the Ottomans, Safavids, and Moghuls.

Instructor(s): J. Woods Terms Offered: Winter

Prerequisite(s): Not open to first-year students

Equivalent Course(s): HIST 25804, HIST 35804, ISLM 30600, NEHC 20502

NEHC 30503. Islamic History and Society III: The Modern Middle East. 100 Units.

This course covers the period from ca. 1750 to the present, focusing on Western military, economic, and ideological encroachment; the impact of such ideas as nationalism and liberalism; efforts at reform in the Islamic states; the emergence of the "modern" Middle East after World War I; the struggle for liberation from Western colonial and imperial control; the Middle Eastern states in the cold war era; and local and regional conflicts.

Instructor(s): A. Shissler Terms Offered: Spring

Prerequisite(s): Not open to first-year students

Note(s): This course does not apply to the medieval studies major or minor. Equivalent Course(s): HIST 25904,HIST 35904,ISLM 30700,NEHC 20503

NEHC 30504. Introduction to the Hebrew Bible. 100 Units.

The course will survey the contents of all twenty-four books of the Hebrew Bible, and introduce critical questions regarding its central and marginal figures, events, and ideas, its literary qualities and anomalies, the history of its composition and transmission, its relation to other artifacts from the biblical period, its place in the history and society of ancient Israel, and its relation to the larger culture of the ancient Near East.

Instructor(s): S. Chavel Terms Offered: Winter

Note(s): This course may be used to fulfill the College's general education requirement in civilization studies.

Equivalent Course(s): BIBL 31000, JWSC 20120, NEHC 20504, RLST 11004

NEHC 30507. Byzantine Empire, 1025 to 1453. 100 Units.

Internal and external problems and developments. Internal tensions on the eve of the arrival of the Seljuks. Eleventh-century economic growth. The Crusades. Achievements and deficiencies of Komnenian Byzantium. The Fourth Crusade and Byzantine successor states. Palaeologan political and cultural revival. Religious topics such as relations with the Papacy, Bogomilism, and Hesychasm. Readings will include M. Angold, *The Byzantine Empire* 1025–1204, D. M. Nicol, *Last Centuries of Byzantium*, and the histories of Michael Psellos and Anna Comnena. Course grade will include a final examination and a ten-page paper.

Instructor(s): W. Kaegi Terms Offered: Autumn

Equivalent Course(s): HIST 21703, HIST 31703, ANCM 36700, NEHC 20507

NEHC 30567. Hebrew Poetry, Jewish Poetry, Israeli Poetry. 100 Units.

Will cross list with Comp Lit

Instructor(s): N. Rokem Terms Offered: Winter

NEHC 30568. Balkan Folklore. 100 Units.

Vampires, fire-breathing dragons, vengeful mountain nymphs. 7/8 and other uneven dance beats, heart-rending laments, and a living epic tradition. This course is an overview of Balkan folklore from historical, political, and anthropological perspectives. We seek to understand folk tradition as a dynamic process and consider the function of different folklore genres in the imagining and maintenance of community and the socialization of the individual. We also experience this living tradition firsthand through visits of a Chicago-based folk dance ensemble, "Balkan Dance."

Instructor(s): A. Ilieva Equivalent Course(s): ANTH 25908,ANTH 35908,CMLT 23301,CMLT 33301,NEHC 20568,REES 36800,REES 26800

NEHC 30601. Islamic Thought and Literature I. 100 Units.

This course covers the period from ca. 600 to 950, concentrating on the career of the Prophet Muhammad; Qur'an and Hadith; the Caliphate; the development of Islamic legal, theological, philosophical, and mystical discourses; sectarian movements; and Arabic literature.

Instructor(s): T. Qutbuddin Terms Offered: Autumn Equivalent Course(s): RLST 20401,SOSC 22000,NEHC 20601

NEHC 30602. Islamic Thought and Literature II. 100 Units.

Survey of Islamic thought and literature during the "middle periods," from about 950 to 1750 C.E., stretching across a broad geographic area, from Morocco and Iberia to the Maldives and India, and even into the New World. The course engages with a broad selection of primary texts in English translation, and various visual, aural and material artifacts, contextualizing them through lectures, secondary readings and discussion. We explore the notion of Islamicate culture(s) and civilization in its many facets - the intellectual milieu; literary, artistic and musical production; political, social, scientific, philosophical and theological thought; concepts of the heroic, the beautiful, the good, the poetic; piety, devotion and spirituality; religious, educational, governmental, commercial and social institutions; geographic, ethnic, confessional, gender, social and spatial constructs. In brief, how did noteworthy Muslims at various points and places think through questions of life death, man God, faith belief, the sacred the profane, law ethics, tradition vs. innovation, power politics, class gender, self other? How did they think about and wage war, make love, eat drink, tell stories, educate their youth, preserve the past, imagine the future, etc.?

Instructor(s): F. Lewis Terms Offered: Winter

Note(s): Taking these courses in sequence is recommended but not required. This sequence meets the general education requirement in civilization studies. Equivalent Course(s): RLST 20402,SOSC 22100,NEHC 20602

NEHC 30603. Islamic Thought and Literature III. 100 Units.

This course covers the period from ca. 1700 to the present, exploring works of Arab intellectuals who interpreted various aspects of Islamic philosophy, political theory, and law in the modern age. We look at diverse interpretations concerning the role of religion in a modern society, at secularized and historicized approaches to religion, and at the critique of both religious establishments and nation-states as articulated by Arab intellectuals. Generally, we discuss secondary literature first and the primary sources later.

Instructor(s): A. El Shamsy Terms Offered: Spring

Note(s): This course does not apply to the medieval studies major or minor. Equivalent Course(s): RLST 20403,SOSC 22200,NEHC 20603

NEHC 30625. Approaches to the Study of the Ancient Near East. 100 Units. This is a required introductory course for all CMES ancient-track students Instructor(s): B. Muhs Terms Offered: Autumn

NEHC 30631. Approaches to the Study of the Middle East. 100 Units.

The course introduces beginning graduate students to the range of basic resources, methods, and analytical tools that must be mastered by those engaging in the study of the Islamic Middle East. As such, it covers the period from the seventh century to the present and is focused on developing professional skills necessary for successful completion of a master's or doctoral program.

Instructor(s): P. Walker Terms Offered: Autumn

Equivalent Course(s): CMES 30001

NEHC 30687. Colloquium: Persian Historical Texts. Units.

This course will focus on the study and utilization of narrative, normative and archival sources in Persian. Texts of the major Iranian historians and biographers will be subjected to close readings and analysis. The scripts, protocols, and formula used by Irano-Isalamic chancelleries will also be introduced and the form and content of published an unpublished archival documents will be transcribed and examined in their institutional context. Knowledge of Persian required. Instructor(s): J. Woods Terms Offered: Spring

Prerequisite(s): Knowledge of Persian required

Equivalent Course(s): HIST 59000,CMES 30687

NEHC 30710. Iranian Cinema. 100 Units.

An overview of the history of Iranian cinema from the 1970s to the present, including major directors, genres, and trends, aesthetics, and the economics of the film industry. We will analyze films as artistic constructs and as the works of particular auteurs, while also considering larger questions such as how the political and social history of modern Iran is reflected in its films, particularly what impact the revolution of 1979 has had on the cinematic art, using film as a lens to judge the social impact of the revolution. We look at representations of gender and class, the role of urban and rural space in the imaginary, the interaction of literature and film, the enormous constraints of censorship, the blurring of ficticity and facticity in Iranian film. We will focus on feature films made in Iran, but also touch upon documentaries and Iranian-hyphenated films made in diaspora. Instructor(s): F. Lewis Terms Offered: Spring

Equivalent Course(s): CMST 24801, CMST 34801, NEHC 20710

NEHC 30721. Iranian Political Culture 1. 100 Units.

Will cross list with history and classics Instructor(s): R. Payne Terms Offered: Winter

NEHC 30722. Iranian Political Culture 2. 100 Units.

Will cross list with history and classics Instructor(s): R. Payne Terms Offered: Spring

NEHC 30766. Shamans and Oral Poets of Central Asia. 100 Units.

This course explores the rituals, oral literature, and music associated with the nomadic cultures of Central Eurasia. Instructor(s): K. Arik Terms Offered: Spring Note(s): NEHC 20765 and 20766 may be taken in sequence or individually. Equivalent Course(s): ANTH 25906, NEHC 20766

NEHC 30832. Late Ottoman History 1. 100 Units.

First quarter can be taken independently or as part of a two-quarter research seminar.

Instructor(s): A. Shissler Terms Offered: Winter

Prerequisite(s): Reading knowledge of a Middle Eastern Language, a lang of the Ottoman Empire, or French. First quarter open to undergrads by permission. Second quarter open to grad students only.

Equivalent Course(s): NEHC 20832

NEHC 30833. Late Ottoman History 2. 100 Units.

Instructor(s): A. Shissler Terms Offered: Spring

Prerequisite(s): Reading knowledge of a Middle Eastern Language, a lang of the Ottoman Empire, or French. First quarter open to ugrads by permission. Second quarter open to grad students only.

NEHC 30852. Seminar: Ottoman World/Suleyman I. 100 Units.

This two-quarter seminar focuses on the transformation of the Muslim Ottoman principality into an imperial entity--after the conquest of Constantinople in 1453-that laid claim to inheritance of Alexandrine, Roman/Byzantine, Mongol/Chinggisid, and Islamic models of Old World Empire at the dawn of the early modern era. Special attention is paid to the transformation of Ottoman imperialism in the reign of Sultan Süleyman the Lawgiver (1520-1566), who appeared to give the Empire its "classical" form. Topics include: the Mongol legacy; the reformulation of the relationship between political and religious institutions; mysticism and the creation of divine kingship; Muslim-Christian competition (with special reference to Spain and Italy) and the formation of early modernity; the articulation of bureaucratized hierarchy; and comparison of Muslim Ottoman, Iranian Safavid, and Christian European imperialisms. The first quarter comprises a chronological overview of major themes in Ottoman history, 1300-1600; the second quarter is divided between the examination of particular themes in comparative perspective (for example, the dissolution and recreation of religious institutions in Islamdom and Christendom) and student presentations of research for the seminar paper. In addition to seminar papers, students will be required to give an oral presentation on a designated primary or secondary source in the course of the seminar.

Instructor(s): C. Fleischer Terms Offered: Autumn

Prerequisite(s): Upper level undergrads with consent only; reading knowledge of at least 1 European Language recommended

Equivalent Course(s): HIST 78201

NEHC 30884. The Brighter Side of the Balkans: Humor & Satire in Lit & Film. 100 Units.

In this course, we examine the poetics of laughter in the Balkans. In order to do so, we introduce humor as both cultural and transnational. We unpack the multiple layers of cultural meaning in the logic of "Balkan humor." We also examine the functions and mechanisms of laughter, both in terms of cultural specificity and general practice and theories of humor. Thus, the study of Balkan humor will help us elucidate the "Balkan" and the "World," and will provide insight not only into cultural mores and social relations, but into the very notion of "funny." Our own laughter in class will be the best measure of our success – both cultural and intellectual.

Instructor(s): Angelina Ilieva Terms Offered: Spring

Prerequisite(s): Readings in English. Background in the Balkans will make the course easier, but is not required.

Equivalent Course(s): REES 29006,CMLT 26610,NEHC 20884,REES 39006

NEHC 30937. Nationalism, Colonialism & Postcolonialism in the M.E. 100 Units. The seminar covers the history of the region during the 19th and 20th centuries. It looks at how the modern historiography of modern Middle Eastern studies shaped, and was shaped by, post-colonial studies, subaltern studies, and historical perceptions of urbanity, modernity, Orientlaism, and class. The class will pay heed to the fluid and constructed nature of Arab national culture, and the terminology used by Arab nationalists concerning ""nahda," "revival," and "rebirth." We will explore various "golden ages" Arab nationalists envisioned, like pre-Islamic Semitic empires, the first Islamic state under the leadership of the Prophet Muhammad, the Ummayds, the Abbasids and Muslim Spain, as a way of analyzing the the constructed and temporal nature of national discourses. We will finally examine the distinction between Pan-Arab nationalism (qawmiyya), which considered Arab culture, history, and language as markers of one's national identity, and often strove for political unity with other Arab states; and territorial-patriotic nationalism (wataniyya), which hailed the national cultures of particular Arab states (Egyptian, Iraqi, Lebanese), focusing on their geography, archaeology, and history the key features of national identity.

Instructor(s): O. Bashkin Terms Offered: Autumn

NEHC 38002. Islamic Art and Architecture of the Medieval Perso-Turkic Courts (11th–15th Centuries) 100 Units.

This course considers art and architecture patronized by the Seljuk, Mongol, and Timurid courts from Anatolia to Central Asia from the eleventh to the fifteenth centuries. While the princes of these courts were of Turkic and/or Mongol origin, they adopted many of the cultural and artistic expectations of Perso-Islamicate court life. Further, many objects and monuments patronized by these courts belong to artistic histories variously shared with non-Islamic powers from the Byzantine Empire to China. Questions of how modern scholars have approached and categorized the arts and architecture of these courts will receive particular attention. Each student will write a historiographic review essay with a research component.

Instructor(s): P. Berlekamp Terms Offered: Winter Equivalent Course(s): ARTH 38002,NEHC 28002,ARTH 28002

NEHC 39500. Introduction to the History and Culture of Armenia. 100 Units. Instructor(s): H. Haroutunian Terms Offered: Winter Equivalent Course(s): NEHC 29500

NEHC 39860. Reason and Revelation in Islamic Thought. 100 Units.

This course engages with medieval Muslim discussions regarding the relationship between the universal human faculty of reason and the revealed information provided by prophets. What is the precise nature of each of these potential sources of knowledge? How do they relate to one another? What if they disagree? Primary texts read in class include works of theology, legal theory, and philosophy by authors such as al-Khattabi (d. 998), Ibn Sina (d. 1037), al-Ghazali (d. 1111), Ibn Rushd (d. 1198), Ibn al-Nafis (d. 1288), and Ibn Taymiyya (d. 1328). Instructor(s): A. El-Shamsy Terms Offered: Spring Prerequisite(s): 3 years of Arabic or the equivalent

NEHC 40701. Sem: Iran and Central Asia 1. 100 Units.

The first quarter will take the form of a colloquium on the sources for and the literature on the political, social, economic, technological, and cultural history of Western and Central Asia from 900 to 1750. Specific topics will vary and focus on the Turks and the Islamic world, the Mongol universal empire, the age of Timur and the Turkmens, and the development of the "Gunpowder Empires." The second quarter will be devoted to the preparation of a major research paper.

Instructor(s): J. Woods Terms Offered: Autumn

Prerequisite(s): Meets with HIST 58601

Equivalent Course(s): CMES 40701, HIST 78601

NEHC 40702. Sem: Iran and Central Asia 2. 100 Units.

A colloquium on the sources for and the literature on the political, social, economic, technological, and cultural history of Western and Central Asia from 900-1750. Specific topics will vary and focus on the Turks and the Islamic world, the Mongol universal empire, the age of Timur and the Turkmens, and the development of the "Gunpowder Empires." The second quarter of this two-course sequence will be devoted to the preparation of a major research paper.

Instructor(s): J. Woods Terms Offered: Winter

Prerequisite(s): HIST 78601 or NEHC 40701

NEHC 41005. Colloquium: Late Antique Mediterranean 2. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. In the winter quarter, we focus on research topics for the colloquium paper.

Instructor(s): W. Kaegi Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor; meets with HIST 71006.

Equivalent Course(s): ANCM 31516, CLAS 31516, HIST 41006

NEHC 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - NEAR EASTERN LANGUAGES COURSES

NELG 30301. Introduction to Comparative Semitics. 100 Units.

This course examines the lexical, phonological, and morphological traits shared by the members of the Semitic language family. We also explore the historical relationships among these languages and the possibility of reconstructing features of the parent speech community.

Instructor(s): R. Hasselbach-Andee Terms Offered: Winter

Prerequisite(s): Knowledge of two Semitic languages or one Semitic language and Historical Linguistics.

Equivalent Course(s): NELG 20301

NELG 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - PERSIAN COURSES

PERS 30006. Survey of Persian Poetry, 10th to 15th Century. 100 Units.

Will cross list with SALC, Div, Comp Lit Instructor(s): F. Lewis Terms Offered: Winter Prerequisite(s): 2 Years of Persian Equivalent Course(s): PERS 20006

PERS 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

Near Eastern Languages & Civilizations - Sumerian Courses

SUMR 49900. Reading and Research. 100 Units.

Instructor(s): STAFF Terms Offered: Autumn, Winter, Spring Note(s): Select section from faculty list

NEAR EASTERN LANGUAGES & CIVILIZATIONS - TURKISH COURSES

TURK 30501. Ottoman Turkish I. 100 Units.

A selection of Turkish texts in Arabic script, both printed and handwritten, introduced in order of difficulty, and ranging from the fourteenth to the nineteenth centuries. Texts are drawn from chronicles, official documents, memoirs, poetry, and other genres.

Instructor(s): STAFF Terms Offered: Autumn Prerequisite(s): TURK 20103 or consent of instructor

TURK 30502. Ottoman Turkish II. 100 Units.

A selection of Turkish texts in Arabic script, both printed and handwritten, introduced in order of difficulty, and ranging from the fourteenth to the nineteenth centuries. Texts are drawn from chronicles, official documents, memoirs, poetry, and other genres.

Instructor(s): H. Karateke Terms Offered: Winter Prerequisite(s): TURK 30501

TURK 30503. Ottoman Turkish III. 100 Units.

A selection of Turkish texts in Arabic script, both printed and handwritten, introduced in order of difficulty, and ranging from the fourteenth to the nineteenth centuries. Texts are drawn from chronicles, official documents, memoirs, poetry, and other genres.

Instructor(s): H. Karateke Terms Offered: Spring Prerequisite(s): TURK 30502

TURK 40586. Advanced Ottoman Readings I. 100 Units.

Instructor(s): H. Karateke Terms Offered: Winter Prerequisite(s): TURK 30503 or equivalent Note(s): Open to qualified undergraduate students

TURK 40587. Advanced Ottoman Reading 2. 100 Units.

Instructor(s): H. Karateke Terms Offered: Winter Prerequisite(s): Knowledge of basic Ottoman

TURK 40589. Advanced Ottoman Historical Texts. 100 Units.

Instructor(s): C. Fleischer Terms Offered: Autumn Prerequisite(s): Consent required Equivalent Course(s): HIST 58301

TURK 40590. Advanced Ottoman Reading III. 100 Units.

Instructor(s): H. Karateke Terms Offered: Spring Prerequisite(s): Knowledge of basic Ottoman



Department of Philosophy

Chair

- Gabriel Lear Director of Graduate Studies
- Daniel Brudney Professors
- Daniel Brudney
- James Conant
- Arnold Ira Davidson
- Michael Kremer
- Gabriel Richardson Lear
- Jonathan Lear, Social Thought
- Martha C. Nussbaum, Law
- Robert Pippin, Social Thought
- Robert J. Richards, History
- Josef J. Stern
- Candace A. Vogler

Associate Professors

- Jason Bridges
- Kevin Davey
- David Finkelstein

Assistant Professors

- Agnes Callard
- Anton Ford (Director of Undergraduate Studies)
- Ben Laurence
- Raoul Moati
- Anubav Vasudevan
- Malte Willer

Emeritus Faculty

- Howard Stein
- William W. Tait
- William C. Wimsatt

Full-time Lecturers

- Benjamin Callard
- Bart Schultz

Part-Time Lecturers

- Nic Koziolek
- Ariela Lazar

The programs in philosophy are designed to develop skill in philosophical analysis, to enable the student to think clearly, systematically, and independently on philosophical issues, and to achieve a thorough acquaintance with major classics and contemporary works in philosophy. Philosophy classes are conducted so that students may develop philosophical skills by class discussions and by the writing of carefully directed papers.

The following is an outline of the main features of the graduate program. For full details, please write the Department of Philosophy directly.

GRADUATE DEGREES

The graduate program in philosophy is primarily a doctoral program. Admission as a graduate student normally implies that, in the opinion of the department, the student is a promising candidate for the Ph.D. degree. The Master of Arts degree, however, may be awarded to students in the program who meet the requirements specified below.

The application process for admission and financial aid for all graduate programs in the Division of the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http://humanities.uchicago.edu/students/admissions.

Questions about admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

THE DEGREE OF MASTER OF ARTS

The Philosophy Department does not admit students directly into an M.A. program. Master's degrees are awarded only to students who are enrolled in a Ph.D. program at the University of Chicago. These can be either:

- Doctoral students in another discipline who seek a "secondary" M.A. in Philosophy, in conjunction with their doctoral studies in that other discipline; or
- Doctoral students in Philosophy who want to receive the M.A.

The requirements for the degree are the same in either case. The requirements can be satisfied entirely by course-work; no thesis is required. They are specified in five clauses:

- Quality: No course for which the student received a grade lower than a B+ will satisfy any requirement for the M.A.
- Level: Only courses taken at the graduate level (that is, with a course-number of 30000 or higher) can satisfy any requirement for the M.A.

- Quantity: The student must complete at least eight courses in Philosophy at the University of Chicago. (Reading and research courses do not count toward satisfying this requirement, nor do courses taken pass/fail—except the first-year seminar, which counts as one course if passed.)
- Distribution: The student must have taken at least one designated course in each of the Philosophy Department's five "areas" namely:
 - Area I: Value theory
 - Area II: Philosophy of science, philosophy of language, and logic
 - Area III: Epistemology and metaphysics
 - Area IV: Ancient or Medieval philosophy
 - Area V: Modern philosophy (17th-19th centuries)
- Elementary Logic: The student must demonstrate competence in elementary logic. This can be achieved by an interview in which the candidate satisfies one of the Department's logicians that he or she has the required competence, or by taking the Elementary Logic course (PHIL 30000 Elementary Logic), or any more advanced logic course offered by the Department. Philosophy 30000 can count as one of the minimum eight courses, but it does not satisfy the Area II requirement. A more advanced logic class does both.

APPLICATION PROCEDURE

Doctoral Students in the Department of Philosophy may apply for the M.A. at any time after they have completed the requirements. 1. Contact the Department Coordinator so that the proper paperwork is submitted verifying your courses (above) and 2. contact the office of the Humanities Dean of Students in order to gain access to the degree application in http://my.uchicago.edu. Keep your expected graduation date set to the date you anticipate receiving the Ph.D.

Students in a Ph.D. program at the University of Chicago in a department other than Philosophy who wish to receive a "secondary" M.A. in Philosophy must first apply for admission to the M.A. program in the department of Philosophy. No student can apply unless she has taken at least three Philosophy courses, and it is expected that the student will apply soon after completing that number of courses. To initiate the application process, the student should set up an appointment with the Assistant Dean of Students for Admissions in the Division of Humanities who will direct the student through the required paperwork and obtain:

- The applicant's transcript of courses taken for the B.A.
- His/Her GRE scores
- A transcript of the applicant's courses at the University of Chicago taken up to the time of the application.
- A sample of her best philosophical writing. This may but need not be a paper written for one of the applicant's already completed Philosophy courses at the University.
- A brief letter from the chair or director of graduate studies of the applicant's home department supporting the application. The letter should explain why the student is seeking an M.A. in philosophy to complement her doctoral studies.

- Names of two faculty in the Dept. of Philosophy who can comment on work done by the applicant and on her philosophical potential.
- A statement by the applicant that explains why she is seeking an M.A. in Philosophy.

The Degree of Doctor of Philosophy

The divisional and University requirements for the Ph.D. degree must be fulfilled. Departmental requirements are as follows:

Course Requirements

The Course Requirement has seven parts concerning:

- The number of required courses
- The distribution of required courses
- The logic requirement
- Required progress
- Policies concerning incompletes
- Grades
- Transfer credits

NUMBER OF REQUIRED COURSES

Students must complete at least thirteen courses in their first two years of study: the first year seminar and twelve graduate courses.

First-year students must enroll in the first-year seminar. The exact organization and scheduling varies from year to year according to the instructor's discretion. It is graded on a pass-fail basis.

In addition, twelve graduate courses must be completed with a grade of B or better:

- At least ten of these courses must be in the Philosophy Department listings;
- Reading and research courses do not count among these twelve classes
- At least one must be a graduate seminar in Philosophy

DISTRIBUTION OF REQUIRED COURSES

Students are required to take one course in each of the following three areas of contemporary philosophy:

- Value theory (listed in the course descriptions as I)
- Philosophy of science, philosophy of language, and logic (listed in the course descriptions as II)
- Epistemology and metaphysics (listed in the course descriptions as III) and three courses on the history of philosophy as follows:
- A figure or movement in either Ancient or Medieval Philosophy (listed in the course descriptions as IV)

- A figure or movement in Modern Philosophy from the 17th through 19th centuries (listed in the course descriptions as V)
- One additional course on a figure or movement in either IV or V.

It should be noted that not all graduate courses satisfy a field distribution requirement; those not classified in the published course descriptions as belonging to I-V cannot be used to satisfy the distribution requirement. Nor can Philosophy 30000 (Elementary Logic) be used to satisfy a field distribution requirement.

LOGIC REQUIREMENT

There is a requirement in logic that can be satisfied in several ways.

- By passing PHIL 30000 Elementary Logic with a grade of B or higher. Philosophy 30000 is offered every Autumn quarter. It counts toward the twelve course requirement but does not satisfy the field II distribution requirement.
- By passing a course equivalent to or better than Philosophy 30000 (Elementary Logic), at another institution or in another department at Chicago, with a grade of B+ or higher. The equivalence of the course in question to Philosophy 30000 will be determined by the instructor in Philosophy 30000 in the year in question, on the basis of an interview with the student, and such evidence as the syllabus for the course, the textbook for the course, and any other course materials which the student can provide. Note that satisfying the logic requirement in this way will count neither towards one of the twelve required courses nor towards satisfying the field II distribution requirement.
- By passing an advanced graduate course in logic with a grade of B or higher. Passing an advanced graduate course in logic would both satisfy the logic requirement and count towards the field II distribution requirement.

REQUIRED PROGRESS

Courses must be completed, with a grade of B or better, according to the following timetable.

- Two courses should be completed by the beginning of the Winter quarter of the first year
- Four courses (at least three in the Philosophy Department) should be completed by the beginning of the third quarter
- Six courses should be completed by 30 September of the second year
- Ten courses should be completed by the end of the fifth quarter
- All thirteen courses (twelve plus the first year seminar) must be completed by 30 September following the sixth quarter.

In addition to this timetable, students should keep in mind that because they are expected to be working on their Preliminary Essay over the summer following their sixth quarter, they would be ill-advised not to have completed their course requirements by the early part of the summer.

INCOMPLETES

At the discretion of the instructor, coursework not completed on time may be regarded as an "incomplete." This means that the instructor will permit a student to complete the work for a course after the normal deadline.

The instructor sets the time period for completion of the incomplete, subject to the following limitation: all coursework must be submitted by September 30th following the quarter in which the course was taken in order to count toward fulfillment of the requirements for the M.A. and Ph.D. This date is an absolute deadline and is not subject to further extensions by individual faculty members.

Note: Students in their first year in the program are not permitted to take any incompletes in their first quarter.

GRADES

Satisfactory grades for work toward the Ph.D. in Philosophy are A, A-, B+, and B.

For Philosophy faculty, those grades mean the following. A: pass with distinction; A-: high pass; B+: pass; B: low pass.

TRANSFER CREDITS

The following policy applies to the Philosophy Ph.D. program. Special requirements of joint programs take precedence over this policy.

- 1. Of the required 12 graduate courses, no more than 2 can be taken at the University, but outside the Philosophy Department.
- 2. Of the required 12 graduate courses, no more than 3 can be transferred from other institutions.
- 3. Of the required 12 graduate courses, at least 9 must be taken within the Philosophy Department's course offerings.
- 4. Only courses taken while enrolled in a doctoral program in Philosophy can be counted towards the required 12 graduate courses.

For example, a student might transfer 2 courses from another institution and take one course from another department within the University, with the remaining 9 courses taken within the Philosophy Department. Or a student might transfer 3 courses from another institution, with the remaining 9 courses taken within the Philosophy Department.

Students wishing to obtain credit for graduate courses taken from the listings of other departments within the University toward the required 12 course do not need to petition the department, within the two-course limit specified above.

Students wishing to obtain transfer credit for courses taken at other institutions must petition the Graduate Program Committee. Students should be prepared to provide evidence in support of their transfer application at the request of the Committee. Such evidence may include course descriptions, syllabi, assignments, written work completed for the course, and so on. Students who are transferring from other graduate programs must make such a request upon their entry into the Philosophy Department. Students who take a course at another institution while enrolled in the PhD program should consult with the Director of Graduate Studies beforehand, but must still petition the Graduate Program Committee to have the course accepted for transfer credit upon completion of the course.

Note that elementary logic courses taken outside the department may fulfill the elementary logic requirement but may not be used to meet the 12 course requirement. See "Logic Requirement" above for further details.

Foreign Language Exam

All students must pass an examination in French, German, Latin, or Greek by the end of Spring quarter of the fourth year or before the topical examination, whichever comes first. (There is a special rule for students who wish to write theses on ancient Greek or Roman philosophy; this is detailed below).

There are two kinds of language examinations: those administered by the Department and those administered by the University. Departmental language exams will be given twice a year and may not be taken more than twice.

Students who take the University language examination must receive a "High Pass." These are offered every quarter and there is a fee for taking them.

There is a special requirement for those working in ancient philosophy or German philosophy, since work in these fields depends heavily on one's ability to use the relevant languages.

Any student intending to write a thesis on ancient philosophy must pass the Departmental or University exam in Greek (the latter with a "High Pass"). Any student intending to write a thesis on Hellenistic or Roman philosophy must also pass the Departmental or University exam in Latin (the latter with a "High Pass"). Any student intending to write a thesis on German philosophy must pass the Departmental or University exam in German with a "High Pass".

Such students may take the Departmental exam in Greek or Latin or German a maximum of three times (as opposed to two times, which is the rule for other languages).

Preliminary Essay

In the Spring quarter of their second year students will register for the first quarter of a two-quarter (Spring, Autumn) workshop on the preliminary essay. The workshop involves discussion of general issues in writing the essay and student presentations of their work. Although students do not register for the Summer quarter, they are expected to make significant progress on their preliminary essay over the summer.

By the end of the eighth week of the Spring quarter at the latest each student will submit to the Director of Graduate Studies a proposed topic and a ranked list of possible readers in the Philosophy Department. The Graduate Program Committee will evaluate proposed topics along the following lines:

- Is the topic philosophically interesting?
- Can a paper on the topic be completed within the given time?
- Can a committee be formed to supervise an essay on the topic?

If the topic is approved, the Graduate Program Committee will form a preliminary essay committee for the student in question consisting of two faculty readers, each of whom the student is expected to consult regularly and each of whom have equal responsibility in directing the preliminary essay. The student's primary responsibility in this process is regularly to provide each of the faculty readers with a new draft of the essay and then rewrite the most recent draft in accordance with their instructions. The primary responsibility of the faculty readers is to provide the student with prompt and focused instructions about how to rewrite each draft, while ensuring that it remain within the page-length requirement. The preliminary essay should be no longer than 8,000 words in the body of the text, with an additional 1000 words of philosophical prose permitted in the footnotes. The word-count does not include bibliographical and philological footnotes or block quotations in the text.

In addition to the supervision furnished by the student's preliminary essay committee, further direction and structure is provided through participation in the Preliminary Essay Seminar, which runs for two quarters. Every student enrolled in the PhD program is required to take the Preliminary Essay Seminar for credit during the Spring Quarter of their second year and the Fall Quarter of their third year. The seminar is taught by the Director of Graduate Studies, who offers additional supervision and oversight throughout the entire preliminary essay process, from beginning to end. One of the primary purposes of the Preliminary Essay Seminar is to provide a forum in which students can present their ongoing work on the essay in a seminar-environment, in order to discuss it with their peers and receive additional oral feedback on their work.

From the point of view of the faculty, the aim of the exercise of the preliminary essay is to enable the student to acquire the following two skills before embarking upon a full-scale dissertation: (1) to learn to improve a piece of philosophical prose by subjecting it to many rounds of revision, without in the process permitting it to grow in length, and (2) to learn to work with a committee of faculty advisors whose distinct forms of supervision are to be synthesized and harmonized in that single piece of writing. From the point of view of the student, the exercise of the preliminary essay affords the following two opportunities: (1) to test out a possible dissertation topic, without having immediately to make a costly investment of time and effort in it, and (2) to test out a pair of possible dissertation advisors, without immediately having to commit to these individuals as final choices for members of the student's dissertation committee. If, after completing the preliminary essay, a student wishes to change (one or more of) their faculty advisors or their topic or both, then they are utterly free to do so.

The final draft of the Preliminary Essay must be submitted by the first day of the Winter quarter of the student's third year. Essays submitted late are penalized as follows: A letter grade is reduced by one notch if the essay is submitted after the deadline but before the first day of the sixth week of the Winter quarter (e.g. an 'A' is reduced to an 'A-'). A letter grade is reduced by two notches if the essay is submitted after the first day of the sixth week of the Winter quarter but by the end of Exam Week of the Winter quarter (e.g. an 'A' is reduced to a B+). Essays submitted after the end of the Winter quarter do not count toward satisfaction of the requirement.

TOPICAL EXAMINATION

Following the Preliminary Essay, students begin work toward their dissertations. During the Winter and Spring quarters of their third year, they should be meeting with various faculty members to discuss and refine possible dissertation topics, and possible dissertation committees.

By the end of the seventh week of the spring quarter, each student should meet with a prospective committee for an informal "dissertation chat," based on a "dissertation sketch" submitted to those faculty and to the Graduate Program Committee. The character of that sketch will vary from case to case; but, in any case, is not expected to be long or elaborate. Some sketches may be more definitive than others; some may be seriously disjunctive; some students may submit more than one sketch. The point of the sketch and preliminary meetings is to provide some faculty guidance for the more independent research that begins over the summer. After the "dissertation chat" the student should submit to their committee a document that describes the work toward formulating a dissertation project and lays out a plan of research for the summer that will lead to a "Topical Examination" by the beginning of the Winter quarter of their fourth year.

At the beginning of the following fall (fourth year), students will again meet with their advisors (optimally all together), to discuss progress and developments over the summer, and make concrete plans for the Topical Examination (to be held later that quarter, or, if necessary, early in the Winter quarter). Those plans will include:

- a tentative timetable
- a determination of the dissertation committee
- the expected character of the materials to be submitted by the student, on which the Examination will be based.

Though the details will vary (depending on the subject matter, the state of the research, individual work habits, and so on), these materials must include a substantial piece of new written work by the student (something on the order of twenty-five double-spaced pages) -- perhaps a draft of a chapter, an exposition of a central argument, a detailed abstract (or outline) of the whole dissertation, or whatever the committee as a whole agrees upon. (It is expected that students will abide by these agreements; but, if there are unanticipated problems, they may petition their advisors and the DGS, in writing, for a revision).

The Topical Examination is an oral examination administered by the members of a student's dissertation committee with the aim of evaluating the viability of the proposed dissertation project and the student's ability to complete it within a reasonable amount of time. Students will be admitted to candidacy for the Ph.D. **only** once they have officially passed their Topical Examination.

Note: students must have scheduled their Topical Examination by the end of their fifteenth quarter (normally the end of the fifth year) to remain in the Program.

(For students admitted before 2010: students must have scheduled their Topical Examination by the end of their sixth year to remain in the Program.)

Students cannot take their Topical until they have met all other program requirements including passing their foreign language exam or exams. Students must finish their language exams by the end of their fourth year in the program (independently of their status with regard to any other requirements). The Department's normal expectation is that students will have advanced to candidacy (including passing their Topical Examination and their language examination(s)) by the end of third week of their 11th quarter (normally the Winter quarter of their fourth year). Summer funding at the end of the fourth year is contingent on satisfying this expectation.

The Department requires that each student submit a written progress report on his or her progress by the end of the winter quarter of each year, beginning with his or her fourth year in the program. The report should be submitted to the Director of Graduate Studies and (after the Topical) to the student's dissertation committee. In addition to this report, students who have advanced to candidacy must submit a substantial piece of new writing (25-30 pages in length) to the chair of their dissertation committee. The student will be notified whether or not he or she is making good progress following the annual review meetings in Spring. It is very much in each student's own interest to be well along with his or her dissertation early in the fifth year, for several related reasons. First, of course, all students are obligated to teach a stand-alone course that year as part of their GAI teaching requirements. This is inevitably time and energy consuming. Second, GAI funding runs out at the end of that year; and some students will not get any more support from the University. And, finally, such sixth-year support as there is from the University is systematically directed to those applicants whose work is not only of the best quality, but also the furthest along (as documented not only by faculty testimonials but also by submitted chapters). Keep in mind also that socalled "dissertation-year fellowships" are awarded competitively on a Division-wide basis, and there are not enough to go around. Though Philosophy students have often done well in this competition, there is no guarantee for the future; and, in any case, not all applications will be successful.

To be sure, supporting oneself without aid, while finishing up a dissertation, is a time-honored academic tradition. But, for most students, the available opportunities are far from deluxe (either inside or outside the University), and it is clearly wise to minimize one's dependence on them, if possible.

NOTE: The Department Coordinator must be informed of the date and time of your Topical Exam, and documentation of the Topical. This is so that department and university can record the exam and admit the student to candidacy. Students need to email the Department Coordinator the names of the members of the committee, the sample chapter on which the Topical examination is based, and the working title of the dissertation.

TEACHING REQUIREMENTS

The Philosophy Department views the development of teaching competence as an integral part of its overall Ph.D. program and takes various steps to train its doctoral students to become excellent teachers of philosophy. It offers different types of teaching opportunities, which gradually prepare its students to teach their own classes. These opportunities are enhanced by the department's pedagogical support through individual faculty mentorship and year round disciplinespecific pedagogical events offered through its pedagogy program (http:// philosophy.uchicago.edu/graduate/pedagogy.html). The first teaching opportunities come in the form of course assistantships. The professor responsible for the course in which a doctoral student serves as an assistant is also responsible for monitoring the doctoral student's teaching progress in that course and preparing a written report of her teaching performance therein. Once a doctoral student has proven herself as a teaching assistant, she is permitted to do stand-alone teaching. In these cases, too, however, the design of the syllabus of the course is developed in consultation with a member of the faculty. Here, too, that faculty member is responsible for further monitoring the doctoral student's teaching progress over the duration of the stand-alone course and preparing a written report of her teaching performance as a solo instructor.

The initial guaranteed funding for five years awarded to students admitted to the program includes a teaching obligation. That obligation standardly takes the form of the student serving four times as an instructor -- usually three times as a course assistant and once as an instructor of a stand-alone course. Normally, students complete one teaching assistantship in their third year, after completion of the Preliminary Essay, and two in their fourth year. Normally, students give their stand-alone course in the fifth year. These first four teaching stints are not further compensated: they are a component of the five-year fellowship package. This fourtime teaching obligation is a requirement of the Department of Philosophy's Ph.D. program.

These first four teaching opportunities are built into the basic requirements of the Ph.D. program in order to ensure that students in the program acquire a certain minimum degree of teaching competence. However, the Department views the teaching obligation as a bare minimum with regard to teaching preparation. Doctoral students in the program are encouraged to do more teaching in the later years.

The Department's primary responsibility with respect to doctoral students is to support their work toward the doctoral degree. Teaching preparation is a crucial aspect of that responsibility and any additional teaching must be consistent with timely progress toward the doctoral degree. Accordingly, the policy on teaching beyond the departmental teaching obligation is as follows:

1. In Years 1 & 2, when doctoral students are expected to satisfy their course and logic requirements as well as to formulate topics, find readers, and begin research toward their Preliminary Essays, doctoral students are not given departmental teaching and will not be permitted to accept extra-departmental teaching. The students may, however, complete the Training Course for Writing Interns and Lectors offered by the University of Chicago Writing Program before Autumn of Year 3.

- 2. In Years 3-5, students may petition the DGS for permission to apply for extra teaching. If, and only if, the following conditions are met, the Department (normally through the DGS) may petition the Dean of Students in the Humanities and the Master of the Humanities Collegiate Division to allow the student to apply for extra-departmental teaching:
 - a. The student is making exemplary progress toward the degree in Philosophy (that is, the student has met every deadline set in the time to degree expectations and the students' work toward the degree is strong).
 - b. There is a sound pedagogic reason to allow the student to seek extra teaching.
- 3. Students must make their petitions to the DGS by the second week of the term prior to the term in which they hope for extra-GAI teaching—students must make their petitions by the second week of Spring quarter for extra teaching in Autumn, by the second week of Autumn quarter for extra teaching in Winter, and by the second week in Winter quarter for extra teaching in Spring. The Department must make its petition to the DOS and Master of the HCD by the end of the third week of the term prior to the term in which students seek extra-GAI teaching.
- 4. If the DOS and the HCD approve the Department's petition, and if the students are offered extra teaching appointments, funding for these positions cannot be drawn from the students' fellowship teaching obligation monies.
- 5. Extra teaching permissions may be withdrawn if students cease to make exemplary progress toward their degrees.

Petitions to the DOS and Master of the HCD will attest to the students' progress and provide the rationale for allowing these students to seek teaching beyond the departmental teaching obligation.

Students do not need departmental permission to seek extra teaching assignments after their fifth year of residence.

Over the course of a doctoral student's career, that student together with the Department builds a teaching dossier, containing the syllabuses of the courses that she has taught, written reports by faculty teaching mentors on those courses, and last but not least, undergraduate evaluations of those courses. When doctoral students prepare to go on the job market, the Department sees to it that one member of the faculty undertakes the responsibility of writing a teaching letter for the student that documents and surveys the highlights of her teaching career at the University of Chicago.

The Department of Philosophy offers a non-credit and not required Pedagogy Program for PhD students. For more information, click here (http:// philosophy.uchicago.edu/graduate/pedagogy.html).

DISSERTATION AND FINAL ORAL EXAM

Students must inform their committee members of their intention to schedule a defense during the term PRIOR to the term in which they plan to defend. Committee members will consult concerning whether the dissertation is in sufficiently final form to warrant the fixing of a date for the oral examination. Committee members will normally have seen the bulk of the work of the dissertation before making this judgment. Students should consult with their Dissertation Director and other Committee members about the amount of material they will need to see, the state of completion needed, and the time required for this judgment to be made. When the Dissertation Committee judges that the student is ready to defend, the student must coordinate with the Dissertation Committee and the Department Co-ordinator to settle the date and time for the dissertation.

Students should consult with their Committee concerning a precise deadline for submission of the final draft of the dissertation for the defense. This is normally several weeks to a month before the defense date. Students should be aware that, in practice, in order to graduate in a given quarter, the final draft of the dissertation must be submitted to the Dissertation Committee in the first week or two of that quarter, so that the defense can take place prior to the Library's deadline for submitting the final form of the dissertation, leaving time for any necessary revisions noted during the defense. For information regarding the precise deadline by which your approved dissertation must be submitted in a given quarter for the degree to be granted in that same quarter, please click here (http://www.lib.uchicago.edu/e/phd/deadlines.html). Note also that an exam cannot be scheduled for at least two weeks after the formal request has been submitted.

The defense must take place at the University of Chicago, preferably in the Autumn, Winter, or Spring quarters. Summer defenses are scheduled at the discretion of the student's Dissertation Committee.

The student and at least one member of the Dissertation Committee must be physically present at the defense.

The student should submit, within the timeline notes, to the Department Coordinator:

- the scheduled date, time, and the members of the committee, and any special room requirements, at least 3 weeks prior, or as soon as the date and time are settled
- an electronic copy (.doc or .docx) of a 1-2 paragraph abstract, *at least 3 weeks prior*
- an electronic copy of a 10-page abstract of the dissertation, at least 2 weeks prior

The final oral exam is a public event. The examining committee consists of the members of the dissertation committee, along with an appointed member of the Humanities Division faculty who serves as a representative of the Dean's Office. Other faculty and graduate students from the Philosophy Department may and generally do attend. Family members of the doctoral candidate and other members of the general public are also welcome.

If a student passes, then it is customary in the final phase of the exam for the members of the student's dissertation committee to request a final round of revisions to the dissertation. The final granting of the degree is conditional upon the completion of these final revisions. These are to be made promptly after the exam and prior to the formal submission of the PhD document. After the dissertation is submitted, the student is required to provide each member of the dissertation committee with an electronic version of the document in its final form.

PHILOSOPHY COURSES

PHIL 30000. Elementary Logic. 100 Units.

An introduction to the concepts and principles of symbolic logic. We learn the syntax and semantics of truth-functional and first-order quantificational logic, and apply the resultant conceptual framework to the analysis of valid and invalid arguments, the structure of formal languages, and logical relations among sentences of ordinary discourse. Occasionally we will venture into topics in philosophy of language and philosophical logic, but our primary focus is on acquiring a facility with symbolic logic as such.

Instructor(s): K. Davey Terms Offered: Autumn Note(s): Course not for field credit. Equivalent Course(s): CHSS 33500,HIPS 20700,PHIL 20100

PHIL 30100. Naturalism. 100 Units.

Naturalism is a view that many philosophers say they accept. The view seems to have a bearing on virtually every area of philosophy, including metaphysics, epistemology, philosophy of mind, philosophy of mathematics, and ethics. What is the view? What is to be said for, or against, it? Instructor(s): B. Callard Terms Offered: Autumn

Equivalent Course(s): PHIL 20105

PHIL 30119. An Advanced Introduction to Wittgenstein's Tractatus Logico-Ph. 100 Units.

This course will have three foci: 1) a close reading of some of the central parts of Wittgenstein's difficult and puzzling early work, the Tractatus, along with related writings by Wittgenstein, 2) an equally close reading of G. E. M. Anscombe's underappreciated classic An Introduction to Wittgenstein's Tractatus , and 3) a discussion of some of the related recent secondary literature on the Tractatus, as well as on Anscombe's reading of it. Readings will include texts by Conant, Diamond, Frege, Geach, Goldfarb, Kremer, Ramsey, Ricketts, and Sullivan (III) Instructor(s): J. Conant, I. Kimhi Terms Offered: Spring

PHIL 30120. Wittgenstein's "Philosophical Investigations" 100 Units.

A close reading of *Philosophical Investigations*. Topics include: meaning, justification, rule following, inference, sensation, intentionality, and the nature of philosophy. Supplementary readings will be drawn from *Remarks on the Foundations of Mathematics* and other later writings. (B) (III) Instructor(s): J. Bridges Terms Offered: Autumn Prerequisite(s): At leas one previous courses in the Philosophy Department required; Philosophical Perspectives does not qualify. Equivalent Course(s): FNDL 20120, PHIL 20120

PHIL 30208. Film Aesthetics. 100 Units.

This course will examine two main questions: what bearing or importance does narrative film have on philosophy? Could film be said to be a form of philosophical thought? a form moral reflection? of social critique? Second, what sort of aesthetic object is a film? This question opens on to several others: what is the goal of an interpretation of a film? Is there a distinct form of cinematic intelligibility? What difference does it make to such questions that Hollywood films are commercial products, made for mass consumer societies? What role does the "star" system play in our experience of a film? We will raise these questions by attempting close readings of the films of Alfred Hitchcock. Films to be discussed: Shadow of a Doubt; Notorious; Strangers on a Train; Rear Window; Vertigo; North by Northwest; Psycho; Marnie. Selected critical readings will also be discussed. Instructor(s): J. Conant, R. Pippin Terms Offered: Spring Equivalent Course(s): CMST 27205,CMST 37205,PHIL 20208

PHIL 30210. Kant's Ethics. 100 Units.

In this course we will read, write, and think about Kant's ethics. After giving careful attention to the arguments in the *Second Critique*, portions of the *Third Critique*, the *Groundwork of the Metaphysics of Morals, the Metaphysics of Morals*, and several other primary texts, we will conclude by working through some contemporary neo-Kantian moral philosophy, paying close attention to work by Christine Korsgaard, David Velleman, Stephen Engstrom, and others. (I) (V) (A) Instructor(s): C. Vogler Terms Offered: Winter Equivalent Course(s): PHIL 20210

PHIL 30214. Final Ends. 100 Units.

Instructor(s): C. Vogler, A. Mueller Terms Offered: Spring Equivalent Course(s): PHIL 20214

PHIL 30506. Philosophy of History: Narrative and Explanation. 100 Units.

This lecture-discussion course will trace different theories of explanation in history from the nineteenth century to the present. We will examine the ideas of Humboldt, Ranke, Dilthey, Collingwood, Braudel, Hempel, Danto, and White. The considerations will encompass such topics as the nature of the past such that one can explain its features, the role of laws in historical explanation, the use of *Verstehen* history as a science, the character of narrative explanation, the structure of historical versus other kinds of explanation, and the function of the footnote. (II) (V) Instructor(s): R. Richards Terms Offered: Winter

Equivalent Course(s): HIST 35110, HIPS 25110, CHSS 35110, PHIL 20506, HIST 25110

PHIL 31102. Opera as Idea and as Performance. 100 Units.

The academic study of opera all too often considers the score and libretto in a void, ignoring performance. But opera is a multi-dimensional art-form in which performance (staging, scene design, costume, musical direction, and, of course, the artistic interpretations of singers) makes an enormous contribution to the realization of the work. This course will study opera as drama in performance, asking how performance both realizes and renders determinate a musical and textual blueprint. Visitors to the class will include expert contributors in each of the major areas of operatic performance. The tentative list of operas to be studied includes: Monteverdi's *L'Incoronazione di Poppaea*, Mozart's *Don Giovanni*, Beethoven's *Fidelio*, Verdi's *Don Carlo* and *Otello*, Wagner's *Lohengrin*, and Strauss's *Elektra*. Instructor(s): M. Nussbaum Terms Offered: Spring Note(s): Remark: students do not need to be able to read music, but antecedent familiarity with opera would be extremely helpful.

Equivalent Course(s): PHIL 21102

PHIL 31213. Moral Theory. 100 Units.

Why be moral? Is there any principled distinction between matters of fact and matters of value? What is the character of obligation? What is a virtue? In this course we will read, think, and write about twentieth century Anglo-North American philosophical attempts to give a systematic account of morality. (I) (A) Instructor(s): C. Vogler Terms Offered: Spring

PHIL 31410. Philosophy of Action. 100 Units.

What is action? What is it to act? In this introduction to the philosophy of action, we will read classic 20th Century treatments of the subject by Gilbert Ryle, Elizabeth Anscombe and Donald Davidson, as well as more recent work by Jennifer Hornsby, Michael Thompson and others. (I) (A)

Instructor(s): A. Ford Terms Offered: Winter

Equivalent Course(s): PHIL 21410

PHIL 31414. MAPH Core Course: Contemporary Analytic Philosophy. 100 Units.

This course is designed to provide MAPH students with an introduction to some recent and ongoing debates between philosophers working in the analytic tradition. The course is, however, neither a history nor an overview of analytic philosophy. Instead, we will focus on three different debates, spending about three weeks on each. We will likely consider one debate in metaphysics (on the freedom of the will), one in metaethics (on "constitutivism"), and one in epistemology (on the nature of knowledge and reasons for belief).

Instructor(s): N. Koziolek Terms Offered: Autumn

Prerequisite(s): This course is open only to MAPH students. MAPH students who wish to apply to Ph.D. programs in philosophy are strongly urged to take this course.

PHIL 31580. Libertarianism. 100 Units.

Is capitalism justified on the grounds of natural liberty? Is the legitimate exercise of political power limited by our pre-political rights, especially our property rights? Indeed, is the sole function of a just government to safeguard such rights? We will work towards answers to these questions by evaluating the tradition in political philosophy that has tended to answer them in the affirmative-Libertarianism. We will begin with John Locke, the father of this tradition, devoting several weeks to a close reading of his Second Treatise of Government. We will attend to both his method and his substantive political conclusions. We will consider his distinctive use of a social contract thought experiment involving a moralized conception of practical reason, as well as his defense of private property and limited government. We will then consider the works of contemporary Libertarians such as Robert Nozick and Michael Otsuka who take inspiration from Locke's method but diverge sharply from one another in their political conclusions. Finally, we will consider contemporary critics of the entire tradition, such as G.A. Cohen, and consider the merits of alternative approaches within the social contract tradition. (A) (I) Instructor(s): B. Laurence Terms Offered: Winter

Prerequisite(s): Some background in PHIL & prior familiarity w/the social contract tradition will be helpful.

PHIL 31600. Human Rights I: Philosophical Foundations of Human Rights. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 30100,PHIL 21700,HIST 29301,HIST 39301,INRE 31600,LAWS 41200,MAPH 40000,LLSO 25100,HMRT 20100

PHIL 32100. Space and Time. 100 Units.

This course is an introduction to some traditional philosophical problems about space and time. The course will begin with a discussion of Zeno's paradoxes. We will then look at the debate between Newton and Leibniz concerning the ontological status of space and time, and will examine reactions to this debate by thinkers such as Mach and Poincare. Finally, we will discuss the question of what sense is to be made of the claim that space is curved, looking at the writings of Poincare, Eddington, Einstein, Grunbaum, and others. Students will be introduced to the basics of the special and general theories of relativity, at a qualitative level. (II) (B) Instructor(s): K. Davey Terms Offered: Autumn Equivalent Course(s): PHIL 22100

PHIL 33600. Medieval Philosophy. 100 Units.

This course involves a study of the development of philosophy in the West in the first thirteen centuries of the common era with focus on Neoplatonism. Early Christian philosophical, Islamic Kalam, Jewish philosophy, and Christian philosophical theology. Readings include works of Plotinus, Augustine, Al-Farabi, Avicenna, Maimonides, Averroes, and Thomas Aquinas. (IV) Instructor(s): J. Stern Terms Offered: Winter Prerequisite(s): PHIL 25000

Equivalent Course(s): PHIL 23600, JWSC 24600, JWSC 34600, RLST 25900

PHIL 34010. Meaning and Reference. 100 Units.

In this course we address one of the central and most fascinating philosophical questions about linguistic meaning: What is the relationship between meaning and reference? We will study a range of classical and contemporary theories about the semantics of referring expressions such as proper names, definite descriptions, and indexicals. Readings will include Frege, Russell, Strawson, Kripke, Donnellan, and Kaplan, among others. Throughout, we will try to reach a better understanding of how questions about meaning and reference connect with a range of topics that are central to philosophical theorizing, including the connection between propositional attitudes and the explanation of action, the role of the principle of compositionality in formal semantics, the question of whether there is a level of mental experience that is epistemically transparent, the relation between thought and language, the nature of fictional and non-existent objects, and the interaction between semantics and pragmatics. (B) (II)

Instructor(s): M. Willer Terms Offered: Winter

Note(s): Elementary Logic or equivalent recommended, but not required. Prior courses in philosophy are beneficial.

Equivalent Course(s): PHIL 24010

PHIL 34015. Modality. 100 Units.

Modal information—information conveyed by sentences such as "Mary *might* be at home" or "Charles *ought* to give to the poor"—plays an outstanding role in everyday discourse and reasoning. The goal of this course is to explain and evaluate contemporary semantic theories of modality by discussing a wide range of linguistic phenomena from the perspective of these theories. After introducing possible worlds semantics for modality developed in modal logic, we will consider current theories of modal semantics within linguistics as well as the most important empirical areas of research. Throughout, we will keep an eye on the relation between modality and other topics that are prominent in linguistics and philosophy, including tense, conditionals, and discourse meaning. (B)

Equivalent Course(s): LING 24015, LING 34015, PHIL 24015

PHIL 39600. Intermediate Logic. 100 Units.

In this course, we will prove the soundness and completeness of standard deductive systems for both sentential and first-order logic. We will also establish related results in elementary model theory, such as the compactness theorem for first-order logic, the Löwenheim-Skolem theorem, and Lindström's theorem. (B) (II) Instructor(s): A. Vasudevan Terms Offered: Winter

Equivalent Course(s): CHSS 33600, HIPS 20500, PHIL 29400

PHIL 41160. You Call This Democracy? 100 Units.

We will begin with a sampling of theories of democracy as an ideal of justice. We will then consider recent empirical work suggesting that federal legislation in the United States is responsive only to the preferences of wealthy citizens. Juxtaposing the normative accounts of democracy and these disturbing results, we will ask whether the USA is in fact a democracy. We will be concerned with what turns on this question of classification. Is the denial or affirmation that we live in a democracy a mere rhetorical ploy? Is it a matter of only taxonomic interest? Or does the classification have important normative and practical implications for political action and thinking about justice under the nonideal condition in which we find ourselves? (I)

Instructor(s): B. Laurence Terms Offered: Spring

PHIL 49700. Preliminary Essay Workshop. 100 Units.

The workshop involves discussion of general issues in writing the essay and student presentations of their work. Although students do not register for the Summer quarter, they are expected to make significant progress on their preliminary essay over the summer.

Instructor(s): D. Brudney Terms Offered: Autumn, Spring

Prerequisite(s): All and only philosophy graduate students in the relevant years. A two-quarter (Spring, Autumn) workshop on the preliminary essay required for all doctoral students in the Spring of their second year and the Autumn of their third year.

PHIL 49900. Reading & Research. 100 Units.

Instructor(s): Staff Terms Offered: Autumn, Winter, Spring

PHIL 50100. First-year Seminar. 100 Units.

This course meets in Autumn and Winter quarters.

Instructor(s): A. Vasudevan Terms Offered: Autumn, Winter

Prerequisite(s): Enrollment limited to first-year graduate students.

PHIL 50123. Kierkegaard's The Sickness Unto Death. 100 Units.

This seminar will be a close reading of Kierkegaard's classic text, written under the pseudonym of "Anti-Climacus". Among the topics to be discussed are the nature and forms of despair, hopelessness and hopefulness, faith, sickness, guilt and sin. (V)

Instructor(s): J. Lear Terms Offered: Autumn

PHIL 50304. Transitions Into, Within, and From Hegel's Science of Logic. 100 Units.

Instructor(s): A. Koch Terms Offered: Winter

PHIL 50315. Amartya Sen's Philosophical Work. 100 Units.

Amartya Sen is, of course, a distinguished economist, winner of the 1998 Nobel Prize. But he is also a philosopher whose philosophical thought informs his economic writings and who has long defended the importance of philosophy for economic thought. This course will study the philosophical aspects of his thought, not attempting to separate them from his economic contributions, which would be wrong, but attempting to focus on the specific contributions Sen has been able to make to economics in virtue of being a philosopher. We will begin by studying two distinct though related strands of his thought: work on choice, welfare, and measurement, and work on development. We continue with his influential critique of Utilitarianism on the nature of preference and value, and the importance of equality. We will then devote substantial time to The Idea of Justice, a major contribution to political philosophy. Finally, we will examine more recent writings on Indian rationalist philosophy and on religious identity.

Instructor(s): M. Nussbaum Terms Offered: Autumn

Prerequisite(s): Admission by permission of the instructor. Permission must be sought in writing by September 15. Prerequisite: An undergraduate major in philosophy or some equivalent solid philosophy preparation. Ph.D. students in Philosophy and Political Theory may enroll without permission. I am eager to have some Economics graduate students in the class, and will discuss the philosophy prerequisite in a flexible way with such students.

Equivalent Course(s): LAWS 78604, RETH 53015, PLSC 50315

PHIL 50325. Public Morality and Legal Conservatism. 100 Units.

This seminar will study the philosophical background of contemporary legal arguments alluding to the idea of "public morality," in thinkers including Edmund Burke, James Fitzjames Stephen, and Patrick Devlin, and the criticisms of such arguments in thinkers including Jeremy Bentham, John Stuart Mill, and Herbert Hart. We will then study legal arguments on a range of topics, including drugs and alcohol, gambling, nudity, pornography and obscenity, non-standard sex, and marriage.

Instructor(s): M. Nussbaum, W. Baude. Terms Offered: Winter

Prerequisite(s): Non-law students are welcome but need permission of the instructors, since space is limited. We are aiming for a total enrollment of 30, of which up to 10 can be non-law students (no undergraduates), and the rest will be law students, selected by lottery. Non-law students should apply to both professors by December 1, 2015, describing relevant background, especially in philosophy. Equivalent Course(s): LAWS 78605,RETH 50325,GNSE 50325,PLSC 50325

PHIL 51200. Law-Philosophy Workshop. 100 Units.

Topic: **Race and Law.** Speakers will include (in addition to Darby): Elizabeth Anderson (Michigan), Justin Driver (Chicago), Sally Haslanger (MIT), Charles Mills (Northwestern), Michele Moody-Adams (Columbia), Tommie Shelby (Harvard). This is a seminar/workshop many of whose participants are faculty from various related disciplines. It admits approximately ten students. Its aim is to study, each year, a topic that arises in both philosophy and the law and to ask how bringing the two fields together may yield mutual illumination. Most sessions are led by visiting speakers, from either outside institutions or our own faculty, who circulate their papers in advance. The session consists of a brief introduction by the speaker, followed by initial questioning by the two faculty coordinators, followed by general discussion, in which students are given priority. Several sessions involve students only, and are led by the instructors. Students write a 20-25 page seminar paper at the end of the year. The course satisfies the Law School Substantial Writing Requirement. There are approximately four meetings in each of the three quarters. Students must therefore enroll for all three quarters.

Instructor(s): M. Nussbaum, A. Prescott-Couch (Law School) Terms Offered: Autumn, Spring, Winter

Prerequisite(s): Students are admitted by permission of the two instructors. They should submit a c.v. and a statement (reasons for interest in the course, relevant background in law and/or philosophy) to the instructors by e-mail. Usual participants include graduate students in philosophy, political science, and divinity, and law students.

Note(s): Students must enroll for all three quarters.

Equivalent Course(s): LAWS 61512, RETH 51301, GNSE 50101, HMRT 51301

PHIL 51415. Sartrean Meditations. 100 Units.

This seminar will be devoted mostly to the reading of texts of Sartre. Our goal will be to try to define the meaning of Sartre's project of elaborating an existential psychoanalysis. In what sense can it be an alternative to Freudian or Lacanian psychoanalysis? We will try to follow Sartre in the elaboration of such a project in reading texts in which Sartre develops an existential psychoanalysis of French writers like Baudelaire, Genet and Flaubert.

Instructor(s): R. Moati Terms Offered: Autumn

PHIL 51650. Death: Some Aspects. 100 Units.

Instructor(s): D. Brudney, D. Arnold. Terms Offered: Winter Prerequisite(s): Consent of instructors.

PHIL 51830. Topics in Moral, Political and Legal Philosophy. 100 Units.

The topic for Winter 2015 is "Etiological/Genealogical Critiques of Concepts, Beliefs and Values." If you had been brought up in a different family, or a different culture, your religious and moral beliefs would likely have been very different than they are —perhaps even your beliefs about the world around you. Should this fact bother us? Should the origin of our beliefs and values make us skeptical about them, or should it lead us to revise them? Historians and social scientists, from Marvis Harris to Ian Morris, have regularly proferred etiological/explanatory accounts and think they have debunking implications; recently, a number of Anglophone philosophers have begun to address the question, including G.A. Cohen, George Sher, Roger White, and Amia Srinivasan, among others. But interest in the etiology (or genealogy) of beliefs and values, and its significance, long predates these 20th-century writers. We will also give extended consideration to at least Herder, Hegel, Marx and Nietzsche —time permitting, perhaps some others.

Instructor(s): M. Forster, B. Leiter Terms Offered: Winter

Prerequisite(s): The seminar is open to philosophy PhD students without permission; to J.D. students with instructor permission; and to others with instructor permission.

Equivalent Course(s): LAWS 78603

PHIL 52015. Indexicals. 100 Units.

Indexical expressions — those whose reference and content can shift from context to context, such as 'I', 'now', 'here', 'she', and 'today' — and indexical attitudes have played a prominent role in theoretical reflections on language and the mind. In this class, we will consider the philosophical and linguistic implications of indexicality, starting with Kaplan's theory of indexicals and then taking a close look at Perry's and Lewis's seminal arguments that indexicals and indexical thoughts pose exciting problems for traditional views about propositions and attitudes. We will then ask to what extent their observations have important consequences for epistemology, ethics, and other areas of philosophy outside of philosophy of language and mind, but also consider critical perspectives on the Perry-Lewis tradition. Throughout the quarter we will keep an eye on the relation between perspectival thought and talk and the more general phenomenon of subjectivity. (II) Instructor(s): M. Willer Terms Offered: Spring Equivalent Course(s): LING 52015

PHIL 52805. Cultural Evolution. 100 Units.

This course explores the nature of process of cultural evolution. After establishing a background on the characteristics of biological evolution, we consider topics in cultural evolution that explore similarities and differences between processes of biological and cultural evolution, and theoretical and conceptual innovations necessary to deal with the latter, using a variety of approaches and methodologies, including agent-based modeling, "big data" approaches, and case studies. These will include topics like: the nature of inheritance, the limits of 'memes', the role of cognitive development, the coevolution of cognition and lithic technology, the scaffolding and evolution of social support, institutions, organizations and firms, the structure of scientific communities, entrenchment and the emergence of conventions and standards, the role of technology, horizontal vs. vertical transmission, multichannel inheritance, economic markets, the nature of innovation, and the role of history.

Instructor(s): J. Evans, W. Wimsatt Terms Offered: Autumn Equivalent Course(s): SOCI 40196

PHIL 53101. What's Given to Perceptual Experience. 100 Units.

Readings from Sellars, McDowell, Travis, and Boyle, among others. (III) Instructor(s): D. Finkelstein Terms Offered: Autumn

PHIL 53310. The Analytic/Synthetic Distinction. 100 Units.

This course will trace the history of the philosophical controversy over the analytic/ synthetic distinction from Carnap and Klein through contemporary defenses by Gillian Russell and others. (II) (III)

Instructor(s): J. Stern Terms Offered: Autumn

PHIL 53359. Topics in Philosophy of Judaism: Ethics and Halakhah. 100 Units.

Does Judaism recognize an ethics independent of Halakhah (Jewish law)? What are the interrelations, conceptually and normatively, between ethics and Halakhah? How should we understand the conflicts between ethics and Halakhah, morality and religion? How does the Jewish tradition conceive of the notion of mitzvah (commandment), and what is the relationship between interpersonal mitzvot and mitzvot between human beings and God? What are the modes of Halakhic reasoning distinct from ethical argumentation? These topics will be considered through a study of the work of Joseph B. Soloveitchik, Aharon Lichtenstein, Yeshayahu Leibowitz, David Weiss Halivni, Daniel Sperber, and Emmanuel Lévinas. Specific examples to be discussed may include the status of women, prayer, and repentance.

Instructor(s): A. Davidson Terms Offered: Autumn

Prerequisite(s): All students interested in enrolling in this course should send an application to vwallace@uchicago.edu by 09/11/2015. Applications should be no longer than one page and should include name, email address, phone number, and department or committee. Applicants should briefly describe their background and explain their interest in, and their reasons for applying to, this course. Equivalent Course(s): THEO 53359,HIJD 53359,DVPR 53359

PHIL 54110. Philosophy of Wilfred Sellars. 100 Units.

This course will be structured around a close reading of Sellars's seminal "Empiricism and the Philosophy of Mind." Each week we will read between one and three major sections of that work (out of sixteen sections in all), along with relevant background material illustrating the kinds of positions that Sellars was reacting to and drawing from (including such authors as Russell, Ayer, CI Lewis, Schlick, Carnap, and Ryle), other selections from Sellars's works (including the essays in the anthology In the Space of Reasons, Science and Metaphysics, and "The Structure of Knowledge"), and relevant recent secondary literature on Sellars's thought (from authors such as Brandom, McDowell, Rosenberg, DeVries, O'Shea, Michael Williams, Lance, Kukla etc.). (III).

Instructor(s): M. Kremer Terms Offered: Spring

PHIL 55420. Plato's Philebus. 100 Units.

In this late Platonic dialogue, Socrates offers an extended argument against hedonism. Its fascinating discussions of metaphysics (causation, relations between parts and wholes, genus and species), philosophical method, the good, pleasure, and the distinction between pure and applied forms of knowledge all had a deep influence on Aristotle. We will read the dialogue slowly, using some of the latest scholarship as our guide. (IV)

Instructor(s): G. Lear Terms Offered: Winter

PHIL 55805. Aristotle's De Anima. 100 Units.

G.W.F. Hegel, in the Introduction to the Philosophy of Spirit, writes the following: 'The books of Aristotle on the Soul, along with his discussions on its special aspects and states, are for this reason' — namely, because they integrate 'Rational' and 'Empirical' psychology — 'still by far the most admirable, perhaps even the sole, work of philosophical value on this topic.' He continues: 'The main aim of a philosophy of mind can only be to reintroduce unity of idea and principle into the theory of mind, and so reinterpret the lesson of those Aristotelian books' (Encyclopedia of the Philosophical Sciences, Part III, §378). Statements such as these are not easily mustered nowadays, not even by Aristotle's warmest admirers. Still they do prick the curiosity, and so in this course we will spend the quarter on a close reading of Aristotle's De anima.

Instructor(s): S. Kelsey Terms Offered: Spring

PHIL 56720. Philosophy of Barry Stroud. 100 Units.

Barry Stroud has made significant contributions to disparate topics in epistemology, metaphysics and the history of philosophy. His work is nonetheless unified by an overarching concern: to get into view, and take the measure of, the perennial philosophical aspiration to arrive at a completely general understanding of the relationship between the world and our conception of it. This orientation is unusual among philosophers working in the later analytic tradition. In Stroud's case it is combined with a probing exploration of questions about philosophy itself -- about its aims, its nature, and its prospects. A related recurring ambition of his work is to strictly think through the similarities and differences between the empiricist and idealist projects, thereby revealing insights and limitations in each. His work in the history of philosophy takes up these topics in connection with, above all, the following quartet of figures: Descartes, Hume, Kant, and Wittgenstein. It seeks at every point to bring out what is still philosophically alive and important in the thought of each of these authors. Stroud's work in epistemology is marked by one of the most sustained engagements with philosophical skepticism to be found in the analytic tradition, as well as with the writings of those in that tradition who themselves wrestled most with problems of skepticism -- Moore, Austin, Clarke, Cavell. Relatedly, throughout his work in metaphysics, Stroud is especially concerned to explore (III

Instructor(s): J. Bridges, J. Conant Terms Offered: Winter

PHIL 57609. Philosophical Revolutions in the Concept of Form. 100 Units. Primary readings will be from Plato, Aristotle, Goethe, Kant, Hegel, and Wittgenstein. Our topics will include Platonic conceptions of eidetic form and Aristotelian conceptions of hylomorphism, their subsequent inheritance in the philosophical tradition, their transformation into German Idealist conceptions of endogenous (self-determining) form, and their significance for the philosophy of logic, mind, life, and art. Our central secondary readings will be from Gabriel Lear, Aryeh Kosman, John McDowell, Matt Boyle, Stephen Engstrom, Andrea Kern, Thomas Khurana, and Sebastian Rödl, all of whom will be invited to campus to present recent work on these topics and participate in the seminar. Instructor(s): J. Conant, R. Pippin, D. Wellbery Terms Offered: Winter

PHIL 59950. Workshop: Job Placement Seminar. 100 Units.

Course begins in late Spring quarter and continues in the Autumn quarter. Instructor(s): D. Finklestein Terms Offered: Spring, Autumn Prerequisite(s): This workshop is open only to PhD Philosophy graduate students planning to go on the job market in the fall of 2015. Approval of dissertation committee is required. Note(s): Pass/Fail.



Department of Romance Languages and Literatures

Chair

Larry F. Norman

Professors

- Arnold Davidson
- Frederick A. de Armas
- Philippe Desan
- Martha Feldman
- Robert Kendrick
- Emilio Kourí
- Armando Maggi
- Robert J. Morrissey
- David Nirenberg
- Larry F. Norman
- Thomas Pavel
- Justin Steinberg
- Mauricio Tenorio

Associate Professors

- Dain Borges
- Daisy Delogu
- Daniel Desormeaux
- Alison James
- Agnes Lugo-Ortiz
- Mario Santana
- Jennifer Scappettone
- Jennifer Wild

Assistant Professors

- Larissa Brewer-García
- Laura Gandolfi
- Maria Anna Mariani
- Miguel Martínez
- Rocco Rubini
- Victoria Saramago

Senior Lecturers

- Nadine Di Vito
- Claude Grangier

- Ana María Fiuza Lima
- María C. Lozada
- Janet Sedlar
- Veronica Vegna

Full-Time Lecturers

- Marie Berg
- Céline Bordeaux
- Irena Cajkova
- Cécile d'Agaro
- Izas Indacoechea
- Alice McLean
- Lidwina Van den Hout-Huijben

Emeritus Faculty

- Paolo Cherchi
- René de Costa
- Peter F. Dembowski
- George Haley
- Elissa Weaver
- Rebecca West

Staff

- Deborah Blumenthal, Department Assistant
- Jennifer Hurtarte, Department Coordinator

Program

The Department of Romance Languages and Literatures offers graduate programs leading to a Ph.D. in French and Francophone Literatures (http:// rll.uchicago.edu/content/program-overview-1), Hispanic and Luzo-Brazilian Studies (http://rll.uchicago.edu/content/program-overview), and Italian Studies (http:// rll.uchicago.edu/content/program-overview-0), as well as in Renaissance and Early Modern Studies (REMS) (http://rll.uchicago.edu/graduate/rems-phd-requirements). These programs include the study of literary history, established and current critical methodologies, literary theory and analysis, the sociology of literature, literature and history, cultural studies, film, and foreign language acquisition and pedagogy.

The Department has developed a unique program of theoretical and practical teacher training in Romance languages and literatures. All Ph.D. students are funded with fellowships that allow them to gain teaching experience in the undergraduate language program - first as language assistants, then as autonomous lecturers. This system allows for a high degree of professional training and competitive funding, without distracting students from their graduate studies.

The Department admits applicants only for the Ph.D. degree, and does not offer a terminal M.A. program. Admitted students without a master's degree may receive

an M.A. after their first year of study in the French, Italian, or Hispanic and Luzo-Brazilian program. The REMS program does not admit students without an M.A.

Students are encouraged to expand their research and course work into other literatures, departments, and disciplines, and are provided opportunities to broaden their knowledge in a variety of ways. The department collaborates with faculty from other departments, committees, and centers at the university, such as the Department of Cinema and Media Studies, the Committee on Social Thought, and the centers for the Study of Gender and Sexuality (http:// gendersexuality.uchicago.edu), Latin American Studies (http://clas.uchicago.edu/ page/about), and the Study of Race, Politics and Culture (http://csrpc.uchicago.edu). Each language program also offers students several opportunities for study and research abroad, and the department invites distinguished scholars and writers from the United States and abroad to lecture and to teach.

The France Chicago Center (http://fcc.uchicago.edu) — a Franco-American research institution dedicated to fostering contact among French and American students, professors, and professionals — organizes and sponsors conferences and colloquia, provides fellowships and travel grants, funds visiting faculty members from France, and organizes lectures. The Fulbright Distinguished Chair in Modern Italian Studies enables the Italian program to invite a prominent visitor from Italy each year; past visiting professors have included Roberto Antonelli, Laura Barile, Gianpiero Brunetta and Gianni Celati. Each year, the Edward Larocque Tinker Visiting Professorship in Latin American and Iberian Studies (http://clas.uchicago.edu/page/ tinkervisitingprofessors) brings prominent scholars and other professionals to the university for research and teaching. We have brought poets, playwrights, novelists, and distinguished critics such as Luciano García Lorenzo (Spain), Jorge Edwards (Chile), Javier Lasarte (Venezuela), and Anthony Stanton (Mexico).

An innovative program was developed to increase the number of graduate-level courses co-taught by experts from different languages who are investigating topics that extend beyond traditional disciplinary boundaries. This initiative led to the establishment of the department's Renaissance and Early Modern Studies (REMS) program, which began accepting graduate candidates in 2008-2009.

Students are also encouraged to participate in and coordinate graduate workshops. Some of the current workshops include: Interdisciplinary Approaches to Modern France and the Francophone World; Latin America and the Caribbean; Gender and Sexuality Studies; Latin American History; Literature and Philosophy; Mass Culture; Medieval Studies; Poetry & Poetics; Renaissance; Reproduction of Race and Racial Ideologies, among others. The department features its own workshop on Western Mediterranean Culture.

Upon completion of the Ph.D., students have had great success in finding tenuretrack positions at such institutions as Wesleyan University, the University of Pennsylvania, the University of Colorado, the University of Oregon, the State University of New York at Buffalo, Syracuse University, Victoria University of Wellington (New Zealand), and other excellent colleges and universities.

Further details regarding the Department and specific program requirements can be found online at: http://rll.uchicago.edu/.

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http:// humanities.uchicago.edu/students/admissions. Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, academic year stipends, summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component. Questions pertaining to admission and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Romance Languages and Literatures - Catalan Courses

CATA 31900. Contemporary Catalan Literature. 100 Units.

This course provides a survey of major authors, works, and trends in Catalan literature from the beginning of the twentieth century to the present. We study works representing various literary genres (novel, poetry, short story) and analyze the most important cultural debates of the period.

Instructor(s): A. Girons Terms Offered: Winter

Equivalent Course(s): SPAN 21910, SPAN 31910, CATA 21900

CATA 32210. Iberian Studies: Rethinking National Literatures. 100 Units.

Over the last two decades, a number of critical interventions within Hispanism have argued for the need to rethink the "Peninsular" and argue for a paradigmatic change towards Iberian Studies, a new configuration of the field aimed at exploring the cultural complexity of the Iberian Peninsula in ways that more traditional modes of scholarly inquiry — dependent on conceptual and institutional frameworks established around the invention of national literatures— are not equipped to facilitate. This course will provide a historical overview of the configuration of (Peninsular) Hispanism, analyze current debates on Iberian Studies, and use a selection of Iberian literary works to discuss and explore the disciplinary and practical implications of this change.

Instructor(s): M. Santana Terms Offered: Winter

Prerequisite(s): SPAN 20300 or consent of instructor.

Equivalent Course(s): SPAN 32210

CATA 32515. Catalan Culture from Without and Within. 100 Units.

It is not unusual for minority cultures confronted by the adversity of historical and geographical circumstance to close ranks and gaze lovingly on the milk-wood comfort of their own little homeland patch. The topic becomes a commonplace in Catalan literature and lyric of the last century. This course will challenge the validity of this introspection and through a study of comparative culture (history, literature, song and the visual arts) will demonstrate the opposite: the centrality of the Catalan voice to the creative experience globally. What is more, the adoption of a regional, non-metropolitan perspective in the study will uncover a friction and variety, thoroughly transnational in inspiration, which further challenges the lazy uniformity of the introspective petita pàtria. The course will function on three axes: historical contextualization, close reading of texts and comparative commentary. All Catalan works are available in English, often online. Students will acquaint themselves with the work prior to class to facilitate detailed discussion. Instructor(s): D. Keown Terms Offered: Spring Equivalent Course(s): CATA 22515

CATA 38620. Fiction, Memory, History: Jaume Cabré's Jo confesso. 100 Units.

A detailed reading, analysis, and discussion of Jaume Cabré's Jo confesso (Confessions, 2011), a monumental work of contemporary Catalan literature. We will explore the literary strategies and techniques at play in the novel, as well as its take on the relation between fiction and history, and the representation of memory and loss.

Instructor(s): M. Santana Terms Offered: Winter Equivalent Course(s): CATA 28620,SPAN 38620,SPAN 28620

Romance Languages and Literatures - French Courses

FREN 31503. Approches à l'analyse littéraire. 100 Units.

Dans ce cours nous aborderons des techniques d'analyse littéraire des textes en vers et en prose. En outre, nous nous pencherons sur des écrits métatextuels ceux qui traitent des aspects formels des ouvrages littéraires, de leur utilité morale et/ou politique, du rapport entre la littérature et la vie dite réelle. La production littéraire est non seulement une activité culturelle, intellectuelle, politique, éthique, et aesthétique, mais aussi l'objet d'une reflexion soutenue au cours des siècles. Instructor(s): A. James Terms Offered: Winter

Prerequisite(s): FREN 20500 and one previous literature course taught in French. Note(s): Taught in French.

Equivalent Course(s): FREN 21503

FREN 32100. L'historien antillais au 19e siècle: conquête d'une culture nationale. 100 Units.

Au XVIIIe siècle, un esclave à Saint-Domingue ou d'ailleurs, n'a aucun droit à la parole: on parle pour lui, de lui et sans lui. À la veille même de la première abolition de l'esclavage en France le 16 pluviôse an II (4 février 1794), une députation (un blanc, Louis-Pierre Dufaÿ, un mulâtre libre, Jean-Baptiste Mills, et un ancien esclave noir, Jean-Baptiste Belley) se présente à la Convention à Paris le 15 pluviôse an II (3 février 1794) pour faire valoir d'abord leur droit à la parole républicaine et ensuite les droits civils et politiques de leurs «concitoyens». Au XIXe siècle, peu après de la Révolution haïtienne et la Déclaration de l'Indépendance en 1804, c'est une nouvelle classe d'écrivains et d'hommes politiques haïtiens qui vont émerger sur la scène internationale avec comme première préoccupation l'aménagement d'un espace public où ils se font le porte-parole d'une Nation unique, composée en majorité d'anciens esclaves qui entendent glorifier l'histoire de leur lutte armée, défendre le principe de liberté universelle et surtout témoigner l'indépendance de leur culture. Ce séminaire se penchera précisément sur la pensée culturelle de cinq historiens antillais de l'époque dont les œuvres ont connu des sorts différents: Beaubrun Ardouin (1796-1865), Pompée Valentin (Baron de) Vastey (1781-1820), Louis-Boisrond Tonnerre (1776-1806), Thomas Madiou (1814-1884) et Joseph Saint-Rémy (1815-1858). On cherchera à explorer en profondeur les différentes prémisses qui fondent le

Instructor(s): D. Desormeaux Terms Offered: Spring Equivalent Course(s): FREN 22100

FREN 32800. Montaigne and Liberalism. 100 Units.

At a time when liberal models are undergoing a crisis in Europe and in America, this course seeks to explore an alternative genealogy for political modernity and its theoretical implications. Indeed, liberalism is frequently reduced to a philosophy of the free exchange of goods, associated with the theory (explicit or implied) of the "invisible hand," whose origins can be traced back to John Locke and Adam Smith. By taking a "step backward" towards the sixteenth century, we propose to re-establish the broader dimension of liberal thought, taking account of its anthropological, epistemological, moral, and political aspects. This course also aims to bring to light a comparatively neglected aspect of the thought of Montaigne -his political thought and its complex relationship with later major political philosophies. The political thought of Montaigne does indeed appear to be divided into a "conservative" element (associated with its skepticism), a cynical "apolitical" element (associated with its individualism), and a "republican" element, inspired by the great examples of antiquity and shaped by the harmony of ideas with Étienne de La Boétie. Our working hypothesis is that these different themes may be linked coherently if they are understood in terms of the contribution made by Montaigne to the construction of modern liberal thought, as it has developed from Hobbes to the present day.

Instructor(s): P. Desan Terms Offered: Spring

Note(s): All readings in French, discussion in English; final papers in French for students in RLL and English for students in other departments.

Equivalent Course(s): FREN 22810

FREN 33333. Reading French for Research Purposes. 100 Units.

This intensive course is designed to take students with a basic knowledge of French to the level of reading proficiency needed for research. To that end, students will work on grammar, vocabulary, and reading strategies. Students will read a range of scholarly texts, a number of which will be directly drawn from their respective areas of research.

Terms Offered: Summer

Prerequisite(s): One quarter of French or equivalent, placement into FREN 10200, or an intermediate level of another Romance or classical language

FREN 33710. Rousseau's Confessions: Texte et Contexte. 100 Units.

Les Confessions de Rousseau est un texte-clé pour comprendre la constitution du moi moderne. Comme personne avant lui, Rousseau décrit tout ce qui est en jeu dans la définition et l'affirmation de soi. Les Confessions brossent un vaste tableau critique de la société française à l'Âge des Lumières. Dans ce cours nous lirons cette œuvre fondamentale en dialogue avec les textes théoriques de Rousseau afin de mieux comprendre la place à la fois centrale et paradoxale qu'il occupe dans la pensée des Lumières.

Instructor(s): R. Morrissey Terms Offered: Spring

Prerequisite(s): Open to advanced undergraduates with consent of instructor. Note(s): Readings in French; discussion in French or English. Papers in French or English, depending on student's field of study.

Equivalent Course(s): FREN 23710

FREN 35910. Racine. 100 Units.

Racine's tragedies are often considered the culminating achievement of French classicism. Most famous for his powerful re-imaginings of Greek myth (Phèdre, Andromaque), his tragic universe nevertheless ranged considerably wider, from ancient Jewish queens to a contemporary Ottoman harem. We will consider the roots (from Euripides to Corneille) of his theatrical practice as well as its immense influence on future writers (from Voltaire to Proust, Beckett, and Genet). Instructor(s): L. Norman Terms Offered: Autumn

Prerequisite(s): At least one French literature course 21700 or higher. Note(s): Taught in French. All work in French for students seeking French credit; written work may be in English for others.

Equivalent Course(s): FNDL 25910, TAPS 28476, TAPS 35910, FREN 25910

FREN 36303. Grace, Love, and Pleasure. Painting in Eighteenth Century France. 100 Units.

The easing of political life and the relaxation of private morals which came to characterize the long reign of Louis XV (1715–1774) was mirrored by the development of a new conception of art, an art more intimate, decorative, generally amorous, and often erotic. It is these last two related dimensions which are the basis of a new visual aesthetic which constitutes the subject matter of this course. Through the exploration of contemporary novels and theater, as well as contemporary critical and philosophical writings, we will demonstrate how both the sensual and the erotic become essential components of the century's cultural ethos. Artistic subjects, the mechanisms to represent them, their metaphorical stakes, and their phenomenological effects on the beholder will therefore be considered as the expression of a particular historical and ideological context. It is in this context that love became the symbol of a king who privileged peace against war, and where emotional pleasure triumphed over moralizing values and asserted itself as a new aesthetic category.

Instructor(s): S. Caviglia-Brunel Terms Offered: Winter

Note(s): Students who take this course for French credit must do the readings and assignments in French.

Equivalent Course(s): ARTH 33603, FREN 26303, GNSE 23603, GNSE 33603, ARTH 23603

FREN 37600. Ancien Francais/Old French. 100 Units.

This course will introduce students to the phonetics, morphology, syntax, and vocabulary of Old French in order to equip them with the skills necessary to work with Old and Middle French texts. We will examine and translate verse and prose passages from the twelfth to fifteenth centuries, discussing also their literary and historical contexts. The course will be conducted, as a practicum, in English. Instructor(s): D. Delogu Terms Offered: Autumn

Note(s): Knowledge of Latin and/or modern French, though obviously helpful, is not required.

Equivalent Course(s): FREN 27600

FREN 37601. Débats et querelles littéraires au Moyen Age. 100 Units.

Ce cours examinera des poèmes à deux voix, des débats textuels, ainsi que les querelles littéraires qui ont réellement animé la culture française du Moyen Âge tardif. Nous nous intéresserons aux pratiques de collaboration, de continuation, et de concurrence littéraire qui ont influencé la production littéraire aussi bien que les notions de l'auteur et de l'autorité.

Instructor(s): D. Delogu Terms Offered: Autumn

Note(s): Taught in French. Advanced undergraduates admitted by permission only.

FREN 38510. Margins of Fiction in Contemporary France. 100 Units.

This course explores the strategies adopted by French literary fiction in a cultural context that increasingly relegates the novel to the margins and privileges forms of non-fiction narrative. Countering the pervasive discourse of literary crisis, we will examine the ways in which contemporary literature increasingly asserts its agency in the world by locating itself on the margins of fiction. We will also consider the extension of the literary domain beyond the boundaries of the book with the emergence of new digital forms. Readings may include texts by Modiano, Michon, Ernaux, Bon, Chevillard, Bouraoui, Carrère, J. Rolin, Salvayre, in conjunction with theoretical and critical readings (Genette, J.-M. Schaeffer, J.-P. Richard, Viart, Rancière).

Instructor(s): A. James Terms Offered: Winter

Prerequisite(s): Reading knowledge of French required

Note(s): Course conducted in English, with readings in French. Advanced undergraduates admitted with consent of instructor.

FREN 39661. History Colloquium: Digital Humanities/Digital History. 100 Units. This course will be an interdisciplinary introduction to digital humanities broadly writ with an emphasis on literary and historical developments over long periods of time (*longue durée*), and across large textual, cultural, and archival databases. Questions we will address include how do we constitute and navigate these collections? How do we conceive of digital tools in ways that speak to humanists and humanistic social scientists? How do we incorporate these tools and approaches into discursive argumentation and other traditional humanistic and historical modes of inquiry. No technical background is required, but basic computer skills and reading knowledge of French would be welcome. History concentrators may direct their coursework in this class toward the completion of a pre-BA essay for the major using primary sources.

Instructor(s): C. Gladstone, R. Morrissey, J. Sparrow Terms Offered: Winter Prerequisite(s): History majors must take a History colloquium in their third year. Equivalent Course(s): HIST 39661,BPRO 29660,FREN 29661,HIST 29661

FREN 43351. Poetry and Theory: Mallarmé 100 Units.

This course will undertake a close reading (in French) of seminal texts (essays and translation as well as poems) by Mallarmé. We will also read older critical interpretations (Mauron, Sartre, H. Friedrich, Robert Greer Cohn, Scherer, J-P Richard, Poulet, eg) and more contemporary theorists (Derrida, Blanchot, De Man, Jameson, Johnson, Kristeva, Rancière, bersani, Zizek). Finally, we will read him in conjunction with some other, more or less overtly philosophical texts (Heidegger, Badiou, Nietzsche, Meschonnic, e.g.). Reading knowledge of French is REQUIRED, though the course will be conducted in English.

Instructor(s): Françoise Meltzer and Jean-Luc Marion Terms Offered: Spring Equivalent Course(s): DVPR 43351,CMLT 43351

FREN 49100. The Archive: Materiality, Aesthetics, Visual Culture. 100 Units. In this research-intensive graduate seminar, students will engage with a range of methods, questions, and approaches to conducting archival research in filmic, paper and print, and internet databases, and in both American and foreign contexts. While some class content will unfold around archival materials related to French film and art practice between 1930-1950, and to the discursive transformations around concepts of materiality and visual aesthetics therein, we will also explore a range of texts on archival methodology; selected texts on archival theory; and case-studies foregrounding modes of archival discovery, evaluation, and interpretation. With the aim of training students for "deep dive" explorations of material and visual culture, students will be expected to conduct original research on a topic of their own design beginning in week 2. To be considered for this seminar, interested students should thus submit a short (1-2 paragraph) research proposal prior to registration. Proposals do not have to focus on French or Francophone topics, nor do they have to be fully developed. They must, however, propose a set of coherent and exploratory, if tentative, questions or propositions that the student will explore through intensive archival research. Proposals should be sent to jenniferwild@uchicago.edu at least 2 weeks prior to spring quarter 2016. Instructor(s): J. Wild Terms Offered: Spring Equivalent Course(s): ARTH 49700, CMST 69110

Romance Languages and Literatures - Italian Courses

ITAL 32200. Dante's Divine Comedy 2: Purgatorio and Vita Nova. 100 Units. This course is an intense study of the middle cantica of the Divine Comedy and its relationship with Dante's early masterpiece, the Vita Nuova. The very middleness of the Purgatorio provides Dante the opportunity to explore a variety of problems dealing with our life here, now, on earth: contemporary politics, the relationship between body and soul, poetry and the literary canon, art and imagination, the nature of dreams, and, of course, love and desire. The Purgatorio is also Dante's most original contribution to the imagination of the underworld, equally influenced by new conceptualizations of "merchant time" and by contemporary travel writing and fantastic voyages.

Instructor(s): J. Steinberg Terms Offered: Spring Equivalent Course(s): FNDL 27202,LLSO 27202,ITAL 22000

ITAL 32310. Dante's Rime. 100 Units.

Intensive reading course of Dante's lyric poetry. These erotic, doctrinal, and political poems are the least studied of his Dante's vernacular corpus but key to understanding the poet's methods and development.

Instructor(s): J. Steinberg Terms Offered: Spring

Note(s): Texts will be read in Italian. Discussion language to be determined by class makeup.

Equivalent Course(s): ITAL 22310

ITAL 32410. Reproduction/Reproduction: A Context for Dante. 100 Units.

The word "reproduction" is intrinsically ambiguous: it can be taken either in a literal (i.e., biological) or in a metaphorical (i.e., non-biological) sense. In the late Middle Ages this ambiguity was often conveyed by the aristotelian motto "ars imitatur naturam," art imitates nature. This motto sounds familiar to us – but such familiarity is misleading. In the Middle Ages none of those words ("art," "imitates," "nature") meant what they mean today. The seminar will approach this dialogue between contemporary and medieval categories focusing on a special case study: Dante.

Instructor(s): C. Ginzburg Terms Offered: Autumn Note(s): Taught in English.

ITAL 32710. Sulla sopravvivenza. 100 Units.

Questo corso è una riflessione sulla sopravvivenza attraverso pagine letterarie e filosofiche. Inizieremo ripercorrendo il pensiero di Elias Canetti, che senza sosta ha esplorato il concetto di sopravvivenza, specialmente nel suo intreccio col potere. Proseguiremo poi considerando come, nell'era dello sterminio di massa, la sopravvivenza si separi dal legame col potere e il trionfo e si leghi invece alla vergogna di chi resta in vita e al debito nei confronti dei morti. Affronteremo questo aspetto del problema attraverso un close reading dei testi di Primo Levi, che ci porteranno a riflettere sul rapporto tra sopravvivenza e testimonianza. La parte conclusiva del corso sarà dedicata emblematicamente a Anna Frank e alle appropriazioni e trivializzazioni postume della sua figura. Instructor(s): M. A. Mariani Terms Offered: Spring

Note(s): Taught in Italian

Equivalent Course(s): ITAL 23710

ITAL 33203. Rome in Film and Literature. 100 Units.

We shall analyze films and fictional works that reflect both realities and myths about the "Eternal City," Rome. Classical Rome will not be studied; instead the focus will be on a trajectory of works, both written and cinematic, that are set in and explore late nineteenth to late twentieth-century Rome. The goal is to analyze some of the numerous diverse representations of modern Rome that portray historical, political, subjective, and/or fantastical/mythopoetic elements that have interacted over time to produce the palimpsest that is the city of Rome. Books by D'Annunzio, Moravia, Pasolini and Malerba; films by Fellini, Visconti, Rossellini, Bertolucci, Pasolini, and Moretti.

Instructor(s): R. West Terms Offered: Winter

Note(s): Taught in English; Italian majors will read the texts in the original Italian. Equivalent Course(s): CMST 23202,CMST 32302,ITAL 23203

ITAL 34410. Vichianism: The Italian (Counter-) Enlightenment. 100 Units.

This course looks at the reception of Giambattista Vico (1668-1744), whose philosophy, largely neglected at first, eventually came to enjoy far-reaching influence as European thinkers set out on repeated quests for the source of a different "modernity" or "Counter-Enlightenment" in fields as varied as political theory (Romagnosi, Cattaneo, Ferrari), the historical and modernist novel (Cuoco, Manzoni, Joyce), Romantic historiography (Michelet, Gioberti), literary criticism (Auerbach), and intellectual history (Berlin). What is the secret behind the enduring appeal of Vico's anti-rationalist stance? This seminar, going further than dedicating itself to the legacy of a single thinker, wishes to investigate the "logic" (or lack thereof) that attends posthumous acclaim, eponymity, and etiological myths, and to provide guidelines for a disciplined approach to the history, practice, and theory of reception.

Instructor(s): R. Rubini Terms Offered: Autumn Equivalent Course(s): ITAL 24410

ITAL 34910. Italo Svevo. 100 Units.

Visceralmente amato da Coetzee, Canetti e Perec – e prima ancora da Joyce e Montale, Italo Svevo potrebbe sembrare a tutti gli effetti un "writer's writer." Eppure è molto di più, perché anche il lettore comune è presto spinto a simpatizzare con questo autore dagli esordi sfortunati, costretto a pagare da sé la pubblicazione dei propri romanzi e incline a trattare l'italiano come una lingua straniera, rivoluzionandone la sintassi e il lessico. In questo corso introduttivo leggeremo tutte le sue opere, privilegiando la Coscienza di Zeno e addentrandoci anche nel romanzo postumo – Le confessioni del vegliardo – che celebra i borbottii della vecchiaia e descrive lo stupore della vita inghiottita dalla scrittura. Durante il corso porteremo spesso in primo piano lo sfondo filosofico delle pagine di Svevo, valorizzando in particolare gli elementi nietzschiani che vi sono disseminati: l'esaltazione dell'arte come potenza del falso e la scoperta del carattere di menzogna inseparabile dalla conoscenza.

Instructor(s): M. A. Mariani Terms Offered: Autumn Note(s): Taught in Italian Equivalent Course(s): ITAL 24910

ITAL 38702. Italian Comic Theater. 100 Units.

A survey of the history of Italian theater from the Erudite Renaissance Comedy to Goldoni's reform. We will pay particular attention to the tradition of *commedia dell'arte* (scenarios, stock characters, and plot formation), ancient and medieval influences, evolution and emancipation of female characters, and the question of language. Readings include works by Plautus, Ariosto, Machiavelli, Angelo Beolco (Ruzante), Flaminio Scala, and Goldoni. Toward the end of the course we will consider the legacy of Italian Comedy in relation to the birth of grotesque and realist drama in Pirandello.

Instructor(s): R. Rubini Terms Offered: Spring Note(s): Taught in Italian Equivalent Course(s): ITAL 28702

Romance Languages and Literatures - Portuguese Courses

PORT 31200. Inside & Outside the Latin American Boom: Critical Perspective. 100 Units.

The Latin American boom is surrounded by superlative as well as controversial terms. They range from its international repercussions, its best-selling novels, and its commitment to aesthetic innovation to its elitism, its lack of space for women writers, and its market-oriented dynamics. Besides reading some of the most representative works of the boom, this course will focus on discourses of self-legitimation and criticism by and about the boom authors. We will revisit the beginnings of this literary phenomenon, its attack on previous regionalist fiction, its flourishing years, some aspects of the participation of its authors in the geopolitics of the Cold War, and the exclusion of certain authors, especially women. We will also carefully examine attempts and problems of bringing Brazilian authors to the boom. Novelists may include Gabriel García Márquez, Carlos Fuentes, Julio Cortázar, Mario Vargas Llosa, José Donoso, Clarice Lispector, Elena Garro, João Guimarães Rosa, Jorge Amado, and José María Arguedas.

Instructor(s): V. Saramago Terms Offered: Winter

Note(s): Taught in Spanish, with readings available in Spanish, Portuguese, and English.

Equivalent Course(s): LACS 31200, SPAN 31200

PORT 36900. Travels to Backlands of Brazil and Portuguese-speaking Africa. 100 Units.

The "sertões" or backlands of Brazil are composed of a broad and varied number of areas. Since its early usage as all the space beyond the Portuguese gaze during colonial times to its more common identification with the Northeast of Brazil in the twentieth century, it has played an unstable and versatile role in Brazilian history, from rural banditry to the building of the country's capital. This course will study the variety of sociocultural facets with which the term "sertão" has been identified in Brazil, with a focus on the twentieth century. We will also examine how this trope of colonial discourse would take on a different connotation in Angola and Mozambique due to the attentive reading of Brazilian literature by Angolan and Mozambican writers. Authors may include Mia Couto, Ruy Duarte de Carvalho, Euclides da Cunha, Graciliano Ramos, Guimarães Rosa, João Cabral de Melo Neto, Nísia Trindade Lima, Janaína Amado, Alfredo de Taunay, José Luiz Passos, Glauber Rocha, Karim Aïnouz, Marcelo Gomes, Ana Rieper, and Sandra Kogut. Instructor(s): V. Saramago Terms Offered: Winter

Note(s): A reading knowledge of Portuguese is helpful but not required. Equivalent Course(s): LACS 26900,LACS 36900,PORT 26900

PORT 37200. Introduction to Brazilian Culture. 100 Units.

This course provides a survey of Brazilian culture through its literature, music, cinema, visual arts, and digital culture. Through these different media, we will discuss topics such as urban development, racial issues, gender issues, modernity, deforestation, and internal migrations, besides samba, bossa nova, funk, and visual arts movements, among others. Authors may include Machado de Assis, Oswald de Andrade, Rubem Fonseca, Bernardo Carvalho, Angélica Freitas, Glauber Rocha, Suzana Amaral, and Walter Salles.

Instructor(s): V. Saramago Terms Offered: Autumn

Note(s): Taught in English

Equivalent Course(s): LACS 27200, LACS 37200, PORT 27200

Romance Languages and Literatures - Spanish Courses

SPAN 31200. Inside & Outside the Latin American Boom: Critical Perspective. 100 Units.

The Latin American boom is surrounded by superlative as well as controversial terms. They range from its international repercussions, its best-selling novels, and its commitment to aesthetic innovation to its elitism, its lack of space for women writers, and its market-oriented dynamics. Besides reading some of the most representative works of the boom, this course will focus on discourses of self-legitimation and criticism by and about the boom authors. We will revisit the beginnings of this literary phenomenon, its attack on previous regionalist fiction, its flourishing years, some aspects of the participation of its authors in the geopolitics of the Cold War, and the exclusion of certain authors, especially women. We will also carefully examine attempts and problems of bringing Brazilian authors to the boom. Novelists may include Gabriel García Márquez, Carlos Fuentes, Julio Cortázar, Mario Vargas Llosa, José Donoso, Clarice Lispector, Elena Garro, João Guimarães Rosa, Jorge Amado, and José María Arguedas.

Instructor(s): V. Saramago Terms Offered: Winter

Note(s): Taught in Spanish, with readings available in Spanish, Portuguese, and English.

Equivalent Course(s): PORT 31200, LACS 31200

SPAN 31310. Golden Age Poetry. Theory and Practice of Lyric Reading. 100 Units.

In this course we will read classic Spanish poems of the Golden Age from different methodological and theoretical paradigms. Each class session will revolve around one or a few poems in order to allow time for in-depth discussion and analysis, and we will systematically pair these lyric texts with influential critical readings of them. On the one hand, this will provide students with an introduction to the main poetic genres, traditions, periods, and authors of the Spanish Golden Age in their historical context. On the other, we will critically examine a varied array of reading strategies and interpretive paradigms, including structuralism and poststructuralism, philology and textual criticism, Marxism, feminist criticism, gender studies, New Historicism, and emerging scholarship in "lyric theory." Instructor(s): M. Martinez Terms Offered: Winter Note(s): Taught in Spanish. Equivalent Course(s): SPAN 21310

SPAN 31910. Contemporary Catalan Literature. 100 Units.

This course provides a survey of major authors, works, and trends in Catalan literature from the beginning of the twentieth century to the present. We study works representing various literary genres (novel, poetry, short story) and analyze the most important cultural debates of the period.

Instructor(s): A. Girons Terms Offered: Winter

Equivalent Course(s): CATA 31900, SPAN 21910, CATA 21900

SPAN 32110. Global Iberia. Travel, Ethnography, and Literature. 100 Units. In this seminar we will examine Iberian articulations of early modern globality. We will read vivid narratives by world travelers such as Fernão Mendes Pinto (Peregrinação, 1614), Miguel de Jaque (Viaje de las Indias Orientales y Occidentales, 1606), and Pedro Ordóñez de Ceballos's (Viaje del mundo, 1614); an illuminated ethnographic miscellany about the peoples of east and south-east Asia (Boxer Codex, ca. 1595); and a multilingual poetic collection gathered in Manila's streets (Rueda y Mendoza's Exequias, 1625), among some others. By integrating these and other neglected works into the critical narrative and cultural history of early modern colonialism, the seminar aims at rethinking the geocultural configuration of Iberian and colonial studies in their current disciplinary shape. Readings in world and connected history, postcolonial theory, critical geography, and comparative ethnography will complement the primary readings.

Instructor(s): M. Martinez Terms Offered: Autumn

SPAN 32210. Iberian Studies: Rethinking National Literatures. 100 Units.

Over the last two decades, a number of critical interventions within Hispanism have argued for the need to rethink the "Peninsular" and argue for a paradigmatic change towards Iberian Studies, a new configuration of the field aimed at exploring the cultural complexity of the Iberian Peninsula in ways that more traditional modes of scholarly inquiry —dependent on conceptual and institutional frameworks established around the invention of national literatures— are not equipped to facilitate. This course will provide a historical overview of the configuration of (Peninsular) Hispanism, analyze current debates on Iberian Studies, and use a selection of Iberian literary works to discuss and explore the disciplinary and practical implications of this change.

Instructor(s): M. Santana Terms Offered: Winter Prerequisite(s): SPAN 20300 or consent of instructor.

Equivalent Course(s): CATA 32210

SPAN 33300. Classical Art in the Literature of the Renaissance and Early Modern Italy, Spain, and France. 100 Units.

As classical statues emerged from the ground as if they were corpses revived by ancient necromancers, delight and curiosity concerning these artistic findings spread from Renaissance Italy to the rest of Europe. Even so, there was one aspect that was missing. The great paintings of antiquity were mostly lost due to their fragility. Only some of the wall paintings of later periods remained. Thus, the names and works of famous Greek painters came to be known mainly through Pliny's *Natural History*. This course will focus on three of these painters, whose works, although destroyed, are preserved in writing and ekphrasis: Apelles, Timanthes, and Zeuxis. We will investigate how they come to be painted and described anew in the art and literature of the Renaissance and Early Modern periods, from Vasari to Rubens; and from Boscán and Tirso de Molina to Cervantes and Montaigne. Instructor(s): F. de Armas Terms Offered: Spring

Note(s): Although the course is taught in English, students need to have a reading knowledge of Spanish.

Equivalent Course(s): CMLT 23310, CMLT 33310, SPAN 23300

SPAN 33900. El teatro en la corte de Felipe IV. 100 Units.

Spectacle plays flourished in the Spanish Golden Age after Philip IV ascended to the throne in 1621. Many of these plays rework mythological materials and make use of mechanical devices and designs prepared by Italian engineers and artists. Not only did these works appeal to the eyes, thus undermining the preeminent role of the poet, but they often included music and dance. And, they were ostensibly written in praise of the king and of his courtiers, who were seen as classical deities walking on earth. Philip's minister, the Count-Duke of Olivares, promoted these works and a vision of Philip as a solar king around whom revolved artists and poets, enjoying his vivifying rays and glorifying his reign. This course will investigate the oppositions between the verbal and the visual, the laudatory and the critical, the Christian and the pagan in a number of plays written during Philip's reign, beginning with Villamediana's *La gloria de Niquea* and culminating with works by "a true master of the polyphony of the theatrical idiom," Calderón de la Barca. The course will also include a chivalric spectacle play by of one the few women playwrights of the period, Ana Caro.

Instructor(s): F. de Armas Terms Offered: Winter

SPAN 34701. Literaturas del Caribe Hispánico Insular en el siglo XX. 100 Units. En este curso se estudiarán algunos ejemplos salientes de las literaturas producidas en el Caribe hispánico insular (Cuba, Puerto Rico y Santo Domingo) durante el siglo XX y a principios del XXI. Entre los asuntos a discutir tendrán un lugar principal los modos en que esta producción se ha constituído como respuesta y elaboración estética de las historias de esclavitud y colonialismo, militarización y desplazamientos territoriales que han marcado a la región en su condición de frontera imperial desde el siglo XVI.

Instructor(s): A. Lugo-Ortiz Terms Offered: Autumn Prerequisite(s): SPAN 22003 or instructor consent. Equivalent Course(s): LACS 24704,LACS 34704,SPAN 24701

SPAN 35215. Góngora y sor Juana: el Barroco y la poética de la oscuridad. 100 Units.

El curso está pensado como continuación del que se impartió en el otoño de 2013. La obra de Góngora desató toda una polémica por la revolución lingüística y estética a la que dio origen. Varios intelectuales de entonces criticaron la "oscuridad" poética de Góngora; otros la defendieron. Más de medio siglo después de Góngora y de la polémica en torno a la "oscuridad", llegó la poesía de sor Juana a confirmar la originalidad e innovación estéticas que trajeron las Soledades, con su insólito Primero sueño. Contrastar la obra de estos dos autores explica muchas de las características del Barroco, sobre todo el nuevo enfoque epistemológico que supuso, que dio lugar a formas artísticas innovadoras, originales y complejas. Instructor(s): M. L. Tenorio Terms Offered: Autumn Equivalent Course(s): SPAN 25215

SPAN 38215. Ethics, Gender and Biography in the Hist. of Span-Amer. Lit. 100 Units.

Compared to the English and French traditions, historically the Spanish-speaking world has more often than not resisted biographical writing, somehow displaying misgivings regarding the narration of private forms of existence. The only available biographies in the past were directly linked to political and ideological interests. This created a moral economy that by and large has marked the lack of academic interest in the biography genre in the cultural history of the Spanish-speaking world. Small wonder, for quite some time the biography has been in the much freer hands of international scholars such as John Elliot, Paul Preston, Ian Gibson, Joseph Perez, Ana Rossi, Geoffrey Parker, John Lynch and so on. They enjoyed the necessary freedom from political and ideological distortion so that they could objectively study historical figures of great importance. But then again should we still approach biography from a moral standpoint, especially relevant in the case of gender studies? What are the limits of biography as a scholarly endeavor in history or literary studies? Has not the time for an Iberian "school" of biography to emerge? The course aims to briefly go over questions of gender in the Spanish and Latin American world, analyzing how biography came to change how we see important historical figures, how they marked their times and were in turn demarcated by their context.

Instructor(s): Anna Caballe, Tinker Visiting Professor, Romance Languages & Literatures Terms Offered: Spring

Equivalent Course(s): SPAN 28215, LACS 35108

SPAN 38620. Fiction, Memory, History: Jaume Cabré's Jo confesso. 100 Units. A detailed reading, analysis, and discussion of Jaume Cabré's Jo confesso (Confessions, 2011), a monumental work of contemporary Catalan literature. We will explore the literary strategies and techniques at play in the novel, as well as its take on the relation between fiction and history, and the representation of memory and loss.

Instructor(s): M. Santana Terms Offered: Winter Equivalent Course(s): CATA 28620,CATA 38620,SPAN 28620

SPAN 38800. Problemas críticos en el estudio de las literaturas y culturas ibéricas y latinoamericanas. 100 Units.

En este seminario abordaremos algunas de las problemáticas clave que han estructurado, y en no pocos casos des-estructurado, el campo de los estudios literarios hispánicos/ibéricos y latinoamericanos en las pasadas décadas. Tomando como punto de partida la puesta en cuestión del "orden de la letra" en sus relaciones con el poder --formulada con mayor coherencia y fundamento histórico por Angel Rama en La ciudad letrada-- nos interesa perseguir la aparición de ciertos paradigmas de interpretación surgidos (en parte) desde el interior mismo de los estudios literarios pero constituídos, no obstante, a partir de un disenso respecto a la centralidad de "la literatura" y de "la escritura" como ejes privilegiados o exclusivos para el análisis textual/cultural. Estas nuevas prácticas críticas han llevado no sólo a una aparente y paradójica descentralización del privilegio de la letra en los estudios literarios mismos sino también a un esfuerzo por desarrollar un distinto instrumental analítico en el que las convenciones que habían definido al objeto "literatura" aparecen trastocadas, cuando no desplazadas. Entre estas prácticas se encuentran el surgimiento de los estudios del performance, las exploraciones de las relaciones entre literatura, visualidad y cultura material y las reflexiones en torno a las categorías de género y sexualidad. ¿Qué condición adquiere el objeto literario dentro de estas redes?

Instructor(s): A. Lugo-Ortiz Terms Offered: Autumn

Note(s): Este curso incluye (en un horario adicional a ser acordado) un coloquio con el profesorado del Progama de Estudios Hispánicos y Luso-Brasileños y con profesores invitados cuyas investigaciones han formado parte de estas transformaciones (aún en curso, y por ello inciertas) de la disciplina.

SPAN 38810. Empire, Slavery, Salvation: Writing Diff. in Colonial Americas. 100 Units.

This course explores portrayals of human difference in literature, travel writing, painting, and autobiography from Spain, England, and the Americas. Students will become versed in debates surrounding the emergence of human distinctions based on religion, race, and ethnicity in the early modern era. Understanding these debates and the history surrounding them is crucial to participating in informed discussion, research, and activism regarding issues of race, empire, and colonialism across time and space.

Instructor(s): L. Brewer-García Terms Offered: Spring

Romance Languages and Literatures Courses

RLLT 38800. Foreign Language Acquisition, Research and Teaching. 100 Units. This course provides students with a foundation in foreign language acquisition and sociolinguistic research pertinent to foreign language teaching and introduces current teaching methodologies and technologies and their usefulness in the classroom.

Instructor(s): J. Sedlar Terms Offered: Autumn Note(s): Open only to RLL students



Department of Slavic Languages and Literatures

Discussions about the structure of the program are currently in progress.

The Department will not admit graduate students into its program for matriculation in the Autumn quarter of 2016.

Chair

Jason Merchant

Professors

Bozena Shallcross

Associate Professors

- Robert Bird
- Malynne Sternstein

Assistant Professors

• William Nickell

Senior Lecturers

Valentina Pichugin

Lecturers

- Eric Houle
- Angelina Ilieva
- Kinga Kosmala
- Nada Petkovic

Emeritus Faculty

- Howard I. Aronson
- Bill Darden
- Samuel Sandler
- Edward Wasiolek

Associate Faculty

- Matthew Jesse Jackson, Art History & Visual Arts
- Boris Maslov, Comparative Literature
- Adam Zagajewski, Social Thought
- Tara Zahra, History

PROGRAM DESCRIPTION

The Graduate Program

Our graduate programs are designed to provide a comprehensive preparation in students' major disciplines and prepare them for a career in Slavic studies, while also encouraging them to explore other related fields. Each graduate track therefore

has a minimal list of specific requirements and a maximal amount of flexibility in their fulfillment.

While the requirements for each track of study differ, the following are constant across all tracks. The objective of the program is the Ph.D. degree. Doctoral students in the program are eligible for the M.A. degree after completing the following requirements: successful completion of nine courses, including Old Church Slavonic, and of the master's exam or paper; reading knowledge of French or German; a test for advanced proficiency in speaking and writing the principal Slavic language. After successfully completing nine more courses, passing the comprehensive examinations and demonstrating reading knowledge of both French and German, each candidate must write an acceptable dissertation that makes an original contribution to the advancement of knowledge in the field.

SLAVIC LITERATURE

Courses in Slavic literature are taught by internationally renowned faculty with a broad variety of specializations, from medieval Slavic literature to the classic Russian novel to current writing in Russia. Poetry is a particular strength, with detailed coverage of great Russian poetry from Lomonosov, Pushkin, and Akhmatova to Brodsky and beyond. Another strength is Russian intellectual history, from the Slavophiles to Bakhtin. Our offerings also include coverage of contemporary theory and non-verbal media.

MA: Nine quarter courses (including: Proseminar in Literary Theory and Methods; Master's level seminar in Slavic arts and/or culture of specialization; and at least three courses in the literature of specialization) and demonstrated proficiency in speaking and writing the principal Slavic language. An exam demonstrating reading knowledge of French or German is required.

PhD: In addition to the courses required at the Master's level, students must take a minimum of nine courses, of which the following are specifically required:

- 1. Advanced research seminar in Slavic and East European literatures
- 2. A second Slavic language (1 year of study or reading knowledge)
- 3. At least 6 courses must be taken in the literature of specialization, including at least one with a significant focus on the theory of literature in the Slavic world.

SLAVIC LINGUISTICS AND LANGUAGES

The Department offers options to specialize in Slavic Linguistics (Historical or Synchronic) or Contact Linguistics. Language and linguistics-oriented courses are available in Russian, Czech, Polish, Bosnian/Croatian/Serbian, Macedonian, and Bulgarian as well as Albanian, Georgian, Lak, and Romani. The option to pursue a joint degree in the Department of Linguistics broadens the opportunities for students in Slavic Linguistics.

MA: Students take a core set of courses required for all three tracks as well as a set of track-specific courses. All students are required to take a comprehensive written examination based on a departmental reading list and general coursework by the

spring quarter of the second year; this exam serves as a Qualifying Examination for advancement to the Ph.D. program.

Common MA Core Courses:

The common core courses required of all students are: Introduction to Slavic Linguistics; Old Church Slavonic; Structure of Russian; History of Russian; and advanced knowledge of Russian (this requirement may be met by successfully completing 5th-year Russian).

Slavic Linguistics (Historical or Synchronic):

Students specializing in Historical or Synchronic Slavic linguistics are expected to demonstrate proficiency in reading a second Slavic language (this second requirement may be met by satisfactorily completing all work of a one-year language course), and courses in the history and structure of the second Slavic language. Two courses in literature or interdisciplinary studies are also required. Comparative Slavic is required for the specialization in Historical linguistics and Advanced Structure of Russian for Synchronic linguistics.

Contact Linguistics:

Students specializing in Contact linguistics must demonstrate proficiency in a relevant language for their area, to be determined in consultation with their adviser. Other required courses include Contact linguistics and two courses in literature or interdisciplinary studies. Courses in anthropological approaches to Language and Culture may serve for the literature/interdisciplinary requirement.

PhD: Students who have advanced to the Ph.D. program are expected to demonstrate mastery of their discipline as well as research skills by completion of a Qualifying Paper by the end of the spring quarter of their third year for continuation in the program. The topic of this paper is to be determined in consultation with the adviser. Successful completion of this Qualifying Paper is a prerequisite to defense of the dissertation proposal.

Common PhD Core courses:

All students are required to take general linguistics courses in Phonetics/ Phonology and Syntax, a research seminar, and at least one upper-level seminar in Slavic or general linguistics.

Historical Slavic Linguistics:

In addition to the core courses, the track in Historical Slavic Linguistics requires: Introduction to Indo-European and Introduction to Historical linguistics, and reading knowledge of one additional Slavic language, so that East, West, and South Slavic languages are all represented.

Synchronic Slavic Linguistics:

In addition to the core courses, the track in Synchronic Slavic Linguistics requires: Advanced Structure of Russian, a second advanced seminar in Slavic or general linguistics (to be determined in consultation with the adviser) and reading knowledge of one additional Slavic language, so that East, West, and South Slavic languages are all represented.

Contact Linguistics:

Students in Contact Linguistics are required to complete Field Methods (I/II), Typology, Introduction to Indo-European or Introduction to Historical Linguistics.

Advancement to Candidacy:

Upon successful completion of all coursework and the Qualifying Paper, students are expected to defend a dissertation proposal no later than the spring quarter of the fourth year for Advancement to Candidacy.

For exact details of each course of study, please consult the Slavic Department Graduate Student Manual.

INTERDISCIPLINARY STUDIES

This cutting edge program offers broad preparation in the relationships among the visual arts, cinema, media, folk and popular culture, as well as Slavic, Balkan, and Baltic languages and literatures. The main thrust of the program is the study of the history and criticism of interdisciplinary approaches to literature and the visual arts. Other emphases include anthropology, language, and intellectual history.

MA: A minimum of nine quarter courses (including: Proseminar in Literary and Interdisciplinary Approaches; and three additional courses in a Slavic or East European Literature, art and/or culture). In consultation with the program advisor, students will submit an MA paper (ordinarily based on a term paper) in partial fulfillment of the requirements for the degree.

PhD: In addition to the courses required at the Master's level, students must take a minimum of nine courses, of which the following are specifically required:

- 1. Advanced research seminar in Slavic and East European arts and/or cultures.
- 2. Second Slavic language (1 year of study required).
- 3. At least six courses must be taken in Slavic and East European arts and/or cultures of specialization, including at least one graduate-level seminar in critical theory.

REQUIREMENTS FOR BOTH THE LITERATURE AND INTERDISCIPLINARY TRACKS

The Qualifying Examination

In the sixth week of Spring Quarter of the second year, the student must take the Qualifying Exam. The Qualifying Exam is the equivalent of a thesis for an MA that students can receive as a terminal or non-terminal degree. Students should file copies of their examination lists with the Department's administrators and submit them to their exam committee. Students who do not meet this deadline cannot continue in the program. After receiving a High Pass on the Qualifying Examination, the student must start work on the Qualifying Paper.

The Qualifying Paper

The Qualifying Paper is an extensive research paper which should demonstrate the ability to conduct independent research and represents an original, publishable contribution to the student's relevant field. The paper is generally 35-50 pages (double-spaced) in length and must be submitted by the seventh week of the spring quarter of the third year. It is written under the guidance of a supervisor, who is a faculty member of the Slavic Department, and in consultation with one additional faculty member who be an affiliate, and is followed by a one-hour long discussion, during which the student responds to the committee's questions. The committee then recommends to the faculty one of the following actions:

1. To pass the paper

2. To pass the paper conditionally, indicating specific revisions to be made in consultation with the supervisor, with a due date.

3. To fail the paper.

The supervisor will communicate the results to the student. A student who fails the paper may petition the Department to compose another paper in a period not longer than three months. If permission is denied, the student must withdraw from the PhD program. If permission is granted, the student has a period no longer than three months to submit another Qualifying Paper.

Advancement to Candidacy:

Upon successful completion of all coursework and the Qualifying Paper, students are expected to defend a dissertation proposal no later than the spring quarter of the fourth year for Advancement to Candidacy. Students should identify and select a dissertation committee. One member of the committee is chosen as the dissertation advisor and primary reader; the other two as second and third readers.

Admissions/Financial aid

The Department is not currently accepting new applications to the graduate program. Students who are interested in pursuing graduate work at the University in the areas of expertise of the faculty in the Department are encouraged to apply to the Humanities Division's MAPH (Master of Arts in the Humanities) degree program, or to PhD programs where work on Slavic languages and literatures can be accommodated (e.g., Cinema and Media Studies, Comparative Literature, etc.). Students interested in Slavic linguistics may apply to the PhD program in the Department of Linguistics.

Contact Information

For additional information about the Department of Slavic Languages and Literatures, please see http://slavic.uchicago.edu/ or e-mail <slavicdepartment@uchicago.edu>.

COURSES

The actual offerings for the year will be found in the quarterly Time Schedules (http://timeschedules.uchicago.edu/).

Slavic Languages and Literatures - Bosnian/Croatian/ Serbian Courses

BCSN 30100-30200-30300. Third-Year Bosnian/Croatian/Serbian I-II-III.

This course is tailored to the needs of the students enrolled, depending on their concentration in the field. It enhances language acquisition with continuous reading and translation of essays, newspaper articles, literary excerpts, letters and other selected writings. Vocabulary building is emphasized by the systematic study of nominal and verbal roots, prefixes and suffixes, and word formation thereafter. Discussion follows each completed reading with a written composition assigned in relation to the topic.

BCSN 30100. Third-Year Bosnian/Croatian/Serbian I. 100 Units. Instructor(s): N. Petkovic Terms Offered: Autumn Prerequisite(s): BCSN 20300 or consent of instructor

BCSN 30200. Third-Year Bosnian/Croatian/Serbian II. 100 Units. Instructor(s): N. Petkovic Terms Offered: Winter

BCSN 30300. Third-Year Bosnian/Croatian/Serbian III. 100 Units. Instructor(s): N. Petkovic Terms Offered: Spring

BCSN 30200-30300. Third-Year Bosnian/Croatian/Serbian II-III.

This course is tailored to the needs of the students enrolled, depending on their concentration in the field. It enhances language acquisition with continuous reading and translation of essays, newspaper articles, literary excerpts, letters and other selected writings. Vocabulary building is emphasized by the systematic study of nominal and verbal roots, prefixes and suffixes, and word formation thereafter. Discussion follows each completed reading with a written composition assigned in relation to the topic.

BCSN 30200. Third-Year Bosnian/Croatian/Serbian II. 100 Units. Instructor(s): N. Petkovic Terms Offered: Winter

BCSN 30300. Third-Year Bosnian/Croatian/Serbian III. 100 Units. Instructor(s): N. Petkovic Terms Offered: Spring

BCSN 30300. Third-Year Bosnian/Croatian/Serbian III. 100 Units. Instructor(s): N. Petkovic Terms Offered: Spring

BCSN 31000. First-Year Bosnian/Croatian/Serbian I. 100 Units. Instructor(s): N. Petkovic Terms Offered: Autumn Equivalent Course(s): BCSN 10100

BCSN 31100. First-Year Bosnian/Croatian/Serbian II. 100 Units.

The major objective of the course is to build a solid foundation in the basic grammatical patterns of written and spoken Bosnian/Croatian/Serbian, while simultaneously introducing both the Cyrillic and Latin alphabets. This course is complemented with cultural and historical media from the Balkans and is designed for students with a wide range of interests. Screenings of movies and other audio-visual materials are held in addition to scheduled class time. Instructor(s): Nada Petkovic Terms Offered: Winter Equivalent Course(s): BCSN 10203

BCSN 31103. Advanced BCS: Literary Readings. 100 Units.

Instructor(s): Nada Petkovic Terms Offered: Autumn Prerequisite(s): BCSN 20300 or consent of instructor

BCSN 31200. First-Year Bosnian/Croatian/Serbian III. 100 Units.

Instructor(s): N. Petkovic Terms Offered: Spring Equivalent Course(s): BCSN 10300

BCSN 32000. Second-Year Bosnian/Croatian/Serbian I. 100 Units.

Instructor(s): N. Petkovic Terms Offered: Autumn Prerequisite(s): BCSN 10300 or consent of instructor Equivalent Course(s): BCSN 20100

BCSN 32100. Second-Year Bosnian/Croatian/Serbian II. 100 Units. Instructor(s): N. Petkovic Terms Offered: Winter Equivalent Course(s): BCSN 20200

BCSN 32200. Second-Year Bosnian/Croatian/Serbian III. 100 Units.

The first quarter is devoted to an overview of grammar, with emphasis on verbal morphology and syntax, through the reading of a series of literary texts in both the Latin and Cyrillic alphabets. The second and third quarters are devoted to further developing active mastery of Bosian/Croatian/Serbian through continued readings, grammar drills, compositions, and conversational practice. Study of word formation, nominal and adjectival morphology, and syntax are emphasized. Screenings of movies and other audio-visual materials are held in addition to scheduled class time.

Instructor(s): Nada Petkovic Terms Offered: Spring Equivalent Course(s): BCSN 20303

BCSN 40100. Advanced Bosnian/Croatian/Serbian I. 100 Units. Instructor(s): Nada Petkovic Terms Offered: Autumn

BCSN 40200. Advanced Bosnian/Croatian/Serbian II. 100 Units. Instructor(s): Nada Petkovic Terms Offered: Winter

BCSN 40300. Advanced Bosnian/Croatian/Serbian III. 100 Units. Instructor(s): Nada Petkovic Terms Offered: Spring

Slavic Languages and Literatures - Czech Courses

Slavic Languages and Literatures - East European Courses

Slavic Languages and Literatures - General Slavic Courses

SLAV 44001. Colloquium: Ending Communism. 100 Units.

This course focuses on the demise of one of the most enduring, ambitious, appealing, transformative, and destructive political ideologies. We will consider the collapse of communism as a religion, an aesthetic, and a way of life; an economic system and a material culture; a political structure and an international order. We will also discuss communism's afterlives in biographies and memoirs (including those of scholars). Topics include reforms and revolutions, political and cultural dissent, generations and languages, secrecy and publicity, travel and immobility, competing religions and rival ideologies, the Cold War and détentes, privileges and shortages, apartment blocks and palaces of culture, the Gorky Park, the Memento Park, and other Luna Parks. Our readings will range across Europe, focusing primarily on the Soviet Union and Eastern Europe in the last forty years of the twentieth century.

Instructor(s): E. Gilburd Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): HIST 44001

Slavic Languages and Literatures - Polish Courses

POLI 30100. Third-Year Polish I. 100 Units.

Terms Offered: Autumn Prerequisite(s): POLI 20300 or equivalent Equivalent Course(s): POLI 20500

POLI 30103. Third-Year Polish I. 100 Units.

The process of learning in all three quarters of Third Year Polish is framed by three themes, which most succinctly but aptly characterize the Polish life, culture and history: in the Fall Quarter – the noble democracy in the Commonwealth of Both Nations, in the Winter Quarter – the fight for independence, and in the Spring Quarter – the newly independent Poland. During the course of the year, students also improve their knowledge of advanced grammar and stylistics. All work in Polish. Autumn, Winter, Spring. Meets on MWF 11:30-12:20. Conversation hour to be arranged.

Terms Offered: Autumn Prerequisite(s): POLI 20303 or equivalent

POLI 30200. Third-Year Polish II. 100 Units.

Terms Offered: Winter Equivalent Course(s): POLI 20600

POLI 30300. Third-Year Polish III. 100 Units.

Terms Offered: Spring Equivalent Course(s): POLI 20700

POLI 40100-40200-40300. Polish Through Literary Readings I-II-III.

An advanced language course emphasizing spoken and written Polish. Readings include original Polish prose and poetry as well as nonfiction. Intensive grammar review and vocabulary building. For students who have taken Third Year Polish and for native or heritage speakers who want to read Polish literature in the original. Readings and discussions in Polish.

POLI 40100. Polish Through Literary Readings I. 100 Units. Instructor(s): Kinga Kosmala Terms Offered: Autumn Equivalent Course(s): POLI 24100

POLI 40200. Polish Through Literary Readings II. 100 Units. Instructor(s): Kinga Kosmala Terms Offered: Winter Prerequisite(s): POLI 30300 or equivalent. Equivalent Course(s): POLI 24200

POLI 40300. Polish Through Literary Readings III. 100 Units. Instructor(s): Kinga Kosmala Terms Offered: Spring Prerequisite(s): POLI 30300 or equivalent Equivalent Course(s): POLI 24300

POLI 40200. Polish Through Literary Readings II. 100 Units. Instructor(s): Kinga Kosmala Terms Offered: Winter Prerequisite(s): POLI 30300 or equivalent. Equivalent Course(s): POLI 24200

POLI 40300. Polish Through Literary Readings III. 100 Units. Instructor(s): Kinga Kosmala Terms Offered: Spring Prerequisite(s): POLI 30300 or equivalent Equivalent Course(s): POLI 24300

Slavic Languages and Literatures - Russian Courses

RUSS 30102-30202-30302. Advanced Russian through Media I-II-III.

This course, which is designed for fifth-year students of Russian, covers various aspects of Russian stylistics and discourse grammar in context. It emphasizes the four communicative skills (i.e., reading, writing, listening comprehension, speaking) in culturally authentic context. Clips from Russian/Soviet films and television news reports are shown and discussed in class. Classes conducted in Russian.

RUSS 30102. Advanced Russian through Media I. 100 Units. Instructor(s): V. Pichugin Terms Offered: Autumn Prerequisite(s): RUSS 21002 or consent of instructor Equivalent Course(s): RUSS 21302

RUSS 30202. Advanced Russian through Media II. 100 Units. Instructor(s): V. Pichugin Terms Offered: Winter Equivalent Course(s): RUSS 21402

RUSS 30302. Advanced Russian through Media III. 100 Units. Instructor(s): V. Pichugin Terms Offered: Spring Equivalent Course(s): RUSS 21502 **RUSS 30202. Advanced Russian through Media II. 100 Units.** Instructor(s): V. Pichugin Terms Offered: Winter Equivalent Course(s): RUSS 21402

RUSS 30302. Advanced Russian through Media III. 100 Units. Instructor(s): V. Pichugin Terms Offered: Spring Equivalent Course(s): RUSS 21502

RUSS 39600. Pale Fire. 100 Units.

This course is an intensive reading of Pale Fire by Nabakov. Instructor(s): Malynne Sternstein Terms Offered: Winter

RUSS 39901. 6th Year Russian. 100 Units. Instructor(s): Valentina Pichugin Terms Offered: Autumn

RUSS 39902. 6th Year Russian - Part 2,6th Year Russian - Part 3. 100 Units. Instructor(s): Valentina Pichugin Terms Offered: Winter,Spring

RUSS 39902. 6th Year Russian - Part 2,6th Year Russian - Part 3. 100 Units. Instructor(s): Valentina Pichugin Terms Offered: Winter,Spring

Slavic Languages and Literatures - South Slavic Courses

SOSL 37610. Gender in the Balkans through Literature and Film. 100 Units. This introductory course examines the poetics of femininity and masculinity in some of the best works of the Balkan region. We contemplate how the experiences of masculinity and femininity are constituted and the issues of socialization related to these modes of being. Topics include the traditional family model, the challenges of modernization and urbanization, the socialist paradigm, and the post-socialist changes. Finally, we consider the relation between gender and nation, especially in the context of the dissolution of Yugoslavia. All work in English. Instructor(s): A. Ilieva Terms Offered: Winter

Slavic Languages and Literatures – Russian and East European Studies Courses

REES 31000. Gombrowicz: The Writer as Philosopher. 100 Units.

In this course, we dwell on Witold Gombrowicz the philosopher, exploring the components of his authorial style and concepts that substantiate his claim to both the literary and the philosophical spheres. Entangled in an ongoing battle with basic philosophical tenets and, indeed, with existence itself, this erudite Polish author is a prime example of a 20th century modernist whose philosophical novels explode with uncanny laughter. In contrast to many of his contemporaries, who established their reputations as writers/philosophers, Gombrowicz applied distinctly literary models to the same questions that they explored. We investigate these models in depth, as we focus on Gombrowicz's novels, philosophical lectures, and some of his autobiographical writings. With an insight from recent criticism of these primary texts, we seek answers to the more general question: What makes this author a philosopher?

Instructor(s): Bozena Shallcross Terms Offered: Winter Note(s): All readings in English.

Equivalent Course(s): REES 21000, FNDL 26903, ISHU 29405

REES 33141. Avant-Garde in East Central Europe. 100 Units.

The avant-gardes of the "other" Europe are the mainstay of this course which focuses especially, but not exclusively, on the interwar avant-gardes of Austria, Czechoslovakia, Hungary, Poland, Romania, Slovenia, and Yugoslavia. A comparative framework is employed whenever lucrative to comprehend the East/ Central European movements in the wider context of the European avant-garde. The course also traces the development and legacy (political and artistic) of these avant-gardes in their contemporary scenes. Plastic, verbal, and performative arts (including film) are studied.

Instructor(s): Malynne Sternstein Terms Offered: Spring

Equivalent Course(s): ARTH 25500, ARTH 35500, CMST 25100, CMST 35100, ISHU 28401, ISHU 38401, REES 23141

REES 33147. The Bakhtin Mystery: Text, Context, and Authorship. 100 Units. The Bakhtin Circle was an informal alliance of several young thinkers, formed amid the tumult of the Russian revolution, swiftly forced into silence after a brief efflorescence in the 1920s, and rediscovered with aplomb in the 1960s. Despite their broad influence in recent decades, basic issues of authorship, originality and coherence continue to dominate scholarship on Bakhtin and his colleagues. We will survey the corpus of texts originating in the Bakhtin Circle, not only those published under the name of Mikhail Bakhtin, but also the explicitly Marxist texts published under the names of Pavel Medvedev and Valentin Voloshinov but frequently attributed to Bakhtin. At issue in the course is not only the historiography and interpretation of the Bakhtin corpus, but also the origins of critical theory, the dynamics of theoretical collaboration, and methods of attribution. We will also be interested in the potential that these writings hold for constructing a viable theory of literary forms today. Our first task will be to establish the sources, contexts and development of Bakhtin's early work, including "Toward a Philosophy of the Act," "Art and Answerability" and Problems of Dostoevsky's Art. We will then examine the works published by Medvedev and Voloshinov, using the mystery of their authorship to frame questions concerning the organization of intellectual activity. . .Read more on complit.uchicago.edu Instructor(s): Boris Maslov; Robert Bird Terms Offered: Winter

Equivalent Course(s): CMLT 34505

REES 33158. Theories of Narrative. 100 Units.

This class serves as an introduction to critical approaches to narrative, story-telling, and discourse analysis. While the emphasis will be on the Formalist-Structuralist tradition (Shklovsky, Propp, Tomashevsky, Jakobson, Benveniste, Barthes, Genette), we will also discuss works by Plato, Aristotle, Bakhtin, Benjamin, Auerbach, Pavel, Banfield, Silverstein, and others. Part of our task will be to test these approaches against narratives produced in different genres and historical periods (authors will include Pindar, Apuleius, Pushkin, Leskov, and Nabokov). Students will have the option of either writing a research paper or doing a final exam. Required books for this class are: V. Propp, The Morphology of the Folktale (Austin: U. of Texas Press); G. Genette, Narrative Discourse: An Essay in Method (Ithaca: Cornell UP); R. Barthes, S/Z (New York: Hill and Wang).

Instructor(s): Boris Maslov Terms Offered: Spring Equivalent Course(s): CLAS 38315,CMLT 38300

REES 33706. The Soviet Union. 100 Units.

This lecture course surveys the making and unmaking of the Soviet Union as a society, culture, economy, superpower, and empire from 1917 to 1991. The Soviet Union began as an unprecedented radical experiment in remaking society and economy, ethnic and gender relations, personal identities, even human nature, but in the course of its history, it came to resemble other (capitalist) societies, sharing, in turn, their violence, welfare provisions, and consumerism. The story of this transformation—from being unique and exhilarating to being much like everyone else, only poorer and more drab—will be at the center of our exploration. The main themes of the course include social and cultural revolutions; ideology and the role of Marxism; political violence from the birth of the socialist state to the end of the Stalin terror; origins, practices, aesthetics, legacies, and critiques of Stalinism; law, dissent, and human rights; nationality policies and the role of ethnic minorities; the economy of shortages and the material culture it created; institutions of daily life (communal apartments, courtyards, peasant markets, dachas, and boiler rooms); socialist realism and the Soviet dreamworld.

Instructor(s): E. Gilburd Terms Offered: Spring Equivalent Course(s): HIST 23706,HIST 33706,REES 23706

REES 35600. Realism in Russia. 100 Units.

From the 1830s to the 1890s, most Russian prose writers and playwrights were either engaged in the European-wide cultural movement known as "realistic school" which set for itself the task of engaging with social processes from the standpoint of political ideologies. The ultimate goal of this course is to distill more precise meanings of "realism," "critical realism," and "naturalism" in nineteenth-century Russian through analysis of works by Gogol, Turgenev, Tolstoy, Dostoevsky, Aleksandr Ostrovsky, Goncharov, Saltykov-Shchedrin, and Kuprin. Texts in English and the original. Optional Russian-intensive section offered. Terms Offered: Winter

Equivalent Course(s): REES 25600

REES 35601. Russian Media Culture. 100 Units.

Over the past 150 years, various political and cultural regimes of Russia have systematically exploited the gap between experience and representation to create their own mediated worlds-from the tight censorship of the imperial and Soviet periods to the propaganda of the Soviet period and the recent use of media simulacra for strategic geopolitical advantage. During this same period state control of media has been used to seclude Russia from the advancement of liberalism, market economics, individual rights, modernist art, Freud, Existentialism, and, more recently, Western discourses of inclusion, sustainability, and identity. Examining this history, it is sometimes difficult to discern whether the architects of Russian culture have been hopelessly backward or shrewd phenomenologists, keenly aware of the relativity of experience and of their ability to shape it. This course will explore the worlds that these practices produce, with an emphasis on Russia's recent confrontations with Western culture and power, and including various practices of subversion of media control, such as illegal printing and circulation. Texts for the course will draw from print, sound, and visual media, and fields of analysis will include aesthetics, cultural history, and media theory. Instructor(s): William Nickell

Equivalent Course(s): REES 25601

REES 36047. Pushkin and Gogol. 100 Units.

Alexander Pushkin (1799–1837) is widely considered the founding genius of modern Russian literature, especially in his lyric and epic poetry; Nikolai Gogol (1809– 1852) injected a manic strain of magic realism to create the modern Russian novel. Apollon Grigor'ev later called Pushkin "our everything"; Dostoevsky claimed "We all emerged out of Gogol's 'Overcoat.'" During the quarter we will read a representative selection of both writers' major works, including Pushkin's verse novel Evgenii Onegin, verse epic The Bronze Horseman, and novel The Captain's Daughter, and Gogol's novel Dead Souls in addition to his fantastic stories "The Nose" and "The Overcoat." We will focus on close readings of the texts, paying particular attention to their experiments with literary form, as well as attending to their broader historical contextualization. We will focus particularly on the conceptions of realism projected by the texts and imposed by later readers. All readings will be in English translation.

Instructor(s): Robert Bird

Note(s): This course will offered in place of RUSS 25500 Equivalent Course(s): FNDL 26047,REES 26047

REES 36048. Russian Cinema. 100 Units.

Russian cinema occupies an important and distinctive place within world film culture. It rose to prominence in the 1920s through the revolutionary (in all senses) films and film theory of Sergei Eisenstein, Vsevolod Pudovkin, Dziga Vertov, and others, and maintained its distinction through the early years of socialist realism, a unique media system in which film was recognized, in Lenin's saying, as "the most important of the arts." After Stalin's death, Russian film re-captivated its revolutionary energy amidst the "Soviet new wave," characterized by the films of Mikhail Kalatozov, Sergei Paradzhanov, and Andrei Tarkovsky. In recent years, film has continued to play a crucial role in defining and animating a post-Soviet cultural identity, both through poetic filmmakers such as Aleksandr Sokurov and through genre films. We will survey this history, from 1917 right up to the present moment, with a selection of the most energizing films and theoretical writings by their makers. We will examine how a national style gets established and maintained; how film form and film style have responded to the pressures of ideology and power; how film art has served both as a tool of colonialization and identity-formation; and how film artists have negotiated the pressures of cultural tradition (including that of the Russian novel) and the world film market.

Instructor(s): R. Bird Terms Offered: Winter

Equivalent Course(s): CMST 34505, REES 26048, CMST 24505

REES 36800. Balkan Folklore. 100 Units.

Vampires, fire-breathing dragons, vengeful mountain nymphs. 7/8 and other uneven dance beats, heart-rending laments, and a living epic tradition. This course is an overview of Balkan folklore from historical, political, and anthropological perspectives. We seek to understand folk tradition as a dynamic process and consider the function of different folklore genres in the imagining and maintenance of community and the socialization of the individual. We also experience this living tradition firsthand through visits of a Chicago-based folk dance ensemble, "Balkan Dance."

Instructor(s): A. Ilieva

Equivalent Course(s): ANTH 25908, ANTH 35908, CMLT 23301, CMLT 33301, NEHC 20568, NEHC 30568, REES 26800

REES 37003. Narratives of Assimilation. 100 Units.

Engaging the concept of liminality—of a community at the threshold of radical transformation—the course analyzes how East Central European Jewry, facing economic uncertainties and dangers of modern anti-Semitism, seeks another diasporic space in America. Projected against the historical backdrop of the end of the nineteenth century and the twentieth century, the immigration narratives are viewed through the lens of assimilation, its trials and failures; in particular, we investigate how the creative self reacts to the challenges of radical otherness, such as the new environment, its cultural codes and language barriers. We discuss the manifold strategies of artistic (self)-representations of the Jewish writers, many of whom came from East Central European shtetls to be confronted with assimilation to the American metropolitan space and life style. During this course, we inquire how the condition called assimilation and its attendants-- secularization, acculturation, cosmopolitanism, etc.-is adapted or critically resisted according to the generational differences, a given historical moment or inherited strategies of survival and adaptation. We seek answers to the perennial question why some émigré writers react negatively to the social, moral and cultural values of the host country and others seize them as a creative opportunity. Students are acquainted with problems of cultural identity formation and cultural transmission through a wide array of artistic genres-a novel, short

Instructor(s): Bozena Shallcross

Note(s): This course may be used to fulfill the general education requirement in civilization studies.

Equivalent Course(s): REES 27003, RLST 26623, NEHC 20223, NEHC 30223, JWSC 20223

REES 37020. Postdependency in Contemporary Polish Prose and Discourse. 100 Units.

This course is structured around the concept of post-dependency and its applicability to the region of the former "Soviet bloc," especially Poland, after the country underwent a systemic change. Through the lens of the 1989 aftermath, we analyze the recent revisions of national historiographies and genealogies along with memory politics as engaged in fiction and discourse of post-communist Poland. Aware of the mechanical application of post-dependency as exemplified by Poland, we pose the question whether and how the postcolonial theory fits the case. In doing so, we analyze how the contemporary Polish prose participates in the shaping of post-dependency and simultaneously represents the process of liberating the country from the Soviet influence. In particular, we discuss how the fiction reveals a set of highly complicated strategies of identity and preferred life styles, often through an unconventional construal of the home; also we investigate how the new sense of sexual difference and minority identities are negotiated anew in both Polish fiction and discourse. The course's trajectory begins with a discussion of the rhetoric of domination and economic exploitation during communism; next, it interrogates emancipatory strategies and geopolitical ramification of Polish post-dependency status; and, finally, surveys two discursive perspectives on Polish post-dependency as 'orientalized' (conservative) and 'orientalizing' (liberal) ideological entity. Instructor(s): Bozena Shallcross Terms Offered: Spring Equivalent Course(s): REES 27020

REES 39006. The Brighter Side of the Balkans: Humor & Satire in Lit & Film. 100 Units.

In this course, we examine the poetics of laughter in the Balkans. In order to do so, we introduce humor as both cultural and transnational. We unpack the multiple layers of cultural meaning in the logic of "Balkan humor." We also examine the functions and mechanisms of laughter, both in terms of cultural specificity and general practice and theories of humor. Thus, the study of Balkan humor will help us elucidate the "Balkan" and the "World," and will provide insight not only into cultural mores and social relations, but into the very notion of "funny." Our own laughter in class will be the best measure of our success – both cultural and intellectual.

Instructor(s): Angelina Ilieva Terms Offered: Spring

Prerequisite(s): Readings in English. Background in the Balkans will make the course easier, but is not required.

Equivalent Course(s): REES 29006, CMLT 26610, NEHC 20884, NEHC 30884



DEPARTMENT OF SOUTH ASIAN LANGUAGES AND CIVILIZATIONS

Chair

- Ulrike Stark
- Professors
- Muzaffar Alam
- Dipesh Chakrabarty
- Steven Collins
- Wendy Doniger
- Ulrike Stark
- Gary Tubb

Associate Professors

- Sascha Ebeling
- Rochona Majumdar Director of Graduate Studies (AY 15-16) Assistant Professors
- Whitney Cox
- Thibaut d'Hubert
- Tyler Williams

Visiting Professors

- E. Annamalai
- Patrick Olivelle
- David Shulman

Senior Lecturers

- Elena Bashir
- Philip Engblom
- Jason Grunebaum Lecturers
- Mandira Bhaduri
- Nisha Kommattam
- Karma T. Ngodup
- **Emeritus Faculty**
- Kali Charan Bahl
- Ronald B. Inden
- Colin P. Masica
- C. M. Naim
- Frank E. Reynolds

- Clinton B.Seely
- Norman H. Zide

The following pages briefly describe the requirements of the Department's Ph.D. degree program, sources of financial aid for graduate students, and resources for the study of South Asia at the University of Chicago. Please also refer to the Departmental web pages for updated information. Degree requirements are set out in detail, but the notes on other topics found here are intended to provide only general introductions. Names, and phone numbers, e-mail and office addresses of Departmental and other University personnel mentioned in this Handbook will be found on the University websites.

The Department

The Department of South Asian Languages and Civilizations is a multidisciplinary department comprised of faculty with expertise in the languages, literatures, histories, philosophies, and religions of South Asia. The examination of South Asian texts, broadly defined, is the guiding principle of our Ph.D. degree, and the dissertation itself. This involves acquaintance with a wide range of South Asian texts and their historical contexts, and theoretical reflection on the conditions of understanding and interpreting these texts. These goals are met through departmental seminars and advanced language courses, which lead up to the dissertation project.

Advisers

Students develop and pursue their individual programs in active consultation with members of the faculty. To advise students on their programs and progress overall, one faculty member acts as the departmental Director of Graduate Studies (for name and contact details, see the Departmental faculty web page (http:// salc.uchicago.edu/faculty)). Students are required to meet the with Director of Graduate Studies regularly in order to have their academic program choices approved. The main advisory function will eventually be assumed by the dissertation chairperson. Students are encouraged to actively seek a faculty member of the Department of South Asian Languages and Civilizations to fill this role as soon as possible, at the latest before the preparation of the dissertation proposal. It is the responsibility of students to familiarize themselves with the requirements of the degree program. If they have any doubts regarding the requirements in general, or their specific applicability to their particular program, it is important to resolve them promptly in consultation with the Director of Graduate Studies. Students should also remember that advising is a joint process: they can only receive guidance when they ask for it.

THE DEGREE OF DOCTOR OF PHILOSOPHY

To receive the degree of Ph.D. in South Asian Languages and Civilizations, a student must complete a minimum of 18 courses (the actual number of course may be higher depending on the language proficiency of the student). These include the required language courses, the 3 required Departmental seminars, and other courses relevant to the student's chosen specialty. The latter may include courses offered in

other departments as well as in SALC. Students may not receive a grade of 'R' in any of the courses counted among the required 18 courses, and none of these may be an informal reading course. These requirements must be fulfilled before admission to candidacy.

Students with prior graduate work in South Asian languages and civilizations or those holding a relevant Master's degree may petition at the end of their first year to satisfy a portion of the 18-course requirement. Only courses taken at accredited institutions will be accepted, and the petition will have to be approved by the departmental Director of Graduate Studies.

Before being admitted to candidacy, Ph.D. students must, in addition to completing at least 18 courses, also fulfill the following requirements which are given in further detail below:

- Meet general language requirements
- Complete the three required departmental seminars
- Receive a passing grade on the two qualifying papers
- · Formulate two reading lists and pass an oral examination based on them
- Write and defend a dissertation proposal

The Ph.D. is awarded following approval and successful defense of the completed dissertation.

Students normally take 3 to 5 years to complete all pre-dissertation. Students who have not completed the Ph.D. by the end of the twelfth year will no longer be permitted to register in the degree program, but those who go on to complete their dissertations may petition the Department to be allowed to graduate.

LANGUAGE REQUIREMENTS

The Department encourages varied research devoted to the ancient, medieval, modern, and contemporary cultures of South Asia. All research in the department has as its main prerequisite suitable advancement in the languages appropriate to a student's chosen field of specialization. The languages in which the department offers concentrations are Bangla, Hindi, Malayalam, Marathi, Pali, Sanskrit, Tamil, Telugu, Tibetan, and Urdu. Persian and Arabic are also available through the Department of Near Eastern Languages and Civilizations. Courses may occasionally be offered in other languages; special arrangements must be made in advance with the instructors of these languages, and students must petition the Department in order to count these languages for their requirements.

Three languages are required:

- The South Asian language of concentration (the major language)
- A second South Asian language relevant to the student's program of study (the minor language)
- A third language of scholarship (e.g. French, German, Hindi, Japanese, etc.)

Students are required to achieve highest proficiency in their major language. Students who already possess both linguistic competence and analytical skills in their major language should contact the language instructor for placement at the appropriate level. However, at least one year of advanced language courses in the Department of South Asian Languages and Civilizations has to be successfully completed regardless of the student's level of language competence. Two years of advanced language courses in the Department of South Asian Languages and Civilizations have to be attended regardless of the student's level of language competence.

In their minor language, students are required to achieve a proficiency equivalent to at least 2 years of formal study at the University of Chicago. Again, students who already possess knowledge of their minor language should contact the language instructor to determine the level of proficiency. Students who already possess a proficiency level equivalent to 2 years of formal study at the University of Chicago may fulfill the requirement by taking an exam without prior coursework.

The student's selection of the major and minor language will have to be approved by the departmental Director of Graduate Studies. While the choice of the major language will obviously depend on the student's research projects, students are strongly encouraged to consider for their minor language one that opens up new perspectives and that will help to gain a broader knowledge of South Asia. Students are expected to demonstrate satisfactory progress each quarter in the required language courses.

For the third language, the language of scholarship, students should choose a language on the basis of how useful it will be for their chosen field of study. They should be able to show that a significant body of scholarship has been or is being produced in that language. The choice of the language of scholarship has to be approved by the departmental Director of Graduate Studies. Proficiency in reading the language of scholarship is assessed by an examination administered by the University Office of Test Administration or by the Department of South Asian Languages and Civilizations, as appropriate to the language in question. A High Pass is required.

Required Departmental Seminars

Competence in South Asian languages and civilizations is demonstrated as much by close familiarity with South Asian texts as by a broad knowledge of the plurality of South Asian practices and traditions. To this end the Ph.D. program includes three required departmental seminars. These seminars are taught in a two year cycle. The three required seminars must be completed in the first two years.

Research Themes in South Asian Studies I and II (SALC 40100/40200)

These two seminars will each approach a broad theme in South Asian studies from a perspective transcending any narrow focus on a specific language or region. The objective is to introduce students to current research themes and methods pertinent but not exclusive to the study of South Asia. Seminar topics could include South Asian court cultures, genres, material aspects of textual culture, poetic theories, political thought, translation practices, region in South Asia, etc. The two seminars will be offered in sequence every two years.

South Asia as a Unit of Study (SALC 40000)

This course aims to acquaint students with major historical and methodological questions pertaining to the field of South Asian languages and civilizations. Topics could include the history of Orientalism, colonial forms of knowledge, South Asia in a global context, etc. This course will be offered in alternate years.

QUALIFYING PAPERS

In their first year of study, students are required to submit a qualifying paper on a subject agreed upon with a faculty member. This paper should demonstrate the student's ability to write scholarly prose, to formulate a clear research argument, and to situate it within the context of secondary literature relevant to the topic. It must be submitted during the third week of the Spring quarter of the first year. The length of this paper must be 5,000 to 6,000 words, including footnotes and references (12 pt font, double-spaced, with 1 inch margins). There are two grade categories for this first qualifying paper:

- No Pass
- Pass

In their second year of study, students are required to submit a second qualifying paper on a subject agreed upon with a faculty member. This paper should demonstrate the student's ability to formulate a research topic involving primary materials, to argue its importance and to situate it within a history of scholarship, to articulate the principal questions of theory and method relevant to this topic, and to present conclusions in a clear and precise manner. It must be submitted in the third week of the Spring quarter of the second year. The length of this second paper must be 8,000 to 10,000 words, including footnotes and references (formatted as specified above). There are three grade categories for the second qualifying paper:

- No Pass
- Pass (with progress beyond the M.A. degree not permitted)
- Pass

There are two readers for each of the qualifying papers. The second reader is appointed by the Chair of the Department.

MA Degree

Upon successful completion of the two qualifying papers, students may apply for the M.A. degree. For the degree to be awarded, students must have completed, in addition to the qualifying papers:

- At least two years of the major language
- The three required departmental seminars
- There can be no outstanding Incomplete grades

It is very strongly recommended that students avoid Incomplete grades at all times.

Reading Lists and Oral Examinations

While the program asks students to pursue specialized research in their area of concentration, it is essential that they do this in relation to a broad understanding of the cultural and historical context in which their objects of specialized study are situated. The Department therefore requires oral examinations on the basis of two reading lists in:

- A major area of study
- A minor area of study

The student's two reading lists are to be designed in consultation with one or more SALC faculty in a given area, and tailored to his or her individual needs. No one faculty member should serve as sole adviser for both lists, and the two lists must be on clearly different areas. The first must deal with the literary, cultural or other history of the student's major language. The second must pertain to an area of South Asian studies other than his or her field of concentration. The reading lists should not exceed twenty books and should constitute a serious, deep, and broad set of readings in important issues in the area of study. The relative weight of primary as opposed to secondary texts should be a matter of consultation between the student and the faculty member(s) concerned.

Each of the two reading lists in their final form must be approved and signed by the faculty member(s) who supervised their preparation. The departmental Chair and Director of Graduate Studies will verify that the lists meet all the formal requirements. An approved and signed copy of each will be deposited in the student's permanent file. These signed copies must be submitted to the departmental office no later than thirty days before the proposed date of the oral examination. It is the student's responsibility to ensure that the reading lists are filed in time.

The faculty members who approve the reading lists serve as examiners for the oral examinations, which are normally taken in the fall or winter quarter of the student's third year. The two exams are administered in one session; each is approximately 45 minutes long. One composite grade – 'No Pass', 'Pass', or 'High Pass' – is awarded for the oral examinations.

DISSERTATION PROPOSAL AND ADMISSION TO CANDIDACY

Time to candidacy must be no more than five years. Time to degree must be no more than twelve years.

In order to be admitted to Ph.D. candidacy, a student must write and orally defend a detailed dissertation proposal prepared under the supervision of the dissertation chairperson. Students must have completed all requirements: at least 18 courses, including the three required departmental seminars, the language requirements, and the qualifying papers. All Incompletes and blanks on the student's transcript for required courses must have been removed and the new grade recorded in the Registrar's Office prior to the date of the proposal defense. Admission to candidacy must take place no later than the fifth year of the student's program.

Note that, in accordance with Divisional and Departmental requirements, students must pass the examination in the language of scholarship before being admitted

to candidacy. Furthermore, most of the grants which are available to support dissertation research require that a student be admitted to candidacy before taking up the grant.

The proposal should demonstrate a student's awareness of broad theoretical issues and a detailed knowledge of the chosen area of specialization. The dissertation proposal should be 20-25 pages in length. It should provide a clear statement of the scholarly problem to be addressed by the dissertation; the student's theoretical orientation to this problem; a review of previous scholarly work; a provisional outline of the dissertation as a whole; a plan of research, including archives to be consulted, research sites chosen, a timetable, and a bibliography of no more than two pages.

Prior to the proposal defense, the student and the dissertation chairperson (who must be a member of the Department of South Asian Languages and Civilizations) select the two additional members of the student's dissertation committee. One of the two may be, with the approval of the departmental Chair, from outside the University. The third member must be a University faculty member but need not be a member of SALC. The proposal must be deposited in the form of a printed paper copy in the departmental office at least two weeks prior to the date of the defense, and an abstract of it must be circulated to all SALC faculty. It is the responsibility of the student to ensure that the proposal and the abstract are deposited by this deadline. The proposal is defended orally before the committee and the Department, with the Chair of the Department presiding; these proceedings are open to students and faculty of the University. One purpose of the proposal defense is to familiarize all the members of the Department with a student's research agenda, and provide an opportunity for them to offer guidance. With successful completion of the dissertation proposal defense, the student is admitted to Ph.D. candidacy.

The Dissertation

It is expected that the dissertation will represent a substantial and original contribution to the study of South Asian languages and civilizations. Upon completion of the dissertation, the student defends it orally before the members of the dissertation committee, a Divisional Representative, and the Department, with the Chair of the Department presiding. Students will follow the guidelines of the University's Dissertation Office in planning the date of their defense, and in formatting the dissertation. See http://www.lib.uchicago.edu/e/phd/.

Two weeks before the scheduled defense, the student must submit a hard copy of the dissertation to each member of his/her committee and the departmental administrator. This task is solely the responsibility and expense of the student. This copy will be a complete, formatted dissertation, with the preliminary pages, main body of work, and end matter included in their entirety, and properly formatted. This copy of the dissertation should be printed on standard white paper and should conform in every way to the requirements outlined by the University's Dissertation Office. The defense will be cancelled if these standards are not met.

The defense proceedings are open only to the University community. Grades awarded for the dissertation are "No Pass," "Conditional Pass," and "Pass."

The "Conditional Pass" requires the student to make revisions and obtain the committee's final approval before the Departmental Approval Form will be signed.

APPLICATION AND ADMISSION

Completed applications for admission and aid, along with all supporting materials, are due in mid-December for the academic year that starts in the following Autumn.

Four parts of the application are critically important and should accompany the application: the student's academic record, letters of recommendation submitted by persons able to describe the student's achievements and promise, the student's statement of purpose, which describes the intellectual issues and subjects which they hope to explore at Chicago, and a sample of pertinent written work that demonstrates the applicant's research interests or capabilities. The student's academic record is documented through official transcripts.

Students whose first language is not English must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Information about these tests may be obtained from the Educational Testing Service, Princeton, NJ 08540.

The application process for admission and financial aid for all graduate programs in Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http://humanities.uchicago.edu/prospective/ #admissions.

Questions pertaining to admissions and aid should be directed to humanitiesadmissions@uchicago.edu or (773) 702-1552.

Teaching Opportunities

As part of the student's pedagogical training, students are required to hold three Teaching Assistantships and one Lectureship, usually beginning in their third year. For Lectureships, preference is given to Ph.D. candidates. Students should discuss these arrangements with the GSA and the student's committee chair, but an overview of teaching opportunities and teaching development resources is given below.

Departmental courses provide the major venue for teaching. The two-quarter undergraduate course "Introduction to South Asian Civilizations" regularly involves the participation of one or more graduate students as Teaching Assistants, and sometimes as Lecturers. The T.A.s and Lecturer/s are selected by the faculty coordinators for the course, usually late in the spring quarter of the preceding academic year. Departmental faculty teaching language courses also sometimes hire graduate students as Teaching Assistants and Lecturers. Students may teach a course of their own devising as a Lecturer; this arrangement must be coordinated and approved by the Department Chair, who will contact students about proposals for such.

Students may teach a course of their own devising through competitive "prize seminars" offered by the Stuart Tave Teaching Fellowships and Whiting Undergraduate Teaching Fellowships. The Department nominates students for these fellowships. Students can also apply for the Tave through The Center for Gender Studies (see http://genderstudies.uchicago.edu/grad/teaching.shtml).

Students are also encouraged to pursue teaching opportunities not directly related to South Asian studies, such as positions in the University Writing Program (see http://writing-program.uchicago.edu/jobs/index.htm). We especially encourage students to pursue the position of Writing Intern in the Humanities Common Core courses through this program. Being a Writing Intern (functionally a T.A.) in these courses provides valuable generalist experience for the job market.

The University sponsors workshops and forums designed to help graduate students develop pedagogically. Contact the Center for Teaching and Learning (see http://teaching.uchicago.edu/). The South Asian Language Research Center, housed at the University, also offers workshops on South Asian language pedagogy targeted towards advanced graduate students interested in language instruction (see http:// salrc.uchicago.edu/).

Funding

Students admitted to doctoral study are typically awarded a five-year fellowship package that includes full tuition, an academic year stipend, up to four summer stipends, and medical insurance. Teaching training is a vital part of the educational experience at the University, so all fellowships include a required teaching component.

The information given below lists the most common sources of fellowships and grants for graduate students in the Department. Students may also be eligible for other funding administered by the University, private foundations, or other agencies. For information on the full range of sources of support, contact the following:

Office of Graduate Affairs graduate-affairs@uchicago.edu http://grad-affairs.uchicago.edu/programs/index.shtml

Humanities Dean of Students Office Walker Museum, Ste. 111 humanitiesadmissions@uchicago.edu https://humanities.uchicago.edu/students/financial-aid

LANGUAGE STUDY FELLOWSHIPS

FLAS Fellowships (Foreign Language and Area Studies Fellowships) are another important source of funding. Recipients must be U.S. citizens or permanent residents, enrolled in at least one language course in the language of the award per quarter, and enroll in at least one course in an appropriate area or international studies subject during the academic year in which they hold a FLAS. Additional details regarding FLAS Fellowships may be found at the Office of Graduate Affairs web site. Qualifying languages taught in the Department are Bengali, Hindi, Malayalam, Marathi, Tamil, Telugu, Tibetan, Urdu, and when offered, Khowar and Panjabi. These fellowships currently cover tuition, health clinic fees, student activities fees, and carry a stipend of \$15,000 for three quarters. A competition for Summer FLAS fellowships for language study takes place concurrently; summer fellowships currently cover program tuition up to \$4000 and provide a stipend of \$2500. Summer FLAS fellowships may be used for eligible programs in the United States and abroad. Contact the South Asia Language and Area Center for information. Note that Summer FLAS Fellowships also may be available from the institution offering instruction (e.g., SASLI at UW, see below). Contact the institution sponsoring the program for information. Winter Quarter deadline.

We strongly encourage all SALC students to participate in a language study program in South Asia, and/or in the summer at the South Asian Summer Language Institute (SASLI) at the University of Wisconsin, at some time in their graduate career. Receipt of a fellowship for participation in a language program does not affect the total amount of your University funding; rather, the University postpones the funding until you return from your language study fellowship year or summer.

The American Institute of Indian Studies (AIIS) offers fellowships for its intensive nine-month language programs in India. See http://www.indiastudies.org/researchfellowship-programs/ for details and a current list of the languages offered. AIIS summer language programs offer no funding for participants; students often obtain a summer FLAS fellowship through their home university. COSAS funding is also available for this purpose (see below). UC-Berkeley funds special fellowships for the AIIS Urdu program. See http://salc.uchicago.edu/graduate/funding. For information, contact Elise Auerbach, Administrator for AIIS, (aiis@uchicago.edu). Winter Quarter deadline.

aiis@uchicago.edu offers some minimal funding for language study in Sri Lanka. See http://salc.uchicago.edu/graduate/funding. Rolling deadline.

The Committee on Southern Asian Studies (COSAS). Although primarily awarded for dissertation write-up (see below), COSAS fellowship support is also available for summer language study. For application information contact the Committee Office (Kelly 104, tel. 702-8637, snoble@uchicago.edu). Spring Quarter deadline.

Critical Language Scholarships are available for summer intensive language study with AIIS (see above) and the American Institute of Bangladesh Studies, for U.S. citizens. See http://salc.uchicago.edu/graduate/funding. Winter and Spring Quarter deadlines.

The South Asia Summer Language Institute (SASLI) at the University of Wisconsin-Madison offers FLAS fellowships through UW, with the usual FLAS citizenship restrictions, and Fee Remission Scholarships for which all students are eligible. See http://salc.uchicago.edu/graduate/funding. Winter Quarter deadline.

PRE-DISSERTATION RESEARCH SUPPORT

The Social Science Research Council (SSRC), despite its name, funds humanities projects as well, and offers a Dissertation Proposal Development Fellowship. See http://www.ssrc.org/programs/dpdf/. Winter Quarter deadline.

The American Institute of Bangladesh Studies (AIBS) offers a pre-dissertation fellowship for U.S. citizens or permanent residents. See http://salc.uchicago.edu/graduate/funding. Contact AIBS for deadline.

The American Institute of Sri Lankan Studies (AISLS) offers a dissertation planning grant. See http://salc.uchicago.edu/graduate/funding. Fall Quarter deadline.

The Committee on Southern Asian Studies (COSAS). Although primarily awarded for dissertation write-up (see below), COSAS fellowship support is also available for pre-dissertation research. For application information contact the Committee Office (Kelly 104, tel. 702-8637, so-asian@uchicago.edu). Spring Quarter deadline.

FUNDING FOR OVERSEAS DISSERTATION RESEARCH

These fellowships are for students admitted to Ph.D. candidacy. The following are the most common fellowships received by our students, and some South Asia-specific fellowships (as well as one Southeast Asia fellowship). There are several other fellowships for which graduate students in SALC are possibly eligible; see the Office of Graduate Affairs and the Humanities Dean of Students Office for complete databases and application information. Students should apply to as many relevant funding sources as possible.

The American Institute of Bangladesh Studies (AIBS)

Funds dissertation research in Bangladesh. See http://salc/uchicago.edu/graduate/ funding. Winter Quarter deadline.

The American Institute of Indian Studies (AIIS)

Funds dissertation research in India. Note that the July 1 application deadline is approximately one year to one-and-a-half years prior to the time when a grant recipient would begin residence in India. See http://www.indiastudies.org/.

The American Institute of Pakistan Studies (AIPS)

Offers a fellowship for research on materials related to the history and culture of Pakistan in any country EXCEPT Pakistan and the U.S. See http://www.pakistanstudies-aips.org/. Winter Quarter deadline.

THE CENTER FOR KHMER STUDIES (CKS)

Offers a Ph.D. Dissertation Research Fellowship for work in Cambodia and neighboring countries. See http://www.khmerstudies.org/fellowships/ (http://khmerstudies.org/fellowships/senior-fellowships). Fall Quarter deadline.

The Council of American Overseas Research Centers (CAORC)

Offers a Multi-Country Research Fellowship for research of regional or transregional significance. Fellowships require scholars to conduct research in more than one country, at least one of which hosts a participating American overseas research center. See http://www.caorc.org/fellowships/multi/. Winter Quarter deadline.

FULBRIGHT-HAYS DISSERTATION FELLOWSHIP

For research in non-Western countries. See http://www2.ed.gov/programs/ iegpsddrap/index.html. Students apply through the University Office of Graduate Affairs. See http://grad-affairs.uchicago.edu/programs/fulbright.shtml. Fall Quarter deadline.

Fulbright U.S. Student Program (through IEE)

This program funds U.S. citizens conducting research abroad. See http:// salc.uchicago.edu/graduate/funding. Students apply through the University Office of Graduate Affairs. Contact graduate-affairs@uchicago.edu. Fall Quarter deadline.

THE NICHOLSON CENTER FOR BRITISH STUDIES, UNIVERSITY OF CHICAGO

This Center offers a short-term graduate fellowship for UC graduate student research in the British Isles and Ireland, generally for three months or fewer. Those who research the former British Empire are eligible. Applicants have to demonstrate their need to conduct research in the British Isles and/or Ireland. See http://british.uchicago.edu/fellowships-and-competitions. Spring Quarter deadline.

The Social Science Research Council (SSRC)

Despite its name, funds humanities research and offers an International Dissertation Research Fellowship. See http://www.ssrc.org/programs/idrf/. Fall Quarter deadline.

DISSERTATION WRITE-UP FELLOWSHIPS

Please consult the Office of Graduate Affairs and the Humanities Dean of Students Office for information about external fellowships for the dissertation write-up period.

The University offers several fellowships for dissertation write-up which our students have received in recent years, namely, the Franke Institute, the William Rainey Harper, the Mellon Foundation, and the Whiting dissertation-year fellowships. These are residential fellowships which require presence on campus. The Department nominates students for these fellowships, and the competitions are administered by the Humanities Dean of Students Office. Note that students are not eligible for the Franke, Harper, and Whiting Fellowships beyond the tenth year of their program. For the Mellon, students beyond their sixth year are ineligible. See http://humanities.uchicago.edu/current/#grants for information.

The Martin Marty Center at the Divinity School offers a dissertation fellowship that may interest SALC students. See http://divinity.uchicago.edu/martycenter/fellowships/marty_dissertation.shtml for application information.

EXTERNAL FELLOWSHIPS

Please consult the Office of Graduate Affairs and the Humanities Dean of Students Office for information about external fellowships for the dissertation write-up period. In recent years some SALC students have received the following fellowship: The American Association of University Women Dissertation Fellowship

Available to U.S. citizen/permanent resident women who will complete their dissertation writing during the fellowship period. Scholars engaged in researching gender issues are encouraged to apply. See http://www.aauw.org/learn/ fellows_directory/. Fall quarter deadline.

The Andrew W. Mellon Foundation/ACLS Dissertation Completion Fellowships

Awardees can generally hold this Fellowship no later than their seventh year. See http://www.acls.org/grants/Default.aspx?id=510&linkidentifier=id&itemid=510;. Fall quarter deadline.

CONFERENCE GRANTS

SALC students are encouraged to organize panels and present papers at annual conferences such as the University of Wisconsin Annual Conference on South Asia, the annual meetings of the Association of Asian Studies, the American Academy of Religion, the American Historical Association, and the Modern Language Association, and their regional conferences, and conferences abroad, if possible. The following are some funding sources for travel to conferences for students presenting papers.

The American Institute for Sri Lankan Studies

Offers travel stipends for two annual conferences. See http://salc.uchicago.edu/ graduate/funding

The Division of the Humanities

Offers a Conference Grant. See http://humanities.uchicago.edu/students/financialaid.

The Office of Graduate Affairs

Offers the Harrison-Doolittle Conference Grant. See http://gradaffairs.uchicago.edu/programs/doolittle.shtml.

LIBRARY RESOURCES

Over 610,000 volumes of books, journals, government documents, maps, pamphlets, films, and sound recordings from all parts of the South Asian subcontinent are housed in the University of Chicago Library system. Publications are available on all aspects of South Asian life and culture, in all major western languages as well as in over thirty languages from all the nation-states of the subcontinent.

In addition to the Library's on-line catalog (http://www.lib.uchicago.edu/e/ index.html), area-specific informational resources can be found at the Southern Asia Collection website, http://www.lib.uchicago.edu/e/su/southasia/. A subpage of this site offers cataloging for the 21,000 volumes of Official Publications of the Government of India, deposited with the Regenstein by the British Library: http:// www.lib.uchicago.edu/e/su/southasia/off-pubs.html.

Office of the Southern Asia Collection

Regenstein Library, Room 560. Bibliographer: James H. Nye, jnye@uchicago.edu. Southern Asia Collection staff members are available for consultation in Regenstein 560 Monday through Friday from 9:00 a.m. to 5:00 p.m. You are encouraged to consult with the South Asia Librarian, Jim Nye, or one of his staff members, to discuss research needs for your dissertation project.

Following is a list of South Asia-related materials in the Regenstein Library and elsewhere on and near campus:

South Asia Reference Collection

Regenstein Fifth Floor Reading Room (RR5) on the far east side. This collection includes some 4,000 reference tools for most South Asian subjects (bibliographies, indexes, census volumes, gazetteers, atlases, dictionaries, standard histories, etc.), plus a selection of current journals, and daily newspapers.

South Asia Pamphlet Collection

housed on the south wall of RR5 in vertical files for which a key is available in Room 560 during office hours; collection includes several thousand pamphlets, off prints, unpublished conference papers, reading lists and other ephemera; holdings are listed in special catalog drawers marked by yellow tape in the fifth floor South Asia card catalog.

Map Collection

JRL 370, includes thousands of maps of all parts of South Asia at various scales, and from various periods.

Audio-visual materials

These include 16-mm films, videos, audio cassettes, DVDs, etc. Many are in the Regenstein collection catalogue, especially audio recordings of a wide variety of South Asian music. A few South Asian film resources are available at the Film Studies Center. A small library of audio-visual materials is available for check out to graduate students from the South Asia Outreach Office in Kelly Hall.

The nearby Center for Research Libraries (http://catalog.crl.edu/) holds multiple resources, including films from the important South Asia Microform Project. These can be obtained through Interlibrary Loan, or at the CRL Reading Room itself, at 6050 S. Kenwood Avenue (see http://www.crl.edu/about).

South Asian Languages & Civilizations - Malayalam Courses

South Asian Languages & Civilizations - Telugu Courses

South Asian Languages & Civilizations - Bangla Courses

BANG 30100-30200-30300. Third-Year Bangla (Bengali) I-II-III.

When joining this course the student is expected to demonstrate the ability to narrate in all time frames of the language. The student should be able to provide a simple though articulate discourse on familiar topics and subjects directly related to the his/her interests. He/She will learn to provide a full account of events and to use appropriately complex sentences in Bangla. We will also focus on some aspects of the technical language pertaining to various domains. The student will be invited to discuss orally on written material studied in class and at home, and he/she will have to produce two to three pages long essays on a given topic. Systematic introductions to a variety of registers and literary idioms (19th century Sadhu Bhasha, dialects, etc.) will also be provided. By the end of the spring quarter the student will have the necessary tools to expand significantly his/her abilities in order to reach the superior level.

BANG 30100. Third-Year Bangla (Bengali) I. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Autumn Prerequisite(s): Second year Bangla or comparable level of language skills

BANG 30200. Third-Year Bangla (Bengali) II. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Winter Prerequisite(s): BANG 30100 or comparable level of language skills

BANG 30300. Third-Year Bangla (Bengali) III. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Spring Prerequisite(s): BANG 30200 or comparable level of language skills

BANG 30200. Third-Year Bangla (Bengali) II. 100 Units. Instructor(s): T. d'Hubert Terms Offered: Winter

Prerequisite(s): BANG 30100 or comparable level of language skills

BANG 30300. Third-Year Bangla (Bengali) III. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Spring Prerequisite(s): BANG 30200 or comparable level of language skills

BANG 40100-40200-40300. Fourth-Year Bangla (Bengali) I-II-III.

Students attending this course must be able to produce an articulate discourse on subjects related to history and literary criticism. They should also have a good command of Bengali grammar. The course is mainly devoted to the study of selected modern and premodern Bangla texts (narrative literature, devotional and courtly poetry, treatises) in their historical contexts. We propose various readings in the historiography of Bangla literature, philology, traditional performance of Bangla poetry, etc... Besides, material from all periods will be studied according to the student's scholarly interests.

BANG 40100. Fourth-Year Bangla (Bengali) I. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Autumn Prerequisite(s): Third year Bangla or comparable level of language skills

BANG 40200. Fourth-Year Bangla (Bengali) II. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Winter Prerequisite(s): BANG 40100 or comparable level of language skills

BANG 40300. Fourth-Year Bangla (Bengali) III. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Spring Prerequisite(s): BANG 40200 or comparable level of language skills

BANG 40200. Fourth-Year Bangla (Bengali) II. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Winter Prerequisite(s): BANG 40100 or comparable level of language skills

BANG 40300. Fourth-Year Bangla (Bengali) III. 100 Units.

Instructor(s): T. d'Hubert Terms Offered: Spring Prerequisite(s): BANG 40200 or comparable level of language skills

BANG 47900-47901-47902. Rdgs: Advanced Bangla (Bengali) I-II-III.

This course is for students who have successfully completed third and fourth year Bangla. It is divided between classes dealing with the current research themes of the instructor, and the study of material directly related with the research interests of the students. The focus is on methodology and the use of Bangla as a research language.

BANG 47900. Rdgs: Advanced Bangla (Bengali) I. 100 Units. Instructor(s): T. d'Hubert Terms Offered: Autumn Prerequisite(s): BANG 40300

BANG 47901. Rdgs: Advanced Bangla (Bengali) II. 100 Units. Instructor(s): T. d'Hubert Terms Offered: Winter Prerequisite(s): BANG 47900

BANG 47902. Rdgs: Advanced Bangla (Bengali) III. 100 Units. Instructor(s): T. d'Hubert Terms Offered: Spring Prerequisite(s): BANG 47901

BANG 47901. Rdgs: Advanced Bangla (Bengali) II. 100 Units. Instructor(s): T. d'Hubert Terms Offered: Winter Prerequisite(s): BANG 47900

BANG 47902. Rdgs: Advanced Bangla (Bengali) III. 100 Units. Instructor(s): T. d'Hubert Terms Offered: Spring Prerequisite(s): BANG 47901

South Asian Languages & Civilizations - Hindi Courses

HIND 30100-30200-30300. Third-Year Hindi I-II-III.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

HIND 30100. Third-Year Hindi I. 100 Units.

Instructor(s): U. Stark Terms Offered: Autumn Prerequisite(s): HIND 20300 or comparable level of language skills

HIND 30200. Third-Year Hindi II. 100 Units.

Instructor(s): T. Williams Terms Offered: Winter Prerequisite(s): HIND 30100 or comparable level of language skills

HIND 30300. Third-Year Hindi III. 100 Units.

Instructor(s): T. Williams Terms Offered: Spring Prerequisite(s): HIND 30200 or comparable level of language skills

HIND 30200. Third-Year Hindi II. 100 Units.

Instructor(s): T. Williams Terms Offered: Winter Prerequisite(s): HIND 30100 or comparable level of language skills

HIND 30300. Third-Year Hindi III. 100 Units.

Instructor(s): T. Williams Terms Offered: Spring Prerequisite(s): HIND 30200 or comparable level of language skills

HIND 40100-40200-40300. Fourth-Year Hindi I-II-III.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

HIND 40100. Fourth-Year Hindi I. 100 Units.

Instructor(s): U. Stark Terms Offered: Autumn Prerequisite(s): HIND 30300 or comparable level of language skills

HIND 40200. Fourth-Year Hindi II. 100 Units.

Instructor(s): T. Williams Terms Offered: Winter Prerequisite(s): HIND 40100 or comparable level of language skills

HIND 40300. Fourth-Year Hindi III. 100 Units.

Instructor(s): T. Williams Terms Offered: Spring Prerequisite(s): HIND 40200 or comparable level of language skills

HIND 40200. Fourth-Year Hindi II. 100 Units.

Instructor(s): T. Williams Terms Offered: Winter Prerequisite(s): HIND 40100 or comparable level of language skills

HIND 40300. Fourth-Year Hindi III. 100 Units.

Instructor(s): T. Williams Terms Offered: Spring Prerequisite(s): HIND 40200 or comparable level of language skills

HIND 47900-47901-47902. Rdgs: Advanced Hindi I-II-III.

Readings from Hindi literary and journalistic texts and a wide array of other sources depending on student interests, with continuing grammar review and practice in listening comprehension, composition and speech.

HIND 47900. Rdgs: Advanced Hindi I. 100 Units.

Instructor(s): U. Stark Terms Offered: Autumn Prerequisite(s): HIND 40300

HIND 47901. Rdgs: Advanced Hindi II. 100 Units.

Instructor(s): T. Williams Terms Offered: Winter Prerequisite(s): HIND 47900

HIND 47902. Rdgs: Advanced Hindi III. 100 Units.

Instructor(s): T. Williams Terms Offered: Spring Prerequisite(s): HIND 47901

HIND 47901. Rdgs: Advanced Hindi II. 100 Units.

Instructor(s): T. Williams Terms Offered: Winter Prerequisite(s): HIND 47900

HIND 47902. Rdgs: Advanced Hindi III. 100 Units.

Instructor(s): T. Williams Terms Offered: Spring Prerequisite(s): HIND 47901

HIND 47904. Wives, Widows, Prostitutes: Indian Lit & the Women's Question. 100 Units.

From the early nineteenth century, the debate on the status of Indian women formed an integral part of the discourse on the state of civilization, Hindu tradition, and social reform in colonial India. This course explores how Hindi and Urdu writers of the late 19th and early 20th centuries engaged with the so-called "women's question." Caught between middle class conservatism and the urge for social reform, these authors addressed controversial issues such as female education, child marriage, widow remarriage, and prostitution in their fictional and other writings. We explore the tensions of a literary and social agenda that advocated the "uplift" of women as a necessary precondition for the progress of the nation, while also expressing patriarchal fears about women's rights and freedom. Texts will be read in English translation, with some excerpts in the original.

Instructor(s): U. Stark Terms Offered: Spring

Prerequisite(s): Basic knowledge of Hindi or Urdu; Instructor consent is required for undergraduate students.

Equivalent Course(s): SALC 43800, GNSE 27902, GNSE 47900, SALC 27904

South Asian Languages & Civilizations - Marathi Courses

South Asian Languages & Civilizations - Pali Courses

SOUTH ASIAN LANGUAGES & CIVILIZATIONS - SANSKRIT COURSES SANS 30100-30200-30300. Third-Year Sanskrit I-II-III.

Reading selections introduce major Sanskrit genres, including verse and prose narrative, lyric poetry, drama, and the intellectual discourse of religion, philosophy, and the sciences. Analysis of the language and style employed in commentarial texts and practice in reading such texts is also emphasized.

SANS 30100. Third-Year Sanskrit I. 100 Units.

Instructor(s): P. Olivelle Terms Offered: Autumn Prerequisite(s): SANS 20300 or approval of instructor

SANS 30200. Third-Year Sanskrit II. 100 Units.

Instructor(s): D. Arnold Terms Offered: Winter Prerequisite(s): SANS 30100 or approval of instructor SANS 30300. Third-Year Sanskrit III. 100 Units. Instructor(s): G. Tubb Terms Offered: Spring Prerequisite(s): SANS 30200 or approval of instructor

SANS 30200. Third-Year Sanskrit II. 100 Units.

Instructor(s): D. Arnold Terms Offered: Winter Prerequisite(s): SANS 30100 or approval of instructor

SANS 30300. Third-Year Sanskrit III. 100 Units.

Instructor(s): G. Tubb Terms Offered: Spring Prerequisite(s): SANS 30200 or approval of instructor

SANS 40100-40200-40300. Fourth-Year Sanskrit I-II-III.

The goal of this sequence is to provide students with strong reading expertise in a wide range of Sanskrit texts in literature (poems and plays, verse and prose) and the scientific and philosophical discourses (e.g., grammar, logic, poetic theory, Buddhist thought), and commentarial literature on both.

SANS 40100. Fourth-Year Sanskrit I. 100 Units.

Instructor(s): P. Olivelle Terms Offered: Autumn Prerequisite(s): SANS 30300 or approval of instructor

SANS 40200. Fourth-Year Sanskrit II. 100 Units.

Instructor(s): D. Arnold Terms Offered: Winter Prerequisite(s): SANS 40100 or approval of instructor

SANS 40300. Fourth-Year Sanskrit III. 100 Units. Instructor(s): G. Tubb Terms Offered: Spring

Prerequisite(s): SANS 40200 or approval of instructor

SANS 40200. Fourth-Year Sanskrit II. 100 Units.

Instructor(s): D. Arnold Terms Offered: Winter Prerequisite(s): SANS 40100 or approval of instructor

SANS 40300. Fourth-Year Sanskrit III. 100 Units.

Instructor(s): G. Tubb Terms Offered: Spring Prerequisite(s): SANS 40200 or approval of instructor

SANS 47900-47901-47902. Rdgs: Advanced Sanskrit I-II-III.

Readings drawn from texts at an advanced level of difficulty in any of the relevant genres of Sanskrit, including literature, philosophy, literary theory, and religion, for students who have already completed fourth-year Sanskrit. Continuing attention is given to matters of grammar, style, scholastic techniques, and intellectual and cultural content.

SANS 47900. Rdgs: Advanced Sanskrit I. 100 Units. Instructor(s): P. Olivelle Terms Offered: Autumn Prerequisite(s): SANS 40300

SANS 47901. Rdgs: Advanced Sanskrit II. 100 Units. Instructor(s): D. Arnold Terms Offered: Winter Prerequisite(s): SANS 47900 SANS 47902. Rdgs: Advanced Sanskrit III. 100 Units. Instructor(s): G. Tubb Terms Offered: Spring Prerequisite(s): SANS 47901

SANS 47901. Rdgs: Advanced Sanskrit II. 100 Units.

Instructor(s): D. Arnold Terms Offered: Winter Prerequisite(s): SANS 47900

SANS 47902. Rdgs: Advanced Sanskrit III. 100 Units.

Instructor(s): G. Tubb Terms Offered: Spring Prerequisite(s): SANS 47901

South Asian Languages & Civilizations - South Asian Languages & Civilizations Courses

SALC 30509. Hindi Cinema: from Bombay to Bollywood. 100 Units.

This course maps the transformation of the Hindi film industry in India. Starting out as a regional film production center, how did the Bombay film industry and Hindi cinema gain the reputation of being the leader of Indian cinema? This despite the fact that most critical acclaim, by the state and film critics, was reserved for "art cinema." Through an analysis of Hindi films from the 1950s to the present we map the main trends of this complex artistic/industrial complex to arrive at an understanding of the deep connect between cinema and other social imaginaries. Instructor(s): R. Majumdar Terms Offered: Winter

Equivalent Course(s): CMST 24107, CMST 34107, GNSE 20509, SALC 20509

SALC 30510. Indian Art Cinema. 100 Units.

What do we mean when we refer to "art films" in the Indian context? Is it fair to refer to the body of film works that come under this rubric as Indian national cinema? Through a close analysis of films by Satyajit Ray, Ritwik Ghatak, Mrinal Sen, Shyam Benegal, Mani Kaul, Basu Chatterjee, M. S. Sathyu, Girish Kasaravalli, and Aparna Sen, this course will analyze the different currents in Indian art cinema. Instructor(s): R. Majumdar Terms Offered: Spring

Equivalent Course(s): CMST 24108, CMST 34108, SALC 20510

SALC 30800. Music of South Asia. 100 Units.

This course examines the music of South Asia as an aesthetic domain with both unity and particularity in the region. The unity of the North and South Indian classical traditions is treated historically and analytically, with special emphasis placed on correlating their musical and mythological aspects. The classical traditions are contrasted with regional, tribal, and folk music with respect to fundamental conceptualizations of music and the roles it plays in society. In addition, the repertories of Pakistan, Afghanistan, and Sri Lanka, as well as states and nations bordering the region, are covered. Music is also considered as a component of myth, religion, popular culture, and the confrontation with modernity. Instructor(s): K. Mason Terms Offered: Various Prerequisite(s): Any 10000-level music course or consent of instructor Note(s): This course typically is offered in alternate years.

Equivalent Course(s): MUSI 23700,SALC 20800

SALC 30900. Cultural Politics of Contemporary India. 100 Units.

Structured as a close-reading seminar, this class offers an anthropological immersion in the cultural politics of urban India today. A guiding thread in the readings is the question of the ideologies and somatics of shifting "middle class" formations; and their articulation through violence, gender, consumerism, religion, and technoscience.

Instructor(s): W. Mazzarella Terms Offered: TBD Equivalent Course(s): ANTH 25500,ANTH 42600,SALC 20900

SALC 37701. Mughal India: Tradition and Transition. 100 Units.

The focus of this course is on the period of Mughal rule during the late sixteenth, seventeenth, and eighteenth centuries, especially on selected issues that have been at the center of historiographical debate in the past decades.

Instructor(s): M. Alam Terms Offered: Autumn

Prerequisite(s): Advanced standing or consent of instructor. Prior knowledge of appropriate history and secondary literature required.

Equivalent Course(s): SALC 27701, HIST 26602, HIST 36602

SALC 39900. Informal Reading Course. 100 Units.

Instructor(s): Student chooses instructor Terms Offered: Autumn, Winter, Spring Note(s): Requires consent of instructor

SALC 40200. Research Themes II. 100 Units.

Topic: "Representing Renunciation." This course will look at texts and documentary films about both male and female renunciation (monasticism) in South and Southeast Asia (Hinduism, Jainism, Buddhism). It will also read and discuss Bill Nichols' book Introduction to Documentary Film. It will be concerned with how these institutions and traditions are represented in the two media. How far are the media similar or different?

Instructor(s): S. Collins Terms Offered: Autumn

Prerequisite(s): SALC Core Requirement

Note(s): This course has a different topic each quarter it is offered. Autumn 2015: "Representing Renunciation"

SALC 42501. Many Ramayanas. 100 Units.

This course is a close reading of the great Hindu Epic, the story of Rama's recovery of his wife, Sita, from the demon Ravana on the island of Lanka, with special attention to the changes in the telling of the story throughout Indian history. Readings are in Paula Richman, Many Ramayanas and Questioning Ramayanas; the Ramayanas of Valmiki (in translation by Goldman, Sattar, Shastri, and R. K. Narayan), Kampan, and Tulsi; the Yogavasistha-Maharamayana; and contemporary comic books and films.

Instructor(s): W. Doniger Terms Offered: Winter

Prerequisite(s): Consent of instructor

Equivalent Course(s): HREL 42501, FNDL 22901, RLST 26801, SCTH 40701

SALC 43800. Wives, Widows, Prostitutes: Indian Lit & the Women's Question. 100 Units.

From the early nineteenth century, the debate on the status of Indian women formed an integral part of the discourse on the state of civilization, Hindu tradition, and social reform in colonial India. This course explores how Hindi and Urdu writers of the late 19th and early 20th centuries engaged with the so-called "women's question." Caught between middle class conservatism and the urge for social reform, these authors addressed controversial issues such as female education, child marriage, widow remarriage, and prostitution in their fictional and other writings. We explore the tensions of a literary and social agenda that advocated the "uplift" of women as a necessary precondition for the progress of the nation, while also expressing patriarchal fears about women's rights and freedom. Texts will be read in English translation, with some excerpts in the original.

Instructor(s): U. Stark Terms Offered: Spring

Prerequisite(s): Basic knowledge of Hindi or Urdu; Instructor consent is required for undergraduate students.

Equivalent Course(s): HIND 47904, GNSE 27902, GNSE 47900, SALC 27904

SALC 48400. Second-Year Sanskrit II. 100 Units.

Instructor(s): W. Doniger Terms Offered: Winter Prerequisite(s): SANS 20100 or consent of instructor Equivalent Course(s): SANS 20200,HREL 36000

SALC 49300. South Asian Aesthetics: Rasa to Rap, Kamasutra to Kant. 100 Units. This course introduces students to the rich traditions of aesthetic thought in South Asia, a region that includes (among others) the modern-day states of India, Pakistan, Afghanistan, Bangladesh, Nepal and Sri Lanka. By engaging with theories of art, literature and music from the Indic and Indo-Persian traditions, we will attempt to better understand what happens in an aesthetic experience. A central concern will be thinking about how much any aesthetic tradition, be it South Asian or other, is rooted in the particular epistemic and cultural values of the society that produced it; we will therefore explore how ideas from the South Asian tradition can help us to understand not only South Asian material, but art in other societies as well, and to re-think the boundaries of 'aesthetic' thought. Class discussion, small group work, and individual presentations will be regular features of the class. Two sessions will include performances by, and discussions with, performing artists (dancers and musicians). We will also make one visit to the Art Institute Chicago. Instructor(s): T. Williams Terms Offered: Spring Equivalent Course(s): CMLT 29302, CMLT 39302, SALC 29300

SALC 49900. Thesis Research. 100 Units.

Instructor(s): Student chooses instructor Terms Offered: Autumn, Winter, Spring Note(s): Requires consent of instructor

SALC 60100. Teaching South Asia. 100 Units.

Teaching South Asia will be a Workshop open to students in their second year of their graduate program or above, who are now or who expect to be teaching any kinds of course in the area(s) of South Asian Studies in the future. It is intended for all students in the University, and will not have a specific Humanities focus. In the past we have discussed actual or draft syllabuses, students have given trial lectures, conference or job talks, we have run mock job interviews, etc. What happens this year will depend on what students want. Students who have attended the workshop before will be allowed to take it again.

Instructor(s): S. Collins Terms Offered: Autumn

Prerequisite(s): Second year as a graduate student or beyond.

South Asian Languages & Civilizations - Tamil Courses

TAML 30100-30200-30300. Third-Year Tamil I-II-III.

On the basis of a variety of readings, such as short stories, poems, excerpts from novels or non-fiction, this course addresses those issues of modern written Tamil grammar which have not been covered during the previous two years. Readings are typically selected with a view to providing important cultural information, and they are supplemented by film clips and other media. Class content may be chosen or adapted based on particular student needs. Further work on listening and speaking proficiency is also part of the course. Based on prior consultation with instructor regarding placement, this course might be an appropriate starting point for speakers of Tamil with previous knowledge (e.g., heritage students).

TAML 30100. Third-Year Tamil I. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Autumn Prerequisite(s): TAML 20300 or comparable level of language skills. Prior consent of instructor required.

TAML 30200. Third-Year Tamil II. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Winter Prerequisite(s): TAML 30100 or comparable level of language skills. Prior consent of instructor required.

TAML 30300. Third-Year Tamil III. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Spring Prerequisite(s): TAML 30200 or comparable level of language skills. Prior consent of instructor required.

TAML 30200. Third-Year Tamil II. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Winter Prerequisite(s): TAML 30100 or comparable level of language skills. Prior consent of instructor required.

TAML 30300. Third-Year Tamil III. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Spring

Prerequisite(s): TAML 30200 or comparable level of language skills. Prior consent of instructor required.

TAML 40100-40200-40300. Fourth-Year Tamil I-II-III.

This course typically includes an introduction to Classical Tamil grammar and literature, with sample readings reaching from the oldest known Tamil literature (Sangam poetry) via bhakti poems to the magnificent courtly compositions of the high and late medieval periods. Various other types of linguistic variation may also be studied, e.g. inscriptional Tamil or dialects/regional language registers. Depending on the students' needs, an overview of Tamil literary history is also given. Native or heritage speakers of Tamil are required to have a solid knowledge of modern Tamil grammar.

TAML 40100. Fourth-Year Tamil I. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Autumn Prerequisite(s): TAML 30300 or comparable level of language skills. Prior consent of instructor required.

TAML 40200. Fourth-Year Tamil II. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Winter Prerequisite(s): TAML 40100 or comparable level of language skills. Prior consent of instructor required.

TAML 40300. Fourth-Year Tamil III. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Spring Prerequisite(s): TAML 40200 or comparable level of language skills. Prior consent of instructor required.

TAML 40200. Fourth-Year Tamil II. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Winter Prerequisite(s): TAML 40100 or comparable level of language skills. Prior consent of instructor required.

TAML 40300. Fourth-Year Tamil III. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Spring Prerequisite(s): TAML 40200 or comparable level of language skills. Prior consent of instructor required.

TAML 47900-47901-47902. Rdgs: Advanced Tamil; Rdgs: Advanced Tamil II-III.

This course is for students who have successfully completed third- and fourth-year Tamil. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Tamil texts from any time period, country or genre. Prior consent of instructor is required.

TAML 47900. Rdgs: Advanced Tamil. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Autumn Prerequisite(s): TAML 40300

TAML 47901. Rdgs: Advanced Tamil II. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Winter Prerequisite(s): TAML 47900 **TAML 47902. Rdgs: Advanced Tamil III. 100 Units.** Instructor(s): S. Ebeling Terms Offered: Spring Prerequisite(s): TAML 47901

TAML 47901. Rdgs: Advanced Tamil II. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Winter Prerequisite(s): TAML 47900

TAML 47902. Rdgs: Advanced Tamil III. 100 Units.

Instructor(s): S. Ebeling Terms Offered: Spring Prerequisite(s): TAML 47901

South Asian Languages & Civilizations - Tibetan Courses

TBTN 30100-30200-30300. Third-Year Tibetan I-II-III.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods.

TBTN 30100. Third-Year Tibetan I. 100 Units.

Instructor(s): C. Wedemeyer Terms Offered: Autumn Prerequisite(s): TBTN 20300 or consent of instructor

TBTN 30200. Third-Year Tibetan II. 100 Units. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 30100 or consent of instructor

TBTN 30300. Third-Year Tibetan III. 100 Units.

Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 30200 or consent of instructor

TBTN 30200-30300. Third-Year Tibetan II-III. Third-Year Tibetan

TBTN 30200. Third-Year Tibetan II. 100 Units. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 30100 or consent of instructor

TBTN 30300. Third-Year Tibetan III. 100 Units. Instructor(s): K. Ngodup Terms Offered: Spring

Prerequisite(s): TBTN 30200 or consent of instructor

TBTN 30300. Third-Year Tibetan III. 100 Units.

Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 30200 or consent of instructor

TBTN 40100-40200-40300. Fourth-Year Tibetan I-II-III.

The third- and fourth-year sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction consists in guided readings, with continuing grammar review, practice in speaking, and application of philological methods. **TBTN 40100. Fourth-Year Tibetan I. 100 Units.** Instructor(s): C. Wedemeyer Terms Offered: Autumn Prerequisite(s): TBTN 30300 or consent of instructor

TBTN 40200. Fourth-Year Tibetan II. 100 Units. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 40100 or consent of instructor

TBTN 40300. Fourth-Year Tibetan III. 100 Units. Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 40200 or consent of instructor

TBTN 40200. Fourth-Year Tibetan II. 100 Units. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 40100 or consent of instructor

TBTN 40300. Fourth-Year Tibetan III. 100 Units. Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 40200 or consent of instructor

TBTN 47900-47901-47902. Rdgs: Advanced Tibetan I-II-III.

Readings: Advanced Tibetan is for students who have successfully completed third year and fourth year or equivalent with placement test. The sequence is meant to expose students to a range of genres in Tibetan literature, including religious, historical, philosophical, scientific, and literary works. Instruction includes guided readings with continuing grammar review, practice in speaking, and application of philological methods.

TBTN 47900. Rdgs: Advanced Tibetan I. 100 Units. Instructor(s): C. Wedemeyer Terms Offered: Autumn Prerequisite(s): TBTN 40300

TBTN 47901. Rdgs: Advanced Tibetan II. 100 Units. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 47900

TBTN 47902. Rdgs: Advanced Tibetan III. 100 Units. Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 47901

TBTN 47901. Rdgs: Advanced Tibetan II. 100 Units. Instructor(s): M. Kapstein Terms Offered: Winter Prerequisite(s): TBTN 47900

TBTN 47902. Rdgs: Advanced Tibetan III. 100 Units. Instructor(s): K. Ngodup Terms Offered: Spring Prerequisite(s): TBTN 47901

South Asian Languages & Civilizations - Urdu Courses

URDU 30100-30200-30300. Third-Year Urdu I-II-III.

This third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history.

URDU 30100. Third-Year Urdu I. 100 Units. Instructor(s): M. Alam Terms Offered: Autumn

Prerequisite(s): URDU 20300 or consent of instructor

URDU 30200. Third-Year Urdu II. 100 Units.

Instructor(s): M. Alam Terms Offered: Winter Prerequisite(s): URDU 30100 or consent of instructor

URDU 30300. Third-Year Urdu III. 100 Units. Instructor(s): M. Alam Terms Offered: Spring Prerequisite(s): URDU 30200 or consent of instructor

URDU 30200-30300. Third-Year Urdu II-III.

Third-Year Urdu I-II-III

URDU 30200. Third-Year Urdu II. 100 Units. Instructor(s): M. Alam Terms Offered: Winter Prerequisite(s): URDU 30100 or consent of instructor

URDU 30300. Third-Year Urdu III. 100 Units.

Instructor(s): M. Alam Terms Offered: Spring Prerequisite(s): URDU 30200 or consent of instructor

URDU 30300. Third-Year Urdu III. 100 Units. Instructor(s): M. Alam Terms Offered: Spring

Prerequisite(s): URDU 30200 or consent of instructor

URDU 37100. Urdu in the 21st Century. 100 Units.

This course is intended to provide continued language teaching beyond the second-year course through reading and analysis of authentic contemporary materials. It differs from the regular third-year class/sequence in that it will focus on contemporary issues and texts (both print and electronic) rather than the literary canon. Readings will be selected by students and the instructor in consultation and will include a variety of genres and subject matter – to be determined by the fields of interest/research of the students enrolled.

Instructor(s): E. Bashir Terms Offered: Autumn

Prerequisite(s): Second year Urdu sequence or its equivalent, and permission of the instructor.

URDU 40100-40200-40300. Fourth-Year Urdu I-II-III.

This third- and fourth-year sequence consists of courses primarily in Urdu prose, meant for students who have already mastered the grammar and control vocabulary past the basic level. The two-year cycle includes passages/selections from noted Urdu writers from the late eighteenth through the twentieth century. The sequence has two major goals. The first goal is to emphasize training in comprehension, reading, writing, philology, and discussion (in Urdu). A second goal is to encourage analysis of the widely acknowledged masters of Urdu style by locating them within the larger context of early modern and modern South Asian social and intellectual history.

URDU 40100. Fourth-Year Urdu I. 100 Units.

Instructor(s): M. Alam Prerequisite(s): URDU 30300 or consent of instructor

URDU 40200. Fourth-Year Urdu II. 100 Units.

Instructor(s): M. Alam Prerequisite(s): URDU 40100 or consent of instructor

URDU 40300. Fourth-Year Urdu III. 100 Units.

Instructor(s): M. Alam Prerequisite(s): URDU 40200 or consent of instructor

URDU 40200. Fourth-Year Urdu II. 100 Units.

Instructor(s): M. Alam Prerequisite(s): URDU 40100 or consent of instructor

URDU 40300. Fourth-Year Urdu III. 100 Units.

Instructor(s): M. Alam Prerequisite(s): URDU 40200 or consent of instructor

URDU 47900-47901-47902. Rdgs: Advanced Urdu I-II-III.

This course is for students who have successfully completed third- and fourth-year Urdu. It is typically tailored to student needs in terms of the selection of texts to be addressed and discussed. Depending on their interest, students may choose to read Urdu texts from any time period, country or genre. Prior consent of instructor is required.

URDU 47900. Rdgs: Advanced Urdu I. 100 Units.

Instructor(s): M. Alam Terms Offered: Autumn Prerequisite(s): URDU 40300

URDU 47901. Rdgs: Advanced Urdu II. 100 Units. Instructor(s): M. Alam Terms Offered: Winter Prerequisite(s): URDU 47900

URDU 47902. Rdgs: Advanced Urdu III. 100 Units. Instructor(s): M. Alam Terms Offered: Spring Prerequisite(s): URDU 47901

URDU 47901. Rdgs: Advanced Urdu II. 100 Units. Instructor(s): M. Alam Terms Offered: Winter Prerequisite(s): URDU 47900

URDU 47902. Rdgs: Advanced Urdu III. 100 Units.

Instructor(s): M. Alam Terms Offered: Spring Prerequisite(s): URDU 47901



Department of the Visual Arts

Chair

- Jessica Stockholder, Professor Professors
- Charles Cohen, Art History
- Theaster Gates
- Laura Letinsky, Cinema and Media Studies
- Jessica Stockholder
 - Associate Professors
- Matthew Jesse Jackson, Art History
- William Pope.L
- Jason Salavon, Computation Institute
- David Schutter
- Catherine Sullivan

Assistant Professors

- Carol Jackson, Harper Schmidt Fellow Professor of Practice in the Arts
- Geof Oppenheimer Lecturers
- Katherine Desjardins
- Amber Ginsburg
- Shane Huffman
- Scott Wolniak

Affiliates

- Seth Brodsky, Music
- Bill Brown, English
- Hillary Chute, English
- W. J. T. Mitchell, English, Art History
- D.N. Rodowick, Cinema and Media Studies

Associates

- Susanne Ghez
- **Emeritus Faculty**
- Herbert George
- Elizabeth Helsinger, English, Art History
- Vera Klement
- Thomas Mapp
- Robert C. Peters

The Department of Visual Arts (DoVA), a department within the Humanities Division at the University of Chicago, and situated in The Reva and David Logan Center for the Arts (http://arts.uchicago.edu/content/logan-center), is proud to offer a Masters of Fine Arts.

This MFA program is distinguished in its focused attention on understanding how the pluralism of today's art making practices relate to one another and creating conversations that bridge between DoVA and other areas of study at the University of Chicago. Our faculty are diverse in their interests, committed teachers who are engaged in a lively and sustained dialogue within the department, and deeply engaged with their own work.

Our students work in sculpture, photography, painting, installation, performance, video and new media. Students are admitted to the program based on the quality of the portfolio and the level of interest and capacity in engaging this interdisciplinary program within a university environment. The faculty focus on working with our students to develop their own work and enabling them to leave the University with the tools to support a lifetime of art making. As part of this process, the department encourages students to explore not only the artistic issues pertinent to their work, but also the theoretical, social and historical issues that intersect and bracket it.

The MFA is a two-year program (six quarters), comprised of 18 courses. Many of these course credits are earned through the development of individual work in conversation with the faculty.

First and second year students work together to articulate their work and to sharpen their skills of critical thinking and writing. Students come to the program with diverse intellectual, cultural and artistic backgrounds and different art making practices. We all work together to articulate a common language with which to discuss and make art in this critical and supportive community.

As part of the MFA program, DoVA hosts a lively visiting artist program under the auspices of the Open Practice Committee (http://dova.uchicago.edu/openpractice-committee) (OPC). In addition The University of Chicago provides an enormously rich intellectual environment full of engaging lectures and workshops in all areas of study. Our students are often interested in events hosted by the Center for Gender Studies, the Center for the Study of Race, Politics, and Culture, the Mass Culture Studies Workshop, the Department of Cinema and Media Studies, and the Department of Art History. We also offer workshops that focus on professional and pedagogical issues, both in DoVA and in the Career and Placement Services Office, to assist students in preparing for a career in the arts.

Each year, DoVA supports a faculty led trip to visit museums and galleries outside of Chicago; past trips have included New York City and Beijing. Future trips may visit Los Angeles, New York, or Delhi. Information about one of our recent trips to Beijing can be found here (http://www.uchicago.cn/2012/10/uchicago-mfa-studentstour-beijing-with-laura-letinsky-and-geof-oppenheimer).

CURRICULUM

MFA students register for 300 credits (three courses at 100 credits each) per quarter. A total of 1800 credits, or eighteen courses, is required for the degree.

The basic requirements for the MFA are listed below:

1. Graduate Studio Project (9 Courses / 900 Credit Hours)

Students receive course credit for time spent in their studio developing their work. As part of this requirement students will present work to faculty and students for critique regularly throughout the year. Students register for at least 100 credit hours of Graduate Studio Project (ARTV 40000) per quarter, and may register for up to 300 hours per quarter provided that they are on track for meeting their other course requirements (see Graduate Seminars and Electives).

2. Graduate Seminars (3 Courses / 300 Credit Hours)

In order to provide a core of common intellectual experience, all students are required to take three quarters of the Graduate Seminar in Visual Arts (ARTV 39200) during their first year. The content of these seminars varies with instructors, but may focus on many different issues in contemporary theory and criticism.

3. Electives (6 Courses / 600 Credit Hours)

Students are required to take six graduate-level electives. At least three of the six electives must either be academic (i.e. non-studio based) or originate in departments outside of DoVA.

4. Thesis Presentation

In the fall quarter of the second year, each student will work with a committee of two faculty members who assist in the preparation of the thesis work. In the final quarter of the program each degree candidate presents studio work in an MFA exhibition. In addition to this exhibition, students will be expected to submit a short but focused written abstract of their work.

5. Standards Of Performance

Each graduate student must maintain high standards of engagement and achievement in studio and academic performance, including evidence of substantial growth in their work.

For additional information, please email dova@uchicago.edu or visit our website. (http://dova.uchicago.edu)

HOW TO APPLY

The application process for admission and financial aid for all graduate programs in the Humanities is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: http:// humanities.uchicago.edu/students/admissions.html. Additional information about financial aid and the admissions process can be found on the DoVA website (http:// dova.uchicago.edu/graduate).

VISUAL ARTS COURSES

ARTV 31001. Figure Drawing: Trans/Figuration. 100 Units.

Figure drawing is an experience that engages us visually, physically, emotionally, and psychologically. This many-faceted relationship is examined through the use of a variety of traditional and experimental materials, set-ups, and drawing methods. Assignments and class critiques investigate different models of stylistic invention, ranging from realism to comic expression. This studio class includes readings, field trips, and class projects that address the human form as source for developing your own visual responses to related issues—such as identity, narrative, and social critique.

Instructor(s): K. Desjardins Terms Offered: Autumn Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 21001

ARTV 31501. Introduction to Printmaking. 100 Units.

An introduction to basic printmaking techniques, including monoprint, intaglio (drypoint), planographic, and relief printing. Printmaking will be explored as a "bridge medium": a conduit between drawing, painting, and sculpture. Emphasis will be placed upon investigating visual structures through "calculated spontaneity" and "controlled accidents," as well as on the serial potential inherent in printmaking, as opposed to the strictly technical aspects of this medium. Instructor(s): K. Desjardins Terms Offered: Spring Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 21501

ARTV 31901. Color: Theory and Experience. 100 Units.

This studio course proposes a hands-on investigation into the way we experience color in the world and in our own work. We will study a range of approaches to color, including: "haptic" color perception, Symbolic/Spiritual color theories, as well as more widely known theories of "optical color." In the studio, you will be introduced to a unique series of exercises that elucidate the expressive, symbolic, scientific, and cultural aspects of color perception using both acrylic pigment and light. Lectures, field trips, and guest speakers will broaden our discussion of color. A final project in a medium of your choice will serve as a culminating experience for the course.

Instructor(s): K. Desjardins Terms Offered: Winter Prerequisite(s): ARTV 10100, 10200, or 10300

ARTV 31902. Color: Theory and Experience. 100 Units.

This studio course proposes a hands-on investigation into the way we experience color in the world and in our own work. We will study a range of approaches to color, including: "haptic" color perception, Symbolic/Spiritual color theories, as well as more widely known theories of "optical color." In the studio, you will be introduced to a unique series of exercises that elucidate the expressive, symbolic, scientific, and cultural aspects of color perception using both acrylic pigment and light. Lectures, field trips, and guest speakers will broaden our discussion of color. A final project in a medium of your choice will serve as a culminating experience for the course.

Instructor(s): K. Desjardins Terms Offered: Winter Prerequisite(s): ARTV 10100, 10200 or 10300 Equivalent Course(s): ARTV 21902

ARTV 32000. Introduction to Sculpture. 100 Units.

This course introduces the technical fundamentals of sculptural practice. Using basic introductions to welding, basic woodworking and metal fabrication students will undertake assignments designed to deploy these new skills conceptually in their projects. Lectures and reading introduce the technical focus of the class in various historical, social and economic contexts. Discussions and gallery visits help engender an understanding of sculpture within a larger societal and historical context.

Instructor(s): G. Oppenheimer Terms Offered: Autumn Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): TAPS 28448,ARTV 22200

ARTV 32200-32202. Introduction to Painting I-II.

This studio course introduces students to the fundamental elements of painting (its language and methodologies) as they learn how to initiate and develop an individualized investigation into subject matter and meaning. This course emphasizes group critiques and discussion. Courses taught concurrently.

ARTV 32200. Introduction to Painting I. 100 Units.

Instructor(s): S. Wolniak Terms Offered: Autumn Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 22000

ARTV 32202. Introduction to Painting II. 100 Units. Instructor(s): S. Wolniak Terms Offered: Autumn Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 22002

ARTV 32202. Introduction to Painting II. 100 Units.

Instructor(s): S. Wolniak Terms Offered: Autumn Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 22002

ARTV 32306. Hybridity and the Multiple: A Course on Moldmaking. 100 Units.

Hybridity is the commingling of two or more entities, the mash-up, the crossover, the mutation, and the reformulation. Thinking of objects as tools for collage, this course will begin with the art of casting. Once you have acquired the skill of multiple production, you will be free to reproduce, alter, and reformulate objects to create hybrid forms. Questioning the multiple, the serial, and the unique, this course will use the positive and negative space of object production as an experimental tool to explore material, installation, and production.

Instructor(s): A. Ginsburg Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 22306

ARTV 32309. Building a House for a Kiln. 100 Units.

Building a House for a Kiln, taught in collaboration with David Woodhouse and Andy Tinucci of Woodhouse Tinucci Architects, is a hands-on building laboratory in which students will construct a student-designed structure adjacent to the Logan Center for the Arts. Students will have the opportunity to take up hammers and trowels to create a lasting sculpture that will house kilns for the university arts community. Building, the third in a design/build series, is an opportunity to work at an unusually ambitious scale and will create a work space that gives the arts community access to kilns. In this course students will be asked to construct elements of the structure, from walls to exterior claddings and interior cabinetry. Construction and material processes and techniques will be explored and taught, and the results will be physical. No prior building experience necessary. Instructor(s): A. Ginsburg Terms Offered: Spring Prerequisite(s): ARTV 10100, 10200 or 10300 Equivalent Course(s): ARTV 22309

ARTV 32500. Digital Imaging. 100 Units.

This studio course introduces fundamental tools and concepts used in the production of computer-mediated artwork. Instruction includes a survey of standard digital imaging software and hardware (i.e., Photoshop, scanners, storage, printing, etc), as well as exposure to more sophisticated methods. We also view and discuss the historical precedents and current practice of media art. Using input and output hardware, students complete conceptually driven projects emphasizing personal direction while gaining core digital knowledge.

Instructor(s): J. Salavon Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 22500, CMST 28801, CMST 38801

ARTV 32502. Data and Algorithm in Art. 100 Units.

An introduction to the use of data sources and algorithmic methods in visual art, this course explores the aesthetic and theoretical possibilities of computational artmaking. Focusing on the diverse and ever expanding global data-feed, we will craft custom software processes to create works investigating the visual transformation of information. Additionally, software programming may be deployed independently, without a connection to source material. While placing an emphasis on creating new work, we will also survey the history of this type of art practice.

Instructor(s): J. Salavon Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200, or 10300

Note(s): No prior experience with programming is necessary.

Equivalent Course(s): ARTV 22502

ARTV 33801. Video. 100 Units.

This is a production course geared towards short experimental works and video within a studio art context.

Instructor(s): S. Wolniak Terms Offered: Autumn Prerequisite(s): ARTV 10100, 10200 or 10300 Equivalent Course(s): ARTV 23801,CMST 28903

ARTV 33804. Experimental Animation. 100 Units.

Individually directed video shorts will be produced in this intensive studio course. Experimental and improvised approaches to stop-animation and motion picture art will combine digital production and post-production with analog and material methods of picture making. Early and experimental cinema, puppetry and contemporary low-tech animation strategies will be presented as formal and technical examples.

Instructor(s): S. Wolniak Terms Offered: Spring Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 23804

ARTV 33805. Minimalist Experiment in Film and Video. 100 Units.

This multilevel studio will investigate minimalist strategies in artists' film and video from the late 1960s to the present day. Emphasis will be placed on works made with limited means and/or with "amateur" formats such as Super-8 and 16mm film, camcorders, Flip cameras, SLR video, and iPhone or iPad. Our aim is to imagine how to produce complex results from economical means. Important texts will be paired with in class discussion of works by artists such as Andy Warhol, Yoko Ono, Kurt Kren, Jack Goldstein, Larry Gottheim, Bruce Baillie, James Benning, John Baldessari, Morgan Fisher, Stan Douglas, Matthew Buckingham, Sam Taylor-Wood, and others.

Instructor(s): D.N. Rodowick Terms Offered: Autumn Equivalent Course(s): CMST 28006,CMST 38006,ARTV 23805

ARTV 33900. Drawing. 100 Units.

This intensive multilevel studio course is dedicated to investigations of genre, technique, and format in relation to subject matter and individual expression. Guided and self-directed experiments are used to develop visual work within conceptual and thematic frameworks. Art historical examples and contemporary strategies in two-dimensional art are presented as models. Students are expected to produce a body of work consisting of studies, sketches, and finished projects in a range of scales and materials. Classes are dedicated to studio work, lectures, critiques, and field trips.

Instructor(s): S. Wolniak Terms Offered: Winter Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 23900

ARTV 33904. Senior Creative Thesis Workshop. 100 Units.

This seminar will focus on how to craft a creative thesis in film or video. Works-inprogress will be screened each week, and technical and structural issues relating to the work will be explored. The workshop will also develop the written portion of the creative thesis. The class is limited to seniors from CMS and DOVA, and MAPH students working on a creative thesis.

Instructor(s): J. Hoffman Terms Offered: Winter

Prerequisite(s): CMST 23930; CMST 23931; departmental approval of senior creative thesis project.

Equivalent Course(s): CMST 23904, ARTV 23904

ARTV 33905. Creative Thesis Workshop. 100 Units.

This seminar will focus on how to craft a creative thesis in film or video. Works-inprogress will be screened each week, and technical and structural issues relating to the work will be explored. The workshop will also develop the written portion of the creative thesis. The class is limited to seniors from CMS and DOVA, and MAPH students working on a creative thesis.

Instructor(s): Judy Hoffman Terms Offered: Autumn, Winter

Prerequisite(s): CMST 23930; CMST 23931 or 27600; departmental approval of senior creative thesis project.

Equivalent Course(s): CMST 33905, ARTV 23905

ARTV 33930. Documentary Production I. 100 Units.

This class is intended to develop skills in documentary production so that students may apply for Documentary Production II. Documentary Production I focuses on the making of independent documentary video. Examples of various styles of documentary will be screened and discussed. Issues embedded in the documentary genre, such as the ethics and politics of representation and the shifting lines between fact and fiction will be explored. Pre-production methodologies, production, and post-production techniques will be taught. Students will be expected to develop an idea for a documentary video, crews will be formed, and each crew will produce a five-minute documentary. Students will also be expected to purchase an external hard drive.

Instructor(s): J. Hoffman Terms Offered: Autumn

Note(s): Prior or concurrent enrollment in CMST 10100 recommended Equivalent Course(s): ARTV 23930,CMST 33930,HMRT 25106,HMRT 35106

ARTV 33931. Documentary Production II. 100 Units.

This course focuses on the shaping and crafting of a nonfiction video. Students are expected to write a treatment detailing their project. Production techniques focus on the handheld camera versus tripod, interviewing and microphone placement, and lighting for the interview. Postproduction covers editing techniques and distribution strategies. Students then screen final projects in a public space.

Instructor(s): J. Hoffman Terms Offered: Winter

Prerequisite(s): CMST 23930/ARTV 23930

Equivalent Course(s): CMST 23931,CMST 33931

ARTV 34000. Introduction to Black and White Film Photography. 100 Units.

Photography is a familiar medium due to its ubiquitous presence in our visual world, including popular culture and personal usage. In this class, students learn technical procedures and basic skills related to the 35mm camera, black and white film, and print development. They also begin to establish criteria for artistic expression. We investigate photography in relation to its historical and social context in order to more consciously engage the photograph's communicative and expressive possibilities. Course work culminates in a portfolio of works exemplary of the student's understanding of the medium. Field trips required.

Instructor(s): A. Clark Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Note(s): Camera and light meter required.

Equivalent Course(s): CMST 27600, CMST 37600, ARTV 24000

ARTV 34121. Adopted Strategies. 100 Units.

In this interdisciplinary course, students will investigate cultural codes and narratives of the past and present, and use them as templates for artmaking. Adopted models can originate from a range of histories, disciplines, and communities ranging from military tactics of the Mongols, restaurant work, homological algebra, joke telling, to a favorite film or film scene, etc. Independent selection and research of the chosen source(s), as well as individual and group critiques, will facilitate development of student's ideas to a completed project. Central topics will include theories of imitation, how power exerts itself through narrative, and the work of art's tendency to fold rather than transcend what might otherwise be perceived as linear, homogeneous time. Readings include Michael Taussig's "Mimesis and Alterity," Avital Ronell's "Stupidity," and Oswald Spengler's "Decline of the West." Sample artists: Pinar Yolacan, Yoshua Okon, Mickalene Thomas, Natalie Jeremijenko, and Lari Pittman, among others. Instructor(s): C. Jackson Terms Offered: Spring

Equivalent Course(s): ARTV 24121

ARTV 34201. Collage. 100 Units.

This studio course explores collage as a means for developing content and examining complex cultural and material relationships. Projects and assigned texts outline the history of collage as a dynamic art form with a strong political dimension, as well as critically addressing how it is being used today. Instructor(s): S. Wolniak Terms Offered: Spring Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 24201

ARTV 34301. Writing for Performance. 100 Units.

This course is an exploration of select texts for performance written by performance artists primarily but not entirely operating within the context of art. Via historical context and literary technique, students read, discuss, and analyze texts by various authors spanning the history of performance art: Hugo Ball, John Cage, Richard Foreman, Carolee Schneeman, Joseph Beuys, Karen Finley, Nature Theater of Oklahoma, John Leguizamo, and create and perform their own writing. Field trips and attendance at first class are required.

Instructor(s): W. Pope.L Terms Offered: Autumn

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 24301, TAPS 28414

ARTV 34401. Photography I. 100 Units.

Instructor(s): L. Letinsky Terms Offered: Spring Prerequisite(s): ARTV 10100, 10200, or 10300; and 24000. Note(s): Camera and light meter required. Courses taught concurrently and can be repeated as part of an ongoing, developing photographic project.

Equivalent Course(s): CMST 27602,CMST 37602,ARTV 24401

ARTV 34402. Photography II. 100 Units.

Instructor(s): L. Letinsky Terms Offered: Spring Prerequisite(s): ARTV 10100, 10200, or 10300; and 24000.

Note(s): Camera and light meter required. Courses taught concurrently and can be repeated as part of an ongoing, developing photographic project. Equivalent Course(s): CMST 27702,CMST 37702,ARTV 24402

ARTV 34550. Shopcraft: Methods and Materials. 100 Units.

Designed as a complementary course to the DOVA sculpture sequence, Shopcraft explores the tools and techniques available to students in the wood shop. Topics covered include shop safety; the properties of woods; the planning and material selection process for sculpture, furniture, and other woodworking applications; the care and use of hand tools; and interpreting and creating scale drawings and conceptual plans. A series of small projects designed to challenge and expand students' design, drafting, and woodworking skills are assigned. In addition, students are invited to incorporate projects from sculpture classes or their individual studio practice into the course.

Instructor(s): D. Wolf Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300

Equivalent Course(s): ARTV 24550, TAPS 27900

ARTV 35401. Aesthetics of Media: Image, Music, Text. 100 Units.

Designed for advanced undergraduates and first year graduate students, the course will take up the image/sound/text complex as a foundational issue in aesthetics and media. Our aim will be to ask why this particular triangulation of media aesthetics has been so enduring and powerful, ranging all the way from Aristotle's dramatic triad of opsis, melos, lexis, to Nelson Goodman's semiotic distinctions between "score, script, and sketch," to Friedrich Kittler's reflections on technology in Gramaphone, Film, Typewriter. We will ask whether Michel Foucault's famous division of the archaeology of knowledge into the "seeable and sayable" needs to be completed by the "singable," and what logic links Kittler's technical triad to Lacan's registers of the Symbolic, Imaginary, and Real, or C.S. Peirce's division of the sign into symbol, index, and icon. We will investigate a range of examples, from the Wagnerian notion of the Gesamstkunstwerk to the role of sound in cinema to the modernist impulse to "purify" the arts with practices that would "hunt them back to their mediums," as Clement Greenberg notoriously expressed it. At every point, we will raise the question of what is at stake politically, morally, and aesthetically in efforts to segregate, synthesize, or place artistic modes in conflict and competition. Students will be expected to give a show and tell performance, or to write a short reference article on a key concept in media theory for the Glossary of Keywords in Media Theor

Instructor(s): W. J. T. Mitchell Terms Offered: Winter

Note(s): Screening T 7-9:50 A term paper or project will also be required. Visual artists, writers, and musicians are cordially welcome. (H)

Equivalent Course(s): CMST 27820,CMST 37820,AMER 12800,AMER 32800,ENGL 12810,ENGL 32810

ARTV 36202. Site, Strategies, Preoccupations, and Something Like Art. 100 Units.

Contemporary art practice always has the burden of site. History, context, and nostalgia all become co-conspirators as artists are developing their artistic chops. Over the course of 11 weeks this class will look at the complexity and the problem of place in relationship to objecthood. With readings, guest lecturers, site visits, and the creation of a temporary pedagogical order, we will all ask ourselves, Why are we here? Why do we make? What does it mean? And who cares? Leveraging my preoccupations with race, urban planning, jazz, art, and Black Mountain College, we will arrive at objects, performances, encounters, and sermons that know where they belong.

Instructor(s): T. Gates Terms Offered: Autumn Prerequisite(s): ARTV 10100, 10200, or 10300 Equivalent Course(s): ARTV 26202

ARTV 36216. Comedy Central. 100 Units.

Comedy is a serious subject and art is no laughing matter, but levity displays a type of intellegence that is both profound and nimble and must be met on it's own terms. Toward that end, this interdisciplinary seminar will investigate: the various modes through which comedy infects contemporary art, questions of form in the art of comedy, performative objects, the object of comedic performance, and the seriousness of play. A number of guest speakers from various backgrounds will lecture, lead discussions, and projects. Assignments include weekly readings, performative actions, and two short writing assignments, one on a key thinker on the subject of the comedic, the other a creative writing assignment. A final project of your choice can be a traditional research paper (10-12 pages) or a creative project with your choice of medium. Readings include selections from Friedrich Schiller's "Letters upon the Æsthetic Education of Man," Henri Bergson's "Laughter," Sigmund Freud's "Joke and Its Relation to the Unconscious," Lewis Hyde's "Trickster Makes This World," David Robbin's "Concrete Comedy," and others. Note this is not a studio class, and while we will conduct a number of exercises in class, participants are expected to be working on thier individual projects outside of class throughout the term in consultation with the instructor via office hours. Prior experience working with video is useful. An exhibition from the seminar in the form of a YouTube channel will go live at the end of the seminar. Comedy Central is produced in collaboration with the Open Practice Committee. Instructor(s): L. Berlant, Z. Cahill Terms Offered: Winter Prerequisite(s): ARTV 10100, 10200, or 10300

Note(s): Field trips and screenings are required.

ARTV 36300. Introduction to Stage Design. 100 Units.

This course explores the application of the visual and aural arts to the varied forms of design for the stage (i.e., scenic, lighting, costume, sound). We pay particular attention to the development of a cogent and well-reasoned analysis of text and an articulate use of the elements of design through a set of guided practical projects. Instructor(s): T. Burch Terms Offered: Autumn

Note(s): Lab fee required. This course is offered in alternate years. Equivalent Course(s): ARTV 26000

ARTV 36500. History of International Cinema I: Silent Era. 100 Units.

This course introduces what was singular about the art and craft of silent film. Its general outline is chronological. We also discuss main national schools and international trends of filmmaking.

Instructor(s): Y. Tsivian Terms Offered: Autumn

Prerequisite(s): Prior or concurrent registration in CMST 10100 required. Required of students majoring in Cinema and Media Studies.

Note(s): This is the first part of a two-quarter course.

Equivalent Course(s): ARTH 28500, ARTH 38500, ARTV 26500, CMLT 22400, CMLT 32400, CMST 48500, ENGL 29300, ENGL 48700, MAPH 36000, CMST 28500

ARTV 37200. Painting. 100 Units.

Presuming fundamental considerations, this studio course emphasizes the purposeful and sustained development of a student's visual investigation through painting, accentuating both invention and clarity of image. Requirements include group critiques and discussion.

Instructor(s): K. Desjardins Terms Offered: Winter

Prerequisite(s): ARTV 10100, 10200, or 10300; and 22000 or 22002 Equivalent Course(s): ARTV 27200

ARTV 37210. Intermediate/Advanced Painting. 100 Units.

The goal of this course is to literally expand your painting practice and your definition of painting. Through a series of studio projects, we will consider fundamental issues surrounding 21st-century painting such as: figuration/ abstraction, the body, digital/analog, painting's expanded relationship to itself and to other media. In the studio we will frequently subject painting to juxtaposition with other 2-D. 3-D, and 4-D media as we come to terms with the actual physical properties of paint. A final project serves as a culminating experience.

Instructor(s): K. Desjardins Terms Offered: Spring

Prerequisite(s): ARTV 10100, 10200 or 10300 and 22000 or 22002 or consent of instructor.

Equivalent Course(s): ARTV 27210

ARTV 39200. Graduate Seminar: ARTV. 100 Units.

Only MFA students in the Department of Visual Arts may register for this class. Instructor(s): D. Schutter, W. Pope.L Terms Offered: Autumn, Winter

ARTV 39901. 21st Century Art. 100 Units.

Instructor(s): M.J. Jackson Terms Offered: Spring Equivalent Course(s): ARTH 42911

ARTV 40000. Graduate Studio Project. var Units.

Only MFA students in the Department of Visual Arts may register for this class. Terms Offered: Autumn, Winter, Spring

ARTV 40301. Modernism/Postmodernism/Everythingism. 100 Units.

The post–World War II era of decolonialization, the 1989 collapse of the Soviet Bloc, and the dawn of the globally networked 21st century could be described as marking three stages in the transition of the Euro-American art industry from a culture grounded in modernist notions of cultural experience toward the contemporary horizon of what might be called "everythingism" — with postmodernism serving as a placeholder somewhere in between. Or, at least, this is the narrative that our course will examine as we explore various aspects of visual art's production and theorization over the past 50 years.

Instructor(s): M. Jackson Terms Offered: Winter Equivalent Course(s): ARTH 40301

ARTV 40333. Data Visualization: Aesthetics, Intent, and Practice. 100 Units.

This course investigates how data visualizations are made and used today. Addressing a lack of both critical attention and technical literacy in how our society engages with increasingly common and sophisticated data-driven representations, we will retrace some history of the form as well as investigate its production and consumption. From uses in the sciences to economics to the popular media, data visualization serves various purposes framed by divergent intentions. Through reading, discussion, and crucially, team-based production, we will examine these myriad forms. While the course will not dwell on the deep computational details of data processing and requires no special technical skills, we will introduce various methodologies for creation and distribution such as D3, Processing, and P5.js. Projects and critique resulting from these inquiries enable an understanding for how any data visualization is the result of countless subjective judgments, design decisions, and persuasive intentions.

Instructor(s): J. Salavon and G. Kindlmann Terms Offered: Winter Equivalent Course(s): CDIN 40333,CMSC 33950,CMST 38007

ARTV 44319. Writing Images/Picturing Words. 100 Units.

What is the relationship between reading and looking? To what extent are all texts images, and all images texts? What are the cognitive, phenomenological, social, and aesthetic consequences of foregrounding the pictorial aspect of alphabetical characters? How do textual and visual images compare to our mental visualizations? In this arts studio course, students will construct original works of literary and visual art that "picture language" in order to investigate the overlapping functions of text and image. Studying works by contemporary visual artists like Alison Knowles and Jenny Holzer, and practicing poets such as Susan Howe and Tan Lin, we will frame our artistic and literary practice within the ongoing conversation between word and image in modern culture. The course will feature visits to our studio by contemporary poets and visual artists, who will provide critiques of student work and discussion of their own ongoing projects. Faculty members working at the intersection of word and image will also visit the class to help us frame our creative practice within a critical, historical, and theoretical context. Students will submit a final project, which may be accompanied by a critical background essay, at the end of the term.

Instructor(s): S. Reddy and J. Stockholder Terms Offered: Spring Prerequisite(s): Consent of instructor required. Interested students, please email faculty a paragraph about your background and interest in the material. Equivalent Course(s): CDIN 44319,ENGL 44319,MAPH 44319



The Division of the Physical Sciences

Dean

- Edward W. (Rocky) Kolb Deputy Dean
- Michael D. Hopkins Dean of Students
- Miranda Swanson

The Division of the Physical Sciences includes the Departments of Astronomy & Astrophysics (http://astro.uchicago.edu), Chemistry (http://chemistry.uchicago.edu), Computer Science (http://www.cs.uchicago.edu), Geophysical Sciences (http://geosci.uchicago.edu), Mathematics (http://www.math.uchicago.edu), Physics (http://physics.uchicago.edu), and Statistics (http://www.stat.uchicago.edu). It also includes the Enrico Fermi Institute (http://efi.uchicago.edu), the James Franck Institute (http://jfi.uchicago.edu), and the (interdivisional) Institute for Biophysical Dynamics (http://ibd.uchicago.edu). Graduate degrees are awarded only by the departments and the Biophysical Sciences (http://biophysics.uchicago.edu) program, but students in physical sciences programs often conduct their research under the auspices of the research institutes.

Undergraduate programs in the physical sciences are administered by the College. Detailed descriptions of programs leading to the bachelor's degree may be found in The College Catalog (http://collegecatalog.uchicago.edu).

Admission to Graduate Programs in the Division

Applicants for admission to graduate studies in a particular branch of the Physical Sciences should refer to individual department entries for specific admissions requirements.

An applicant who has received a bachelor's degree or the master's degree from an accredited college or university may be admitted on the basis of his or her previous academic record.

An applicant who has completed at least two years of college work with superior standing in the basic courses of a special field and an adequate record of general studies but who does not have a four year bachelor's degree may be admitted to the division to study toward a higher degree. However, failure to qualify for a higher degree leaves the student with no degree. Admission on this basis is recommended only for those with high aptitude for their major field and with not more than two deficiencies in general education covering the areas of English, modern foreign languages, humanities, social science, and biological science.

A person may be admitted as a graduate student at large or as a returning scholar for the purpose of studying a definite subject or subjects for which he or she has an adequate background. Admission is considered upon the basis of an abbreviated application, such credentials as may be appropriate, and a clearly defined statement of objectives. Application is made to the Graham School of Continuing Liberal and Professional Studies (https://grahamschool.uchicago.edu).

FINANCIAL AID

Most graduate students at the doctoral level in the Division of the Physical Sciences receive some form of financial support. Almost all advanced students engaged in thesis research have research assistantships and receive stipends from the research sponsor's contract or grant. A merit tuition scholarship normally accompanies such assistantships. Since teaching experience is a requirement for the Ph.D. degree in all departments, many students, usually in their first and second years of graduate study, serve as teaching assistants in undergraduate courses offered by their departments. Other forms of support include fellowships provided by the National Science Foundation, the U.S. Department of Education, and various private foundations. The University provides a limited number of special scholarships and fellowships for outstanding students from its own student aid funds and from privately endowed funds.

DEGREES

Normally students admitted to a degree program are expected to be in continuous, full time residence until the degree has been conferred.

Since individual departmental degree requirements may change, students should always contact their department for current degree requirements and regulations.

MASTER OF SCIENCE

Master of Science students are required to register full time in the division for a minimum of three quarters, during which time they must satisfactorily complete a minimum of nine individual courses. There are several masters programs in the division for students who want to specialize in specific areas in the physical sciences:

The Department of Computer Science offers a Master of Science in Computer Science (http://csmasters.uchicago.edu).

The Physical Sciences Division together with the Harris School for Public Policy offers a Master of Science in Environmental Science and Policy (http:// harrisschool.uchicago.edu/degrees/masters-degree/ms-env-sci-policy).

The Department of Mathematics offers a Master of Science in Financial Mathematics (http://www-finmath.uchicago.edu).

The Physical Sciences Division offers a general Master of Science in the Physical Sciences (http://mspsd-psdsites.uchicago.edu) aimed at students who wish to broaden or deepen their knowledge of the physical and mathematical sciences.

The Department of Statistics offers a Master of Science in Statistics (http://www.stat.uchicago.edu/admissions/MastersDegree.shtml).

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is conferred in recognition of high accomplishment and ability in the candidate's chosen field. It is understood that the completion of a specified number of courses and a given period of residence do not ensure the granting of this degree. The requirements for the degree of Doctor of Philosophy are as follows:

- 1. Completion of the University's residence requirements.
- 2. Admission to candidacy for the degree. Admission to advanced work in the division does not necessarily imply admission to candidacy for a degree, which is contingent upon the recommendation of the department in which the student is working. At the appropriate time departments will submit to the Dean of Students in the division, on behalf of each student, an application requesting approval of admission to candidacy. Approval of the application certifies that:
 - The candidate has begun investigation for a dissertation.
 - The candidate's department recommends admission to candidacy (following satisfactory completion of individual examination requirements).
 - The candidate has satisfied any foreign language requirement of his or her department.
- 3. The passing of final examination(s) in accordance with one of the following plans:
 - A basic examination in the major fields of interest in the department or departments of specialization and a final oral examination in the field covered by the dissertation or;
 - In the absence of a preliminary or basic examination, passing comprehensive examinations covering major fields of interest in the department of specialization, including the field of the dissertation.
- 4. Acceptance by the department and the Dissertation Office of a dissertation submitted for the degree.



Master of Science Program in Computer Science

The Department of Computer Science (http://www.cs.uchicago.edu) at the University of Chicago offers two graduate curricula in computer science:

- 1. A graduate professional curriculum leading to the Master of Science (S.M.) degree, for students who wish to enter or advance themselves in computer science practice.
- 2. A graduate research curriculum leading to the Ph.D. degree that prepares students to perform advanced basic research in computer science either in industry or academia. Teaching experience is available for students preparing for academic careers. For more information on the Ph.D. program, please see the listing Department of Computer Science.

The Masters Program in Computer Science (http://csmasters.uchicago.edu) (MPCS) offers a comprehensive and professionally-oriented computer science education that combines the foundations of computer science with the applied and in-demand skills necessary for today's careers in technology. The MPCS is specially well suited for students interested in careers in software engineering, data analytics, and high-performance computing.

The coursework in our program represents a realistic balance between CS foundational theory and applied technical courses. Core classes include Programming, Algorithms, Databases and Systems coursework. Electives include new and innovative courses to keep up with the fast-paced world of IT including courses in Software Engineering, Big Data, Data Analytics, Machine Learning, High Performance Computing, Mobile Application Development, Web Development and Cloud Computing.

What sets our program apart is our ability to tailor coursework to the career goals and backgrounds of our students. For students that do not have a background in math or programming, we offer math and programming prerequisite courses (http://csmasters.uchicago.edu/page/immersion-courses-prerequisites) to introduce students to computing and to the fundamental and introductory skills that are needed to successfully begin masters-level coursework. Students with more advanced backgrounds can begin in higher-level classes.

The MPCS offers two programs of study, the 9-Course MS in Computer Science (https://csmasters.uchicago.edu/page/9-course-ms-program) and the 12-Course MS in Computer Science Specialization Program (https://csmasters.uchicago.edu/page/12-course-ms-specialization-program) in Software Engineering, High Performance Computing and Data Analytics. The 9-course Masters in Computer Science Program provides a balance between foundations in CS and the skills necessary for technology careers. The 12-course Masters in Computer Science Specialization Program is designed for students seeking further specialization that will build a strong professional skill set in a specific focused area. This program

also offers the opportunity for an internship or research project at completion of coursework.

Full-time students are able to complete the program in 9 months and part-time students can complete the program in as few as 15 months. Our classes are held in the evenings at the Hyde Park campus.

For course offerings and descriptions, please see the program's online course schedule (https://csmasters.uchicago.edu/page/2015-2016-course-schedule).

MASTERS PROGRAM IN COMPUTER SCIENCE COURSES

MPCS 50101. Concepts of Programming (Prerequisite Programming Course) 100 - 150 Units.

In this course students will get an introduction to the field of computer science by learning to program in Java. Students will write roughly two or three programs of significance each week to learn foundational programming principles and practices for writing clean, readable code, and learning how think and solve problems like a computer scientist. Along with basic principles like procedural abstraction, recursion, and handling input and output, an emphasis will be placed on theories and principles of Object Oriented software design, analyzing algorithms and choosing appropriate data structures to solve problems. Instructor(s): TBA Terms Offered: Summer; Winter

Note(s): Open only to MPCS students

MPCS 50103. Math for Computer Science: Discrete Math (Prerequisite Math Course) 100 - 150 Units.

This course in an introduction to discrete mathematics oriented toward computer science. The course emphasizes mathematical proof and problem solving, employed on a variety of useful topics: logic; proof by induction; counting, factorials, and binomial coefficients; discrete probability; random variables, expected value, and variance; recurrences; graphs and trees; basic number theory; asymptotic notation, and rates of growth. On completion of the course, students will have been trained to think about and absorb mathematical concepts, to solve problems requiring more than standard recipes, and express mathematical notions precisely. They will be able to use ideas and techniques from discrete mathematics in subsequent courses in computer science, in particular courses in the design and analysis of algorithms, networks, numerical methods, software engineering, data analysis, and data mining. Instructor(s): Geraldine Brady Terms Offered: Summer, Winter

Prerequisite(s): Precalculus, especially logarithms and exponentials, is a prerequisite; calculus is not required. High-school level familiarity with sets, functions, and relations will be assumed. There are no programming prerequisites. Note(s): Open only to MPCS students

MPCS 51030. iOS Application Development. 100 Units.

Advances in mobile technologies are changing the way that individuals and businesses use computing devices. This course will instruct students on the fundamentals of mobile application development using Apple's iOS SDK. An introduction to the Objective-C programming language, including memory management, object-oriented design, and the model-view-controller pattern, will be covered. Using iOS APIs and tools, such as Xcode, Interface Builder and Instruments, students will be able to create fully-featured iPod Touch, iPhone, and iPad applications. User interface and application design considerations specific to mobile technologies will also be explored. The course will consist of lectures, hands-on coding exercises and discussion. Weekly programming assignments will culminate into the development of a fully functioning iOS application. As a final project, each student will design and implement an application of their choice to be presented in class. Each student will also be required to present a case study featuring an app from the Apple's App Store. The studies will include a technical decomposition of the implementation (i.e. features, functionality, design, etc.) and a market analysis (i.e. competition, pricing, positioning, etc.) for the app. These case studies are designed to encourage students to gain an appreciation for the decisions companies and developers face when entering the app market. Instructor(s): T. Andrew Binkowski Terms Offered: Winter Prerequisite(s): MPCS 50101 or programming waiver Note(s): Non-MPCS students must receive approval from program prior to

registering.

MPCS 51031. Android Application Development. 100 Units.

After a quick introduction to mobile computing, competing platforms, Android architecture, market projections, and social and economic implications, we will dive directly into developing several reference implementations. Alternating between theory and practice, and progressing cumulatively, will will cover every major feature of the Android platform, including; audio, graphics, internet connectivity, wifi, mapping/geo-positioning, notifications, sms, structured feeds, persistence, threads, states, and inter-process communication, among others. Students will chose a final project, then envision, design, develop, test, and deploy an application to the Android marketplace.

Instructor(s): Adam Gerber Terms Offered: Spring

Prerequisite(s): MPCS 51036 or equivalent experience programming in Java Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51032. Advanced iOS Application Development. 100 Units.

Advances in mobile technologies are changing the way that individuals and businesses use computing devices. This course will explore real-world issues with developing robust, high-performance iOS applications for iPhone, iPod Touch and iPad. The course will consist of lectures, hands-on coding exercises and discussion. Weekly programming assignments will be used to create a portfolio of applications using advanced iOS frameworks and tools, such as Xcode, Interface Builder and Instruments. Throughout the course, students will design and develop an application as a final project. Students may opt to work in collaboration with local companies or emerging start-ups for their project. These opportunities will be discussed during the first week of class and may vary by quarter. Instructor(s): T. Andrew Binkowski Terms Offered: Spring Prerequisite(s): MPCS 51030 or instructor's consent

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51036. Java Programming. 100 Units.

This is a fast-paced first course in Java for students with some prior programming experience, though not necessarily Java or any other object-oriented language. A strong emphasis will be placed on understanding basic fundamentals of OO design--inheritance, polymorphism, composition, etc. and more generally on applying sound principles of contemporary software engineering and tools to real-world problems. In the latter half of the course, we will cover threads, OO design patterns, as well as certain Java libraries such as Swing. For their final-projects, students will develop a multi-threaded, arcade-style game. The course format is both lecture and lab. We will use be using git to facilitate our learning and to manage our projects. By the end of the quarter, students will have a working knowledge of git and know how to manage both local and remote repositories. Instructor(s): Adam Gerber Terms Offered: Autumn,Spring Prerequisite(s): MPCS 50101 or programming waiver

MPCS 51037. Advanced Java Programming. 100 Units.

This is an advanced course designed for students with a good foundation in Java programming. Basic familiarity with C is also assumed. The course focuses on designing distributed, multithreaded applications with the Java platform. It is an application programming course. Emphasis is placed on applying technology rather than studying API design and implementation. Topics proceed (roughly) from "low-level" to high level network programming concepts: socket byte streams, object serialization, Remote Method Invocation, Java/CORBA (minimal), Web Services, and (briefly) Enterprise Java Beans. While any of these topics alone could form the basis for an entire course, the emphasis is on providing students with an adequate foundation for pursuing individual topics in greater depth. Along the same lines, a major focus of the course is to help students determine when to best apply a given Java technology in a real world, multi-tier application.

Instructor(s): Adam Gerber Terms Offered: Summer

Prerequisite(s): MPCS 51036 Java Programming or consent of instructor Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51040. C Programming. 100 Units.

This is an accelerated introduction to the C (not C++) Programming Language designed for students with prior programming experience. C is in many ways the lingua franca of computing, and a broad range of programming languages and related technologies derive from the basic principles of C memory management, control flow, and abstraction. Though there are many subtleties, C is not a big language, and it is expected that students will leave the course with a relatively deep understanding of the key concepts, which will then form a solid foundation for studying higher-level technologies. At the same time, C itself remains a very practical language, particularly so in areas such as scientific programming, highperformance computing, application level library design, systems programming, network programming, multi-threaded programming, etc. Students who successfully complete the course will be well prepared for subsequent MPCS courses in these areas. The course studies both fundamental and advanced C language constructs in the abstract and reinforces them through a range of exercise in the design of basic and advanced data structures, rudiemntary algorithms, and API design.

Instructor(s): Dries Kimpe Terms Offered: Autumn,Spring Prerequisite(s): MPCS 50101 or programming waiver

MPCS 51044. C/C++ for Advanced Programmers. 100 Units.

This course covers the major features of C++ in an accelerated fashion suitable both for experienced C++ programmers and programmers who are new to C++ as described in the prerequisites below. The course teaches how to get the most out of the current C++11 language, which Bjarne Stroustrup, the inventor of C++, says "feels like a new language." It also discusses how to workaround in old versions of C++. A dominant theme of the course is how to use the unique features of C+ + to operate at a high-level of abstraction to support powerful design idioms and improve maintainability while also achieving the kind of performance and low-level control usually associated with lower-level languages such as C and even assembler language.

Instructor(s): Michael Spertus Terms Offered: Winter

Prerequisite(s): MPCS 51036 or MPCS 51040 or MPCS 51100 or programming experience in any language with instructor's consent

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51045. Advanced C++ 100 Units.

In this continuation of the MPCS 51044 course, we go beyond the basics to cover the powerful and surprising techniques that C++ experts use to write libraries that simultaneously provide the optimum in ease-of-use, abstraction, and performance. If you use C++ in your daily life, you and your team will see substantial benefits from understanding and using C++ at a deeper level.

Instructor(s): Michael Spertus Terms Offered: Spring

Prerequisite(s): MPCS 51044 or instructor's consent

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51050. OO Architecture: Patterns, Technologies, Implementations. 100 Units.

This course gives hands-on experience in architecture and design and the communication of such designs in the form of patterns. There are no formal prerequisites except solid familiarity with Java and optionally familiarity with C++. The course is designed to give students a fundamental introduction to design and architectural patterns as they are implemented in large scale system architectures currently used in industry. Students will be encouraged to explore the various implementation possibilities afforded by these patterns. Trade-offs in terms of performance, development time, maintenance impact, etc. will also be discussed. Students will gain exposure to several industry-leading tools including Apache ActiveMQ and ServiceMix.

Instructor(s): Mark Shacklette Terms Offered: Spring

Prerequisite(s): Core programming requirement including basic familiarity with one object-oriented programming language, such as Java, C# or C++

MPCS 51081. Unix Systems Programming. 100 Units.

MPCS 51081 is a UNIX systems programming course (as opposed to an operating systems course) that explores various topics in systems programming on the Unix platform. This course is NOT a course in operating systems development. We will focus on the Unix C APIs around file I/O, processes and signals, pipes, and System V interprocess communication. In addition to the traditional systems programming topics, this course will also introduce students to a significant level of detail in the use of Sun RPC (Remote Procedure Calls) and multithreaded programming, including operating system support and models (1-1, many-1, many-many). Students will be exposed to the numerous issues involved in safe and efficient multithreading strategies using the POSIX pThreads API as implemented by Linux's clone() and Solaris threads. Multithreading architectures will be discussed as well as advanced issues such as mutexes, semaphores, race conditions, deadlocks, etc. Berkeley socket programming will be covered in detail, as well as the creation and use of shared libraries. Various tools used in developing software in C on Unix will be covered, including gcc, gdb, ddd, gprof, cvs, etc. Because this is a programming course, students will be expected to know the C programming language upon course entry. There will be a C programming qualifying test taken during the first week of class for all students.

Instructor(s): Mark Shacklette Terms Offered: Winter Prerequisite(s): MPCS 51040 C Programming and Unix Bootcamp Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51083. Cloud Computing. 100 Units.

Cloud computing is being widely adopted by enterprises of all sizes due to the low initial investment required, attractive operating costs, and elastic capacity that can best serve the highly variable demands of modern applications. Software engineers must be familiar with cloud computing technologies since many new applications they develop will be deployed "in the cloud", and existing applications will often require integration with cloud-hosted services to take advantage of new capabilities. This course provides an introduction to cloud computing with specific consideration for application development in two contexts: highly scalable (or so-called "webscale") web applications, and enterprise applications in a hybrid environment comprising both on-premises and cloud infrastructure. We will focus primarily on infrastructure and platform services, and will introduce software-as-a-service from the perspective of a consuming application. The course will emphasize practical applications of cloud computing technologies, with sufficient exploration of their theoretical underpinnings to inform architectural, design, and implementation decisions.

Instructor(s): Vas Vasiliadis Terms Offered: Spring, Summer

Prerequisite(s): MPCS 50101 or programming waiver

MPCS 51087. High Performance Computing. 100 Units.

Parallel computing allows multiple processing units to work together simultaneously on a common task. For certain types of applications, parallelization can increase execution time in proportion to the number of computers or processors used. This is a huge advantage for applications which have performance and/ or memory bottlenecks, such as one typically encounters in financial modelling, physics, engineering, or other applied science domains. This is a fast-paced applied programming course aimed at students with significant development experience in either C, C++, or FORTRAN (Java, Matlab, or Python are also possible, but not ideal). No prior knowledge of parallel computing is assumed. Students should, however, have both an interest and some previous experience in either algorithmic development, numerical methods, applied mathematics, or perhaps any physics or engineering-type discipline. A brief overview of parallel computing will be presented at the outset, but the course will be less on overview of HPC architectures and much more a focus on algorithmic implementation and performance tuning. The goal of the course it to give students experience in developing efficient, scalable (distributed memory) parallel algorithms appropriate for any system running an implementation of the Message Passing Interface (MPI). Assignments will be designed with some flexibility to allow students to explore applying parallel techniques to applications in their own field of interest. Instructor(s): Andrew Siegel Terms Offered: Winter

Prerequisite(s): MPCS 51040 C Programming

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 51200. Introduction to Software Engineering. 100 Units.

Writing first-class software requires top-notch architecture, design and coding skills, but successful software project execution--from identifying the need to providing support--depends on many factors besides technical prowess. This course surveys the key practices and processes that help ensure successful projects. It provides an introduction to central activities of software engineering other than just coding, such as planning, requirements, testing and management. It balances this discussion of typical engineering activities against the development process models in which they take place -- specifically, it addresses the tension between traditional plandriven approaches and adaptive agile techniques. By examining the underlying principles of major development models, it shows how those principles address (or fail to address) the various problems encountered by project teams. Students who complete this course will gain a solid understanding of both plan-driven and agile software development principles and how to negotiate between them in different contexts.

Instructor(s): Peter Vassilatos Terms Offered: Autumn, Winter

Prerequisite(s): MPCS 50101 or programming waiver

MPCS 52011. Introduction to Computer Systems. 100 Units.

This course is all about constructing your own knowledge of computer systems by building a general-purpose computer system from the ground up. The objective is to integrate key ideas from algorithms, computer architecture, operating systems, compilers, and software engineering into one unified framework. Along the way, we'll explore ideas and techniques used in the design of modern hardware and software systems, and discuss major trade-offs and future trends. Throughout this journey, you'll gain lots of cross-section views of the field of computer science, from the bare-bone details of switching circuits to the high-level abstraction of object-based software design. By the end of the course, you will have written a computer game in an object-oriented programming language; compiled that program into machine language using the compiler, the virtual machine language translator, and the assembler that you wrote; and run your program on (virtual) hardware that you designed.

Instructor(s): Martha Billingsley, Dries Kimpe Terms Offered: Autumn, Winter Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 52030. Operating Systems. 100 Units.

This is an introductory course on operating systems. Students will learn the fundamentals of how modern operating systems are built, from the interface with hardware up through the kernel-userspace boundary. Important topics include the relationship between processes and threads, synchronization, inter-process communication, memory management, file systems, scheduling, I/O, virtualization. These concepts will be reinforced through several large-scale programming projects (in C++), whereby students will implement various sub-components of a real operating system. Prior experience with C and/or C++ required. As appropriate, we'll use the Linux operating system (written in C) as an example of operating systems design. As time permits, we will also delve into current hot topics in the field (such as multi-core systems, security, and cluster/grid computing). Instructor(s): Anthony Nicholson Terms Offered: Spring Prerequisite(s): MPCS 51040 or MPCS 51044 or instructor's consent Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 52553. Web Development. 100 Units.

This course provides students with an introduction to modern web development, with an emphasis on the pragmatic skills needed to build live, functioning web applications. Students will learn fundamental domain modeling skills, HTML and CSS frameworks, agile software techniques and best practices, Javascript and AJAX, and both server-side and client-side debugging techniques. We will use the Ruby language and the Rails framework to immerse students into the challenge of building a live, database-backed web application deployed at a public web address. Specifically, students will learn how to: Build a live website or web application and deploy it to the public internet; Use the Ruby on Rails framework to rapidly build a web application; Write software using the Ruby programming language; Use a relational database to provide content for dynamic websites; Follow industry best-practices of modern web software development; Troubleshoot and resolve the most common problems with web applications

Instructor(s): Jeffrey L Cohen Terms Offered: Spring, Summer

Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 52554. Advanced Web Development. 100 Units.

Course description unavailable, please refer to the program's course schedule http:// csmasters.uchicago.edu/page/2015-2016-course-schedule Instructor(s): Jeffrey L Cohen Terms Offered: Autumn Prerequisite(s): MPCS 52553 Web Development Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 53001. Databases. 100 Units.

Students will learn database design and development and will build a simple but complete web application powered by a relational database. We start by showing how to model relational databases using the prevailing technique for conceptual modeling -- Entity-Relationship Diagrams (ERD). Concepts covered include entity sets and relationships, entity key as a unique identifier for each object in an entity set, one-one, many-one, and many-many relationships as well as translational rules from conceptual modeling (ERD) to relational table definitions. We also examine the relational model and functional dependencies and their application to the methods for improving database design: normal forms and normalization. After design and modeling, students will learn the universal language of relational databases: SQL (Structured Query Language). We start by introducing relational algebra -the theoretical foundation of SQL. Then we examine in detail the two aspects of SQL: data definition language (DDL) and the data manipulation language (DML). Concepts covered include subqueries (correlated and uncorrelated), aggregation, various types of joins including outer joins and syntax alternatives. Students will gain significant experience with writing and reading SQL queries throughout the course in the detailed discussions in class, online homework, and the real-world individual project.

Instructor(s): Zachary Freeman Terms Offered: Autumn,Spring Prerequisite(s): MPCS 50101 or programming waiver Note(s): Non-MPCS students must receive approval from progra

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 53013. Big Data. 100 Units.

In this course, we will cover both the theory and practice of Big Data. To support practical experience with genuinely big data, we have arranged that all students will receive a substantial credit on the Google Cloud Platform courtesy of generous support from Google. To develop a sound understanding of the theory of Big Data, we will use Marz and Warren's Big Data textbook providing a conceptual architecture for Big Data systems. We will also cover important additional topics that invariably arise in real world applications of Big Data, such as like cleaning scraped data meant for human consumption to meet the needs Big Data systems. Students are required to bring a laptop to class every week.

Instructor(s): Michael Spertus Terms Offered: Autumn

Prerequisite(s): MPCS 50101 or programming waiver

MPCS 54001. Networks. 100 Units.

Broadly, this course will focus on the history, theory and implementation of computer networks. We will discuss the low-level technologies that move bits around (such as Ethernet and WiFi), the high-level applications that are part of our everyday 21st-century lives (such as email, the Web, and mobile phones), and everything in between (security, TCP/IP). At the completion of this quarter, you will (or should!) be able to explain, in detail, how data makes it way around the Internet when you click on a web link, how you can drive around at 80 MPH talking on a cell phone without the call dropping, how you can make a streaming video call over a lossy wireless link without frame dropping or jitter. In short, we'll pull back the curtain on what can be a somewhat mysterious and magical part of working with computers.

Instructor(s): Anthony Nicholson Terms Offered: Winter

Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 55001. Algorithms. 100 Units.

The course is an introduction to the design and analysis of efficient algorithms, with emphasis on developing techniques for the design and rigorous analysis of algorithms rather than on implementation. Algorithmic problems include sorting and searching, discrete optimization, and algorithmic graph theory. Design techniques include divide-and-conquer methods, dynamic programming, greedy methods, graph search, as well as the design of efficient data structures. Methods of algorithm analysis include asymptotic notation, evaluation of recurrences, and the concepts of polynomial-time algorithms. NP-completeness is introduced toward the end the course. Students who complete the course will have demonstrated the ability to use divide-and-conquer methods, dynamic programming methods, and greedy methods, when an algorithmic design problem calls for such a method. They will have learned the design strategies employed by the major sorting algorithms and the major graph algorithms, and will have demonstrated the ability to use these design strategies or modify such algorithms to solve algorithm problems when appropriate. They will have derived and solved recurrences describing the performance of divide-and-conquer algorithms, have analyzed the time and space complexity of dynamic programming algorithms, and have analyzed the efficiency of the major graph algorithms, using asymptotic analysis.

Instructor(s): Geradline Brady Terms Offered: Autumn, Spring

Prerequisite(s): MPCS 50101 and MPCS 50103

MPCS 55005. Advanced Algorithms. 100 Units.

The course is a second course on the design and analysis of efficient algorithms, with emphasis on developing techniques for the design and rigorous analysis of algorithms rather than on implementation. Emphasis is placed on fundamental algorithms and advanced methods of algorithmic design. Techniques to be covered include network flow, dynamic programming, linear programming, randomization, and approximation algorithms. NP-complete problems and reductions will also be studied. Students who complete the course will have increased familiarity with many of the techniques that apply in the design of efficient algorithms and some acquaintance with problems known to be NP-complete.

Instructor(s): Geraldine Brady Terms Offered: Winter

Prerequisite(s): B+or better in MPCS 55001 or instructor's consent Note(s): Non-MPCS students must receive approval from program prior to registering.

MPCS 56513. Digital Forensics. 100 Units.

In this course we will cover processes for investigations and evidence handling, types of evidence available, tools used in forensic investigations, recovery and preservation of data, and other forensic processes used in system incident response. We will use hands-on approaches with a number of tools and document results. Digital Forensics is a field of technology encompassing the investigation of digital devices as a part of incident response or data recovery. Forensic processes are used to recover evidence, determine the nature of an incident, puzzle together how the incident occurred and prepare evidence for potential court examination. In the Internet world of constant attacks, forensics have become an integral part of an incident response capability - to determine the nature of the attack, prepare evidence for further prosecution, if possible and to prevent future attacks. In this course we will cover processes for investigations and evidence handling, types of evidence available, tools used in forensic investigations, recovery and preservation of data, and other forensic processes used in system incident response. We will use hands-on approaches with a number of tools and document results. MPCS 52011 - Introduction to Computer Systems meets this prerequisite. Other core Systems courses may be used to meet this prerequisite with instructor's consent. Instructor(s): Arlene Yetnikoff Terms Offered: Summer

Prerequisite(s): Good understanding of computer systems and architectures. Note(s): Non-MPCS student must receive approval from program prior to registering.

MPCS 58001. Numerical Methods. 100 Units.

This is a practical programming course focused on the basic theory and efficient implementation of a broad sampling of common numerical methods. Each topic will be introduced conceptually followed by detailed exercises focused on both prototyping (using matlab) and programming the key foundational algorithms efficiently on modern (serial) architectures. The ideal student in this course would have a strong interest in the use of computer modeling as predictive tool in a range of discplines -- for example risk management, optimized engineering design, safety analysis, etc. The numerical methods studied in this course underlie the modeling and simulation of a huge range of physical and social phenomena, and are being put to increasing use to an increasing extent in industrial applications. After successfully completing this course, a student should have the necessary foundation to quickly gain expertise in any application-specific area of computer modeling. A familiarity with or strong interest in basic concepts of calculus and linear algebra will be helpful.

Instructor(s): Andrew Siegel Terms Offered: Spring

Prerequisite(s): Immersion Math



MASTER OF SCIENCE PROGRAM IN FINANCIAL MATHEMATICS

The Department of Mathematics (http://www.math.uchicago.edu/graduate) offers a separate Master of Science in Financial Mathematics degree. The Financial Mathematics Program (http://www-finmath.uchicago.edu) is designed to produce graduates with a good understanding of the theoretical background of pricing models for financial derivatives, but more importantly a real understanding of the underlying assumptions and an ability to critically ascertain the applicability and limitations of the various models. A significant part of the program will be taught by professionals from the financial industry and will be devoted to examine how realistic the underlying assumptions are and to understand what happens when these assumption are violated. Students will learn to use the models to set up hedges and to evaluate the effectiveness of these hedges by simulating various market conditions.

The program consists of four components: Mathematics, Probability Theory, Economics, and Financial Applications and Simulations. In addition, there is a computing for Finance component for students who do not pass a computer programming placement exam.

The Mathematics component runs over three quarters, Probability Theory runs over two quarters and Economics over one quarter. The Financial Applications and Simulations is a three quarter component. Courses in each component meet for three hours per week for a total of nine hours of instruction per week. The Computing for Finance sequence meets for three hours per week for three quarters, raising the total to twelve hours of instruction per week for those students of whom it is required.

The contents and curriculum for the program has been worked out jointly by faculty members at the University and by practitioners in the field to insure the relevance of the material. The teaching of the program relies heavily on the use of computer simulations to illustrate the material. This both makes it possible to cover more material and teaches students to implement the theory at every stage.

Various software packages are licensed to the program and will be provided free of charge for the course work. Course material and assignments will be available and submitted on line.

The program has a five- or three-quarter course requirement for obtaining the Master of Science degree. The program is structured to allow part-time enrollment to complete the program over two or three years. The courses will be taught evenings at the main campus of the University located in Hyde Park.

The requirements for acceptance to the program are a solid undergraduate background in mathematics, ideally a major in mathematics or science and engineering, with some background also in probability theory. Some experience in C/C++ programming will also be useful. Persons with practical experience in the

financial industry but with less of a mathematical background will be considered but may be required to acquire additional skills in mathematics.

The courses listed below may change and/or be revised each year. In addition, those who do not pass the computer programming placement exam are required to take and pass the Computing for Finance sequence. Here are the current, required courses for the degree:

FINM 32000	Numerical Methods	100
FINM 33000	Mathematical Foundations of Option Pricing	100
FINM 33150	Regression Analysis & Quantitative Trading Strategies	100
FINM 33400	Statistical Risk Management	100
FINM 33601	Fixed Income Derivatives	100
FINM 34500	Stochastic Calculus	100
FINM 36700	Portfolio Theory and Risk Management I	050
FINM 36702	Portfolio Theory and Risk Management II	050
FINM 37300	Foreign Exchange/Fixed Income Derivatives	050
FINM 37700	Introduction to Finance and Markets	050

MATHEMATICS - FINANCIAL MATHEMATICS COURSES

FINM 32000. Numerical Methods. 100 Units.

Implementing the theory introduced in *Mathematical Foundations of Option Pricing* (FINM 33000), this course takes a numerical/computational approach to the pricing and hedging of financial derivatives. Topics include: Trees as diffusion approximations; Finite difference methods for PDE solution; Monte Carlo methods for simulation; Fourier transform methods for pricing. *Program requirement.* Instructor(s): R. Lee Terms Offered: Winter

FINM 32200. Computing for Finance I. 100 Units.

As the first course in a three-part series, no previous programming knowledge is assumed. In *Computing for Finance I*, we will introduce the syntax and semantics of C++ and basics of OO programming. As part of the course work, students will develop an OO option pricer using the Monte Carlo technique. Classes are taught using a combination of lectures and in class hands-on lab sessions. *This course is a program requirement if a student does not pass the computing programming placement exam. The course is an elective if a student passes the exam and chooses to take the course.* Instructor(s): C. Liyanaarachchi Terms Offered: Autumn

FINM 32300. Computing for Finance II. 100 Units.

We will discuss new programming techniques, including more OO features and Templates in C++. We will also examine the use of the Standard Library in C++. Students will extend the option pricer to use Tree methods. Classes are taught using a combination of lectures and in class hands-on lab sessions. *This course is a program requirement if a student does not pass the computing programming placement exam. The course is an elective if a student passes the exam and chooses to take the course.* Instructor(s): C. Liyanaarachchi Terms Offered: Winter

FINM 32400. Computing for Finance III. 100 Units.

We will discuss topics relevant to implementing a basic electronic trading system using programming techniques covered in Part 1 and Part 2 of this course series. Topics discussed include the implementation of a trading algorithm, handling the connectivity to an exchange/brokerage house and issues related to performance. Different design choices and tradeoffs between those different choices; concurrent and parallel programming will be discussed within the context of this project. Classes are taught using a combination of lectures and in class hands-on lab sessions. *This course is a program requirement if a student does not pass the computing programming placement exam. The course is an elective if a student passes the exam and chooses to take the course.*

Instructor(s): C. Liyanaarachchi Terms Offered: Spring

FINM 33000. Mathematical Foundations of Option Pricing. 100 Units.

Introduction to the theory of arbitrage-free pricing and hedging of financial derivatives. Topics include: Arbitrage; Fundamental theorems of asset pricing; Binomial and other discrete models; Black-Scholes and other continuous-time Gaussian models in one-dimensional and multidimensional settings; PDE and martingale methods; Change of numeraire. *Program requirement*. Instructor(s): R. Lee Terms Offered: Autumn

FINM 33150. Regression Analysis & Quantitative Trading Strategies. 100 Units. The course covers Linear and Non-linear Regression methods for estimating parameters of models. We will cover topics like Method of Moments. Generalized

parameters of models. We will cover topics like Method of Moments, Generalized Linear Regression, Gauss-Newton Regression, Instruments, Generalized method of Moments. These methods will be used to develop factor models for securities returns. *Program requirement*.

Instructor(s): B. Boonstra Terms Offered: Spring

FINM 33170. Statistics of High-Frequency Financial Data. 100 Units.

This course is an introduction to the econometric analysis of high-frequency financial data. This is where the stochastic models of quantitative finance meet the reality of how the process really evolves. The course is focused on the statistical theory of how to connect the two, but there will also be some data analysis. With some additional statistical background (which can be acquired after the course), the participants will be able to read articles in the area. The statistical theory is longitudinal, and it thus complements cross-sectional calibration methods (implied volatility, etc.). The course also discusses volatility clustering and market microstructure.

Instructor(s): P. Mykland Terms Offered: Winter

Prerequisite(s): STAT 39000/FINM 34500 (may be taken concurrently), also some statistics/econometrics background as in STAT 24400–24500, or FINM 33150 and FINM 33400, or equivalent, or consent of instructor.

Equivalent Course(s): STAT 33970

FINM 33180. Data Analysis for Finance and Statistics. 100 Units.

This course is about using matrix computations to infer useful information from observed data. One may view it as an "applied" version of Stat 30900 although it is not necessary to have taken Stat 30900; the only prerequisite for this course is basic linear algebra. The data analytic tools that we will study will go beyond linear and multiple regression and often fall under the heading of "Multivariate Analysis" in Statistics. These include factor analysis, correspondence analysis, principal components analysis, multidimensional scaling, linear discriminant analysis, canonical correlation analysis, cluster analysis, etc. Understanding these techniques require some facility with matrices in addition to some basic statistics, both of which the student will acquire during the course. Program elective. Instructor(s): L. Lim Terms Offered: Autumn

Equivalent Course(s): STAT 32940

FINM 33400. Statistical Risk Management. 100 Units.

The course starts at a rather introductory level, but the progress is swift. It covers a brief survey of basic probability theory, and provides an introduction to some useful statistical distributions, both univariate and multivariate. A discussion of copulas and various correlation measures. Risk measures and ideas behind a reasonable risk measure. A few elements from Monte Carlo simulation. Statistical estimation, the maximum likelihood method and nonparametric methods. Asymptotic properties of estimators. Goodness of fit tests and model selection. Extreme value theory. Program requirement.

Instructor(s): J. Paulsen Terms Offered: Autumn

FINM 33601. Fixed Income Derivatives. 100 Units.

The topics in this course include an introduction to fixed income markets, a detailed review of fixed income derivative instruments, and a general approach to bootstrapping the LIBOR term curve from available market quotes. We also discuss the application of the Black-Scholes-Merton model to pricing European swaptions and caps/floors. Students will study a statistical approach to building a foundation for the Heath-Jarrow-Morton framework of interest rate models. Students should be prepared for the extensive use of Stochastic Calculus. Program requirement. Instructor(s): Y. Balasanov, L. Doloc, J. Greco Terms Offered: Spring Note(s): FINM 33601, a 100 unit course is new for 2014/2015. FINM 33603 and FINM 33604 were offered previously as 50 unit courses.

FINM 33603. Fixed Income Derivatives I. 050 Units.

This is part one of a two-part course on Fixed Income Derivatives. The topics will include an introduction to fixed income markets, a detailed review of fixed income derivative instruments, and a general approach to bootstrapping the LIBOR term curve from available market quotes. We also discuss the application of the Black-Scholes-Merton model to pricing European swaptions and caps/floors. Students will study a statistical approach to building a foundation for the Heath-Jarrow-Morton framework of interest rate models, covered in the second part of the course. This is a 5-week course taught in the second-half of the quarter. Instructor(s): Y. Balasanov, L. Doloc, J. Greco Terms Offered: Autumn

FINM 34500. Stochastic Calculus. 100 Units.

The course starts with a quick introduction to martingales in discrete time, and then Brownian motion and the Ito integral are defined carefully. The main tools of stochastic calculus (Ito's formula, Feynman-Kac formula, Girsanov theorem, etc.) are developed. The treatment includes discussions of simulation and the relationship with partial differential equations. Some applications are given to option pricing, but much more on this is done in other courses. The course ends with an introduction to jump process (Levy processes) and the corresponding integration theory. *Program requirement*.

Instructor(s): G. Lawler Terms Offered: Winter Equivalent Course(s): STAT 39000

FINM 35000. Topics in Economics. 100 Units.

This course explores the economics of asset pricing. Going beyond no-arbitrage valuation, students learn how asset prices can be linked to economic fundamentals. As the recent recession and financial crisis show, there are important links between financial markets and the real economy. This course gives students a systematic way for understanding these links. Several important areas and puzzles of financial economics are presented. Topics in equity pricing include return-predictability, excess volatility, and factor-models. In fixed income, the course covers the empirical evidence of the term structure and how it compares to the Expectations Hypothesis, as well as how these facts fit with classes of common term-structures models. In international finance, the course covers the carry trade, the home-equity bias, and the currency trilemma. *Program elective*.

Instructor(s): M. Hendricks Terms Offered: Autumn

FINM 35910. Applied Algorithmic Trading. 050 Units.

Applied Algorithmic Trading will introduce the required background knowledge and processes necessary for the design and implementation of algorithmic trading models within the context of industry requirements. The objective of the course is to bring together the numerous disciplines covered in other Financial Mathematics courses, focused on quantitative trading, and combine them into a workable industry level presentation. This course will walk students through the process of generating trading ideas, quantifying the trading process, risk-based modeling concepts, back-testing and optimization techniques, and key industry metrics used to evaluate algorithmic trading model performance. Lastly, the course will stress the leadership and presentation skills necessary to make a successful pitch in an industry setting. *Program elective*.

Instructor(s): C. Gersch, B. Jorge Terms Offered: Autumn Prerequisite(s): FINM 32400, FINM 33150, or consent of instructors

FINM 36000. Project Lab. 050 Units.

Program elective.

Instructor(s): R. Lee Terms Offered: Autumn,Spring,Summer,Winter Prerequisite(s): Consent of instructor.

FINM 36001. Project Lab 2. 000 Units.

Program elective. Instructor(s): R. Lee Terms Offered: Autumn,Spring,Summer,Winter Prerequisite(s): FINM 36000 and consent of instructor.

FINM 36700. Portfolio Theory and Risk Management I. 050 Units.

The course introduces investment analysis, allocation, risk control. The course begins with classic topics such as mean-variance analysis, priced and un-priced risk, hedging, and the efficient frontier of investment opportunities. Factor models are used to understand the relation between risk and expected return. Examples covered in the course include the CAPM, Black-Litterman, and principal component factors. Finally, the course discusses modern risk control, including risks from interest-rates, liquidity, and credit. Value-at-risk, and expected shortfall are discussed. *Program requirement*.

Instructor(s): M. Hendricks Terms Offered: Winter

Note(s): This is a week-week course taught in the first-half of the quarter.

FINM 36702. Portfolio Theory and Risk Management II. 050 Units.

This course combines a technical topic with an analysis of situations that produce outsized losses. Students gain familiarity with the credit portfolio loss models that are used to limit trading, allocate costs, and determine required bank capital. They also review the interplay between the technical and human factors that has led to prominent risk control failures. Unique in the Financial Math program, students make in-class presentations that detail the optimal responses of various market participants to unexpected circumstances. *Program requirement.*

Instructor(s): J. Frye Terms Offered: Winter

Prerequisite(s): FINM 36700 Portfolio Theory and Risk Management I Note(s): This is a five-week course taught in the second-half of the quarter.

FINM 37300. Foreign Exchange/Fixed Income Derivatives. 050 Units.

This course will examine international currency markets, financial products, applications of quantitative models and FX risk management with an emphasis on the derivative products and quantitative methods in common use today. Topics will include a) the behavior of FX rates: exchange rate regimes, international monetary systems, FX modeling and forecasting, b) FX markets and products: spot, forward, futures, deposits, cross-currency swaps, non-deliverable contracts, FX options, exotic options, hybrid products and structured notes, and c) Risk management: from the trading book, trading institution, global asset manager and multinational corporation perspectives. *Program requirement*.

Instructor(s): A. Capozzoli Terms Offered: Spring

Note(s): This is a five-week course taught in the first-half of the quarter.

FINM 37601. Mathematical Market Microstructure: An Optimization Approach. 100 Units.

Mathematical Market Microstructure: An Optimization Approach for Dynamic Inventory Management and Market Maker Quoting. This course is an introduction to mathematical theory of market microstructure, with key applications in solving optimal execution problems with inventory management. We will start from discussions of market design, global market structure, algorithmic trading and market making practices. We will then present traditional market microstructure theory in the context of dealer inventory management and information-based quoting and pricing. Latest literature about realized volatility calculations and intraday implied volatility surface modeling using high-frequency data will be reviewed. The subject of order book dynamics research with applications to market impact modeling will be discussed as well. Finally, a review on continuoustime stochastic control theory will be provided and a discussion will be given on execution algorithm development and market making strategy design using stochastic programming techniques. The main goal of this course is to provide a clear discussion on key mathematical treatments and their practical applications of market microstructure problems, in particular relating to price discovery and utility optimization for certain transaction processes with non-trivial transaction cost present. Program elective.

Instructor(s): H. Chou Terms Offered: Autumn

Note(s): This is a five-week course taught in the first half of the quarter.

FINM 37602. Mathematical Market Microstructure w/o Rationality Assumptions. 100 Units.

Just like the view on micro world made us rethink our theories about the laws of physics previously based on macro world experience, algorithmic trading at extremely low latency exposes us to new phenomena and demands new mathematical models for their analysis. Objectives of this course are: introducing students to some models that have become important for analysis of market microstructure in recent years and show how they can be applied to low latency trading and risk management. We start with a review of the main features of the market behavior at ultra-low latency, explain why we prefer to look at the market events with "frog's eye" and concentrate on mathematical models consistent with Principle of Ma. During the course we study stochastic processes that describe market behavior at the microstructure level. Among them are Poisson, Cox, Ammeter, Hawkes and other processes. Students will learn how simulate each of the processes, fit it to market data and interpret the results. We will relate these processes to common approaches to modeling market price formation and limit order book behavior. Demonstrations and applications will be implemented in R. Students will work with some real market data examples. Classes consist of lecture part and in-class workshop. Students are required to come with their laptop computers with installed R. Some background in probability theory, statistical methods and statistical data analysis with R is recommended. Instructor(s): Y. Balasanov Terms Offered: Autumn

Note(s): This is a five-week course taught in the second half of the quarter.

FINM 37700. Introduction to Finance and Markets. 50 Units.

This course is an introduction to the basics of finance and financial markets. It assumes minimal finance/markets background with the option for experienced students to test out during a placement exam in the first week. Topics include: financial systems, financial returns, capital markets, and financial management. *Program requirement*.

Instructor(s): P. Hirschboeck Terms Offered: Autumn

Note(s): This is a five-week course taught in the first half of the quarter.

FINM 37701. Case Studies of Implementations in Computational Finance. 100 Units.

This course will introduce participants to the field of Computational Finance through real-world "end-to-end" case studies. The course will focus on the importance of data analytics and algorithmic processing and it will be centered around a series of examples that are representative of problems that practitioners in finance have to solve. The course is structured to cover two major themes; 1. Intro to Data analysis and Numerical algorithms in Computational Finance, and 2. Case studies of "end-to-end" system implementations. Prerequisites and recommended background: As a prerequisite, students will be required to have successfully completed the Computing course sequence, or to have passed the placement exam of the Computing course sequence. The participants should also have basic familiarity with the use of MS Excel spreadsheets & VBA, as well as with the use of a high level programming language such as Python or R. *Program elective.* Instructor(s): C. Doloc Terms Offered: Autumn

Prerequisite(s): Computing for Finance course sequence or exam

FINM 38000. Financial Mathematics Practicum. 050 Units.

Program elective. Terms Offered: Spring,Summer

FINM 39000. Regulatory & Compliance Requirements for Financial Institution. 050 Units.

Regulatory and Compliance Requirements for Financial Institutions. The course introduces students to the key regulatory and compliance requirements for bank and non-bank financial institutions under the Dodd-Frank Act. Students first learn the basics of the regulatory framework governing the U.S. capital markets and financial institutions, and are given an overview of the financial crisis of 2008-09 that led to the Dodd-Frank legislation. Next, we examine the primary areas under the Act that a risk-management system must address. Topics include: a) regulation of systemic risk, including stress testing of large depository and systemically important non-depository institutions, b) Basel III's capital adequacy requirements issued by the Federal Reserve Board for such institutions and the SEC's net capital rules for broker-dealers, and c) the regulation of the derivatives market and counterparty risk. The course covers the Act's basic modeling requirements relating to these regulations. Students learn the primary components of a financial institution compliance program pertaining to corporate governance, supervision, internal controls, management of conflicts of interest, and gain an understanding of a risk management system optimally designed to achieve compliance with the Dodd-Frank Act. Case studies illustrate both compliance breakdowns and best practices. Program elective.

Instructor(s): A. Dill Terms Offered: Autumn



MASTER OF SCIENCE PROGRAM IN THE PHYSICAL SCIENCES

DIRECTOR

Robert Wald

PROGRAM DESCRIPTION

The Master of Science Program in the Physical Sciences Division (MS-PSD) (http://mspsd.uchicago.edu) at the University of Chicago is a program designed for students who wish to broaden or deepen their knowledge of the physical and mathematical sciences. It should be especially valuable to those seeking to prepare for further graduate work, including those who wish to prepare for a graduate program in a field outside of their undergraduate major. MS-PSD students have the opportunity to work with faculty members in the Departments of Astronomy & Astrophysics (http://astro.uchicago.edu), Chemistry (http://chemistry.uchicago.edu), Computer Science (http://www.cs.uchicago.edu), Geophysical Sciences (http:// geosci.uchicago.edu), Mathematics (http://www.stat.uchicago.edu), and the program in Biophysical Sciences (http://biophysics.uchicago.edu). The MS-PSD program allows students, in consultation with the faculty Director, to design programs of study to meet individual student needs. This flexibility combined with the rigor of UChicago courses makes the program unique.

Students normally complete the M.S. in Physical Sciences in nine-months (three quarters). The program is administered by the PSD Dean of Students office and directed by Professor Robert Wald, Charles H. Swift Distinguished Service Professor, Department of Physics, Enrico Fermi Institute and the College.

Courses and Master's Project

MS-PSD students are required to complete nine courses, including a master's thesis project. Students choose from quarterly course offerings (http:// timeschedules.uchicago.edu) in physical sciences departments. At least four of the courses must be graduate-level courses in a single department or associated with a specific interdepartmental track, such as environmental science, biochemistry/ physics, computational methods in physical science, and optics/imaging. To accommodate students who seek to broaden their knowledge of the physical sciences as well as those seeking to transition to a new field, students may be allowed to take as many as three advanced undergraduate courses in fields outside of their undergraduate majors. In all cases the Director must approve the chosen curricula.

For experimentalists, a typical master's project might consist of performing or assisting with a laboratory research experiment. For theorists, a typical master's project might consist of performing some numerical simulation experiments. Students normally choose their projects in the winter quarter, carry them out during the spring quarter, and summarize their projects' results in a required master's paper.

QUESTIONS

Prospective or current students should contact the Associate Dean of Students in the Physical Sciences Division with questions about the program and/or the application process:

Emily Easton 773-702-9708 eweaston@uchicago.edu



DEPARTMENT OF ASTRONOMY AND ASTROPHYSICS

Chair

- Angela Olinto
 Professors
- John Carlstrom
- Kyle Cudworth
- Wendy Freedman
- Joshua A. Frieman
- Doyal A. Harper, Jr.
- Stephen Kent
- Alexei Khokhlov
- Edward W. Kolb
- Arieh Königl
- Andrey Kravtsov
- Richard G. Kron
- Donald Q. Lamb, Jr.
- Stephan Meyer
- Angela Olinto
- Robert Rosner
- Noel M. Swerdlow
- Simon P. Swordy, Physics
- James W. Truran, Jr.
- Michael Turner

Associate Professors

- Fausto Cattaneo
- Scott Dodelson
- Nickolay Y. Gnedin
- Dan Hooper
- Wayne Hu

Assistant Professors

- Jacob Bean
- Bradford A. Benson
- Hsiao-Wen Chen
- Daniel Fabrycky
- Michael Gladders
- Erik Shirokoff

Emeritus Faculty

- James W. Cronin
- Roger Hildebrand
- Edward Kibblewhite
- Richard H. Miller
- Takeshi Oka, Chemistry
- Patrick E. Palmer
- Eugene Parker
- Peter O. Vandervoort
- Donald G. York

The Department of Astronomy & Astrophysics awards the Ph.D. degree, and carries on programs of research and graduate instruction on the quadrangles of the University; at Adler Planetarium, Chicago; at Apache Point Observatory, Sunspot, New Mexico; and at the Yerkes Observatory, Williams Bay, Wisconsin.

ADMISSION

Students seeking admission to the department for graduate study should have the training in physics and mathematics that is represented by the conventional bachelor's degree. Applicants must submit recent scores on the Graduate Record Examination Aptitude and Advanced Physics tests.

PROGRAM OF STUDY

The program leading to the Ph.D. degree in Astronomy & Astrophysics has four parts: a program of six required and elective courses, a research project, the candidacy examination, and research leading to a dissertation. The program and the requirements for graduate degrees are summarized below. This additional information is also available online (http://astro.uchicago.edu/ gradprogram/prospective.php). The application is also available online (https:// apply-psd.uchicago.edu/apply).

During the first and second academic years, students normally take the course sequence:

ASTR 30100	Stars	100
ASTR 30300	Interstellar Matter	100
ASTR 30400	Galaxies	100
ASTR 31000	Cosmology I	100
ASTR 31100	High Energy Astrophysics	100
ASTR 30600	Detection of Radiation	100
ASTR 30700	Prep: Summer Research Project	100

The normal program of courses in the first two-years of graduate student in Astronomy and Astrophysics consist of 6 required courses. The courses are scheduled as follows:

- <u>Year 1</u>, Autumn quarter Stars; Winter quarter Interstellar Matter; Spring quarter Galaxies.
- <u>Year 2</u>, Autumn quarter Cosmology; Winter quarter High Energy Astrophysics; Spring quarter Detection of Radiation.

First and second year students, will conduct a summer research project and participate in research activities, or courses of their choice, in all quarters. Weekly activities include Faculty Research Seminars, Graduate Student Research Seminars, and Department Colloquia.

Students will report on their cumulative research activity and participate in a candidacy examination at the end of <u>Year 1</u> and <u>Year 2</u>. Admission to candidacy depends on faculty approval of the students' performance in coursework and the above mentioned activities. A student is officially admitted to research on the basis of a satisfactory performance on the Candidacy Examination, upon which, the student should arrange with a faculty member to have that faculty member serve as sponsor for the students research. Information is as follows:

STEP I: FALL AFTER 1 YEAR IN DEPARTMENT

The student makes an oral presentation (~20 minutes) to the committee on a minor research project (one that took 1 or 2 quarters). This will be followed by questions about the project and about more general issues in astronomy, with aim of determining whether the student is making sufficient progress towards the goals listed at the bottom of this page. Based on the exam, courses, and feedback from advisor[s], the committee will provide feedback to the student. In rare cases this may include the requirement to re-take a course. The Candidacy Committee will provide written reports to the student, Academic Chair, and Advisor.

STEP II: JUNE OF THE 2ND YEAR

Student makes an oral presentation on a major project (3-4 quarters of research) accompanied by written report. The report should include a full bibliography of all relevant work (as in a standard scientific publication). If the student played a major role in writing a paper, this can be used in lieu of the written report. The presentation will be followed by questions about the work and the broader context, so that the entire oral exam will typically last between 90-120 minutes.

Scope of Exam: Questions are likely to begin with motivations for the research, history, and references and then extend to courses related to the work. For example, a report on Gravitational Lensing in the Dark Energy Survey will likely be followed by questions about cosmology (31000) and detection of radiation (30600). The committee will also probe the students knowledge in any core course in which a grade lower than B was obtained.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Students who enter the department intending to proceed toward the degree of Doctor of Philosophy are normally required to complete the 3xx level program of lecture courses described above. With the approval of the student's dissertation committee, modifications of this requirement may be made. Students are expected to maintain a grade point average of at least 3.0 in their course work.

At the end of the second year, after completing the basic 3xx level program courses, students who wish to begin research for the degree of Doctor of Philosophy must pass both the written and oral portions of the candidacy examination, which includes the subject matter of the basic 3xx level astronomy courses. The candidacy examination will be given towards the end of the Summer quarter of the student's second year. A student whose performance on this examination does not merit continuation in the program may retake the examination once. Ordinarily, students who do not proceed toward the Ph.D. are given the opportunity to complete the master's degree. Graduate students who are permitted to proceed toward the degree of Doctor of Philosophy may elect to receive an incidental Master of Science degree after having passed the candidacy exam.

The requirements for the degree of Doctor of Philosophy include the divisional requirements. In particular, a student who is permitted to begin research for the dissertation based on a satisfactory performance on the candidacy examination must still formally establish candidacy for the degree according to divisional requirements. A degree candidate must fulfill a two quarter teaching requirement, which is explained in detail in the departmental graduate program document. A candidate for the degree must submit a dissertation. The dissertation shall consist of a paper, or papers, submitted for publication in a recognized scientific journal, and the student may be the sole author, or a member of multiple authors by a group who will be determined by a faculty committee. A dissertation shall be accepted as satisfying the requirements of a Ph.D. in the Department of Astronomy and Astrophysics only if it has been approved by the Dissertation Committee and has been submitted for publication in a recognized scientific journal.

FACILITIES FOR RESEARCH

A student may perform the research for the doctoral dissertation on the quadrangles of the University or Yerkes Observatory. A student working at either location has access to the complete facilities of the department.

Moreover, there exists in the other departments and in the institutes of the Division of the Physical Sciences a variety of research programs which bear on modern astrophysics. Contact with persons working in these programs is possible and is encouraged. In fact, students' research programs may be carried out under the direction of faculty members in these departments and institutes.

Computing resources for the department include a multiprocessor SUN SPARC server, networked printers, and a multitude of workstations and PCs, with Ethernet and LocalTalk (AppleTalk) connections in every room. This equipment is linked via ethernet with the computation facilities of the Division of the Physical Sciences, which include SUN and SGI servers, and a high speed line links them to the super computer facilities of the National Center for Supercomputer Applications at the University of Illinois at Urbana and of the Argonne National Laboratory (operated by the University of Chicago). These resources form a powerful facility for computational astrophysics.

The principal instruments at the Yerkes Observatory are the 40 inch refracting telescope and the 41 inch and 24 inch reflecting telescopes, all of which are used for both instrument testing and research. The department's adaptive optics group has

actively used the 41 inch reflector in recent years, and the astrometric program uses the refractor extensively. The Yerkes Observatory also houses an excellent library as well as engineering facilities and shops that are heavily used in developing instrumentation for the department's wide ranging activities.

The University of Chicago is a member of the Astrophysical Research Consortium, a consortium of several universities that has built and operates a 3.5 meter new technology telescope on Sacramento Peak in Sunspot, New Mexico. This remotely operated facility was designed to permit rapid changes in instrumentation and in observing mode.

The University is also a key partner in the Sloan Digital Sky Survey (SDSS). The SDSS is a project for which a 2.5 meter new technology telescope is mapping the Northern Galactic sky cap with five band photometry and obtaining redshifts of approximately one million galaxies and one hundred thousand QSOs.

By arrangement, facilities of the Argonne National Laboratory may be used by students in the department. These include unique facilities for experimental nuclear astrophysics, and a computation center equipped with vector and parallel processing computers.

Students also may take advantage of the resources of the Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois, including the computational facilities, through its Institute for Cosmology and Particle Physics, funded by the National Aeronautics and Space Administration, or through the program in Experimental Astrophysics.

In recent years, some students have also used national facilities such as the National Radio Astronomy Observatory, the National Optical Astronomy Observatories, and the NASA Ames Research Center.

ASTRONOMY AND ASTROPHYSICS COURSES

ASTR 30100. Stars. 100 Units.

Introduction to stars (physical and observational), hydrodynamics of self-gravitating fluids, statistical mechanics and equations of state, energy transport, astrophysical nuclear reactions, stellar models, advanced topics.

ASTR 30300. Interstellar Matter. 100 Units.

Interstellar medium, collision-less systems, distribution of stars in the solar neighborhood, stellar kinematics/dynamics, observations of galactic large-scale structure, theory of galactic structure and evolution. Terms Offered: Winter

ASTR 30400. Galaxies. 100 Units.

The observed universe, the universe at high redshift, early universe microwave background radiation, relativistic homogeneous isotropic cosmologies, evolution of structure in the universe, primordial nucleosynthesis. Terms Offered: Spring

ASTR 30600. Detection of Radiation. 100 Units.

Radiation as a random process, optical coherence, and signal analysis in spatial and temporal domains, along with the detection and measurement of radiation with astronomical instruments.

Terms Offered: Spring

ASTR 31000. Cosmology I. 100 Units.

This course presents an introduction to the principles of cosmology. The first part introduces homogeneous, relativistic cosmologies and covers the Robertson-Walker metric, dynamics in the presence of matter, radiation, and dark energy, the universe as a function of time and redshifts, and techniques for calculating observable quantities. The next part covers the growth and evolution of structure in the universe including the formation of clusters and voids, correlation functions, and the mass spectrum. The next part covers the physics of the early universe, including inflation, primordial nucleosynthesis, and recombination. The final part covers current topics in cosmology, including analysis of the cosmic microwave background and tests for detecting and measuring dark matter and dark energy. Terms Offered: Autumn

Prerequisite(s): Graduate Standing and ASTR 30100 - 30600; or Consent of Instructor

ASTR 31100. High Energy Astrophysics. 100 Units.

Terms Offered: Winter

ASTR 31300. Extragalactic Studies. 100 Units.

When, where, and how stars formed in galaxies is central to understanding many other aspects of large stellar systems: baryons streaming into dark-matter haloes, large-scale outflows, patterns in chemical abundances, and how all these processes have changed with time. This class will look at what is known empirically about star formation in nearby galaxies across a wide range of conditions, identifying those that are most significant for building up the mass in stars and most significant energetically for the local interstellar medium. The range of conditions includes strong dynamical interactions on large scales, and high-density regions and regions exposed to intense radiation on small scales. Our approach will study prototype galaxies from relevant classes (e.g. starburst, ultra-luminous infrared emitters, ultraviolet-luminous, etc.), exploring what is known about the recent history of star formation in these systems from multi-wavelength data.

Prerequisite(s): Graduate Standing; or 30100 - 30600; or Consent of Instructor

ASTR 31500. Dynamics of Fluids. 100 Units.

Principles of hydrodynamics and hydromagnetics. Equilibrium and stability of fluid systems in astrophysics. Waves. Shocks. Turbulence.

Prerequisite(s): Graduate Standing; or 30100 - 30600; or Consent of Instructor

ASTR 31600. Dynamics Particles. 100 Units.

Dynamics of collision-less plasmas and stellar systems. Stochastic processes and kinetic equations. Dynamics of galaxies and star clusters. Astrophysical plasmas. Prerequisite(s): Graduate Standing; or 30100 - 30600; or Consent of Instructor

ASTR 32000. Relativistic Astrophysics. 100 Units.

Special and General relativity and the experimental tests, with applications to astrophysical problems such as super-massive stars, black holes, relativistic star clusters, and gravitational radiation.

Prerequisite(s): Graduate Standing; or 30100 - 30600; or Consent of Instructor

ASTR 32100. Cosmology II. 100 Units.

Study of physical cosmology with emphasis on the standard big-bang model and its observational and experimental tests.

Prerequisite(s): Graduate Standing; or 30100 - 30600; or Consent of Instructor

ASTR 33000. Computational Physics and Astrophysics. 100 Units.

Basic computational methods useful for astrophysics, supplemented by specific examples drawn primarily from astrophysics. Starting with basics (e.g., precision, errors and error analysis) and basic computational methods (differentiation, integration/quadrature, Monte Carlo, numerical linear algebra), and then discussing solution of problems posed in terms of ordinary and partial differential equations. Prerequisite(s): Graduate Standing; or 301 - 30600; or Consent of Instructor

ASTR 34000. Statistical Methods in Astrophysics. 100 Units.

An exploration of the variety of statistical methods used in modern astrophysics. We discuss the frequentist (hypothesis tests, confidence intervals) and Bayesian (explicit priors, model-choosing, parameter estimation) approaches. Other topics include: Markov Chain Monte Carlo and other computational statistics; multi-dimensional likelihood space; Fischer information matrices; time series analysis. Assignments draw from examples in the astronomical literature.

Prerequisite(s): Graduate Standing; or 301 - 30600; or Consent of Instructor

ASTR 37100. Precandidacy Research: Astron. Var Units.

For course description contact Astonomy and Astrophysics.

ASTR 38000. History of the Telescope. 100 Units.

The history of the idea of telescopes, and of telescopes as working devices, is covered. Following a short discussion of the ideas of "seeing at a distance" in the pre-telescopic world, Galileo's astronomical discoveries are noted. The evolution of the telescope through the 17th, 18th, 19th and 20th centuries are then described. The key developments in telescope systems in each century are highlighted. These include optics, platforms and clocks, structures, rockets, computers, instruments, detectors and observatory sites. The roles of amateur astronomers, wealthy patrons, wealthy entrepreneurs and governments in bringing about these developments are emphasized, and the impact on society of the discoveries made with telescopes is outlined. Serendipitous discovery, personal stories of the main actors on the stage and the feedback between the development of modern civilization and the tools of astronomy are features of the story.

Prerequisite(s): Graduate Standing; or 30100-30600; or Consent of Instructor

ASTR 38100. General History of Astrophysics. 100 Units.

ASTR 38800. Galileo's Astronomy and Conflicts with the Church. 100 Units.

This course is devoted to Galileo's work in astronomy, above all the Dialogue on the Two Great Systems of the World, and his conflicts with the Church concerning the interpretation of Scripture and the attempt to prove the Copernican theory.

ASTR 40100. Practicle Data Analysis. 100 Units.

ASTR 40200. Particle Astrophysics. 100 Units.

ASTR 40300. Structure Formation in the Universe. 100 Units.

ASTR 40400. QSOs in the SDSS. 100 Units.

ASTR 40600. Gravitational Lensing. Units.

Theory of bending of light by gravitational potentials followed by astrophysical and cosmological applications including; microlensing, planetary searches, strong lensing, and weak lensing.

ASTR 40700. AstroPolitics. 100 Units.

ASTR 40800. The Perturbed Universe. 100 Units.

ASTR 40900. Topics in Observational Cosmology. 100 Units.

ASTR 41100. Science of the Dark Energy. 100 Units.

ASTR 41300. Topics in Stellar Astronomy. 100 Units.

ASTR 41400. Advanced Fluid Dynamics. 100 Units.

ASTR 41500. Astrophysical Jets. 100 Units.

ASTR 41600. Intergalatic Medium. 100 Units.

ASTR 41800. Introduction to Intergalatic Medium Studies. 100 Units.

Introduction to intergalactic medium studies. The course will begin with a historical overview of absorption-line studies and proceed with in-depth discussion of ongoing research topics. These include the re-ionization epoch, chemical enrichment of the universe, and association between luminous matter traced by galaxies and gaseous clouds probed by absorption-line observations.

ASTR 42200. Early Universe Cosmology. 100 Units.

ASTR 42700. Atomic Structure and Spectra. 100 Units.

ASTR 43000. Plasma Astrophysics. 100 Units.

ASTR 43100. Ultra-High Energy Cosmic Rays. 100 Units.

ASTR 43200. High Energy Cosmic Particles. Units.

This graduate level course will focus on high energy particle astrophysics from basic facts to recent discoveries in the study of cosmic rays, gamma-rays, and neutrinos. The course will introduce the main concepts of proposed mechanisms for generating these particles, the past and current detections techniques and observatories, and recent observations. Some particle physics and cosmology will be covered including models of dark matter particles and the effect of cosmic backgrounds on high energy cosmic particles.

ASTR 43300. Accretion Disks. 100 Units.

ASTR 43600. Theory of Supernovae. 100 Units.

ASTR 44200. Topics in Astrophysical Fluid Dynamics. 100 Units.

ASTR 44800. Cosmic Microwave Background. 100 Units.

ASTR 45000. Extreme Optics. 100 Units.

Frontiers in optics will be a review of the state of the art in optics as it paplies to astronomy. Topics to be covered will include

(1) Single dish optics : adaptive optics, building large telescopes and coronography

(2) Interferometers using multiple telescopes

(3) Lasers for guide stars and wavelength control

(4) LIGO and LISA

ASTR 45100. High Resolution Imaging. 100 Units.

ASTR 45200. Primer on the SDSS. 100 Units.

ASTR 45300. Computational Cosmology. 100 Units.

ASTR 45400. Image Processing (Analysis) 100 Units.

Many key results in current research rely on the inner workings of codes that operate on pixels. Examples are measuring the weak lensing shear field, measuring precise light curves for supernovae in the presence of contaminating light from a host galaxy, high-precision relative photometry (e.g. to detect transits), reliable morphological star/galaxy classification to faint flux limits, reliable color measurements (e.g. for photometric redshifts), crowded-field photometry, and detection of diffuse light to very low surface brightness levels. This course will explore some of the ideas that have been developed to address these and other problems of interest, illustrated by CCD detectors. The format of the class will be first to consider what goes into the pixels (e.g. ingredients of the point-spread function), followed by the techniques for unwinding the instrumental effects, concluding with what extracted parameters are optimal for some particular application (what comes out of the pixels).

ASTR 45800. Exoplanets. 100 Units.

The study of exoplanets, planets associated with stars other than the Sun, has become one of the most exciting and rapidly evolving areas of modern astronomy. This new course will address general questions concerning the detection and characterization of exoplanets and of what we have already learned about the origin and properties of exoplanetary systems and of how they compare with those of the Solar System. This discussion will be placed in the context of models of planet formation in protoplanetary disks, their structure and composition, and their dynamical interactions with the natal disk, the parent star, and other planets. The course will make use of seminal papers on these topics and will encourage active participation by the students.

ASTR 45900. What Makes a Planet Habitable? 100 Units.

This course explores the factors that determine how habitable planets form and evolve. We will discuss a range of topics, from the formation of planets around stars and the delivery of water, to the formation of atmospheres, climate dynamics, and the conditions that allow for the development of life and the evolution of complex life. Students will be responsible for reading and discussing papers in peer-reviewed journals each meeting and for periodically preparing presentations and leading the discussion.

Instructor(s): E. Kite Terms Offered: Winter Equivalent Course(s): GEOS 32060,GEOS 22060

ASTR 46400. Nuclear Astrophysics. 100 Units.

ASTR 46500. Atomic Spectra. 100 Units.

ASTR 47100. Evolution of Galaxies. 100 Units.

ASTR 47200. Star Clusters. 100 Units.

ASTR 47300. Distant Galaxies. 100 Units.

ASTR 48000. Current Topics in Astrophysics (Graduate) 100 Units.

ASTR 48100. Advanced Computational Techniques. 100 Units.

ASTR 48200. Dark Energy and Cosmic Acceleration. 100 Units.

ASTR 49400. Post-Candidacy Research. Var Units.

ASTR 49900. Graduate Research Seminar. 100 Units.



Graduate Program in Biophysical Sciences

Chair

Tobin R. Sosnick

Website (http://biophysics.uchicago.edu)

The Graduate Program in Biophysical Sciences is designed to transcend traditional departmental boundaries for the purpose of training scientists who will excel at addressing biological problems using quantitative and physical approaches. The program, which grants a Ph.D. degree from both the Biological and Physical Science Divisions, serves the needs of students who have strong backgrounds in the physical sciences and are intrigued by the interface of the physical, biological and computational sciences. Dual mentorship is a fundamental component of the program. Each student chooses a pair of dissertation advisors from across our diverse faculty and fully participates in both of these research groups.

The participating faculty in the program are drawn from The Physical and The Biological Sciences Divisions, and Argonne National Laboratory and hold appointments in:

DEPARTMENTS & COMMITTEES

- Ben May Dept. for Cancer Research
- Biochemistry & Molecular Biology
- Cancer Biology
- Cell & Molecular Biology
- Cell Physiology
- Chemistry
- Computational Neuroscience
- Computer Sciences
- Developmental Biology
- Genetics, Genomics & Systems Biology
- Immunology
- Mathematics
- Microbiology
- Neurobiology
- Pathology
- Pediatrics
- Physics

INSTITUTES & CENTERS

- Inst. for Biophysical Dynamics
- Computation Institute

- Inst. for Genomics & Systems Biology
- James Franck Institute
- Center for Adv. Radiation Sources
- Materials Research Science & Engineering Center
- Office of Shared Research Facilities
- Institute for Molecular Engineering

CURRICULUM

The curriculum assumes that entering students are well-grounded in the physical sciences. During the first year, students are expected to take one class per quarter from both the Biological Sciences Division and the Physical Sciences Division (6 courses total). The Biological Organization Series consists of courses chosen to rapidly teach the fundamental biology necessary to enter a laboratory and begin serious interdisciplinary research. To build upon students' strengths in the physical sciences, the first year includes three courses chosen from a list of graduate courses offered in Chemistry or Physics. The curriculum can be modified to fit the strengths and weaknesses in a student's background.

Students undertake a series of laboratory rotations as part of the process of identifying a dissertation topic. These rotations are usually performed during the Winter and Spring Quarters during the first academic year.

INTERDISCIPLINARY PRACTICAL TRAINING

One of the unique advantages of the program is the 3 quarter laboratory course: From Production to Measurement and Analysis. In this intense, 16 hour a week course students deeply explore a series of important current instruments and techniques while carrying out the systematic characterization of several genes and their expressed proteins. The genes are chosen from the long list of "unknown ORFs" - open reading frames that have been predicted by genome sequencing projects, but have never been examined further.

The laboratory course is managed by a full-time course director who works closely with the students to provide experimental and intellectual continuity. The laboratory course covers (1) sample preparation and high throughput selection methods (e.g. engineering, expression, synthesis, and labeling of proteins and nucleic acids) and high throughput selection methods (phage display, in vitro selection); (2) measurement (spectroscopy and imaging including single molecule methods, NMR, x-ray diffraction, and mass spectrometry, etc.); and (3) computational approaches (extracting information from large data sets, bioinformatics, simulation and modeling). Although it is impossible to cover all biophysical methods, the process of mastering a subset of the important techniques gives students the confidence and foundation to build in any direction.

The first section of this course is the four-week Biological Research Immersion, which starts in late August and ends before the start of Fall Quarter. The course continues through the Autumn and Winter Quarters.

The program in Biophysical Sciences is an inherently collaborative training program, and the foundation of collaboration is the ability to coherently express complex ideas. As part of the laboratory course, students are expected to give frequent presentations, both oral and written: Analysis of recent papers, background preparation before research seminars, overviews of upcoming experimental techniques, experimental proposals, and presentations of results. As a group, students also participate in two large projects during the year - building an advanced optical instrument from basic components, and writing a software package to simulate a biological process.

DUAL MENTORSHIP

In order to truly bridge the expertise and approach of two scientific fields it is necessary to fully participate in both. The research program each professor maintains is a vibrant and dedicated research group whose members share in the daily successes and frustrations of their related questions. It is this shared intellectual exertion that moves a subject forward, and it is this environment that most efficiently teaches the deepest understanding. In our experience, this dual mentorship creates an unparalleled learning structure and will lead to the development of unimagined science.

For a list of trainers and their affiliations, details about admissions, and current information about this new and innovative program, see http://biophysics.uchicago.edu/

BIOPHYSICAL SCIENCES COURSES

BPHS 31000. Biophysics of Biomolecules. 100 Units.

This course covers the properties of proteins, RNA, and DNA, as well as their interactions. We emphasize the interplay between structure, thermodynamics, folding, and function at the molecular level. Topics include cooperativity, linked equilibrium, hydrogen exchange, electrostatics, diffusion, and binding. Instructor(s): T. Sosnick Terms Offered: Spring Prerequisite(s): Consent of instructor Equivalent Course(s): BIOS 21328,BCMB 32200

BPHS 35001. Synthesis and Modification. 150 Units.

This course is 20 hours per week of intensive training in research in the biological sciences, intended for first year students in the Biophysical Sciences Program who typically have majored in one of the physical sciences and want to pursue a PhD project at the interface between the physical and biological sciences. The course continues through Winter quarter.

Instructor(s): A. Hammond Terms Offered: Autumn, Winter Note(s): Open to first year BPHS students only



DEPARTMENT OF CHEMISTRY

Chair

Viresh Rawal

Professors

- Laurie Jeanne Butler
- Aaron Dinner
- Gregory Engel
- Philippe M. Guyot Sionnest
- Chuan He
- Michael D. Hopkins
- Richard F. Jordan
- Stephen Kent, Biochemistry & Molecular Biology
- Sergey Kozmin
- Yamuna Krishnan
- Ka Yee Christina Lee
- Donald H. Levy
- Wenbin Lin
- David Mazziotti
- Joseph Piccirilli, Biochemistry & Molecular Biology
- Viresh Rawal
- Benoit Roux, Biochemistry & Molecular Biology
- Norbert F. Scherer
- Steven J. Sibener
- Scott Snyder
- Dmitri Talapin
- Andrei Tokmakoff
- Gregory Voth
- Luping Yu

Assistant Professors

- John Anderson
- Bryan Dickinson
- Jared Lewis
- Raymond Moellering
- Bozhi Tian
- Suriyanarayanan Vaikuntanathan
- Yossi Weizmann

Emeritus Faculty

- R. Stephen Berry
- Robert N. Clayton, Geophysical Sciences
- Philip E. Eaton
- Karl Freed
- Robert Gomer
- Jack Halpern
- Robert Haselkorn, MGCB
- John C. Light
- James R. Norris, Jr.
- Takeshi Oka
- Stuart A. Rice
- Hisashi Yamamoto

The Ph.D. program in the Department of Chemistry offers wide opportunity and unusual flexibility for advanced study and research, and is designed to encourage individuality, independence, and excellence in students. Most students select their research advisor by winter quarter of their first year and are engaged in research by the spring quarter. The department has neither a system of cumulative examinations nor a written major examination. There are relatively few course requirements and great flexibility as to which courses may be taken.

In the Division of the Physical Sciences barriers between departments are low. Students in the Department of Chemistry often take courses in other departments and can even earn the degree in chemistry for research that has been done under the supervision of a member of another department. Students are encouraged to fashion special programs of study under the guidance of the faculty.

APPLICATION

A completed application will include undergraduate transcripts, three letters of recommendation, and the results of the GRE examination (to include the advanced test in chemistry). Foreign applicants must also submit the results of the TOEFL or IELTS.

Students are normally admitted beginning with the autumn quarter of each year. The sequential nature of some of our courses makes this the best time to begin graduate studies. Although applications may be considered at any time at the discretion of the admissions committee, students are strongly encouraged to complete their applications by December 15th. The department has no admissions quota and in recent years the entering class has numbered between 20 and 45.

A well defined Master of Science (S.M.) program of appropriate rigor is maintained, but the Department of Chemistry does not offer financial support to students whose degree goal is the master's degree. This degree is neither a prerequisite for, nor a forerunner of, the Ph.D. degree, although it may be acquired along the way if a student so desires.

The Department of Chemistry participates actively in the Medical Scientist Training Program (MSTP) administered by the Pritzker School of Medicine at the University of Chicago. MSTP is a structured six year program leading to both the M.D. degree and the Ph.D. in chemistry. Full tuition and a stipend are awarded for the six year period. MSTP is funded by the National Institute of General Medical Sciences and is open only to U.S. citizens.

FINANCIAL SUPPORT

All students admitted to the Ph.D. program are offered financial support. Generally this takes the form of a first year teaching assistantship which provides a complete merit tuition scholarship and pays a competitive monthly stipend. Teaching assistants are usually assigned to one of the undergraduate laboratory courses. Duties involve supervising one class section (13-18 students) for one afternoon per week, holding a discussion session and office hours, and assisting with grading. The total time required is about fifteen hours per week.

By the end of the third quarter students have usually selected their research supervisor. An appointment as a research assistant (stipend plus tuition) normally continues throughout the period of research.

There are several special supplemental fellowships and scholarships offered by the department and the University. All students seeking admission are automatically considered in the competition for these awards. No separate application is required. Students are urged to compete for the many national and other external fellowships available.

ADVANCED DEGREES

The department administers basic examinations in the fields of inorganic, organic, and physical chemistry in the autumn, winter, and spring quarters. Graduate students are expected to take these examinations upon entering the department. Deficiencies evidenced by these examinations must be remedied and the examinations passed prior to the end of the third quarter of residence (not counting summer quarter).

In the first year, students must satisfactorily complete nine courses. At least six of these must be 30000 level courses from the offerings of the Department of Chemistry or of related departments in the Divisions of the Physical and the Biological Sciences, and of these six courses, at least two shall be in different areas of chemistry, e.g., inorganic, organic, or physical chemistry. For this purpose, inorganic chemistry courses are defined as Chemistry 30100- 31100, organic chemistry courses as Chemistry 32100- 33400, and physical chemistry courses as Chemistry 36100-39100. Grades of C or better are expected. The remaining three courses may include Chemistry 35000 and/or 40000 level chemistry research courses; however, one may not register for these courses during the autumn quarter. An advisor assists students in formulating programs of study that will best satisfy personal needs and departmental requirements. Courses taken outside the department to satisfy the first year requirements must be approved by the advisor.

Students who have completed all courses with grades of C or better (P in research courses) may be recommended for the S.M. degree; these students may, at the

discretion of a faculty member, be required to submit a paper on their work in CHEM 35000 or a 40000 level research course.

At the end of the spring quarter in the first year, the faculty review the student's overall record. Course performance is a major part of this review; a B average or better in all 30000 level courses (excluding CHEM 35000) is expected. At this time the department will advise students whether they are qualified to continue studies and to prepare for the Ph.D. candidacy examination described below. A student seeking admission to Ph.D. candidacy must take the candidacy examination before the end of his or her fifth quarter in residence (normally October for this purpose summer quarter is counted as a quarter in residence). This examination is based on the student's written research prospectus and on the discussion of scientific papers selected by the examining committee. The student presents the research prospectus to the committee, and must be prepared to discuss the relevant chemical literature, progress to date, plans for future work, and the relationship of the research to other chemical problems. The student is expected to conduct a critical analysis of the scientific papers selected by the committee.

The faculty review the recommendations of the candidacy examining committee and, after consideration of the student's academic record, vote on whether or not to recommend that the student be admitted to candidacy. All candidates for the Ph.D. degree are required to participate in some form of teaching. Normally this involves serving as a teaching assistant for three quarters.

The Ph.D. degree is granted upon satisfactory completion of scholarly research work, presented in a written thesis, discussed in a public seminar, and defended orally before a faculty committee.

Students should especially note the following:

- It is the responsibility of the individual research sponsor to monitor the progress of a student's research. Unsatisfactory progress may result in termination of financial support and/or dismissal from the Ph.D. program.
- The department will recommend formal admission to candidacy as soon as the student has:
 - Satisfied the basic examination requirement
 - Satisfied the course requirements
 - Passed the candidacy examination
 - · Demonstrated satisfactory progress in research and teaching
- Students should consider satisfying any or all course requirements by taking proficiency examinations. Application to take a proficiency examination should be made directly to the person who will be teaching the particular course. The examinations will be administered during the first week of the quarter in which the course is offered. No stigma is attached to failing a proficiency examination.

CHEMISTRY COURSES

CHEM 30100. Advanced Inorganic Chemistry. 100 Units.

Group theory and its applications in inorganic chemistry are developed. These concepts are used in surveying the chemistry of inorganic compounds from the standpoint of quantum chemistry, chemical bonding principles, and the relationship between structure and reactivity.

Instructor(s): W. Lin Terms Offered: Autumn Prerequisite(s): CHEM 20100 and CHEM 26100

CHEM 30200. Synthesis and Physical Methods in Inorganic Chemistry. 100 Units.

This course covers theoretical and practical aspects of important physical methods for the characterization of inorganic molecules. Topics may include NMR, IR, RAMAN, EPR, and electronic and photoelectron spectroscopy; electrochemical methods; and single-crystal X-ray diffraction.

Instructor(s): W. Lin Terms Offered: Winter Prerequisite(s): CHEM 30100

CHEM 30400. Organometallic Chemistry. 100 Units.

This course covers preparation and properties of organometallic compounds (notably those of the transition elements, their reactions, and the concepts of homogeneous catalysis).

Instructor(s): J. Lewis Terms Offered: Autumn Prerequisite(s): CHEM 20100

CHEM 30500. Nanoscale Materials. 100 Units.

This course provides an overview of nanoscale phenomena in metals, semiconductors, and magnetic materials (e.g., the fundamental aspects of quantum confinement in semiconductors and metals, superparamagnetism in nanoscale magnets, electronic properties of nanowires and carbon nanotubes, surface plasmon resonances in nanomaterials, photonic crystals). Special attention is paid to preparative aspects of nanomaterials, colloidal and gas-phase syntheses of nanoparticles, nanowires, and nanotubes. Engineered nanomaterials and their assemblies are considered promising candidates for a variety of applications, from solar cells, electronic circuits, light-emitting devices, and data storage to catalysts, biological tags, cancer treatments, and drug delivery. The course covers state-of-the art in these and other areas. Finally, the course provides an overview of the experimental techniques used for structural characterization of inorganic nanomaterials (e.g., electron microscopy, X-ray diffractometry, small-angle X-ray scattering, STM, AFM, Raman spectroscopy).

Instructor(s): B. Tian Terms Offered: Not offered in 2015 - 2016. Prerequisite(s): CHEM 20200 and 26300, or consent of instructor

CHEM 30600. Chemistry of the Elements and Materials. 100 Units.

This course surveys the descriptive chemistries of the main-group elements and the transition metals from a synthetic perspective, and reaction chemistry of inorganic molecules is systematically developed.

Instructor(s): J. Anderson Terms Offered: Winter Prerequisite(s): CHEM 20100

CHEM 30900. Bioinorganic Chemistry. 100 Units.

This course covers various roles of metals in biology. Topics include coordination chemistry of bioinorganic units, substrate binding and activation, electron-transfer proteins, atom and group transfer chemistry, metal homeostasis, ion channels, metals in medicine, and model systems.

Instructor(s): C. He Terms Offered: Spring

Prerequisite(s): CHEM 20200 and 22200/23200

CHEM 31100. Supramolecular Chemistry. 100 Units.

This course develops the concepts of supramolecular chemistry (both organic and metal-based systems) and its applications. Coordination chemistry is introduced as a background to metal-based supramolecular systems. The chemistry and physical properties of transition metal complexes are presented, including crystal field theory, molecular orbital theory, magnetism, and electronic spectra. The mechanisms by which molecular motors operate are presented and reference is made to synthetic systems that attempt to emulate biological molecular motors.

Terms Offered: Not offered in 2015-16

Prerequisite(s): CHEM 20200 and 22200/23200

CHEM 32100. Physical Organic Chemistry I. 100 Units.

This course focuses on the quantitative aspects of structure and reactivity, molecular orbital theory, and the insight it provides into structures and properties of molecules, stereochemistry, thermochemistry, kinetics, substituent and isotope effects, and pericyclic reactions.

Instructor(s): L. Yu Terms Offered: Autumn

Prerequisite(s): CHEM 22200/23200 and 26200, or consent of instructor

CHEM 32200. Organic Synthesis and Structure. 100 Units.

This course considers the mechanisms, applicability, and limitations of the major reactions in organic chemistry, as well as of stereochemical control in synthesis. Instructor(s): S. Kozmin Terms Offered: Autumn Prerequisite(s): CHEM 22200/23200 or consent of instructor

CHEM 32300. Strategies and Tactics of Organic Synthesis. 100 Units.

This course discusses the important classes for organic transformation. Topics include carbon-carbon bond formation; oxidation; and reduction using a metal, non-metal, or acid-base catalyst. We also cover design of the reagents and the scope and limitation of the processes.

Instructor(s): S. Snyder Terms Offered: Winter Prerequisite(s): CHEM 22200/23200 or consent of instructor

CHEM 32400. Physical Organic Chemistry II. 100 Units.

Topics covered in this course include the mechanisms and fundamental theories of free radicals and the related free radical reactions, biradical and carbene chemistry, and pericyclic and photochemical reactions.

Terms Offered: Not offered in 2015-16

Prerequisite(s): CHEM 32100

CHEM 32500. Bioorganic Chemistry. 100 Units.

A goal of this course is to relate chemical phenomena with biological activities. We cover two main areas: (1) chemical modifications of biological macromolecules and their potential effects; and (2) the application of spectroscopic methods to elucidate the structure and dynamics of biologically relevant molecules.

Terms Offered: Not offered in 2015-16

Equivalent Course(s): BCMB 32500

CHEM 32900. Polymer Chemistry. 100 Units.

This course introduces a broad range of polymerization reactions and discusses their mechanisms and kinetics. New concepts of polymerization and new materials of current interest are introduced and discussed. We also discuss the physical properties of polymers, ranging from thermal properties to electrical and optical properties in both a solution state and a solid state. Our emphasis is on structure/ property relationship.

Terms Offered: Not offered in 2015–16 Prerequisite(s): CHEM 22200/23200 and 26300

CHEM 33000. Complex Chemical Systems. 100 Units.

This course describes chemical systems in which nonlinear kinetics lead to unexpected (emergent) behavior of the system. Autocatalytic and spatiotemporal pattern forming systems are covered, and their roles in the development and function of living systems are discussed.

Terms Offered: Not offered in 2015–16

Prerequisite(s): CHEM 22200/23200 and MATH 20100, or consent of instructor

CHEM 33100. New Synthetic Reactions and Catalysts. 100 Units.

This course presents recent highlights of new synthetic reactions and catalysts for efficient organic synthesis. Mechanistic details and future possibilities are discussed. Terms Offered: Not offered in 2015–16

Prerequisite(s): CHEM 23300

CHEM 33200-33300. Chemical Biology I-II.

This course emphasizes the concepts of physical organic chemistry (e.g., mechanism, molecular orbital theory, thermodynamics, kinetics) in a survey of modern research topics in chemical biology. Topics, which are taken from recent literature, include the roles of proteins in signal transduction pathways, the biosynthesis of natural products, strategies to engineer cells with novel functions, the role of spatial and temporal inhomogeneities in cell function, and organic synthesis and protein engineering for the development of molecular tools to characterize cellular activities.

CHEM 33200. Chemical Biology I. 100 Units.

Instructor(s): B. Dickinson Terms Offered: Autumn Prerequisite(s): Basic knowledge of organic chemistry and biochemistry

CHEM 33300. Chemical Biology II. 100 Units.

Instructor(s): R. Moellering Terms Offered: Winter Prerequisite(s): Basic knowledge of organic chemistry and biochemistry

CHEM 33300. Chemical Biology II. 100 Units.

Instructor(s): R. Moellering Terms Offered: Winter Prerequisite(s): Basic knowledge of organic chemistry and biochemistry

CHEM 33400. High-Throughput Methods in Chemistry. 100 Units.

The course focuses on discovery of reactions, bioactive compounds, and materials by construction of chemical libraries and screening them for desired properties. Terms Offered: Not offered in 2015–16

CHEM 33500. Special Topics in Organic Chemistry. 100 Units.

Instructor(s): S. Kent Terms Offered: Winter 2015 Prerequisite(s): CHEM 22200 or equivalent

CHEM 33500. Special Topics in Organic Chemistry. 100 Units. Instructor(s): S. Kent Terms Offered: Winter 2015 Prerequisite(s): CHEM 22200 or equivalent

CHEM 33600. Special Topics in Organic Chemistry. 100 Units. Instructor(s): Y. Weizmann Terms Offered: Spring 2015

Prerequisite(s): CHEM 22200

CHEM 33600. Special Topics in Organic Chemistry. 100 Units. Instructor(s): Y. Weizmann Terms Offered: Spring 2015 Prerequisite(s): CHEM 22200

CHEM 35000. Intro To Research: Chemistry. Var Units. For course description contact Chemistry.

CHEM 36100. Wave Mechanics and Spectroscopy. 100 Units. This course presents the introductory concepts, general principles, and applications of wave mechanics to spectroscopy. Instructor(s): L. Butler Terms Offered: Autumn Prerequisite(s): CHEM 26300

CHEM 36200. Quantum Mechanics. 100 Units.

This course builds upon the concepts introduced in CHEM 36100 with greater detail provided for the role of quantum mechanics in chemical physics. Instructor(s): G. Voth Terms Offered: Winter Prerequisite(s): CHEM 36100

CHEM 36300. Statistical Thermodynamics. 100 Units.

This course covers the thermodynamics and introductory statistical mechanics of systems at equilibrium.

Instructor(s): S. Vaikuntanathan Terms Offered: Autumn Prerequisite(s): CHEM 26100-26200

CHEM 36400. Advanced Statistical Mechanics. 100 Units.

Topics covered in this course may include statistics of quantum mechanical systems, weakly and strongly interacting classical systems, phase transitions and critical phenomena, systems out of equilibrium, and polymers. Instructor(s): D. Mazziotti Terms Offered: Winter Prerequisite(s): CHEM 36300 or equivalent

CHEM 36500. Chemical Dynamics. 100 Units.

This course develops a molecular-level description of chemical kinetics, reaction dynamics, and energy transfer in both gases and liquids. Topics include potential energy surfaces, collision dynamics and scattering theory, reaction rate theory, collisional and radiationless energy transfer, molecule-surface interactions, Brownian motion, time correlation functions, and computer simulations. Instructor(s): S. Sibener Terms Offered: Spring Prerequisite(s): CHEM 36100 required; 36300 recommended

CHEM 36800. Advanced Computational Chemistry and Biology. 100 Units.

The theme for this course is the identification of scientific goals that computation can assist in achieving. The course is organized around the examination of exemplary problems, such as understanding the electronic structure and bonding in molecules and interpreting the structure and thermodynamic properties of liquids. The lectures deal with aspects of numerical analysis and with the theoretical background relevant to calculations of the geometric and electronic structure of molecules, molecular mechanics, molecular dynamics, and Monte Carlo simulations. The lab consists of computational problems drawn from a broad range of chemical and biological interests. L.

Instructor(s): K. Freed Terms Offered: Not offered in 2015–16 Prerequisite(s): CHEM 26100-26200, or PHYS 19700 and 23400 Note(s): This course may not be used to meet requirements for the BS degree.

CHEM 36900. Materials Chemistry. 100 Units.

This course covers structural aspects of colloidal systems, surfactants, polymers, diblock copolymers, and self-assembled monolayers. We also cover the electronic properties associated with organic conducting polymers, organic light-emitting devices, and transistors. More novel topics of molecular electronics, nanotubes, quantum dots, and magnetic systems are also covered. The aim of the course is to provide a broad perspective of the various contributions of chemistry to the development of functional materials.

Terms Offered: Not offered in 2015-16

CHEM 37100. Advanced Spectroscopies. 100 Units.

This linear and nonlinear spectroscopy course includes notions on matter-radiation interaction, absorption, scattering, and oscillator strength. They are applied mostly with the optical range, but we briefly touch upon microwave (NMR, ESR) and X-rays at the extreme. We cover nonlinear optical processes such as coherent Raman, harmonic, and sum-frequency; induced transparency; slow light; and X-ray generation. We also cover coherent and incoherent dynamical probes, such as pump-probe, echos, and two-dimensional spectroscopy. Terms Offered: Not offered in 2015–16

CHEM 37200. Statistical Mechanics of Polymers/Glasses. 100 Units.

The material in this course is designed to describe the basic statistical mechanics of polymers in dilute and semi-dilute solutions, including the use of path integrals and renormalization group methods. Lattice models are used to describe polymer melts and blends, focusing on miscibility and the descent into glass formation.

Terms Offered: Not offered in 2015–16

Prerequisite(s): CHEM 36400 or equivalent

CHEM 38700. Biophysical Chemistry. 100 Units.

This course develops a physicochemical description of biological systems. Topics include macromolecules, fluid-phase lipid-bilayer structures in aqueous solution, biomembrane mechanics, control of biomolecular assembly, and computer simulations of biomolecular systems.

Instructor(s): A. Tokmakoff Terms Offered: Spring Prerequisite(s): CHEM 23300, CHEM 26200.

CHEM 38800. Biophysical Spectroscopy. 100 Units.

Instructor(s): Andrei Tokmakoff Terms Offered: Not offered in 2015 - 2016. Prerequisite(s): CHEM 26200, CHEM 26700

CHEM 39000. Materials Chemistry I. 100 Units.

This course is an introduction to modern materials chemistry. It covers basic chemistry and physics of condensed systems, such as solids, polymers, and nanomaterials. The electronic structure of metals, semiconductors and magnetically ordered phases will be discussed. We will review optical and electronic properties of different classes of materials using examples of hard and soft condensed matter systems and drawing structure-property relationships for conventional solids, polymers, and nanomaterials. Finally, the course will cover the fundamentals of surface science and material synthesis, applying modern understanding of nucleation and growth phenomena.

Instructor(s): Prof. Dmitri Talapin Terms Offered: Autumn Prerequisite(s): CHEM 26100, CHEM 26200, and CHEM 26300, or equivalent

CHEM 39100. Materials Chemistry II. 100 Units.

This course will focus on the physical properties and kinetics of materials. The chemically-enabled properties of many different materials will be described, including linear and nonlinear elasticity, piezoelectricity, magnetic phenomena, diffusion and other transport properties, nonlinear optical properties, linear and nonlinear acoustic wave phenomena, and biological impacts. Selected applications associated with these properties will be included. Additionally, the course will discuss complex motion of dislocations and interfaces, morphological evolution, and phase transformations in materials synthesis.

Instructor(s): Prof. Bozhi Tian Terms Offered: Spring

Prerequisite(s): CHEM 26100 and CHEM 26300 or equivalent

CHEM 50000-50001-50002. Advanced Training for Teachers and Researchers in Chemistry-2; Advanced Training for Teachers and Researchers in Chemistry-3; Advanced Training for Teachers and Researchers in Chemistry-I.

This course will extend the traditional two-week departmental TA training into a full year, covering both the materials that are critical to becoming an excellent TA and the skills to produce well-rounded PhD candidates. At the end of this course, students are expected to develop an enhanced understanding and talent of critical thinking, an enriched knowledge base that is critical in solving real-world problems, an improved ability in the consideration and use of innovative pedagogical tools, the ability to transition into independent research, and effective skills in preparing high-quality written reports and oral presentations, as well as to begin thinking about career development skills.

CHEM 50000. Advanced Training for Teachers and Researchers in Chemistry-1. 100 Units.

Instructor(s): Dr. Vera Dragisich Terms Offered: Autumn

CHEM 50001. Advanced Training for Teachers and Researchers in Chemistry-2. 100 Units.

Instructor(s): Dr. Vera Dragisich Terms Offered: Winter

CHEM 50002. Advanced Training for Teachers and Researchers in Chemistry-3. 100 Units. Terms Offered: Spring

CHEM 50001. Advanced Training for Teachers and Researchers in Chemistry-2. 100 Units.

Instructor(s): Dr. Vera Dragisich Terms Offered: Winter

CHEM 50002. Advanced Training for Teachers and Researchers in Chemistry-3. 100 Units.

Terms Offered: Spring

CHEM 51100. Scientific Methods and Ethics. 100 Units.

This course prepares students for independent research by introducing them to the general methodology of scientific research.

Terms Offered: Not offered in 2015-16



Department of Computer Science

Chair

- Todd Dupont Professors
- Yali Amit
- Laszlo Babai
- Andrew Chien
- Frederic Chong
- Todd Dupont
- Ian Foster
- John Goldsmith
- Stuart A. Kurtz
- John Lafferty
- Ketan Mulmuley
- Michael J. O Donnell
- Alexander Razborov
- John Reppy
- L. Ridgway Scott
- Janos Simon
- Rick L. Stevens

Associate Professors

- Shan Lu
- Anne Rogers

Assistant Professors

- Ravi Chugh
- Andrew Drucker
- Aaron Elmore
- Ariel Feldman
- Haryadi Gunawi
- Henry Hoffmann
- Gordon Kindlmann
- Risi Kondor

Adjunct faculty

- Geraldine Brady (adjunct assistant professor)
- Todd Nugent (adjunct assistant professor)
- Mark Shacklette (adjunct professor)

- Andrew R Siegel (adjunct associate professor)
- Michael Spertus (adjunct associate professor)

The Department of Computer Science is dedicated to advancing and improving the knowledge, understanding, and practice of computer science through basic research and education.

Research

We construe the field of computer science broadly to include the complementary concepts of computation, information, and communication. We employ modes of inquiry and creation from pure mathematics to experiment and observation to design and engineering. We investigate computation, information, and communication as inherently interesting phenomena; we also investigate the many ways in which computational concepts engage other topics: computational tools for science and scholarship, computational infrastructure for society.

Our current research may be classified into computational linguistics, computer security, computer vision, discrete mathematics, machine learning, programming languages, scientific computing and visualization, systems, and theoretical computer science.

ARTIFICIAL INTELLIGENCE

We use language, vision, and learning as the organizing themes driving work in artificial intelligence.

COMPUTATIONAL MATHEMATICS

Our faculty and students study the foundations of simulation technology. This includes the development and mathematical analysis of numerical algorithms for approximating partial differential equations. We also study language and systems aspects of numerical computing, as exemplified in the FEniCS Project. Parallel and high performance computing are an integral part of our efforts.

Systems

Our faculty advance principles and understanding of a broad range of areas, including systems and networking, programming languages and software engineering, software and hardware architecture, data-intensive computing and databases, graphics and visualization, computer security, and systems biology. Particular areas of focus include formal definition, design, and implementation of programming languages, data-intensive computing systems and algorithms, large scale distributed and collaborative systems, heterogeneous computer architectures, reliable computing systems, and self-tuning systems.

THEORETICAL COMPUTER SCIENCE

We investigate the fundamental descriptive and algorithmic concepts underlying the computational process and the intrinsic limitations to efficient computation. Our faculty specialize in complexity theory, computational geometry, algorithms, discrete random processes, combinatorics, computability theory, and programming language semantics. In addition to these more traditional areas, we have a growing commitment to research in applied computing. Examples include: developing mathematical and computational methods to measure and graphically depict structure in threedimensional imaging modalities (like MRI and CT) and combining molecular dynamics simulations with chemical experimental data to gain an understanding of the motions and kinetics of biological molecules.

These efforts are enhanced by strong connections to the Computation Institute, which develops computational tools and techniques for a broad range of disciplines, including biological and physical sciences, medicine, law, the arts, and humanities; the James Franck Institute, which focuses on condensed matter physics; and the Institute for Biophysical Dynamics, which provides a forum for studying questions that arise at the boundary between the biological and physical sciences. In addition, we have collaborations with faculty in academic departments, including the geophysical sciences, linguistics, mathematics, physics, psychology, and statistics, as well as with the Division of Mathematics and Computer Science at Argonne National Laboratory (ANL), which is operated by the University of Chicago for the US Department of Energy.

GRADUATE PROGRAMS

We offer two graduate curricula in computer science.

- 1. A graduate professional curriculum leading to the Master of Science (MS) degree, for students who wish to enter or advance themselves in computer science practice.
- 2. A graduate research curriculum leading to the PhD degree that prepares students to perform advanced basic research in computer science either in industry or academia. Teaching experience is available for students preparing for academic careers.

Acquire further information about our Masters Program in Computer Science (MPCS) through the MPCS website (http://masters.cs.uchicago.edu), by writing to our MPCS Admissions, Department of Computer Science, University of Chicago, 1100 East 58th Street, Chicago, IL 60637, or by telephoning 773.834.3388. You may also email any questions to our questions@cs.uchicago.edu email address.

Acquire further information about our PhD program through our PhD admissions website (http://csphd.sites.uchicago.edu/page/admission-phd-program), by writing to Admissions, Department of Computer Science, University of Chicago, 1100 East 58th Street, Chicago, IL 60637, or by telephoning 773.702.6011.

General information about our department is available from the departmental website (http://www.cs.uchicago.edu).

The PhD Program

The department offers two PhD tracks: a standard track and a computational mathematics track.

The detailed requirements for the PhD degree and for the MS degree within the PhD program can be found by visiting the Department's web page (http://www.cs.uchicago.edu). Here is a brief summary:

To obtain an MS degree within the PhD program, students in the PhD program must fulfill the following requirements:

• Course requirements. Five core courses and four electives. The core courses include two in Theory, two in Systems, and one in Machine Learning. Please refer to the web page for details regarding the core courses.

A modified set of core courses applies to the computational mathematics track (see the website). The list of electives is frequently updated; we refer you to the web page.

Students must complete the course requirements by the end of their second year of study. To receive an MS degree within the PhD program, students must receive a grade of at least B in all the nine courses and have a GPA of at least 3.00 in the five core courses, and write a Master's paper and pass a Master's examination.

To obtain a PhD degree, students must meet enhanced MS requirements, including at least B on each of the nine courses and a GPA of at least 3.25 on the five core courses; plus the following:

- Pass a Candidacy Exam
- Write and defend a Doctoral Thesis that contains significant original research in computer science.

TEACHING OPPORTUNITIES FOR STUDENTS IN THE PHD PROGRAM

The department takes its undergraduate teaching responsibilities very seriously, and offers supervised teaching opportunities, including lecturing, acting as teaching assistants, and working as lab assistants to its best graduate students.

Computing Facilities

In addition to general University computing facilities and our Undergraduate Computing Laboratory (which contains about four dozen Macintosh computers and two dozen Linux workstations with extensive peripherals and software), the Ryerson Research Computing Service provides the faculty, students, and postdoctoral associates in computer science with computing resources. We have the flexibility to adapt quickly to new research needs.

The resources include: 24 hour 7 day interactive computing services on a number of shared Unix/Linux computing servers and workstations interconnected by high speed ethernet; a workstation on each desktop (a total of more than 230 workstations); wireless connections; substantial amounts of personal file storage, backed up nightly for reliability and accessible transparently from all departmental computers; printer service; web servers and access to the Internet; Linux clusters for research in parallel computing and High Performance Computing. The department also has access to highly parallel machines at ANL, and at the campus research computing center.

COURSES

For the list of courses offered and the course descriptions, please consult the courses section of the departmental web page (http://www.cs.uchicago.edu/courses).

COMPUTER SCIENCE COURSES

CMSC 31100. Big Ideas in Computer Science. 100 Units.

This course introduces many of the important concepts in the broad area of computer science. Each week a different professor gives a three-lecture sequence on a big idea in their field of specialty. Previous ideas have included undecidability, randomness, cryptography, stability of numerical algorithms, structural operational semantics, software engineering, and the Internet.

Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor

CMSC 32001. Topics in Programming Languages. 100 Units.

This course covers a selection of advanced topics in programming languages. Terms Offered: Autumn, Winter, Spring Prerequisite(s): Consent of department counselor and instructor

CMSC 32201. Topics in Computer Architecture. 100 Units.

This course covers a selection of advanced topics in computer architecture. Terms Offered: Autumn, Winter, Spring Prerequisite(s): Consent of department counselor and instructor

CMSC 32620. Implementation of Computer Languages II. 100 Units.

This course is a continuation of CMSC 22610, covering compilers for generalpurpose languages. Topics include compiler-immediate representations, continuation-passing style, runtime representations, code generation, code optimization, register allocation, instruction scheduling, and garbage collection. This is a project-based course in which students construct a complete, working compiler for a small language using Standard ML.

Instructor(s): J. Reppy Terms Offered: Not offered in 2015-16. Generally offered alternate years.

Prerequisite(s): CMSC 22610 required; CMSC 22100 strongly recommended Note(s): Generally offered alternate years.

Equivalent Course(s): CMSC 22620

CMSC 33300. Networks and Distributed Systems. 100 Units.

This course focuses on the principles and techniques used in the development of networked and distributed software. Topics include programming with sockets; concurrent programming; data link layer (Ethernet, packet switching, etc.); internet and routing protocols (UDP, TCP); and other commonly used network protocols and techniques. This is a project-oriented course in which students are required to develop software in C on a UNIX environment.

Instructor(s): B. Sotomayor Terms Offered: Winter

Prerequisite(s): CMSC 15400

Equivalent Course(s): CMSC 23300

CMSC 33310. Advanced Distributed Systems. 100 Units.

This course explores advanced topics in distributed systems. Topics include supercomputing (architectures, applications, programming models, etc.); grid computing with an emphasis on Globus technologies; Infrastructure-as-a-Service clouds (virtual infrastructure management, Amazon EC2, etc.), Platform-as-a-Service clouds (Google App Engine, etc.), and the Software-as-a-Service model; and other current topics related to using and building distributed systems. The course includes a substantial practical component but also requires students to read papers and articles on current advances in the field.

Instructor(s): B. Sotomayor Terms Offered: Spring Prerequisite(s): CMSC 23300 or consent of instructor Equivalent Course(s): CMSC 23310

CMSC 33400. Mobile Computing. 100 Units.

Mobile computing is pervasive and changing nearly every aspect of society. Sensing, actuation, and mediation capabilities of mobile devices are transforming all aspects of computing: uses, networking, interface, form, etc. This course explores new technologies driving mobile computing and their implications for systems and society. Current focus areas include expanded visual experience with computational photography, video and interactive augmented reality, and synchronicity and proximity-detection to enable shared social experiences. Labs expose students to software and hardware capabilities of mobile computing systems, and develop the capability to envision radical new applications for a large-scale course project. Instructor(s): A. Chien Terms Offered: Winter

Prerequisite(s): CMSC 23000 or 23300 or equivalent are required. Equivalent Course(s): CMSC 23400

CMSC 33501. Topics in Databases. 100 Units.

This course covers a selection of advanced topics in database systems. Terms Offered: Autumn, Winter, Spring Prerequisite(s): Consent of department counselor and instructor

CMSC 33600. Type Systems for Programming Languages. 100 Units.

This course covers the basic ideas of type systems, their formal properties, their role in programming language design, and their implementation. Exercises involving design and implementation explore the various options and issues.

Terms Offered: Winter

Prerequisite(s): Consent of department counselor

Note(s): CMSC 22100 recommended.

CMSC 33710. Scientific Visualization. 100 Units.

Scientific visualization combines computer graphics, numerical methods, and mathematical models of the physical world to create a visual framework for understanding and solving scientific problems. The mathematical and algorithmic foundations of scientific visualization (for scalar, vector, and tensor fields) will be explained in the context of real-world data from scientific and biomedical domains. The course is also intended for students outside computer science who are experienced with programming and scientific computing on scientific data. Programming projects will be in C.

Instructor(s): G. Kindlmann Terms Offered: Winter

Prerequisite(s): Strong programming skills and basic knowledge of linear algebra and calculus

Note(s): This course is offered in alternate years.

CMSC 33950. Data Visualization: Aesthetics, Intent, and Practice. 100 Units.

This course investigates how data visualizations are made and used today. Addressing a lack of both critical attention and technical literacy in how our society engages with increasingly common and sophisticated data-driven representations, we will retrace some history of the form as well as investigate its production and consumption. From uses in the sciences to economics to the popular media, data visualization serves various purposes framed by divergent intentions. Through reading, discussion, and crucially, team-based production, we will examine these myriad forms. While the course will not dwell on the deep computational details of data processing and requires no special technical skills, we will introduce various methodologies for creation and distribution such as D3, Processing, and P5.js. Projects and critique resulting from these inquiries enable an understanding for how any data visualization is the result of countless subjective judgments, design decisions, and persuasive intentions.

Instructor(s): J. Salavon and G. Kindlmann Terms Offered: Winter Equivalent Course(s): CDIN 40333,CMST 38007,ARTV 40333

CMSC 34000. Scientific Parallel Computing. 100 Units.

This course covers the use of multiple processors cooperating to solve a common task, as well as related issues in computer architecture, performance analysis, prediction and measurement, programming languages, and algorithms for largescale computation. Programming at least one parallel computer is required. Possibilities include one of the clusters of workstations connected by high-speed networks on campus. We focus on state-of-the-art parallel algorithms for scientific computing. Topics are based on interest. General principles of parallel computing are emphasized.

Instructor(s): L. R. Scott Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor required;

experience in scientific computing recommended

Note(s): This course is offered in alernate years.

CMSC 34200. Numerical Hydrodynamics. 100 Units.

This course covers numerical methods for the solution of fluid flow problems. We also make a theoretical evaluation of the methods and experimental study based on the opinionated book Fundamentals of Computational Fluid Dynamics by Patrick J. Roache.

Instructor(s): T. Dupont Terms Offered: Winter

Prerequisite(s): Consent of department counselor. Ability to program; and familiarity with elementary numerical methods and modeling physical systems by systems of differential equations

CMSC 34710. Wireless Sensor Networks. 100 Units.

This course introduces the concepts and technologies for building embedded systems and wireless sensors nets by focusing on four areas: low-power hardware, wireless networking, embedded operating systems, and sensors. Two assignments provide hands-on experience by deploying small wireless sensor motes running TinyOS to form an ad-hoc peer-to-peer network that can collect environmental data and forward it back to an 802.11b-equiped embedded Linux module. Students also read and summarize papers, participate in classroom discussions, and work on a team research project.

Instructor(s): R. Stevens

Prerequisite(s): Consent of department counselor. Graduate-level understanding of Unix/Linux operating systems, networking, computer architecture, and programming

CMSC 35000. Introduction to Artificial Intelligence. 100 Units.

This course introduces the theoretical, technical, and philosophical aspects of Artificial Intelligence. We emphasize computational and mathematical modes of inquiry into the structure and function of intelligent systems. Topics include learning and inference, speech and language, vision and robotics, and reasoning and search.

CMSC 35050. Computational Linguistics. 100 Units.

This is a course in the Computer Science department, intended for upper-level undergraduates, or graduate students, who have good programming skills. There will be weekly programming assignments in Python. We will look at several current topics in natural language processing, and discuss both the theoretical basis for the work and engaging in hands-on practical experiments with linguistic corpora. In line with most current work, our emphasis will be on systems that draw conclusions from training data rather than relying on the encoding of generalizations obtained by humans studying the data. As a consequence of that, in part, we will make an effort not to focus on English, but to look at a range of human languages in our treatments.

Instructor(s): J. Goldsmith Terms Offered: Spring Prerequisite(s): CMSC 12200, 15200 or 16200, or by consent

Equivalent Course(s): LING 28600,LING 38600,CMSC 25020

CMSC 35100. Natural Language Processing. 100 Units.

This course introduces the theory and practice of natural language processing, with applications to both text and speech. Topics include regular expressions, finite state automata, morphology, part of speech tagging, context free grammars, parsing, semantics, discourse, and dialogue. Symbolic and probabilistic models are presented. Techniques for automatic acquisition of linguistic knowledge are emphasized.

CMSC 35400. Machine Learning. 100 Units.

This course provides hands-on experience with a range of contemporary machine learning algorithms, as well as an introduction to the theoretical aspects of the subject. Topics covered include: the PAC framework, elements of computational learning theory, the VC dimension, boosting, Bayesian learning, graphical models, clustering, dimensionality reduction, linear classifiers, kernel methods including SVMs, and an introduction to statistical learning theory.

Terms Offered: Spring

Prerequisite(s): Consent of instructor

Equivalent Course(s): STAT 37710

CMSC 35500. Computer Vision. 100 Units.

This course covers deformable models for detecting objects in images. Topics include one-dimensional models to identify object contours and boundaries; two-dimensional models for image matching; and sparse models for efficient detection of objects in complex scenes. Mathematical tools needed to define the models and associated algorithms are developed. Applications include detecting contours in medical images, matching brains, and detecting faces in images. Neural network implementations of some of the algorithms are presented, and connections to the functions of the biological visual system are discussed.

Instructor(s): Y. Amit Terms Offered: Spring Equivalent Course(s): CMSC 25050,STAT 37900

CMSC 35900. Topics in Artificial Intelligence. 100 Units.

This course covers topics in artificial intelligence.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 36500. Algorithms in Finite Groups. 100 Units.

We consider the asymptotic complexity of some of the basic problems of computational group theory. The course demonstrates the relevance of a mix of mathematical techniques, ranging from combinatorial ideas, the elements of probability theory, and elementary group theory, to the theories of rapidly mixing Markov chains, applications of simply stated consequences of the Classification of Finite Simple Groups (CFSG), and, occasionally, detailed information about finite simple groups. No programming problems are assigned.

Instructor(s): L. Babai Terms Offered: Spring

Prerequisite(s): Consent of department counselor. Linear algebra, finite fields, and a first course in group theory (Jordan-Holder and Sylow theorems) required; prior knowledge of algorithms not required

Note(s): This course is offered in alternate years.

Equivalent Course(s): MATH 37500

CMSC 37000. Algorithms. 100 Units.

The focus of this course is the analysis and design of efficient algorithms, with emphasis on ideas rather than on implementation. Algorithmic questions include sorting and searching, discrete optimization, algorithmic graph theory, algorithmic number theory, and cryptography. Design techniques include "divide-andconquer" methods, dynamic programming, greedy algorithms, and graph search, as well as the design of efficient data structures. Methods of algorithm analysis include asymptotic notation, evaluation of recurrent inequalities, the concepts of polynomial-time algorithms, and NP-completeness.

Instructor(s): L. Babai Terms Offered: Winter

Prerequisite(s): Consent of instructor.

CMSC 37100. Topics in Algorithms. 100 Units.

This course covers current topics in algorithms.

Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor. CMSC 27200 or consent of instructor.

CMSC 37110. Discrete Mathematics. 100 Units.

This course emphasizes mathematical discovery and rigorous proof, illustrated on a variety of accessible and useful topics, including basic number theory, asymptotic growth of sequences, combinatorics and graph theory, discrete probability, and finite Markov chains. This course includes an introduction to linear algebra.

Instructor(s): L. Babai Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor

CMSC 37200. Combinatorics. 100 Units.

Methods of enumeration, construction, and proof of existence of discrete structures are discussed. The course emphasizes applications of linear algebra, number theory, and the probabilistic method to combinatorics. Applications to the theory of computing are indicated, and open problems are discussed.

Instructor(s): L. Babai Terms Offered: Winter

Prerequisite(s): Consent of department counselor. Linear algebra, basic combinatorics, or consent of instructor.

CMSC 37400. Constructive Combinatorics. 100 Units.

This course covers constructive combinatorial techniques in areas such as enumerative combinatorics, invariant theory, and representation theory of symmetric groups. Constructive techniques refer to techniques that have algorithmic flavor, such as those that are against purely existential techniques based on counting.

Instructor(s): K. Mulmuley Terms Offered: Spring

Prerequisite(s): Consent of department counselor. Advanced knowledge of mathematics and consent of instructor.

CMSC 37701. Topics in Bioinformatics. 100 Units.

This course covers current topics in bioinformatics. Terms Offered: Autumn, Winter, Spring Prerequisite(s): Consent of Consent of department counselor and instructor

CMSC 37720. Computational Systems Biology. 100 Units.

This course introduces concepts of systems biology. We also discuss computational methods for analysis, reconstruction, visualization, modeling, and simulation of complex cellular networks (e.g., biochemical pathways for metabolism, regulation, and signaling). Students explore systems of their own choosing and participate in developing algorithms and tools for comparative genomic analysis, metabolic pathway construction, stoichiometeric analysis, flux analysis, metabolic modeling, and cell simulation. We also focus on understanding the computer science challenges in the engineering of prokaryotic organisms.

Instructor(s): R. Stevens Terms Offered: Autumn

Prerequisite(s): Consent of department counselor and instructor

CMSC 37800. Numerical Computation. 100 Units.

This course covers topics in numerical methods and computation that are useful in statistical research (e.g., simulation, random number generation, Monte Carlo methods, quadrature, optimization, matrix methods).

Terms Offered: Autumn. Not offered 2011-12.

Prerequisite(s): Consent of departmental counselor. STAT 34300 or consent of instructor.

Equivalent Course(s): STAT 30700

CMSC 37810. Mathematical Computation I: Matrix Computation Course. 100 Units.

This is an introductory course on numerical linear algebra, which is quite different from linear algebra. We will be much less interested in algebraic results that follow from axiomatic definitions of fields and vector spaces but much more interested in analytic results that hold only over the real and complex fields. The main objects of interest are real- or complex-valued matrices, which may come from differential operators, integral transforms, bilinear and quadratic forms, boundary and coboundary maps, Markov chains, correlations, DNA microarray measurements, movie ratings by viewers, friendship relations in social networks, etc. Numerical linear algebra provides the mathematical and algorithmic tools for analyzing these matrices.

,Topics covered: basic matrix decompositions LU, QR, SVD; Gaussian elimination and LU/LDU decompositions; backward error analysis, Gram-Schmidt orthogonalization and QR/complete orthogonal decompositions; solving linear systems, least squares, and total least squares problem; low-rank matrix approximations and matrix completion. We shall also include a brief overview of stationary and Krylov subspace iterative methods; eigenvalue and singular value problems; and sparse linear algebra.

Terms Offered: Autumn

Prerequisite(s): Linear algebra (STAT 24300 or equivalent) and some previous experience with statistics

Equivalent Course(s): STAT 30900

CMSC 38000-38100. Computability Theory I-II.

The courses in this sequence are offered in alternate years.

CMSC 38000. Computability Theory I. 100 Units.

CMSC 38000 is concerned with recursive (computable) functions and sets generated by an algorithm (recursively enumerable sets). Topics include various mathematical models for computations (e.g., Turing machines and Kleene schemata, enumeration and s-m-n theorems, the recursion theorem, classification of unsolvable problems, priority methods for the construction of recursively enumerable sets and degrees).

Instructor(s): R. Soare Terms Offered: Winter

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): MATH 30200

CMSC 38100. Computability Theory II. 100 Units.

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): R. Soare Terms Offered: Winter, Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): MATH 30300

CMSC 38100. Computability Theory II. 100 Units.

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): R. Soare Terms Offered: Winter, Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): MATH 30300

CMSC 38300. Numerical Solutions to Partial Differential Equations. 100 Units.

This course covers the basic mathematical theory behind numerical solution of partial differential equations. We investigate the convergence properties of finite element, finite difference and other discretization methods for solving partial differential equations, introducing Sobolev spaces and polynomial approximation theory. We emphasize error estimators, adaptivity, and optimal-order solvers for linear systems arising from PDEs. Special topics include PDEs of fluid mechanics, max-norm error estimates, and Banach-space operator-interpolation techniques. Instructor(s): L. R. Scott Terms Offered: Spring. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor and instructor Equivalent Course(s): MATH 38300

CMSC 38410. Quantum Computing. 100 Units.

This course covers mathematical and complexity aspects of quantum computing, putting aside all questions pertaining to its physical realizability. Possible topics include: (1) quantum model of computation, quantum complexity classes, and relations to their classical counterparts; (2) famous quantum algorithms (including Shor and Grover); (3) black-box quantum models (lower and upper bounds); (4) quantum communication complexity (lower and upper bounds); and (5) quantum information theory.

Instructor(s): A. Razborov Terms Offered: Winter. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor. Basic knowledge of computational complexity and linear algebra required; knowledge of quantum mechanics not required

CMSC 38500. Computability and Complexity Theory. 100 Units.

Part one of this course consists of models for defining computable functions: primitive recursive functions, (general) recursive functions, and Turing machines; the Church-Turing Thesis; unsolvable problems; diagonalization; and properties of computably enumerable sets. Part two of this course deals with Kolmogorov (resource bounded) complexity: the quantity of information in individual objects. Part three of this course covers functions computable with time and space bounds of the Turing machine: polynomial time computability, the classes P and NP, NPcomplete problems, polynomial time hierarchy, and P-space complete problems. Instructor(s): A. Razborov Terms Offered: Winter

Prerequisite(s): Consent of department counselor and instructor Equivalent Course(s): MATH 30500

CMSC 38512. Kolmogorov Complexity. 100 Units.

This course introduces the theory of Kolmogorov Complexity with an emphasis on its use in theoretical computer science, mostly in computational complexity. If time permits, we may briefly touch on its uses in statics, prediction, and learning. Instructor(s): J. Simon Terms Offered: Autumn. Not offered 2012–13. Prerequisite(s): Consent of department counselor and instructor

CMSC 38600. Complexity Theory A. 100 Units.

This course covers topics in computational complexity theory, with an emphasis on machine-based complexity classes.

Terms Offered: Spring

Prerequisite(s): Consent of department counselor and instructor

CMSC 38700. Complexity Theory B. 100 Units.

This course covers topics in computational complexity theory, with an emphasis on combinatorial problems in complexity.

Instructor(s): A. Razborov Terms Offered: Spring. Not offered 2012-13. Prerequisite(s): Consent of department counselor and instructor

CMSC 38815. Geometric Complexity. 100 Units.

This course provides a basic introduction to geometric complexity theory, an approach to the P vs. NP and related problems through algebraic geometry and representation theory. No background in algebraic geometry or representation theory will be assumed.

Instructor(s): K. Mulmuley Terms Offered: Autumn. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor and instructor Note(s): Background in algebraic geometry or representation theory not required Equivalent Course(s): MATH 38815

CMSC 39000. Computational Geometry. 100 Units.

This course is a seminar on topics in computational geometry. Instructor(s): K. Mulmuley Terms Offered: Spring. This course is offered in alternate years.

CMSC 39600. Topics in Theoretical Computer Science. 100 Units.

This course is a seminar on current research in theoretical computer science. Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of department counselor and instructor



DEPARTMENT OF THE GEOPHYSICAL SCIENCES

Chair

- Andrew M. Davis Professors
- David Archer
- Nicolas Dauphas
- Andrew M. Davis
- Michael J. Foote
- Lawrence Grossman
- David Jablonski
- Susan M. Kidwell
- Douglas R. MacAyeal
- Noboru Nakamura
- Michael J. Pellin
- Frank M. Richter
- David B. Rowley

Associate Professors

- Dorian Abbot
- Andrew Campbell
- Fred Ciesla
- Dion L. Heinz
- Elisabeth J. Moyer
- Mark Webster

Assistant Professors

- Maureen Coleman
- Albert S. Colman
- Malte Jansen
- Edwin Kite
- Tiffany Shaw
- Graham J. Slater
- Jacob Waldbauer

Emeritus Faculty

- Alfred T. Anderson, Jr.
- Victor Barcilon
- Roscoe R. Braham, Jr.
- Robert N. Clayton

- John E. Frederick
- Michael C. LaBarbera, Organismal Biology & Anatomy
- Paul B. Moore
- Robert C. Newton
- Raymond T. Pierrehumbert
- David Raup
- William H. Reid
- Ramesh C. Srivastava
- Alfred M. Ziegler

Program of Graduate Study

OVERVIEW AND PHILOSOPHY

The department serves graduate students who seek the Ph.D. in earth, planetary, geological and environmental sciences and the paleontological and paleobiological disciplines of biological and historical sciences broadly conceived.

The Ph.D. signifies the graduate's mastery of the problems, techniques and knowledge covering the full spectrum of intellectual pursuit in the many disciplines listed above. The degree additionally acknowledges the candidate's contribution to specialized knowledge through original research conducted in experimental, observational and theoretical venues. The M.S. is also awarded to graduate students in the program, and is given in recognition of post-undergraduate scholarship. Students considering the program of graduate study should realize, however, that it is conceived primarily for study and research leading to the Ph.D.

The Department of Geophysical Sciences was created in 1961 when the departments of geology and meteorology of the university were united to better embrace the multidisciplinary nature of research and scholarship applied to earth, its place in the cosmos and its environmental and biological history. The precursor Department of Geology was founded in the 1890's and reflected the University of Chicago's distinctively modern philosophy toward education and research. What is today lauded as new, namely the approach to physical, chemical, biological and natural science of earth that values connections and multidisciplinary ways of thinking, was the original organizing principle of the university's activities in earth science at the time the university was first created. Faithful to its original conception, the department is exemplified today by the diverse, yet interactive, composition of the faculty, students and research activities.

Our program distinguishes itself from those at other institutions through our rigorous adherence to a principle that the path to knowledge in earth sciences is best traveled when disciplinary ways of thinking are applied interactively. To follow this path, our students and faculty engage each other in a constant exchange of ideas that spans a variety of specialized interests and disciplines. Indeed, the range of specialized interests and disciplines encompassed by our single intimate community is, at typical universities elsewhere, housed in separate departments. The exchange of ideas our community offers is both literal (as when research techniques from one discipline are applied in another) and figurative (as when students of diverse

background and interests attend a common seminar), and is marshaled through our philosophical view that intellectual power is drawn from many sources. The tension created by bringing together disparate disciplines with differing traditions leads to constructive discourse in our community.

AREAS OF STUDY

Research, classroom teaching and seminar activity in the program reflect the long tradition of esteem directed toward multidisciplinary knowledge. Graduate study and research today thus ranges from geochemical approaches to nucleosynthesis and planet forming cosmochemistry to geomorphology, from evolutionary paleobiology to multi cellular automata, and from oceanic conveyor-belt circulation systems and biogeochemical cycles to subduction zone petrology. Graduate students are exposed to the breadth of intellectual activity in the physical and natural science of the earth through courses they take during their first two years of study and through weekly attendance of seminars where both faculty and visiting scientists present research lectures. Graduate students are expected to develop two skills. First is the ability to conduct scientific discourse across the full range of disciplines. Second is the ability to conduct original research leading to unique contributions in an area of specialization.

Research and teaching within the program is further amplified by associations with other groups within the university. The most notable programs allied with ours are: the committee on evolutionary biology (CEB, research on the evolution of life), the chemistry department (research on atmospheric and environmental chemistry), the materials research lab (research on planetary and interplanetary materials at high pressure and temperature), the Argonne National Lab (environmental chemistry, advanced computing, the advanced photon source, CARS), the environmental science program (teaching and public policy debate) and the environmental statistics program (analysis of environmental trends).

Student Advising

A distinctive element in the everyday life of the department is the mentoring relationship the faculty of the department provide for students of the program. In our program, students are regarded as colleagues, not subordinates. Students participate in an apprenticeship which is designed to teach through active learning both the tangible and intangible professional skills needed of a scientist. Students are guided in their learning and research activities by mentorship engaging both the program faculty and fellow students. This mentorship oversees both the course work activity and the student's research, and is conceived as a means of establishing the student as a full partner in research and scholarship. Formal mentoring activities involve regular academic advisory committee meetings that include a combination of faculty covering the student's field of specialty and faculty covering allied fields where cross disciplinary exchange of ideas or techniques may prove helpful to the student's progress. In addition to formal activities, mentoring also proceeds along informal avenues: the department faculty prides itself in maintaining an open door atmosphere, where students seeking help or advice can readily find it down the hall.

Research

Dissertation research can address any aspect of physical, chemical, biological and natural sciences of the earth, its life and environment, and the solar system environment from which the planets were formed. Typically, dissertation research begins in the second year of the student's residence after courses taken in preparation for the preliminary examination have been completed and an oral research prospectus has been defended.

TEACHING, OUTREACH AND PROFESSIONAL SKILLS DEVELOPMENT

Young scientists are faced with an ever increasing demand for breadth in the scope of their professional skills: from teaching to proposal writing, and from website design to mountaineering. To help prepare our students for the varied challenges they will encounter in their post graduate career, we involve them to the maximum extent possible in teaching, research planning, public outreach and field activity. While there are no strict requirements for teaching activities, the majority of our students participate in at least some teaching as laboratory assistants for the large, undergraduate-level classes taught by our faculty. Typical demands on a graduate student's time might involve four to eight hours a week of student contact time, and four to six hours a week of preparation and grading. To emphasize the value the university places on graduate student participation in undergraduate teaching, a slightly larger stipend is provided to teaching assistants over research assistants. In addition to teaching, our graduate students typically become involved in the scientific funding process through exposure to the efforts undertaken by faculty in the securing of research funds through the writing of proposals. Public outreach is also an important element of professional skills, and is emphasized through scientific web site development (required by funding agencies for grants funded in support of scientific research) and other activities (e.g., local science fairs and lectures at surrounding schools) which emphasize contact with the general public. Many of our graduate students engage in deep-field activity in various parts of the world. Field activities in the recent past have included dive trips to Central America for taphonomic research, fossil collecting expeditions to the St. Elias Mountains, and glaciological survey work on the Ross Ice Shelf and its icebergs.

CURRICULUM

The diversity of intellectual pursuit encompassed by the program places students and faculty into a challenging position when confronted with the need to design a curriculum capable of preparing students of the program to become Ph.D. scientists. Our approach to this challenge is to focus on thinking tools that prepare students for research. Thinking tools embody knowledge of methodologies, awareness of fundamental scientific problems, understanding of current research areas and creative thought when encountering difficult questions. These tools are taught, in part, by a curriculum of courses that delve deeply into various subsets of knowledge covered by the department's scholarly interests. While a student may enter the program with the ultimate goal of writing a dissertation in one area of specialization, courses taken in closely allied areas of specialization are often, by virtue of practicality, all that our curriculum offers. While this may seem detrimental to progress toward specialized research, in practice, the specific subject material used to build the student's base of knowledge and rigorous understanding of thought and methodologies is not strongly correlated with the student's subsequent success. Our curriculum of courses thus focuses on teaching notions of understanding and methodologies that are universal in their application to a wide range of specialized phenomena.

REQUIRED COURSE ACTIVITIES

This time period is divided into two parts, the pre-candidacy phase where the student focuses on course work and general scholarship, and the candidacy phase where the student focuses on specialized research directed to the completion of the dissertation. While flexibility is a distinct advantage of the department's small, intimate setting of graduate study compared to other, larger programs, graduate students are normally expected to progress through their study as follows. Classes are taken through the first two years of residence at the university, and a preliminary examination is taken normally in the spring of the second year. Classes are selected from the department's graduate courses, appropriate upper-level undergraduate courses and courses offered elsewhere in the university. Selection of courses is made through consultation with a faculty advisory committee, which meets regularly through the first two years of the student's residence.

The preliminary examination taken at the end of the second year of residence serves to promote students to candidacy for the Ph.D. The purpose of the examination is to ensure the student's progress in the two goals of graduate study: breadth of fundamental knowledge, and depth of knowledge in a particular area of specialization (chosen normally to be consistent with the student's anticipated dissertation topic).

The preliminary examination has two parts. The written part (taken either in one single sitting or as a series of written tests taken in conjunction with final exams of courses, depending on the particular situation) covers the aspects of knowledge addressed in courses and in the weekly seminars which students are expected to attend. The oral part requires the student to present a research prospectus to a committee of faculty advisors. The topic of this prospectus is normally expected to be the student's planned research activity directed toward the dissertation.

The Dissertation

The Ph.D. degree is awarded to the candidate who has completed a written dissertation, defended it orally to a body of scientists which includes members of the department's faculty (who have the responsibility to vote in favor or against acceptance of the dissertation), and who have submitted the dissertation to the university dissertation office in proper form.

COURSES

Courses are modified from year to year. Students are expected to consult course schedules published by the University for information regarding courses offered on an infrequent basis. A student's course load is expected to be two to four classes per quarter during the first five quarters (not including Summer Quarter) of residence. Over this period, the student will take a mixture of high level (designated by numbers greater than 30000) and medium level (designated by numbers in the 20000s) classes listed under the department's offerings, and appropriate courses offered by other departments of the university.

GEOPHYSICAL SCIENCES COURSES

GEOS 30200. Introduction to Research in the Geophysical Sciences. 100 Units.

This course is mandatory for all incoming graduate students in the department. Its purpose is to introduce the faculty's current research themes/areas and to familiarize incoming graduate students with research areas they might contemplate for further specialization. Lectures are presented by individual faculty on either 1) a general survey of a research area, or 2) a specialized topic of interest. Student activity varies from year to year and is based on a combination of oral and written presentations. Instructor(s): Staff Terms Offered: Autumn

GEOS 30500. Topics in the Geophysical Sciences. 100 Units.

This course is offered from time-to-time as a means of covering topics that are generally not covered by regularly offered courses in the curriculum. Students should consult with appropriate faculty regarding opportunities to take this course when the situation arises.

Instructor(s): Staff

GEOS 31005. Mineral Science. 100 Units.

This course examines the relationship between the structure of minerals, their chemistry, and their physical properties. Topics include crystallography, defect properties, phase transitions, and analytical tools, followed by detailed study of specific mineral groups.

Instructor(s): A. Campbell Terms Offered: Winter Prerequisite(s): GEOS 21000 or consent of instructor. Equivalent Course(s): GEOS 21005

GEOS 31200. Physics of the Earth. 100 Units.

This course considers geophysical evidence bearing on the internal makeup and dynamical behavior of the Earth, including seismology (i.e., properties of elastic waves and their interpretation, and internal structure of the Earth); mechanics of rock deformation (i.e., elastic properties, creep and flow of rocks, faulting, earthquakes); gravity (i.e., geoid, isostasy); geomagnetism (i.e., magnetic properties of rocks and history, origin of the magnetic field); heat flow (i.e., temperature within the Earth, sources of heat, thermal history of the Earth); and plate tectonics and the maintenance of plate motions. (L)

Instructor(s): A. Campbell, D. Heinz Terms Offered: Spring

Prerequisite(s): Prior calculus and college-level physics courses, or consent of instructor.

Equivalent Course(s): GEOS 21200

GEOS 31205. Introduction to Seismology, Earthquakes, and Near-Surface Earth Seismicity. 100 Units.

This course introduces the mechanics and phenomenology of elastic waves in the Earth and in the fluids near the Earth's surface (e.g., S and P waves in the solid earth, acoustic waves in the ocean and atmosphere). Topics include stress and strain, constitutive equations, elasticity, seismic waves, acoustic waves, theory of refraction/reflection, surface waves, dispersion, and normal modes of the Earth. Phenomenology addressed includes exploration geophysics (refraction/reflection seismology), earthquakes and earthquake source characterization, seismograms as signals, seismometers and seismological networks, and digital seismogram analysis. Instructor(s): D. MacAyeal Terms Offered: Winter Equivalent Course(s): GEOS 21205

GEOS 31400. Thermodynamics and Phase Change. 100 Units.

This course develops the mathematical structure of thermodynamics with emphasis on relations between thermodynamic variables and equations of state. These concepts are then applied to homogeneous and heterogeneous phase equilibrium, culminating in the construction of representative binary and ternary phase diagrams of petrological significance.

Instructor(s): A. Campbell Terms Offered: Spring

Prerequisite(s): MATH 20000-20100-20200 and college-level chemistry and calculus, or consent of instructor.

Equivalent Course(s): GEOS 21400

GEOS 31500. Mineral Physics. 100 Units.

The application of physics at the microscopic level to geologic and geophysical problems. Topics: vibrational, electric and transport properties of minerals. Instructor(s): D. Heinz

Prerequisite(s): 2 yrs. math beyond calculus; 1 year physical chemistry or 1 year of both physics and chemistry; general geology, general geophysics and mineralogy, petrology or equivalent

GEOS 32040. Formation of Planetary Systems in Our Galaxy: From Dust to Planetesimals. 100 Units.

This course examines the physical and chemical processes that operate during the earliest stages of planet formation when dust in a protoplanetary disk aggregates into bodies 1 to 10 km in size. Topics include the physical and chemical evolution of protoplanetary disks, radial transport of dust particles, transient heating events, and the formation of planetesimals. We discuss the evidence of these processes found in meteorites and observed in disks around young stars. Chemical and physical models of dust evolution are introduced, including an overview of basic numerical modeling techniques.

Instructor(s): F. Ciesla Terms Offered: Not offered 2015-2016

Prerequisite(s): One year of college-level calculus and physics or chemistry, or consent of instructor.

Note(s): This course is offered in alternate years.

Equivalent Course(s): GEOS 22040

GEOS 32050. Formation of Planetary Systems in our Galaxy: From Planetesimals to Planets. 100 Units.

This course explores the stage of planet formation during which 1 to 10 km planetesimals accrete to form planets. Topics include heating of planetesimals, models of giant planet formation, the delivery of water to terrestrial planets, and the impact that stellar mass and external environment have on planet formation. We also discuss what processes determine the properties (mass, composition, and orbital parameters) of a planet and its potential for habitability. Basic modeling techniques and current research papers in peer-reviewed journals are also discussed.

Instructor(s): F. Ciesla Terms Offered: Not offered 2015-2016

Prerequisite(s): Consent of instructor

Note(s): This course is offered in alternate years.

Equivalent Course(s): GEOS 22050

GEOS 32060. What Makes a Planet Habitable? 100 Units.

This course explores the factors that determine how habitable planets form and evolve. We will discuss a range of topics, from the formation of planets around stars and the delivery of water, to the formation of atmospheres, climate dynamics, and the conditions that allow for the development of life and the evolution of complex life. Students will be responsible for reading and discussing papers in peer-reviewed journals each meeting and for periodically preparing presentations and leading the discussion.

Instructor(s): E. Kite Terms Offered: Winter Equivalent Course(s): ASTR 45900,GEOS 22060

GEOS 32200. Geochronology. 100 Units.

This course covers the duration of planetary differentiation and the age of the Earth (i.e., extinct and extant chronometers); timescales for building a habitable planet (i.e., the late heavy bombardment, the origin of the atmosphere, the emergence of life, and continent extraction); dating mountains (i.e., absolute ages, exposure ages, and thermochronology); the climate record (i.e., dating layers in sediments and ice cores); and dating recent artifacts (e.g., the Shroud of Turin).

Instructor(s): N. Dauphas Terms Offered: Autumn

Prerequisite(s): Background in college-level geology, physics, and mathematics. Equivalent Course(s): GEOS 22200

GEOS 32300. Cosmochemistry. 100 Units.

Chemical, mineralogical, and petrographic classifications of meteorites. Topics include: abundances of the elements, origin of the elements and stellar evolution, the interstellar medium and formation of the solar nebula, condensation of the solar system, chemical fractionations in meteorites and planets, age of the solar system, extinct radionuclides in meteorites, isotope anomalies.

Instructor(s): L. Grossman Terms Offered: Winter

Note(s): This course is offered in alternate years.

GEOS 32400. Nucleosynthesis and Its Record in the Solar System and Stars. 100 Units.

The course will cover the environments where the chemical elements are made (supernovae, red giant stars, the Big Bang) and the record of nucleosynthesis in meteorites, planets and other stars (both by remote observation and study of stardust in the laboratory). The course is open to graduate students and advanced undergraduates.

Instructor(s): Andrew Davis Terms Offered: Autumn

GEOS 32700. Analytical Techniques in Geochemistry. 100 Units.

Measurement of the isotopic and chemical compositions of solar system materials involves a wide variety of analytical techniques. In this course, we will review the major types of instrumentation used in modern laboratories. The goal is not to produce experts in the operation of each instrument, but rather that everyone gain an appreciation for how instruments work and what the capabilities and limitations are for each kind of instrument.

Instructor(s): A. Davis

GEOS 32705. Analytical Techniques. 100 Units.

Theory and practice of analytical techniques. Instructor(s): I. Steele

GEOS 33205. Introductory Glaciology. 100 Units.

The fundamentals of glacier and ice-sheet dynamics and phenomenology will be covered in this introductory course (snow and sea ice will be excluded from this course, however may be taken up in the future). Emphasis will be placed on developing the foundation of continuum mechanics and viscous fluid flow as a means of developing the basic equations of glacier deformation, ice-sheet and -shelf flow, basal processes, glacier hydrology, and unstable modes of flow. This course is intended for advanced undergraduate students in physics, math, geophysical sciences and related fields as well as graduate students considering research in glaciology and climate dynamics. (L)

Instructor(s): D. MacAyeal Terms Offered: Not offered 2015-2016 Prerequisite(s): Knowledge of vector calculus, linear algebra, and computer programming.

Equivalent Course(s): GEOS 23205

GEOS 33300. Advanced Topics in Climate Dynamics. 100 Units.

Topics will vary yearly, and will be drawn from the following, among others: real gas infrared radiative transfer; the surface energy balance of planets; radiative-convective models; data analysis of Earth and planetary climate data; 1D energy balance models; models of long term geochemical and physical evolution of atmospheres.

Instructor(s): R. Pierrehumbert Terms Offered: Winter Prerequisite(s): GEOS 23200 or equivalent

GEOS 33800. Global Biogeochemical Cycles. 100 Units.

This survey course covers the geochemistry of the surface of the Earth, focusing on biological and geological processes that shape the distributions of chemical species in the atmosphere, oceans, and terrestrial habitats. Budgets and cycles of carbon, nitrogen, oxygen, phosphorous, and sulfur are discussed, as well as chemical fundamentals of metabolism, weathering, acid-base and dissolution equilibria, and isotopic fractionation. The course examines the central role that life plays in maintaining the chemical disequilibria that characterize Earth's surface environments. The course also explores biogeochemical cycles change (or resist change) over time, as well as the relationships between geochemistry, biological (including human) activity, and Earth's climate.

Instructor(s): J. Waldbauer

Prerequisite(s): CHEM 11100-11200 or consent of instructor Equivalent Course(s): ENSC 23800,GEOS 23800

GEOS 33805. Stable Isotope Biogeochemistry. 100 Units.

Stable isotopes of H, C, O, N, and S are valuable tools for understanding the biological and geochemical processes that have shaped the composition of Earth's atmosphere and oceans throughout our planet's history. This course examines basic thermodynamic and kinetic theory to describe the behavior of isotopes in chemical and biological systems. We then examine the stable isotope systematics of localized environmental processes, and see how local processes contribute to global isotopic signals that are preserved in ice, sediment, rock, and fossils. Special emphasis is placed on the global carbon cycle, the history of atmospheric oxygen levels, and paleoclimate.

Instructor(s): A. Colman Terms Offered: Winter

Prerequisite(s): CHEM 11100-11200-11300 or equivalent; 13100-13200-13300 or consent of instructor

Equivalent Course(s): ENSC 23805, GEOS 23805

GEOS 33900. Environmental Chemistry. 100 Units.

The focus of this course is the fundamental science underlying issues of local and regional scale pollution. In particular, the lifetimes of important pollutants in the air, water, and soils are examined by considering the roles played by photochemistry, surface chemistry, biological processes, and dispersal into the surrounding environment. Specific topics include urban air quality, water quality, long-lived organic toxins, heavy metals, and indoor air pollution. Control measures are also considered. (L)

Instructor(s): A. Colman, D. Archer Terms Offered: Autumn Prerequisite(s): CHEM 11101-11201 or equivalent, and prior calculus course Equivalent Course(s): GEOS 23900,ENST 23900,ENSC 23900

GEOS 34100. Fundamentals of Fluid Mechanics. 100 Units.

This course provides an introduction to concepts and phenomenology of fluid mechanics of newtonian fluids. Classroom demonstrations are coupled with analytical treatment of equations of motion and their approximations. Topics include (1) pressure and stress, (2) Bernoulli s theorem, (3) vorticity and turbulence, (4) surface and internal waves, (5) effects of rotation and gravity on stability, (6) spin up. The lectures are supplemented by problem sets. Commands of vector calculus are highly desirable.

Instructor(s): N. Nakamura

Prerequisite(s): Classical mechanics and vector calculus

GEOS 34105. Dynamics of Viscous Fluids. 100 Units.

This course is offered on an occasional basis, and deals with the thermomechanical properties and behavior of ideal viscous fluids, with applications in special areas of geophysical fluid dynamics, particularly glaciology and mantle isostacy. Topics to be covered include: constitutive descriptions of ideal and non ideal fluids, compressible and incompressible fluids, coulomb failure laws, plastic approximations, kinematics of flow fields, strain and strain rate tensors, equations governing the balance of momentum and energy, stress tensor, Navier Stokes equations, Stokesian flows, non Newtonian constitutive laws and laminar/turbulent transitions. Special cases of fluid flow will be examined, including irrotational and incompressible flow, Bernoulli's theorem for inviscid fluids, jets, wakes and flow past rigid boundaries. Special boundary conditions will be examined, including both dynamic and kinematic. Geophysical applications in 2005 ranged across the basics of glaciological flow systems, including classical Nye/Vialov icesheet flow, ice shelf flow and basal sliding. Readings will include chapters from G.K. Batchelor s An Introduction to Fluid Dynamics and occasional classical journal articles in glaciology. Instructor(s): D. MacAyeal

GEOS 34220. Climate Foundations. 100 Units.

This course introduces the basic physics governing the climate of planets, the Earth in particular but with some consideration of other planets. Topics include atmospheric thermodynamics of wet and dry atmospheres, the hydrological cycle, blackbody radiation, molecular absorption in the atmosphere, the basic principles of radiation balance, and diurnal and seasonal cycles. Students solve problems of increasing complexity, moving from pencil-and-paper problems to programming exercises, to determine surface and atmospheric temperatures and how they evolve. An introduction to scientific programming is provided, but the fluid dynamics of planetary flows is not covered. (L)

Instructor(s): E. Moyer Terms Offered: Autumn

Prerequisite(s): Prior physics course (preferably PHYS 13300 and 14300) and knowledge of calculus required; prior geophysical sciences course not required. Note(s): Prior programming experience helpful but not required. Equivalent Course(s): GEOS 24220

GEOS 34230. Geophysical Fluid Dynamics: Foundations. 100 Units.

This course is for incoming graduate students in physical sciences intending to take further courses in geophysical fluid dynamics, fluid dynamics, condensed matter physics, and other areas requiring this fundamental skill set. It sets the stage for follow-on courses that present the detail of the behavior of fluids and continuums in geophysical, physical, chemical, and other settings. The material may be a student's first contact with continuum mechanics or a remedial or review for students who have previously taken similar courses. Topics include description of material properties in a continuum, including displacement, velocity, and strain rate; scalar, vector, and tensor properties of continuums, strain, strain rate, and stress; derivations and understanding of mass, momentum, and energy conservation principles in a continuum; applications of conservation principles to simple rheological idealizations, including ideal fluids and potential flow, viscous fluids and Navier-Stokes flow, elasticity and deformation; introductory asymptotic analysis, Reynolds number; heat transfer by conduction and convection, convective instability, Rayleigh number; fluids in gravitational fields, stratification, buoyancy; elliptic, parabolic, and hyperbolic partial differential equations, typical properties of each. Weekly problem sets emphasize simple, well-known treatments of fluid mechanics phenomena. Students conduct weekly homework assignments and produce a term paper/term project.

Instructor(s): D. MacAyeal

Prerequisite(s): Vector calculus, linear algebra, advanced classical mechanics, basic knowledge of computing. Undergrads who take this course should intend to complete a second fluid-dynamics course in Geophysical Sciences. Equivalent Course(s): GEOS 24230

GEOS 34240. Geophysical Fluid Dynamics: Rotation and Stratification. 100 Units.

This course is an introduction to geophysical fluid dynamics for upper-level undergraduates and starting graduate students. The topics covered will be the equations of motion, the effects of rotation and stratification, shallow water systems and isentropic coordinates, vorticity and potential vorticity, and simplified equations for the ocean and atmosphere.

Instructor(s): D. Abbot Terms Offered: Winter

Prerequisite(s): PQ: GEOS 24230 or equivalent; Knowledge of mechanics (PHYS 13100 or equivalent), thermodynamics (PHYS 19700 or equivalent), vector calculus and linear algebra (MATH 20000-20100-20200 or equivalent) Equivalent Course(s): GEOS 24240

GEOS 34250. Geophysical Fluid Dynamics: Understanding the Motions of the Atmosphere and Oceans. 100 Units.

This course is part of the atmospheres and oceans sequence (GEOS 24220, 24230, 24240, 24250) and is expected to follow Geophysical Fluid Dynamics: Rotation and Stratification (GEOS 24240). The course demonstrates how the fundamental principles of geophysical fluid dynamics are manifested in the large-scale circulation of the atmosphere and oceans and their laboratory analogs. Topics include: balance of forces and the observed structure of the atmospheric and oceanic circulations, statistical description of the spatially and temporally varying circulation, theory of Hadley circulation, waves in the atmosphere and oceans, baroclinic instability, wind-driven ocean circulation.

Instructor(s): N. Nakamura Terms Offered: Spring

Prerequisite(s): GEOS 24230 and 24240, or consent of the instructor. Knowledge of vector calculus, linear algebra, and ordinary differential equations is assumed. Equivalent Course(s): GEOS 24250

GEOS 34400. Topics in Geophysical Fluid Dynamics. 100 Units.

This course teaches science and art of numerical modeling at an elementary level. Classroom discussions on mathematical principles will be supplemented by a series of actual coding assignments. (Command of a programming language is assumed; this is not a course on programming.) It is our goal that at the end of the course each student will have coded a working copy of shallow water model on a rotating sphere (and do science with it). Prereq: Calculus, working knowledge of Fourier Transform and of a programming language (C, Fortran, IDL, etc.), access to a computer with a compiler and runtime environment. No previous experience in fluid dynamics is necessary, although this course alone does not fully prepare one to become a fluid dynamicist.

Instructor(s): N. Nakamura

GEOS 34505. Dynamics of the Stratosphere. 100 Units.

Focus on the vertical structure of the Earth's atmosphere due to compressibility and radiative heating, and its consequences on the dynamics, particularly of the stratosphere. Emphasis is placed more on the underlying physics than on the mere phenomenology of the stratosphere.

Instructor(s): N. Nakamura

Prerequisite(s): GEOS 34200 or equivalent

GEOS 34510. Topics in Atmospheric Science. 100 Units.

Topics of current interest in atmospheric science, with a particular emphasis on issues arising in recent publications. Topics covered have included: tropical circulations, cloud climate feedbacks, and dynamics of the stratosphere. Instructor(s): Staff

Prerequisite(s): consent of instructor

GEOS 34705. Energy: Science, Technology, and Human Usage. 100 Units.

This course covers the technologies by which humans appropriate energy for industrial and societal use, from steam turbines to internal combustion engines to photovoltaics. We also discuss the physics and economics of the resulting human energy system: fuel sources and relationship to energy flows in the Earth system; and modeling and simulation of energy production and use. Our goal is to provide a technical foundation for students interested in careers in the energy industry or in energy policy. Field trips required to major energy converters (e.g., coal-fired and nuclear power plants, oil refinery, biogas digester) and users (e.g., steel, fertilizer production).

Instructor(s): E. Moyer Terms Offered: Spring

Prerequisite(s): Knowledge of physics or consent of instructor Equivalent Course(s): GEOS 24705,ENST 24705,ENSC 21100

GEOS 34800. Radiation Transfer Theory. 100 Units.

Develops the theory of radiation emission, absorption, and scattering by planetary atmospheres. Emphasis on the derivation and solution of the radiative transfer equation for plane parallel, horizontally homogeneous atmospheres.

Instructor(s): J. Frederick, R. Pierrehumbert

Prerequisite(s): Advanced undergraduate level knowledge of electromagnetic theory, atomic structure, and differential equations.

GEOS 35400. Introduction to Numerical Techniques for the Geophysical Sciences. 100 Units.

This class provides an introduction to different types of numerical techniques used in developing models used in geophysical science research. Topics will include how to interpolate and extrapolate functions, develop functional fits to data, integrate a function, or solve partial differential equations. Students are expected to have some familiarity with computers and programming—programming methods will not be discussed in detail. While techniques will be the focus of the class, we will also discuss the planning needed in developing a model as well as the limitations inherent in such models.

Instructor(s): F. Ciesla Terms Offered: Winter

Prerequisite(s): Familiarity with a computer programming language such as C, Fortran, or IDL, or a mathematical computing environment like Mathematica or Matlab. Spreadsheets such as Excel or Numbers can also be used for many problems.

Equivalent Course(s): GEOS 25400

GEOS 35500. Mathematical Methods for the Earth Sciences. 100 Units.

This course is intended to be a brief introduction to mathematical methods that may be of use in the Earth Sciences. The focus will be on building physical intuition and practical problem solving. Students may solve problems analytically, or write numerical codes to solve them.

Instructor(s): D. Abbot Terms Offered: Spring

GEOS 36000. Morphometrics. 100 Units.

This graduate-level course serves as an introduction to the field of morphometrics (the analysis of organismal shape). Quantitative exploratory and confirmatory techniques involving both traditional (length-based) and geometric (landmark-based) summaries of organismal shape are introduced in a series of lectures and practical exercises. Emphasis is placed on the application of morphometric methods to issues such as (but not restricted to) quantification of intraspecific variability, interspecific differences, disparity, ontogenetic growth patterns (allometry), and phylogenetic changes in morphology. Relevant statistical and algebraic operations are explained assuming no prior background. Students are required to bring personal laptop computers, and are expected to acquire and analyze their own data sets during the course.

Instructor(s): M. Webster

Equivalent Course(s): EVOL 36700

GEOS 36200. Evolution and the Fossil Record. 100 Units.

This course serves as an introduction to the practical and theoretical issues involved in obtaining primary systematic data from the fossil record, and demonstrates the criticality of such data to the rigorous documentation and interpretation of evolutionary patterns. Precise topics of the seminar discussions will vary from year to year depending on relevance to student research projects and interest, but are likely to focus on issues such as (but not restricted to) practical techniques in specimen-based paleontology (including fossil preparation and photography), species delimitation (including species concepts, variability, and ecophenotypy), stratigraphic/geographic range determination (including biostratigraphic correlation), phylogeny reconstruction (including the relevance of stratigraphic data), and the importance of these topics to broader macroevolutionary issues such as diversity/disparity dynamics and the determination of evolutionary trends, rates and processes.

Instructor(s): M. Webster Equivalent Course(s): EVOL 46200

GEOS 36300. Invertebrate Paleobiology and Evolution. 100 Units.

This course provides a detailed overview of the morphology, paleobiology, evolutionary history, and practical uses of the invertebrate and microfossil groups commonly found in the fossil record. Emphasis is placed on understanding key anatomical and ecological innovations within each group and interactions among groups responsible for producing the observed changes in diversity, dominance, and ecological community structure through evolutionary time. Labs supplement lecture material with specimen-based and practical application sections. An optional field trip offers experience in the collection of specimens and raw paleontological data. Several "Hot Topics" lectures introduce important, exciting, and often controversial aspects of current paleontological research linked to particular invertebrate groups. (L)

Instructor(s): M. Webster Terms Offered: Autumn

Prerequisite(s): GEOS 13100 and 13200, or equivalent. For BIOS students: Completion of the first three quarters of a Biological Sciences Fundamentals Sequence.

Equivalent Course(s): BIOS 23261, EVOL 32400, GEOS 26300

GEOS 36501. Paleobiological Modeling and Analysis-1. 100 Units.

This course is an introduction to mathematical modeling as applied to problems in paleobiology and evolutionary biology. Topics include: basic probability theory; general approaches to modeling; model comparison using likelihood and other criteria; forward modeling of branching processes; sampling models; and inverse methods. A series of programming exercises and a term project are required. Programming in R or C is recommended, but any language may be used. Winter quarter, generally in even numbered years. GEOS 36501 and GEOS 36502 can be taken in either order.

Instructor(s): M. Foote Terms Offered: Winter

Prerequisite(s): Mathematics through first-year calculus; basic computer programming skills (or willingness to learn); elementary statistics helpful. Equivalent Course(s): EVOL 33001

GEOS 36502. Paleobiological Modeling and Analysis-2. 100 Units.

This course is an introduction to multivariate analysis, with emphasis on morphological data and problems in paleontology and evolutionary biology. Topics include: types of data and scales of measurement; data transformations; bivariate analysis; measurement of similarity and difference; clustering; ordination; singular value decomposition; principal component analysis, factor analysis, principal coordinates, correspondence analysis, and other eigenvector methods; and path analysis. Each student will bring a multivariate dataset (not necessarily original) to the course and will write a series of short papers based on analysis of these data. Code written in the R programming language will be supplied for most analyses. Winter quarter, generally in odd numbered years. GEOS 36501 and GEOS 36502 can be taken in either order.

Instructor(s): M. Foote Terms Offered: Winter

Prerequisite(s): Mathematics at secondary school level; basic computer programming skills (or willingness to learn); calculus, linear algebra, and elementary statistics also helpful, although essential points will be reviewed. Equivalent Course(s): EVOL 33002

GEOS 36600. Geobiology. 100 Units.

Geobiology seeks to elucidate the interactions between life and its environments that have shaped the coevolution of the Earth and the biosphere. The course will explore the ways in which biological processes affect the environment and how the evolutionary trajectories of organisms have in turn been influenced by environmental change. In order to reconstruct the history of these processes, we will examine the imprints they leave on both the rock record and on the genomic makeup of living organisms. The metabolism and evolution of microorganisms, and the biogeochemistry they drive, will be a major emphasis.

Instructor(s): M. Coleman, J. Waldbauer Terms Offered: Not offered 2015-2016 Prerequisite(s): GEOS 13100-13200-13300 or college-level cell & molecular biology Equivalent Course(s): ENSC 24000, GEOS 26600

GEOS 36700. Taphonomy. 100 Units.

Lecture and research course on patterns and processes of fossilization, including rates and controls of soft tissue decomposition, post mortem behavior of skeletal hard parts, concentration and burial of remains, scales of time averaging, and the net spatial and compositional fidelity of (paleo)biologic information, including trends across environments and evolutionary time. Offered alternate years. Instructor(s): S. Kidwell

Equivalent Course(s): EVOL 31800

GEOS 36800. Macroevolution. 100 Units.

Patterns and processes of evolution above the species level, in both recent and fossil organism. A survey of the current literature, along with case studies. Instructor(s): D. Jablonski Terms Offered: Spring

Equivalent Course(s): EVOL 31700

GEOS 36900. Topics in Paleobiology. 100 Units.

In this seminar we investigate paleobiological or multidisciplinary topics of current interest to students and faculty. Previous subjects include the origin of phyla, historical and macro-ecology, the stratigraphic record and evolutionary patterns, and climate and evolution.

Instructor(s): D. Jablonski, S. Kidwell, T. Price Terms Offered: Autumn Equivalent Course(s): EVOL 31900, ECEV 36900

GEOS 36905. Topics in Conservation Paleobiology. 100 Units. Instructor(s): S. Kidwell

GEOS 37100. Plant Paleontology. 100 Units.

Introduction to all major groups of extant and fossil plants, ranging from green algae to angiosperms. Discussions of plant taphonomy, the use of fossil plants as indicators of paleoclimate, the fossil spore/pollen record, evolutionary and paleoclimatic applications of palynological data, and the history of terrestrial ecosystems. Examination of living and fossil material at the Garfield Park Conservatory and the Field Museum.

Instructor(s): Staff

GEOS 38000. Introduction to Structural Geology. 100 Units.

This course explores the deformation of the Earth materials primarily as observed in the crust. We emphasize stress and strain and their relationship to incremental and finite deformation in crustal rocks, as well as techniques for inferring paleostress and strain in deformed crustal rocks. We also look at mesoscale to macroscale structures and basic techniques of field geology in deformed regions. Instructor(s): D. Rowley Terms Offered: Winter Prerequisite(s): GEOS 13100 Note(s): This course is offered in alternate years. Equivalent Course(s): GEOS 28000

GEOS 38100. Global Tectonics. 100 Units.

This course reviews the spatial and temporal development of tectonic and plate tectonic activity of the globe. We focus on the style of activity at compressive, extensional, and shear margins, as well as on the types of basin evolution associated with each. (L)

Instructor(s): D. Rowley Terms Offered: Winter Prerequisite(s): GEOS 13100 or consent of instructor Note(s): This course is offered in alternate years. Equivalent Course(s): GEOS 28100

GEOS 38300. Principles of Stratigraphy. 100 Units.

This course introduces principles and methods of stratigraphy. Topics include facies analysis, physical and biostratigraphic correlation, and development and calibration of the geologic time scale. We also discuss controversies concerning the completeness of the stratigraphic record; origin of sedimentary cycles; and interactions between global sea level, tectonics, and sediment supply. (L) Instructor(s): S. Kidwell Terms Offered: Not offered 2015-2016

Prerequisite(s): GEOS 13100-13200 or equivalent required; GEOS 23500 and/or 28200 recommended

Note(s): This course is offered in alternate years. Equivalent Course(s): GEOS 28300

GEOS 38400. Topics in Stratigraphy and Biosedimentology. 100 Units.

Seminar course using the primary literature and/or a field problem. Topic selected from the rapidly evolving fields of sequence stratigraphy, basin analysis, and animal sediment relationships.

Instructor(s): S. Kidwell

Prerequisite(s): GEOS 26400 and GEOS 28300 or equivalent Equivalent Course(s): EVOL 41500

GEOS 38500. Stratigraphic Analysis. 100 Units.

Historical review of basic concepts and methods, leading to current frontiers and controversies in basin and global scale analysis of the sedimentary rock record. Instructor(s): S. Kidwell

Prerequisite(s): GEOS 28300 or equivalent

GEOS 39002. Field Course in Modern and Ancient Environments. 100 Units.

This course uses weekly seminars during Winter Quarter to prepare for a one-week field trip over spring break, where students acquire experience with sedimentary rocks and the modern processes responsible for them. Destinations vary; past trips have examined tropical carbonate systems of Jamaica and the Bahamas and subtropical coastal Gulf of California. We usually consider biological, as well as physical, processes of sediment production, dispersal, accumulation, and post-depositional modification.

Instructor(s): S. Kidwell, M. LaBarbera Terms Offered: Winter Note(s): Organizational meeting and deposit usually required in Autumn Quarter; interested students should contact an instructor in advance. Equivalent Course(s): ENSC 29002,GEOS 29002

GEOS 39700. Reading and Research in the Geophysical Sciences. Variable Units.

GEOS 39700-39799. Topics available include, but are not limited to: Mineralogy, Petrology, Geophysics, High Pressure Geophysics, Geodynamics, Volcanology, Cosmochemistry, Geochemistry, Atmospheric Dynamics, Paleoclimatology, Physical Oceanography, Chemical Oceanography, Paleoceanography, Atmospheric Chemistry, Fluid Dynamics, Glaciology, Climatology, Radiative Transfer, Cloud Physics, Morphometrics, Phylogeny, Analytical Paleontology, Evolution, Taphonomy, Macroevolution, Paleobiology, Aktuopaleontology, Paleobotany, Biomechanics, Paleoecology, Tectonics, Stratigraphy.

Instructor(s): Staff Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Admission to graduate status

GEOS 39800. Reading and Research in the Geophysical Sciences for the Master's Degree. Variable Units.

An essay or formal thesis will be required. Instructor(s): Staff Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): admission to grad status

GEOS 49700. Advanced Reading and Research in the Geophysical Sciences. Variable Units.

GEOS 49700-49799. Topics available include, but are not limited to: Mineralogy, Petrology, Geophysics, High Pressure Geophysics, Geodynamics, Volcanology, Cosmochemistry, Geochemistry, Atmospheric Dynamics, Paleoclimatology, Physical Oceanography, Chemical Oceanography, Paleoceanography, Atmospheric Chemistry, Fluid Dynamics, Glaciology, Climatology, Radiative Transfer, Cloud Physics, Morphometrics, Phylogeny, Analytical Paleontology, Evolution, Taphonomy, Macroevolution, Paleobiology, Aktuopaleontology, Paleobotany, Biomechanics, Paleoecology, Tectonics, Stratigraphy. Instructor(s): Staff Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): admission to Ph.D. candidacy

GEOS 49900. Post Ph.D. Research. Variable Units.

Instructor(s): Staff Terms Offered: Autumn, Winter, Spring, Summer



DEPARTMENT OF MATHEMATICS

Chair

- Shmuel Weinberger Professors
- Jonathan L. Alperin
- Laszlo Babai, Computer Science
- Alexander A. Beilinson
- Danny Calegari
- Francesco Calegari
- Kevin D. Corlette
- Jack D. Cowan
- Marianna Csörnyei
- Vladimir Drinfeld
- Todd Dupont, Computer Science
- Matthew Emerton
- Alex Eskin
- Benson Farb
- Robert A. Fefferman
- Victor Ginzburg
- Denis Hirschfeldt
- Kazuya Kato
- Carlos E. Kenig
- Steven Lalley, Statistics
- Gregory Lawler
- J. Peter May
- Bao Chau Ngo
- Madhav Vithal Nori
- Alexander Razborov, Computer Science
- Wilhelm Schlag
- L. Ridgway Scott, Computer Science
- Panagiotis Souganidis
- Sidney Webster
- Shmuel Weinberger
- Amie Wilkinson
- Robert Zimmer

Associate Professors

- Roger Lee
- Luis Silvestre
- Charles Smart

Assistant Professors

- Jian Ding, Statistics
- Keerthi Madapusi
- Maryanthe Malliaris
- Nikita Rozenblyum
- Mircea Voda

Instructors

- David Aulicino
- David Bate
- Agnes Beaudry
- George Boxer
- Aaron Brown
- Gregory Chambers
- David Cohen
- Matthew Creek
- Dominic Dotterrer
- William Feldman
- Ilya Grigoriev
- Boaz Haberman
- Jonathan Hickman
- Sebastian Hurtado-Salazar
- Hao Jia
- Wenjia Jing
- Tianling Jin
- Michael Khanevsky
- Ian Le
- Bao Viet Le Hung
- Brandon Levin
- Kathryn Lindsey
- Sean Li
- Rohit Nagpal
- Jack Shotton
- Aaron Silberstein
- Stanley Snelson
- Andrei Tarfulea
- Jesse Wolfson

- Jinxin Xue
- Inna Zakharevich
- Andrew Zimmer
- David Zimmerman Emeritus Faculty
- Spencer Bloch
- George Glauberman
- Robert Kottwitz
- Norman Lebovitz
- Arunas L. Liulevicius
- Matam P. Murthy
- Raghavan Narasimhan
- Niels Nygaard
- Melvin G. Rothenberg
- Robert I. Soare, Computer Science

The Department of Mathematics (http://www.math.uchicago.edu) provides a comprehensive education in mathematics which takes place in a stimulating environment of intensive research activity. The graduate program includes both pure and applied areas of mathematics. Ten to fifteen graduate courses are offered every quarter. Several seminars take place every afternoon. There is an active visitors program with mathematicians from around the world coming for periods from a few days to a few months. There are four major lecture series each year: the Adrian Albert Lectures in Algebra, the Antoni Zygmund and Alberto Calderón Lectures in Analysis, the Unni Namboodiri Lectures in Topology, and the Charles Amick Lectures in Applied Mathematics. The activities of the department take place in Eckhart and Ryerson Halls. These contiguous buildings are shared with the Departments of Statistics and Computer Science. The Department of Mathematics and the Department of Computer Science have several joint appointments, and they coordinate their activities. The Department of Mathematics also has joint appointments and joint activity with the Department of Physics.

GRADUATE DEGREES IN MATHEMATICS

The graduate program of the Department of Mathematics is oriented towards students who intend to earn a Ph.D. in mathematics on the basis of work done in either pure or applied mathematics. The department also offers the degree of Master of Science in mathematics, which is acquired as the student proceeds on to the Ph.D. degree. Students are not admitted with the Master of Science degree as their final objective. In addition, the department offers a separate Master of Science in Financial Mathematics degree program which is taught in the evenings. See the program listing for Financial Mathematics (p. 517) for more information.

The divisional requirements for these degrees can be found in the section on the Division of the Physical Sciences in these *Announcements*. The departmental requirements for students choosing the program in applied mathematics are

described below under the heading, Graduate Degrees in Applied Mathematics. Otherwise, the requirements are as follows.

The Degree of Master of Science

The candidate must pass, to the instructor's satisfaction, the nine basic first year graduate courses in the areas of

Algebra I	100
Algebra II	100
Algebra III	100
Analysis I	100
Analysis II	100
Analysis III	100
Topology and Geometry I	100
Topology and Geometry II	100
Topology and Geometry III	100
	Algebra II Algebra III Analysis I Analysis II Analysis III Topology and Geometry I Topology and Geometry II

With the approval of the department, the exceptionally well prepared student may place out of one or more of these courses, and substitute a more advanced course.

If any of these courses are not passed to the instructor's satisfaction, the student will be required to take an oral exam in those subject areas before receiving the Master of Science degree.

THE DEGREE OF DOCTOR OF PHILOSOPHY

For admission to candidacy for the Doctor of Philosophy, an applicant must demonstrate the ability to meet both the divisional requirements and the departmental requirements for admission.

The applicant must satisfy the above mentioned requirements for the degree of Master of Science in mathematics.

The applicant must satisfactorily complete an oral topic presentation. This presentation covers material that is chosen by the student in consultation with members of the department and is studied independently. The topic presentation is normally made by the end of the student's second year of graduate study.

The applicant must also successfully complete the department's program of preparatory training in the effective teaching of mathematics in the English language at a level commensurate with the level of instruction at the University of Chicago.

After successful completion of the topic presentations, the student is expected to begin research towards the dissertation under the guidance of a member of the department. The remaining requirements are to:

- 1. Complete a dissertation containing original, substantial, and publishable mathematical results
- 2. Present the contents of the dissertation in an open lecture
- 3. Pass an oral examination based both on the dissertation and the field of mathematics in which it lies

GRADUATE DEGREES IN APPLIED MATHEMATICS

The Department of Mathematics, through the Computational and Applied Mathematics Program (CAMP), offers interdisciplinary programs in applied mathematics leading to S.M. and Ph.D. degrees. These programs overlap with but are different from the program in pure mathematics and allow for variations depending on the direction of applications the student chooses. Students choosing the applied mathematics program will participate in courses and seminars not only with pure mathematics students, but also with students in the sciences who have chosen an applied mathematics emphasis in their own departments.

Expanded activity in applied mathematics is occurring within the Department of Mathematics and in the Division of the Physical Sciences. Moreover, the department recognizes that students enter applied mathematics from diverse backgrounds, and that some otherwise well qualified students may require more than one year to satisfy the requirements described below.

To obtain the degree of Master of Science in mathematics under the auspices of CAMP, the candidate must meet the departmental requirements stated above, with the modification that the nine graduate courses to be passed are not restricted to those listed above. These nine courses must, however, include the analysis sequence:

MATH	Analysis I-II-III	300
31200-31300-31400		

They must also include a second, approved three quarter sequence of mathematics courses. This will normally be a sequence of applied mathematics courses emphasizing differential equations, ordinary and partial, and their numerical treatment. They may, however, consist of the algebra or topology sequence.

A third approved sequence of courses may be chosen from the offerings of the Department of Mathematics or from those of another department. Possible choices of sequences outside the Department of Mathematics are:

Astronomy & Astrophysics				
ASTR 30100	Stars	100		
ASTR 30200	Astrophysics-2	100		
ASTR 30300	Interstellar Matter	100		
Chemistry				
CHEM 36100	Wave Mechanics and Spectroscopy	100		
CHEM 36200	Quantum Mechanics	100		
CHEM 36300	Statistical Thermodynamics	100		
Economics				
ECON 30500	Game Theory	100		

Astronomy & Astrophysics

ECON 30600	THE ECONOMICS OF INFORMATION	100		
ECON 30700	Decision Theory	100		
Geophysical Science	25			
GEOS 35100	Fndls Of Fluid Mechanics	100		
GEOS 35200	Geophysical Fluid Dynamics	100		
GEOS 35300	Dynamics of Viscous Fluids	100		
Physics				
PHYS 32200	Advanced Electrodynamics I	100		
PHYS 32300	Advanced Electrodynamics II	100		
and a third course to be approved				

The requirements for the Ph.D. in applied mathematics are the same as the departmental requirements listed above.

MATHEMATICS COURSES

MATH 30200-30300. Computability Theory I-II.

The courses in this sequence are offered in alternate years.

MATH 30200. Computability Theory I. 100 Units.

CMSC 38000 is concerned with recursive (computable) functions and sets generated by an algorithm (recursively enumerable sets). Topics include various mathematical models for computations (e.g., Turing machines and Kleene schemata, enumeration and s-m-n theorems, the recursion theorem, classification of unsolvable problems, priority methods for the construction of recursively enumerable sets and degrees).

Instructor(s): R. Soare Terms Offered: Winter

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): CMSC 38000

MATH 30300. Computability Theory II. 100 Units.

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): R. Soare Terms Offered: Winter, Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): CMSC 38100

MATH 30300. Computability Theory II. 100 Units.

CMSC 38100 treats classification of sets by the degree of information they encode, algebraic structure and degrees of recursively enumerable sets, advanced priority methods, and generalized recursion theory.

Instructor(s): R. Soare Terms Offered: Winter, Spring

Prerequisite(s): Consent of department counselor. MATH 25500 or consent of instructor.

Equivalent Course(s): CMSC 38100

MATH 30500. Computability and Complexity Theory. 100 Units.

Part one of this course consists of models for defining computable functions: primitive recursive functions, (general) recursive functions, and Turing machines; the Church-Turing Thesis; unsolvable problems; diagonalization; and properties of computably enumerable sets. Part two of this course deals with Kolmogorov (resource bounded) complexity: the quantity of information in individual objects. Part three of this course covers functions computable with time and space bounds of the Turing machine: polynomial time computability, the classes P and NP, NPcomplete problems, polynomial time hierarchy, and P-space complete problems. Instructor(s): A. Razborov Terms Offered: Winter

Prerequisite(s): Consent of department counselor and instructor Equivalent Course(s): CMSC 38500

MATH 30900-31000. Model Theory I-II.

MATH 30900 covers completeness and compactness; elimination of quantifiers; omission of types; elementary chains and homogeneous models; two cardinal theorems by Vaught, Chang, and Keisler; categories and functors; inverse systems of compact Hausdorf spaces; and applications of model theory to algebra. In MATH 31000, we study saturated models; categoricity in power; the Cantor-Bendixson and Morley derivatives; the Morley theorem and the Baldwin-Lachlan theorem on categoricity; rank in model theory; uniqueness of prime models and existence of saturated models; indiscernibles; ultraproducts; and differential fields of characteristic zero.

MATH 30900. Model Theory I. 100 Units.

MATH 30900 covers completeness and compactness; elimination of quantifiers; omission of types; elementary chains and homogeneous models; two cardinal theorems by Vaught, Chang, and Keisler; categories and functors; inverse systems of compact Hausdorf spaces; and applications of model theory to algebra.

Prerequisite(s): MATH 25500 or 25800

Note(s): This course is offered in alternate years.

MATH 31000. Model Theory II. 100 Units.

MATH 31000 covers saturated models; categoricity in power; the Cantor-Bendixson and Morley derivatives; the Morley theorem and the Baldwin-Lachlan theorem on categoricity; rank in model theory; uniqueness of prime models and existence of saturated models; indiscernibles; ultraproducts; and differential fields of characteristic zero.

Terms Offered: Spring

Prerequisite(s): MATH 30900

Note(s): This course is offered in alternate years.

MATH 31000. Model Theory II. 100 Units.

MATH 31000 covers saturated models; categoricity in power; the Cantor-Bendixson and Morley derivatives; the Morley theorem and the Baldwin-Lachlan theorem on categoricity; rank in model theory; uniqueness of prime models and existence of saturated models; indiscernibles; ultraproducts; and differential fields of characteristic zero.

Terms Offered: Spring Prerequisite(s): MATH 30900 Note(s): This course is offered in alternate years.

MATH 31200-31300-31400. Analysis I-II-III.

Analysis I-II-III

MATH 31200. Analysis I. 100 Units.

Topics include: Measure theory and Lebesgue integration, harmonic functions on the disk and the upper half plane, Hardy spaces, conjugate harmonic functions, Introduction to probability theory, sums of independent variables, weak and strong law of large numbers, central limit theorem, Brownian motion, relation with harmonic functions, conditional expectation, martingales, ergodic theorem, and other aspects of measure theory in dynamics systems, geometric measure theory, Hausdorff measure.

Terms Offered: Autumn

Prerequisite(s): MATH 26200, 27000, 27200, and 27400; and consent of director or co-director of undergraduate studies

MATH 31300. Analysis II. 100 Units.

Topics include: Hilbert spaces, projections, bounded and compact operators, spectral theorem for compact selfadjoint operators, unbounded selfadjoint operators, Cayley transform, Banach spaces, Schauder bases, Hahn-Banach theorem and its geometric meaning, uniform boundedness principle, open mapping theorem, Frechet spaces, applications to elliptic partial differential equations, Fredholm alternative.

Terms Offered: Winter

Prerequisite(s): MATH 31200

MATH 31400. Analysis III. 100 Units.

Topics include: Basic complex analysis, Cauchy theorem in the homological formulation, residues, meromorphic functions, Mittag-Leffler theorem, Gamma and Zeta functions, analytic continuation, mondromy theorem, the concept of a Riemann surface, meromorphic differentials, divisors, Riemann-Roch theorem, compact Riemann surfaces, uniformization theorem, Green functions, hyperbolic surfaces, covering spaces, quotients. Terms Offered: Spring

Prerequisite(s): MATH 31300

MATH 31300. Analysis II. 100 Units.

Topics include: Hilbert spaces, projections, bounded and compact operators, spectral theorem for compact selfadjoint operators, unbounded selfadjoint operators, Cayley transform, Banach spaces, Schauder bases, Hahn-Banach theorem and its geometric meaning, uniform boundedness principle, open mapping theorem, Frechet spaces, applications to elliptic partial differential equations, Fredholm alternative. Terms Offered: Winter

Prerequisite(s): MATH 31200

MATH 31400. Analysis III. 100 Units.

Topics include: Basic complex analysis, Cauchy theorem in the homological formulation, residues, meromorphic functions, Mittag-Leffler theorem, Gamma and Zeta functions, analytic continuation, mondromy theorem, the concept of a Riemann surface, meromorphic differentials, divisors, Riemann-Roch theorem, compact Riemann surfaces, uniformization theorem, Green functions, hyperbolic surfaces, covering spaces, quotients.

Terms Offered: Spring Prerequisite(s): MATH 31300

MATH 31700-31800-31900. Topology and Geometry I-II-III.

Topology and Geometry I-II-III

MATH 31700. Topology and Geometry I. 100 Units.

Topics include: Fundamental group, covering space theory and Van Kampen's theorem (with a discussion of free and amalgamated products of groups), homology theory (singular, simplicial, cellular), cohomology theory, Mayer-Vietoris, cup products, Poincare Duality, Lefschetz fixed-point theorem, some homological algebra (including the Kunneth and universal coefficient theorems), higher homotopy groups, Whitehead's theorem, exact sequence of a fibration, obstruction theory, Hurewicz isomorphism theorem. Terms Offered: Autumn

Prerequisite(s): MATH 26200, 27000, 27200, and 27400; and consent of director or co-director of undergraduate studies

MATH 31800. Topology and Geometry II. 100 Units.

Topics include: Definition of manifolds, tangent and cotangent bundles, vector bundles. Inverse and implicit function theorems. Sard's theorem and the Whitney embedding theorem. Degree of maps. Vector fields and flows, transversality, and intersection theory. Frobenius' theorem, differential forms and the associated formalism of pullback, wedge product, integration, etc. Cohomology via differential forms, and the de Rham theorem. Further topics may include: compact Lie groups and their representations, Morse theory, cobordism, and differentiable structures on the sphere.

Terms Offered: Winter

Prerequisite(s): MATH 31700

MATH 31900. Topology and Geometry III. 100 Units.

Topics include: Riemannian metrics, connections and curvature on vector bundles, the Levi-Civita connection, and the multiple interpretations of curvature. Geodesics and the associated variational formalism (formulas for the 1st and 2nd variation of length), the exponential map, completeness, and the influence of curvature on the topological structure of a manifold (positive versus negative curvature). Lie groups. The Chern-Weil description of characteristic classes, the Gauss-Bonnet theorem, and possibly the Hodge Theorem.

Terms Offered: Winter Prerequisite(s): MATH 31800

MATH 31800. Topology and Geometry II. 100 Units.

Topics include: Definition of manifolds, tangent and cotangent bundles, vector bundles. Inverse and implicit function theorems. Sard's theorem and the Whitney embedding theorem. Degree of maps. Vector fields and flows, transversality, and intersection theory. Frobenius' theorem, differential forms and the associated formalism of pullback, wedge product, integration, etc. Cohomology via differential forms, and the de Rham theorem. Further topics may include: compact Lie groups and their representations, Morse theory, cobordism, and differentiable structures on the sphere.

Terms Offered: Winter Prerequisite(s): MATH 31700

MATH 31900. Topology and Geometry III. 100 Units.

Topics include: Riemannian metrics, connections and curvature on vector bundles, the Levi-Civita connection, and the multiple interpretations of curvature. Geodesics and the associated variational formalism (formulas for the 1st and 2nd variation of length), the exponential map, completeness, and the influence of curvature on the topological structure of a manifold (positive versus negative curvature). Lie groups. The Chern-Weil description of characteristic classes, the Gauss-Bonnet theorem, and possibly the Hodge Theorem.

Terms Offered: Winter Prerequisite(s): MATH 31800

MATH 32500-32600-32700. Algebra I-II-III. Algebra I-II-III

MATH 32500. Algebra I. 100 Units.

Topics include: Representation theory of finite groups, including symmetric groups and finite groups of Lie type; group rings; Schur functors; induced representations and Frobenius reciprocity; representation theory of Lie groups and Lie algebras, highest weight theory, Schur-Weyl duality; applications of representation theory in various parts of mathematics.

Terms Offered: Autumn

Prerequisite(s): MATH 25700-25800-25900, and consent of director or co-director of undergraduate studies

MATH 32600. Algebra II. 100 Units.

This course will explain the dictionary between commutative algebra and algebraic geometry. Topics will include the following. Commutative ring theory; Noetherian property; Hilbert Basis Theorem; localization and local rings; etc. Algebraic geometry: affine and projective varieties, ring of regular functions, local rings at points, function fields, dimension theory, curves, higher-dimensional varieties.

Terms Offered: Winter Prerequisite(s): MATH 32500

MATH 32700. Algebra III. 100 Units.

According to the inclinations of the instructor, this course may cover: algebraic number theory; homological algebra; further topics in algebraic geometry and/ or representation theory.

Terms Offered: Spring Prerequisite(s): MATH 32600

MATH 32600. Algebra II. 100 Units.

This course will explain the dictionary between commutative algebra and algebraic geometry. Topics will include the following. Commutative ring theory; Noetherian property; Hilbert Basis Theorem; localization and local rings; etc. Algebraic geometry: affine and projective varieties, ring of regular functions, local rings at points, function fields, dimension theory, curves, higher-dimensional varieties. Terms Offered: Winter

Prerequisite(s): MATH 32500

MATH 32700. Algebra III. 100 Units.

According to the inclinations of the instructor, this course may cover: algebraic number theory; homological algebra; further topics in algebraic geometry and/or representation theory. Terms Offered: Spring Prerequisite(s): MATH 32600

MATH 37500. Algorithms in Finite Groups. 100 Units.

We consider the asymptotic complexity of some of the basic problems of computational group theory. The course demonstrates the relevance of a mix of mathematical techniques, ranging from combinatorial ideas, the elements of probability theory, and elementary group theory, to the theories of rapidly mixing Markov chains, applications of simply stated consequences of the Classification of Finite Simple Groups (CFSG), and, occasionally, detailed information about finite simple groups. No programming problems are assigned.

Instructor(s): L. Babai Terms Offered: Spring

Prerequisite(s): Consent of department counselor. Linear algebra, finite fields, and a first course in group theory (Jordan-Holder and Sylow theorems) required; prior knowledge of algorithms not required

Note(s): This course is offered in alternate years.

Equivalent Course(s): CMSC 36500

MATH 38300. Numerical Solutions to Partial Differential Equations. 100 Units. This course covers the basic mathematical theory behind numerical solution of partial differential equations. We investigate the convergence properties of finite element, finite difference and other discretization methods for solving partial differential equations, introducing Sobolev spaces and polynomial approximation theory. We emphasize error estimators, adaptivity, and optimal-order solvers for

linear systems arising from PDEs. Special topics include PDEs of fluid mechanics, max-norm error estimates, and Banach-space operator-interpolation techniques. Instructor(s): L. R. Scott Terms Offered: Spring. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor and instructor Equivalent Course(s): CMSC 38300

MATH 38509. Brownian Motion and Stochastic Calculus. 100 Units.

A rigorous introduction to Brownian motion and the stochastic integral. Terms Offered: Autumn

Prerequisite(s): STAT 38300 or MATH 31200, or permission of the instructor. Equivalent Course(s): STAT 38500

MATH 38511. Brownian Motion and Stochastic Caluculus. 100 Units.

A rigorous introduction to Brownian motion and the stochastic integral. Terms Offered: Autumn

Prerequisite(s): STAT 38300 or MATH 31200or permission of instructor. Equivalent Course(s): STAT 38510

MATH 38815. Geometric Complexity. 100 Units.

This course provides a basic introduction to geometric complexity theory, an approach to the P vs. NP and related problems through algebraic geometry and representation theory. No background in algebraic geometry or representation theory will be assumed.

Instructor(s): K. Mulmuley Terms Offered: Autumn. This course is offered in alternate years.

Prerequisite(s): Consent of department counselor and instructor

Note(s): Background in algebraic geometry or representation theory not required Equivalent Course(s): CMSC 38815



Department of Physics

Chair

- Edward Blucher
- Professors
- Edward C. Blucher
- Marcela Carena
- John Eric Carlstrom, Astronomy & Astrophysics
- Cheng Chin
- Juan Collar
- Henry J. Frisch
- Philippe M. Guyot Sionnest, Chemistry
- Jeffrey A. Harvey
- Eric Isaacs
- Heinrich Martin Jaeger
- Woowon Kang
- Kwang Je Kim
- Young Kee Kim
- David Kutasov
- Kathryn Levin
- Peter Littlewood
- Zheng Tian Lu
- Emil J. Martinec
- Stephan Meyer, Astronomy & Astrophysics
- Sergei Nagaitsev
- Sidney R. Nagel
- Mark J. Oreglia
- Paolo Privitera, Astronomy & Astrophysics
- Robert Rosner, Astronomy & Astrophysics
- Guy Savard
- Savdeep Sethi
- Melvyn J. Shochet
- Dam T. Son
- Michael Turner, Astronomy & Astrophysics
- Carlos E.M. Wagner
- Yau Wai Wah
- Robert M. Wald
- Paul B. Wiegmann

Associate Professors

- Margaret Gardel
- Daniel Holz
- William Irvine
- Scott Wakely
- LianTao Wang
- Wendy Zhang

Assistant Professors

- David Biron
- Luca Grandi
- Richard Hill
- Michael Levin
- David Miller
- Arvind Murugan
- Michael Rust, Molecular Genetics and Cell Biology
- David Schmitz
- David Schuster
- Jonathan Simon
- Abigail Vieregg

Emeritus Faculty

- Isaac D. Abella
- James W. Cronin
- Dean Eastman
- Peter G.O. Freund
- Robert P. Geroch
- Roger H. Hildebrand
- Leo P. Kadanoff
- Riccardo Levi Setti
- Gene F. Mazenko
- Frank S. Merritt
- Dietrich Müller
- Yoichiro Nambu
- Eugene Parker
- James E. Pilcher
- Jonathan L. Rosner
- John P. Schiffer
- Thomas A. Witten
- S. Courtney Wright

The Department of Physics (http://physics.uchicago.edu) offers advanced degree opportunities in many areas of experimental and theoretical physics, supervised by a distinguished group of research faculty. Applications are accepted from students

of diverse backgrounds and institutions: graduates of research universities or four year colleges, from the U.S. and worldwide. Most applicants, but not all, have undergraduate degrees in physics; many have had significant research experience. Seeking to identify the most qualified students who show promise of excellence in research and teaching, the admissions process is highly selective and very competitive.

DOCTOR OF PHILOSOPHY

During the first year of the doctoral program, a student takes introductory graduate physics courses and usually serves as a teaching assistant assigned to one of the introductory or intermediate undergraduate physics courses. Students are encouraged to explore research opportunities during their first year. Students are strongly encouraged to take the graduate diagnostic examination prior to their first quarter in the program. The results of this examination will determine which of the introductory graduate courses the student must take to achieve candidacy. After achieving candidacy and identifying a research sponsor, the student begins dissertation research while completing course requirements. Within a year after research begins, a PhD committee is formed with the sponsor as chairman. The student continues research, from time to time consulting with the members of the committee, until completion of the dissertation. The average length of time for completion of the PhD program in physics is about six years.

In addition to fulfilling University and divisional requirements, a candidate for the degree of Doctor of Philosophy in physics must:

- 1. Achieve Candidacy.
- 2. Fulfill the experimental physics requirement by completing PHYS 33400 Advanced Experimental Physics or PHYS 33500 Adv Experimental Physics Project.
- 3. Pass four post candidacy advanced graduate courses devoted to the broad physics research areas of (A) Condensed Matter Physics, (B) Particle Physics, (C) Large Scale Physics (i.e. Astrophysics and/or Cosmology related), and (D) Intermediate Electives. The four courses selected must include at least one from each of the categories (A), (B), and (C).
- 4. Pass two other advanced (40000 level) courses either in physics or in a field related to the student's Ph.D. research. The latter requires department approval.
- 5. Within the first year after beginning research, convene a first meeting of the Ph.D. committee to review plans for the proposed thesis research and for fulfilling the remaining Ph.D. requirements.
- 6. One to two quarters prior to the defense of the dissertation, hold a pre-oral meeting at which the student and the Ph.D. committee discuss the research project.
- 7. Defend the dissertation before the Ph.D. committee.
- 8. Submit for publication to a refereed scientific journal the thesis which has been approved by the Ph.D. committee or a paper based on the thesis. A letter

from the editor acknowledging receipt of the thesis must be provided to the department office.

Consult a department adviser for more details.

MASTER OF SCIENCE

The graduate program of the Department of Physics is oriented toward students who intend to earn a Ph.D. degree in physics. Therefore, the department does not offer admission to students whose goal is the Master of Science degree. However, the department does offer a master's degree to students who are already in the physics Ph.D. program or other approved graduate programs in the University. Normally it takes one and a half years for a student to complete the master's program. A master's degree is not required for continued study toward the doctorate.

In addition to fulfilling University and Divisional requirements, a candidate for the degree of Master of Science in physics must:

1. Demonstrate a satisfactory level of understanding of the fundamental principles of physics by passing nine approved courses with a minimum grade point average of 2.5. Six of the nine courses must be:

PHYS 31600	Advanced Classical Mechanics	100
PHYS 33000	Mathematical Methods of Physics	100
PHYS 34100	Advanced Quantum Mechanics I	100
PHYS 34200	Advanced Quantum Mechanics II	100
PHYS 32200	Advanced Electrodynamics I	100
PHYS 35200	Statistical Mechanics	100

2. Complete the Experimental Physics requirement (PHYS 33400 Advanced Experimental Physics or PHYS 33500 Adv Experimental Physics Project).

The Department may approve substitutions to this list where warranted, especially regarding courses for which the student placed out of as a result of the graduate diagnostic exam.

TEACHING OPPORTUNITIES

Part of the training of graduate students is dedicated to obtaining experience and facility in teaching. Most first year students are supported by teaching assistantships, which provide the opportunity for them to engage in a variety of teaching related activities. These may include supervising undergraduate laboratory sections, conducting discussion and problem sessions, holding office hours, and grading written work for specific courses. Fellowship holders are invited to participate in these activities at reduced levels of commitment to gain experience in the teaching of physics. During the Autumn quarter first year graduate students attend the weekly workshop, Teaching and Learning of Physics, which is an important element in their training as teachers of physics.

TEACHING FACILITIES

All formal class work takes place in the modern lecture halls and classrooms and instructional laboratories of the Kersten Physics Teaching Center. This building also houses special equipment and support facilities for student experimental projects, departmental administrative offices, and meeting rooms. The center is situated on the science quadrangle near the John Crerar Science Library, which holds over 1,000,000 volumes and provides modern literature search and data retrieval systems.

Research Facilities

Most of the experimental and theoretical research of Physics faculty and graduate students is carried out within the Enrico Fermi Institute (http://efi.uchicago.edu), the James Franck Institute (http://jfi.uchicago.edu) and the Institute for Biophysical Dynamics (http://ibd.uchicago.edu). These research institutes provide close interdisciplinary contact, crossing the traditional boundaries between departments. This broad scientific endeavor is reflected in students' activities and contributes to their outlook toward research.

In the Enrico Fermi Institute, members of the Department of Physics carry out theoretical research in particle theory, string theory, field theory, general relativity, and theoretical astrophysics and cosmology. There are active experimental groups in high energy physics, nuclear physics, astrophysics and space physics, infrared and optical astronomy, and microwave background observations. Some of this research is conducted at the Fermi National Accelerator Laboratory, at Argonne National Laboratory (both of these are near Chicago), and at the European Organization for Nuclear Research (CERN) in Geneva, Switzerland.

Physics faculty in the James Franck Institute study chemical, solid state, condensed matter, and statistical physics. Fields of interest include chaos, chemical kinetics, critical phenomena, high Tc superconductivity, nonlinear dynamics, low temperature, disordered and amorphous systems, the dynamics of glasses, fluid dynamics, surface and interface phenomena, nonlinear and nanoscale optics, unstable and metastable systems, laser cooling and trapping, atomic physics, and polymer physics. Much of the research utilizes specialized facilities operated by the institute, including a low temperature laboratory, a materials preparation laboratory, x-ray diffraction and analytical chemistry laboratories, laser equipment, a scanning tunneling microscope, and extensive shop facilities. Some members of the faculty are involved in research at Argonne National Laboratory.

The Institute for Biophysical Dynamics includes members of both the Physical Sciences and Biological Sciences Divisions, and focuses on the physical basis for molecular and cellular processes. This interface between the physical and biological sciences is an exciting area that is developing rapidly, with a bi-directional impact. Research topics include the creation of physical materials by biological self assembly, the molecular basis of macromolecular interactions and cellular signaling, the derivation of sequence structure function relationships by computational means, and structure function relationships in membranes.

In the areas of chemical and atomic physics, research toward the doctorate may be done in either the physics or the chemistry department. Facilities are available for research in crystal chemistry; molecular physics; molecular spectra from infrared to far ultraviolet, Bose Einstein condensation, and Raman spectra, both experimental and theoretical; surface physics; statistical mechanics; radio chemistry; and quantum electronics.

Interdisciplinary research leading to a Ph.D. degree in physics may be carried out under the guidance of faculty committees including members of other departments in the Division of the Physical Sciences, such as Astronomy & Astrophysics, Chemistry, Computer Science, Geophysical Sciences or Mathematics, or related departments in the Division of the Biological Sciences.

Admission and Student Aid

Most students entering the graduate program of the Department of Physics of the University of Chicago hold a bachelor's or master's degree in physics from an accredited college or university.

December 15 is the deadline for applications for admission in the following autumn quarter. The Graduate Record Examination (GRE) given by the Educational Testing Service is required of all applicants. Applicants should submit recent scores on the verbal, quantitative, and analytic writing tests and on the advanced subject test in physics. Arrangements should be made to take the examination no later than September in order that the results be available in time for the department's consideration. Applicants from non-English speaking countries must provide the scores achieved on the TOEFL or the IELTS.

All full time physics graduate students in good standing receive financial aid. Most graduate students serve as teaching assistants in their first year.

The department has instituted a small bridge-to-Ph.D. program which does not require the Graduate Record Examination. The application deadline for this program varies but is expected to be mid to late spring.

For information including faulty research interests, application instructions, and other important program details please visit our department website http://physics.uchicago.edu/. You can also reach out to http://physics.uchicago.edu/ with any questions or concerns regarding the admissions process.

PHYSICS COURSES

PHYS 31600. Advanced Classical Mechanics. 100 Units.

This course begins with variational formulation of classical mechanics of point particles, including discussion of the principle of least action, Poisson brackets, and Hamilton-Jacobi theory. These concepts are generalized to continuous systems with infinite number of degrees of freedom, including a discussion of the transition to quantum mechanics.

Terms Offered: Autumn Prerequisite(s): PHYS 18500

PHYS 32200-32300. Advanced Electrodynamics I-II.

This two-quarter sequence covers electromagnetic properties of continuous media, gauge transformations, electromagnetic waves, radiation, relativistic electrodynamics, Lorentz theory of electrons, and theoretical optics. There is considerable emphasis on the mathematical methods behind the development of the physics of these problems.

PHYS 32200. Advanced Electrodynamics I. 100 Units.

Terms Offered: Winter Prerequisite(s): PHYS 22700 and 23500

PHYS 32300. Advanced Electrodynamics II. 100 Units. Terms Offered: Spring Prerequisite(s): PHYS 32200

PHYS 32300. Advanced Electrodynamics II. 100 Units.

Terms Offered: Spring Prerequisite(s): PHYS 32200

PHYS 33000. Mathematical Methods of Physics. 100 Units.

Topics include complex analysis, linear algebra, differential equations, boundary value problems, and special functions. Terms Offered: Autumn Prerequisite(s): PHYS 22700

PHYS 33500. Adv Experimental Physics Project. 100 Units.

For course description contact Physics.

PHYS 34100-34200. Advanced Quantum Mechanics I-II.

This two-quarter sequence covers wave functions and their physical content, onedimensional systems, WKB method, operators and matrix mechanics, angular momentum and spin, two- and three-dimensional systems, the Pauli principle, perturbation theory, Born approximation, and scattering theory.

PHYS 34100. Advanced Quantum Mechanics I. 100 Units.

Terms Offered: Autumn Prerequisite(s): PHYS 23500

PHYS 34200. Advanced Quantum Mechanics II. 100 Units.

Terms Offered: Winter Prerequisite(s): PHYS 34100

PHYS 34200. Advanced Quantum Mechanics II. 100 Units.

Terms Offered: Winter Prerequisite(s): PHYS 34100

PHYS 35200. Statistical Mechanics. 100 Units.

This course covers principles of statistical mechanics and thermodynamics, as well as their applications to problems in physics and chemistry. Terms Offered: Spring Prerequisite(s): PHYS 19700 and 23500

PHYS 36100. Solid State Physics. 100 Units.

Topics include Properties of Insulators, Electronic Properties of Solids, Thermal Properties, Optical Properties of Solids, and Transport in Metals (conductivity, Hall effect, etc.)

Terms Offered: Autumn Prerequisite(s): PHYS 23600, 34200, 35200

PHYS 36400. General Relativity. 100 Units.

Terms Offered: Winter 2014

PHYS 36600. Hard Condensed Matter Physics. 100 Units.

Phasetransitions, Magnetism, Superconductivity, Disorder, Quantum Hall Effect, Superfluidity, Physics of Low-dimensional systems, Fermiliquid theory, and Quasicrystals.

Terms Offered: Winter

PHYS 37200. Space Physics & Astrophysics. 100 Units. Terms Offered: Autumn

PHYS 38500. Advanced Math Methods. 100 Units. Terms Offered: Winter

PHYS 38600. Advanced Methods of Data Analysis. 100 Units.

Terms Offered: Spring

PHYS 42600. Fluid Dynamics. 100 Units.

Terms Offered: Spring

PHYS 44300. Quantum Field Theory I. 100 Units.

Topics include Basic Field Theory, Scattering and Feynman Rules, and One Loop Effects. Terms Offered: Autumn

Prerequisite(s): PHYS 34200

PHYS 44400. Quantum Field Theory II. 100 Units.

Topics include Path integral formulation of QFT, Renormalization, Non-Abelian gauge theory. Terms Offered: Winter

PHYS 44800. Field Theory in Condensed Matter Physics. 100 Units. Terms Offered: Autumn

PHYS 45600. Intro to Quantum Computing. 100 Units. Terms Offered: Winter

PHYS 46200. Nuclear Astrophysics. 100 Units. Terms Offered: Autumn

PHYS 47100. Intro to Modern Atomic Physics. 100 Units.

Terms Offered: Autumn



DEPARTMENT OF STATISTICS

Chair

Yali Amit

Professors

- Yali Amit
- Mihai Anitescu, Argonne National Laboratory
- Nicolas Brunel
- Laurent Demanet
- Lars Hansen, Economics
- John Lafferty
- Steven P. Lalley
- Gregory F. Lawler, Mathematics
- Peter McCullagh
- Mary Sara McPeek
- Per Mykland
- Dan Liviu Nicolae, Medicine
- John Reinitz
- Michael L. Stein
- Matthew Stephens
- Stephen M. Stigler
- Ronald Thisted, Vice Provost for Academic Affairs, Public Health Sciences
- Kirk M. Wolter
- Wei Biao Wu

Assistant Professors

- Rina Foygel Barber
- Jian Ding
- Zheng (Tracy) Ke
- Imre Risi Kondor, Computer Science
- Lek-Heng Lim
- Jonathan Weare

William H. Kruskal Instructors

- Loretta Au
- Sabyasachi Chatterjee
- Brian Van Koten

Senior Lecturers

- Linda Brant Collins
- Mei Wang
 - Lecturers

- Kendra S. Burbank
- Yibi Huang

Visiting Professors

- James O. Berger
- Leonard A. Smith

The Department of Statistics offers an exciting and revamped graduate program that prepares students for cutting-edge interdisciplinary research in a wide variety of fields. The field of statistics has become a core component of research in the biological, physical, and social sciences, as well as in traditional computer science domains such as artificial intelligence. In light of this, the Department of Statistics is currently undergoing a major expansion of approximately ten new faculty into fields of Computational and Applied Mathematics. The massive increase in the data acquired, through scientific measurement on one hand and through web-based collection on the other, makes the development of statistical analysis and prediction methodologies more relevant than ever. Our graduate program aims to prepare students to address these issues through rigorous training in theory, methodology, and applications of statistics; rigorous training in scientific computation; and research projects in core methodology of statistics and computation as well as in a wide variety of interdisciplinary fields.

The Department of Statistics offers two tracks of graduate study, one leading to the Master of Science (M.S.) degree, the other to the Doctorate of Philosophy (Ph.D.). The M.S. degree is a professional degree. Students who receive this degree are prepared for nonacademic careers in which the use of advanced statistical and computational methods is of central importance. The program also prepares students for possible further graduate study.

During the first year of the Ph.D. program, students are given a thorough grounding in material that forms the foundations of modern statistics and scientific computation, including data analysis, mathematical statistics, probability theory, applied probability and modeling, and computational methods. Throughout the entire program, students attend a weekly consulting seminar where researchers from across the University come to get advice on modeling, statistical analysis, and computation. This seminar is often the source of interesting and ongoing research projects.

In the second year, students have a wide range of choices of topics they can pursue further, based on their interests, through advanced courses and reading courses with faculty. During the second year, students will typically identify their subfield of interest, take some advanced courses in the subject, and interact with the relevant faculty members. The Department maintains very strong connections to numerous other units on campus, either through joint appointments of the faculty or through ongoing collaborations. Students have easy access to faculty in other departments, which allows them to expand their interactions and develop new interdisciplinary research projects. Examples include joint projects with Human Genetics, Ecology and Evolution, Neurobiology, Chemistry, Economics, Health Studies, and Astronomy.

Programs and Requirements for the Ph.D.

All sufficiently well-prepared students take 3 of 4 sequences in their first year:

- Applied Statistics
- Theoretical Statistics
- Probability
- Computation and Machine Learning

All students pass prelim exams in 2 of the 4 subjects by the beginning of their second year. Well-prepared students may be allowed to pass one or both of their exams upon arrival. Students should take a distribution requirement of up to two courses in their second year and are otherwise encouraged to explore the great variety of graduate courses on offer, both inside the department and in other departments.

Starting in their second year, students should find a topic for a Ph.D. dissertation and establish a relationship with a Ph.D. adviser. Taking courses with potential advisers is part of this process. The detailed process is listed here (http://www.stat.uchicago.edu/students/phd_rules.shtml).

The Ph.D.: Training in Teaching, Presentation, and Consulting Part of every statistician's job is to evaluate the work of others and to communicate knowledge, experience, and insights. Every statistician is, to some extent, an educator, and the department provides graduate students with training for this aspect of their professional lives. The department expects all doctoral students, regardless of their professional objectives and sources of financial support, to take part in a graduated program of participation in some or all phases of instruction, from grading, course assisting, and conducting discussion sections, to being a lecturer with responsibility for an entire course.

Students also receive training in how to present research in short seminars in the first and second years of study. Later, students present their own work in a dissertation proposal and, eventually, in a thesis defense. The student seminars are listed here (http://www.stat.uchicago.edu/seminars/index.shtml).

Ph.D. students should also participate in the department's consulting program (http://galton.uchicago.edu/consulting/index.shtml), which is led by faculty members and exposes the students to empirical projects inside the university. Projects are carried out by groups of students under the guidance of a faculty member. The client is a researcher in an applied area, usually associated with the university. An informal seminar meets regularly over lunch to provide a forum for presenting and discussing problems, solutions, and topics in statistical consultation. Students present interesting or difficult consulting problems to the seminar as a way of stimulating wider consideration of the problem and as a means of developing familiarity with the kinds of problems and lines of attack involved. Often the client will participate in the presentation and discussion.

Programs and Requirements for the M.S. degree

The main requirements of the M.S. program are a sequence of at least nine approved courses plus a Master's paper. Students may take up to two years of courses. A detailed set of regulations can be found here (http://galton.uchicago.edu/students/

master.shtml). (http://www.stat.uchicago.edu/students/master.shtml) A substantial fraction of available courses are the same as for the Ph.D. degree.

Facilities

Almost all departmental activities—classes, seminars (http://galton.uchicago.edu/ seminars/index.shtml), computation (http://galton.uchicago.edu/local/computing), and student and faculty offices (http://galton.uchicago.edu/people)—are located in Eckhart Hall or neighboring Ryerson Hall. Each student is assigned a desk in one of several offices. A small departmental library and conference room is a common meeting place for formal and informal gatherings of students and faculty. The major computing facilities of the department are based upon a network of PCs running mainly Linux. One computer room currently houses many of these PCs; these rooms are directly and primarily for graduate students in the Statistics Department. In addition, all student offices have limited computer facilities. For further information, consult the department's computing policies (http://www.stat.uchicago.edu/local/ computing/policies/index.shtml).

Statistics Throughout the University

In addition to the courses, seminars, and programs in the Department of Statistics, courses and workshops of direct interest to statisticians occur throughout the University, most notably in the programs in statistics and econometrics in the Booth School of Business (http://www.chicagobooth.edu) and in the research programs in Health Studies (http://health.bsd.uchicago.edu), Human Genetics (http://www.genes.uchicago.edu), Financial Mathematics and Econometrics (http://stevanovichcenter.uchicago.edu/page/seminars), Computer Science (http:// www.cs.uchicago.edu), Economics (http://economics.uchicago.edu) and NORC (http://www.norc.uchicago.edu) (formerly the National Opinion Research Center). The large number of statistics related seminars (http://galton.uchicago.edu/ seminars/index.shtml) is perhaps the best indication of the vibrancy of the statistics research community here at the University of Chicago.

STATISTICS COURSES

STAT 30100. Mathematical Statistics I. 100 Units.

This course is part of a two-quarter sequence on the theory of statistics. Topics will include exponential, curved exponential, and location-scale families; mixtures, hierarchical and conditional modeling including compatibility of conditional distributions; multivariate normal and joint distributions of quadratic forms of multivariate normal; principles of estimation; identifiability, sufficiency, minimal sufficiency, ancillarity, completeness; properties of the likelihood function and likelihood-based inference, both univariate and multivariate, including examples in which the usual regularity conditions do not hold; multivariate information inequality. Part of the course will be devoted to elementary asymptotic methods that are useful in the practice of statistics, including methods to derive asymptotic distributions of various estimators and test statistics, such as Pearson's chi-square, standard and nonstandard asymptotics of maximum likelihood estimators, asymptotics of order statistics and extreme order statistics, Cramer's theorem including situations in which the second-order term is needed, asymptotic efficiency. Other topics (e.g., methods for dependent observations) may be covered if time permits.

Terms Offered: Winter

Prerequisite(s): STAT 30400 or consent of instructor

STAT 30210. Bayesian Analysis and Principles of Statistics. 100 Units.

This course continues the development of Mathematical Statistics, with an emphasis on Bayesian analysis and underlying principles of inference. Topics include Bayesian Inference and Computation, Frequentist Inference and interpretation of p values and confidence intervals, Decision theory, admissibility and Stein's paradox, the Likelihood principle, Exchangeability and De Finetti's theorem, hierarchical modelling, multiple comparisons and False Discovery Rates. The mathematical level will generally be at that of an easy advanced calculus course. We will assume familiarity with standard statistical distributions (e.g., Normal, Poisson, Binomial, Exponential), with the laws of probability, expectation, conditional expectation, etc, and exposure to common statistical concepts such as p values and confidence intervals. Familiarity with the R statistical language will also be expected, and homework assignments will include programming problems in R. Terms Offered: Spring

Prerequisite(s): STAT 30400 or consent of instructor

STAT 30400. Distribution Theory. 100 Units.

This course is a systematic introduction to random variables and probability distributions. Topics include standard distributions (i.e., uniform, normal, beta, gamma, *F*, *t*, Cauchy, Poisson, binomial, and hypergeometric); moments and cumulants; characteristic functions; exponential families; modes of convergence; central limit theorem; other asymptotic approximations.

Terms Offered: Autumn

Prerequisite(s): STAT 24500 and MATH 20500, or consent of instructor

STAT 30600. Advanced Statistical Inference I. 100 Units.

Topics covered in this course will include: Gaussian distributions: conditional distributions; maximum likelihood and REML; Laplace approximation and associated expansion; combinatorics and the partition lattice: Mobius inversion; moments, cumulants symmetric functions and \$k\$-statistics; cluster expansions; Bartlett identities and Bartlett adjustment; random partitions, partition processes, CRP process; Gauss-Ewens cluster process: classification models; trees rooted and unrooted; exchangeable random trees; Cox processes used for classification. Terms Offered: Autumn

Prerequisite(s): Consent of instructor Note(s): Not offered in 2014-15

STAT 30750. Numerical Linear Algebra. 100 Units.

This course is devoted to the basic theory of linear algebra and its significant applications in scientific computing. The main objective is to provide a working knowledge of linear algebra and matrix computation suitable for advanced studies in which numerical methods are in demand, such as in statistics, econometrics, and scientific data organization and computation. Topics covered will include: Gaussian elimination, LU decomposition, vector spaces, linear transformations and their matrix representations, orthogonality and projections, QR factorization, eigenvectors and eigenvalues, diagonalization of real symmetric and complex Hermitian matrices, the spectral theorem, Cholesky decomposition, and Singular Value Decomposition. In addition, students will program in MATLAB or R using basic algorithms for linear systems, eigenvalue problem, matrix factorization, and sensitivity analysis.

Terms Offered: Autumn

Prerequisite(s): Multivariate calculus (MATH 19520 or 20000 or 20500 or equivalent). Previous exposure to linear algebra is helpful.

Equivalent Course(s): STAT 24300

STAT 30800. Advanced Statistical Inference II. 100 Units.

This course will discuss the following topics in high-dimensional statistical inference: random matrix theory and asymptotics of its eigen-decompositions, estimation and inference of high-dimensional covariance matrices, large dimensional factor models, multiple testing and false discovery control and high-dimensional semiparametrics. On the methodological side, probability inequalities, including exponential, Nagaev, and Rosenthal-type inequalities will be introduced. Terms Offered: Spring

Prerequisite(s): STAT 30200 or consent of instructor

STAT 30900. Mathematical Computation I: Matrix Computation Course. 100 Units.

This is an introductory course on numerical linear algebra, which is quite different from linear algebra. We will be much less interested in algebraic results that follow from axiomatic definitions of fields and vector spaces but much more interested in analytic results that hold only over the real and complex fields. The main objects of interest are real- or complex-valued matrices, which may come from differential operators, integral transforms, bilinear and quadratic forms, boundary and coboundary maps, Markov chains, correlations, DNA microarray measurements, movie ratings by viewers, friendship relations in social networks, etc. Numerical linear algebra provides the mathematical and algorithmic tools for analyzing these matrices.

Topics covered: basic matrix decompositions LU, QR, SVD; Gaussian elimination and LU/LDU decompositions; backward error analysis, Gram-Schmidt orthogonalization and QR/complete orthogonal decompositions; solving linear systems, least squares, and total least squares problem; low-rank matrix approximations and matrix completion. We shall also include a brief overview of stationary and Krylov subspace iterative methods; eigenvalue and singular value problems; and sparse linear algebra.

Terms Offered: Autumn

Prerequisite(s): Linear algebra (STAT 24300 or equivalent) and some previous experience with statistics

Equivalent Course(s): CMSC 37810

STAT 31015. Mathematical Computation IIA: Convex Optimization. 100 Units.

This course covers the fundamentals of convex optimization. Topics will include basic convex geometry and convex analysis, KKT condition, Fenchel and Lagrange duality theory; six standard convex optimization problems and their properties and applications: linear programming, geometric programming, second-order cone programming, semidefinite programming, linearly and quadratically constrained quadratic programming. In the last part of the course we will examine the generalized moment problem --- a powerful technique that allows one to encode a wide variety of problems (in probability, statistics, control theory, financial mathematics, signal processing, etc) and solve them or their relaxations as convex optimization problems.

Terms Offered: Winter

Prerequisite(s): STAT 30900/CMSC 37810

STAT 31020. Mathematical Computation IIB: Nonlinear Optimization. 100 Units. This course covers the fundamentals of continuous optimization with an emphasis on algorithmic and computational issues. The course starts with the study of optimality conditions and techniques for unconstrained optimization, covering line search and trust region approaches, and addressing both factorization-based and iterative methods for solving the subproblems. The Karush-Kuhn-Tucker conditions for general constrained and nonconvex optimization are then discussed and used to define algorithms for constrained optimization including augmented Lagrangian, interior-point and (if time permits) sequential quadratic programming. Iterative methods for large sparse problems, with an emphasis on projected gradient methods, will be presented. Several substantial programming projects (using MATLAB and aiming at both data-intensive and physical sciences applications) are completed during the course.

Terms Offered: Winter Prerequisite(s): STAT 30900/CMSC 37810 Note(s): Not offered in 2014-15

STAT 31061. Further Mathematical Computation: Matrix Computation. 100 Units. This course is primarily about iterative algorithms in matrix computation. For linear systems and least squares problems, we will discuss stationary methods (Jacobi, Gauss-Seidel, SOR), semi-iterative methods (Richardson, steepest descent, Chebyshev, conjugate gradient), and Krylov subspace methods (MINRES, SYMMLQ, LSQR, GMRES, QMR, BiCG). We will cover some basic ideas for preconditioning and stopping conditions. For eigenvalue problems, we will discuss direct (Givens and Householder) and iterative (Lanczos and Arnoldi) methods for reducing a matrix into tridiagonal and Hessenberg forms, as well as power, inverse power, Rayleigh quotient, Jacobi, Jacobi-Davidson, and Francis QR algorithms for extraction of eigenvalues/eigenvectors. Lastly, we will discuss algorithms for generalized and quadratic eigenvalue problems (QZ algorithm) as well as for singular value decomposition (Golub-Kahan and Golub-Reinsch). Terms Offered: Winter Prerequisite(s): STAT 30900/CMSC 37810

Note(s): Not offered in 2014-15

STAT 31100. Mathematical Computation III: Numerical Methods for PDE's. 100 Units.

This course covers the major classes of numerical methods used for solving most of the partial differential equations that arise in science and engineering. Topics: Finite differences for elliptic, parabolic, and hyperbolic equations. Iterative methods for linear systems (CG, GMRES). Finite elements. Finite volumes for conservation laws. Spectral methods. Reformulation of PDE as boundary integral equations. Fast algorithms including the fast multipole method. The evaluation will be a mix of theoretical and programming exercises, as well as a project of the student's choice. Terms Offered: Spring

Prerequisite(s): Numerical linear algebra at the level of STAT 24300/30750, and basic Fourier series.

STAT 31200. Introduction to Stochastic Processes I. 100 Units.

This course introduces stochastic processes not requiring measure theory. Topics include branching processes, recurrent events, renewal theory, random walks,

Markov chains, Poisson, and birth-and-death processes.

Terms Offered: Autumn

Prerequisite(s): STAT 25100 and MATH 20500; STAT 30400 or consent of instructor

STAT 31300. Introduction to Stochastic Processes II. 100 Units.

Topics include continuous-time Markov chains, Markov chain Monte Carlo, discrete-time martingales, and Brownian motion and diffusions. Our emphasis is on defining the processes and calculating or approximating various related probabilities. The measure theoretic aspects of these processes are not covered rigorously.

Terms Offered: Spring

Prerequisite(s): STAT 31200 or consent of instructor

Note(s): Not offered in 2014-15

STAT 31510. Stochastic Simulation I. 100 Units.

This class primarily concerns the design and analysis of Monte Carlo sampling techniques for the estimation of averages with respect to high dimensional probability distributions. Standard simulation tools such as importance sampling, Metropolis-Hastings, Langevin dynamics, and hybrid Monte Carlo will be introduced along with basic theoretical concepts regarding their convergence to equilibrium. The class will explore applications of these methods in Bayesian statistics and machine learning as well as to other simulation problems arising in the physical and biological sciences. Particular attention will be paid to the major complicating issues like conditioning (with analogies to optimization) and rare events and methods to address them.

Terms Offered: Autumn

Prerequisite(s): Multivariate calculus and linear algebra

STAT 31520. Stochastic Simulation II. 100 Units.

This course concerns the estimation of the dynamic properties of time-dependent stochastic systems. The class will begin with an introduction to the numerical simulation of continuous time Markov processes including the discretization of stochastic (and ordinary) differential equations. Problems associated with multiple time scales will be discussed along with methods to address them (implicit discretizations, multiscale methods and dimensional reduction). The class will also cover interacting particle methods and other techniques for the efficient simulation of dynamical rare events.

Terms Offered: Winter

Prerequisite(s): Multivariate calculus and linear algebra

STAT 31700. Introduction to Probability Models. 100 Units.

This course introduces stochastic processes as models for a variety of phenomena in the physical and biological sciences. Following a brief review of basic concepts in probability, we introduce stochastic processes that are popular in applications in sciences (e.g., discrete time Markov chain, the Poisson process, continuous time Markov process, renewal process and Brownian motion).

Terms Offered: Winter Prerequisite(s): STAT 24400 or 25100 Equivalent Course(s): STAT 25300

STAT 31900. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverseprobability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for crosssection and panel data, and fixed effects model. Intermediate Statistics or equivalent is a prerequisite. This course is a pre-requisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong Terms Offered: Winter

Prerequisite(s): Intermediate Statistics

Note(s): Graduate course open to advanced undergraduates. CHDV Distribution, $M^{\ast},\,M^{\ast}$

Equivalent Course(s): CHDV 30102

STAT 32400. Probability and Statistics. 100 Units.

This Ph.D.-level course (in addition to BUSF 41902/STAT 32500) provides a thorough introduction to Classical and Bayesian statistical theory. The two-quarter sequence provides the necessary probability and statistical background for many of the advanced courses in the Chicago Booth curriculum. The central topic is probability. Basic concepts in probability are covered. An introduction to martingales is given. Homework assignments are given throughout the quarter.

Course description is subject to change. Please visit the Booth portal and search via the course search tool for the most up to date information: http://boothportal.chicagobooth.edu/portal/server.pt/community/course_search Terms Offered: Autumn

Prerequisite(s): One year of calculus

Equivalent Course(s): BUSF 41901

STAT 32500. Statistical Inference. 100 Units.

This Ph.D.-level course is the second in a two-quarter sequence with Business 41901/Statistics 32400. The central topic is statistical inference. The course will focus on inference issues in a variety of linear models. The key models that will be covered are the linear regression model, linear panel data models, and the linear instrumental variable model. The focus of the course will be on developing tools for performing classical inference within these models. We will cover basic asymptotic theory, estimation of covariance matrices allowing for heteroskedasticity and dependence, and the bootstrap. The basics of generalized method of moments will be covered in the context of the linear instrumental variables model. There will also be some discussion of Bayesian inference and finite-sample classical inference. Course description is subject to change. Please visit the Booth portal and search via the course search tool for the most up to date information: http:// boothportal.chicagobooth.edu/portal/server.pt/community/course_search Terms Offered: Winter

Prerequisite(s): BUSF 41901/STAT 32400 Equivalent Course(s): BUSF 41902

STAT 32600. Marketing Topics: Bayesian Applications in Marketing and Micro Econometrics. 100 Units.

This course covers some key topics at the research frontier in quantitative marketing. We formulate and estimate models of consumer decision-making, and then explore the normative and positive consequences of the inferred consumer behavior for optimal marketing decisions and market structure. Topics include: Foundations of demand modeling, measurement of consumer heterogeneity, the origin and evolution of preferences, state dependence in demand, dynamic discrete choice models, learning and memory models, storable goods demand, diffusion models and durable goods demand, stated choice models, advertising dynamics, and search and shopping behavior. Course description is subject to change. Please visit the Booth portal and search via the course search tool for the most up to date information: http://boothportal.chicagobooth.edu/portal/server.pt/community/ course_search

Terms Offered: Spring

Equivalent Course(s): BUSF 37904

STAT 32900. Applied Multivariate Analysis. 100 Units.

The course will introduce the basic theory and applications for analyzing multidimensional data. Topics include multivariate distributions, Gaussian models, multivariate statistical inferences and applications, classifications, cluster analysis, and dimension reduction methods. Course content is subject to change in order to keep the contents up-to-date with new development in multivariate statistical techniques. The course is offered in alternate years by the Statistics Department (S13, S15, ...) and the Booth Business School (S12, S14, ...). When the course is offered by the Booth school, please visit the Booth portal and search via the course search tool http://boothportal.chicagobooth.edu/portal/server.pt/community/course_search for the most up to date information.

Terms Offered: Spring

Prerequisite(s): STAT 24400-24500 or BUSF 41901/STAT 32400 or BUSF 41902/STAT 32500 or equivalent courses

Equivalent Course(s): BUSF 41912

STAT 32940. Data Analysis for Finance and Statistics. 100 Units.

This course is about using matrix computations to infer useful information from observed data. One may view it as an "applied" version of Stat 30900 although it is not necessary to have taken Stat 30900; the only prerequisite for this course is basic linear algebra. The data analytic tools that we will study will go beyond linear and multiple regression and often fall under the heading of "Multivariate Analysis" in Statistics. These include factor analysis, correspondence analysis, principal components analysis, multidimensional scaling, linear discriminant analysis, canonical correlation analysis, cluster analysis, etc. Understanding these techniques require some facility with matrices in addition to some basic statistics, both of which the student will acquire during the course. *Program elective*. Instructor(s): L. Lim Terms Offered: Autumn Equivalent Course(s): FINM 33180

STAT 32950. Multivariate Statistical Analysis: Applications and Techniques. 100 Units.

This course focuses on applications and techniques for analysis of multivariate and high dimensional data. Beginning subjects cover principal component analysis, factor model, canonical correlation, multi-dimensional scaling, discriminant analysis, clustering, and common techniques of dimension reduction. Further topics on statistical learning for high dimensional data and complex structures include penalized regression models (LASSO, ridge, elastic net), sparse PCA, independent component analysis, Gaussian mixture model, and Expectation-Maximization methods. Theoretical derivations will be presented with emphasis on motivations, applications, and hands-on data analysis.

Terms Offered: Winter

Prerequisite(s): Instructor Consent

STAT 33100. Sample Surveys. 100 Units.

This course covers random sampling methods; stratification, cluster sampling, and ratio estimation; and methods for dealing with nonresponse and partial response. Terms Offered: Autumn

Prerequisite(s): Consent of instructor

STAT 33211. Mediation, Moderation, and Spillover Effects. 100 Units.

This course is designed for graduate students and advanced undergraduate students from social sciences, statistics, public health science, public policy, and social services administration who will be or are currently involved in quantitative research. Questions about why a treatment works, for whom, under what conditions, and whether one individual's treatment could affect other individuals' outcomes are often key to the advancement of scientific knowledge. We will clarify the theoretical concepts of mediated effects, moderated effects, and spillover effects under the potential outcomes framework. The course introduces cuttingedge methodological approaches and contrasts them with conventional strategies including multiple regression, path analysis, and structural equation modeling. The course content is organized around application examples. The textbook "Causality in a Social World: Moderation, Mediation, and Spill-Over" (Hong, 2015) will be supplemented with other readings reflecting latest developments and controversies. Weekly labs will provide tutorials and hands-on experiences. All students are expected to contribute to the knowledge building in class through participation in presentations and discussions. Students are encouraged to form study groups, while the written assignments are to be finished and graded on an individual basis. Intermediate Statistics, Introduction to Causal Inference, and their equivalent are prerequisites.

Instructor(s): G. Hong Terms Offered: Spring

Prerequisite(s): Intermediate Statistics, Introduction to Causal Inference, and their equivalent

Note(s): CHDV Distribution, M*; M*

Equivalent Course(s): PSYC 32411, PBPL 29411, CCTS 32411, CHDV 32411

STAT 33500. Time-Series Analysis/Forecast. 100 Units.

Forecasting plays an important role in business planning and decision-making. This Ph.D.-level course discusses time series models that have been widely used in business and economic data analysis and forecasting. Both theory and methods of the models are discussed. Real examples are used throughout the course to illustrate applications. The topics covered include: (1) stationary and unit-root non-stationary processes; (2) linear dynamic models, including Autoregressive Moving Average models; (3) model building and data analysis; (4) prediction and forecasting evaluation; (5) asymptotic theory for estimation including unit-root theory; (6) models for time varying volatility; (7) models for time varying correlation including Dynamic Conditional Correlation and time varying factor models.; (9) state-space models and Kalman filter; and (10) models for high frequency data. Course description is subject to change. Please visit the Booth portal and search via the course search tool for the most up to date information: http:// boothportal.chicagobooth.edu/portal/server.pt/community/course_search/ Terms Offered: Winter

Prerequisite(s): BUSF 41901/STAT 32400 or instructor consent Equivalent Course(s): BUSF 41910

STAT 33560. Chaos and Predictability. 100 Units.

This course explores the connection between our models of the world and our observations of it. Theoretical questions of predictability as well as applied methods of forecasting are developed. By adopting a geometric approach to the analysis of dynamical systems, traditional linear analysis of time series is seen be a special case of the more general nonlinear approach. The analysis of time series both from chaotic systems and from nonlinear stochastic systems is used to exemplify the strengths, weaknesses and risks of applying linear intuitions in a nonlinear context. Techniques of forecast evaluation are considered and illustrated with examples from several fields including weather, finance and medicine. The student will develop a software toolkit for the analysis and prediction is considered both in mathematical systems and in real systems. A basic proficiency in a statistical computing (MATLAB, Mathematica, or R, for example) is needed, but no complex programming is required. Undergraduates with a solid background in calculus and one or more classes in statistics are welcome.

Terms Offered: Spring

Prerequisite(s): STAT 24500 or equivalent (can be taken concurrently)

STAT 33600. Time Dependent Data. 100 Units.

This course considers the modeling and analysis of data that are ordered in time. The main focus is on quantitative observations taken at evenly spaced intervals and includes both time-domain and spectral approaches.

Terms Offered: Winter

Prerequisite(s): STAT 24500 is required; alternatively STAT 22400 and exposure to multivariate calculus. Some previous exposure to Fourier series is helpful but not required.

Equivalent Course(s): STAT 26100

STAT 33610. Asymptotics for Time Series. 100 Units.

This course will present a systematic asymptotic theory for time series analysis. In particular, the class will discuss asymptotics for sample mean, sample variances, banded covariance matrices estimates, inference of trends, periodograms, spectral density estimates, quantile estimation, nonparametric estimates, VaR and long-range dependent processes. Some asymptotic theory for non-stationary processes and functional linear models will also be presented.

Terms Offered: Autumn

Prerequisite(s): BUSF 30200 and STAT 31300 or consent of instructor Note(s): Not offered in 2014-15

STAT 33700. Multivariate Time Series Analysis. 100 Units.

This course investigates the dynamic relationships between variables. It starts with linear relationships between two variables, including distributed-lag models and detection of unidirectional dependence (Granger causality). Nonlinear and time-varying relationships are also discussed. Dynamic models discussed include vector autoregressive models, vector autoregressive moving-average models, co-integration and error-correction models, state-space models, dynamic factor models, and multivariate volatility models. The course also addresses impulse response function, structural specification, co-integration tests, least squares estimates, maximum likelihood estimates, structural changes, recursive estimation, and Markov Chain Monte Carlo estimation. Empirical data analysis is an integral part of the course. Students are expected to analyze many real data sets. The main software package used in the course is R, but students may use their own software if preferred.

Course description is subject to change. Please visit the Booth portal and search via the course search tool for the most up to date information: http://boothportal.chicagobooth.edu/portal/server.pt/community/course Terms Offered: Spring

Prerequisite(s): BUSF 41910/STAT 33500 Equivalent Course(s): BUSF 41914

STAT 33970. Statistics of High-Frequency Financial Data. 100 Units.

This course is an introduction to the econometric analysis of high-frequency financial data. This is where the stochastic models of quantitative finance meet the reality of how the process really evolves. The course is focused on the statistical theory of how to connect the two, but there will also be some data analysis. With some additional statistical background (which can be acquired after the course), the participants will be able to read articles in the area. The statistical theory is longitudinal, and it thus complements cross-sectional calibration methods (implied volatility, etc.). The course also discusses volatility clustering and market microstructure.

Instructor(s): P. Mykland Terms Offered: Winter

Prerequisite(s): STAT 39000/FINM 34500 (may be taken concurrently), also some statistics/econometrics background as in STAT 24400–24500, or FINM 33150 and FINM 33400, or equivalent, or consent of instructor. Equivalent Course(s): FINM 33170

STAT 34000. Gaussian Processes. 100 Units.

Gaussian processes are commonly used in statistical models for spatial and spatialtemporal processes and for computer model output. They are also frequently used as building blocks for non-Gaussian process models. This course will begin with an overview of the theory for Gaussian processes, with a focus on stationary processes and their associated spectral properties and how these relate to problems of spatial interpolation. With this foundation, we will proceed to discuss a variety of approaches to developing useful classes of Gaussian process models, with a focus on spatial-temporal processes. Computational problems and possible solutions for fitting Gaussian process models to large, irregularly observed datasets will form the last part of the class. Applications to environmental monitoring data, computer model output and possibly other areas will be considered.

This class is aimed at PhD students in Statistics, but may be accessible to others with a strong background in Statistics (say, STAT 24500 and 34300), some background in analysis and previous exposure to stochastic processes.

Terms Offered: Spring

Prerequisite(s): STAT 24500 and STAT 34300, or some background in analysis and previous exposure to stochastic processes

STAT 34300. Applied Linear Statistical Methods. 100 Units.

This course introduces the theory, methods, and applications of fitting and interpreting multiple regression models. Topics include the examination of residuals, the transformation of data, strategies and criteria for the selection of a regression equation, nonlinear models, biases due to excluded variables and measurement error, and the use and interpretation of computer package regression programs. The theoretical basis of the methods, the relation to linear algebra, and the effects of violations of assumptions are studied. Techniques discussed are illustrated by examples involving both physical and social sciences data. Terms Offered: Autumn

Prerequisite(s): STAT 24500 or equivalent, and linear algebra (STAT 24300 or equivalent)

STAT 34500. Design and Analysis of Experiments. 100 Units.

This course introduces the methodology and application of linear models in experimental design. We emphasize the basic principles of experimental design (e.g., blocking, randomization, incomplete layouts). Many of the standard designs (e.g., fractional factorial, incomplete block, split unit designs) are studied within this context. The analysis of these experiments is developed as well, with particular emphasis on the role of fixed and random effects.

Terms Offered: Winter

Prerequisite(s): STAT 34300

STAT 34700. Generalized Linear Models. 100 Units.

This applied course covers factors, variates, contrasts, and interactions; exponentialfamily models (i.e., variance function); definition of a generalized linear model (i.e., link functions); specific examples of GLMs; logistic and probit regression; cumulative logistic models; log-linear models and contingency tables; inverse linear models; Quasi-likelihood and least squares; estimating functions; and partially linear models.

Terms Offered: Spring

Prerequisite(s): STAT 34300 or consent of instructor

STAT 35000. Principles of Epidemiology. 100 Units.

This course does not meet requirements for the biological sciences major. Epidemiology is the study of the distribution and determinants of health and disease in human populations. This course introduces the basic principles of epidemiologic study design, analysis, and interpretation through lectures, assignments, and critical appraisal of both classic and contemporary research articles.

Instructor(s): B. Lahey Terms Offered: Autumn

Prerequisite(s): Introductory statistics recommended or Consent of Instructor Equivalent Course(s): PBHS 30900,BIOS 29318,ENST 27400,PPHA 36400

STAT 35201. Introduction to Clinical Trials. 100 Units.

This course will review major components of clinical trial conduct, including the formulation of clinical hypotheses and study endpoints, trial design, development of the research protocol, trial progress monitoring, analysis, and the summary and reporting of results. Other aspects of clinical trials to be discussed include ethical and regulatory issues in human subjects research, data quality control, meta-analytic overviews and consensus in treatment strategy resulting from clinical trials, and the broader impact of clinical trials on public health.

Instructor(s): TBD Terms Offered: TBD. Course not offered every year. Prerequisite(s): PBHS 32100 or STAT 22000; Introductory Statistics or Consent of Instructor

Equivalent Course(s): CCTS 32901, PBHS 32901

STAT 35400. Gene Regulation. 100 Units.

This course covers the fundamental theory of gene expression in prokaryotes and eukaryotes through lectures and readings in the primary literature. Natural and synthetic genetic systems arising in the context of *E. coli* physiology and Drosophila development will be used to illustrate fundamental biological problems together with the computational and theoretical tools required for their solution. These tools include large-scale optimization, image processing, ordinary and partial differential equations, the chemical Langevin and Fokker-Planck equations, and the chemical master equation. A central theme of the class is the art of identifying biological problems which require theoretical analysis and choosing the correct mathematical framework with which to solve the problem.

Terms Offered: Spring

Prerequisite(s): Consent of instructor Equivalent Course(s): ECEV 35400,MGCB 35401

STAT 35410. Genomic Evolution. 100 Units.

Canalization, a unifying biological principle first enunciated by Conrad Waddington in 1942, is an idea that has had tremendous intellectual influence on developmental biology, evolutionary biology, and mathematics. In this course we will explore canalization in all three contexts through extensive reading and discussion of both the classic and modern primary literature. We intend this exploration to raise new research problems which can be evaluated for further understanding. We encourage participants to present new ideas in this area for comment and discussion. Instructor(s): M. Long Terms Offered: Autumn. Not Offered 2015-2016 Note(s): Not offered in 2015-16 Equivalent Course(s): ECEV 35901

STAT 35500. Statistical Genetics. 100 Units.

This is an advanced course in statistical genetics. We will take an in-depth look at statistical methods development in recent genetics literature, with the aim of achieving a deep understanding of the modeling approaches and assumptions, statistical principles, mathematical theorems, computational issues, and data analytic approaches underlying the methods. The goal is for the student to be able to ultimately apply the principles learned to future statistical methods development for genetic data analysis. This is a discussion course and student presentations will be required. Topics depend on the interests of the participants and will be based on recent published literature. Topics may include, but are not limited to, statistical problems in genetic association mapping, population genetics, integration of different types of genetic data, and genetic models for complex traits. The course material changes every year, and the course may be repeated for credit. Terms Offered: Spring

Prerequisite(s): Either HGEN 47100 or both STAT 24400 and 24500. Students without these prerequisites may enroll on a P/NP basis with consent of the instructor.

STAT 35600. Applied Survival Analysis. 100 Units.

This course will provide an introduction to the principles and methods for the analysis of time-to-event data. This type of data occurs extensively in both observational and experimental biomedical and public health studies, as well as in industrial applications. While some theoretical statistical detail is given (at the level appropriate for a Master's student in statistics), the primary focus will be on data analysis. Problems will be motivated from an epidemiologic and clinical perspective, concentrating on the analysis of cohort data and time-to-event data from controlled clinical trials.

Instructor(s): TBD Terms Offered: TBD

Prerequisite(s): PBHS 32100 or Stat 22000; introductory statistics or consent of instructor

Note(s): Course not offered every year.

Equivalent Course(s): PBHS 33100

STAT 35700. Epidemiologic Methods. 100 Units.

This course expands on the material presented in "Principles of Epidemiology," further exploring issues in the conduct of epidemiologic studies. The student will learn the application of both stratified and multivariate methods to the analysis of epidemiologic data. The final project will be to write the "specific aims" and "methods" sections of a research proposal on a topic of the student's choice. Instructor(s): B. Chiu Terms Offered: Winter

Prerequisite(s): PBHS 30700 or PBHS 30900 AND PBHS 32400 or applied statistics courses through multivariate regression.

Equivalent Course(s): PBHS 31001

STAT 35800. Statistical Applications. 100 Units.

This course provides a transition between statistical theory and practice. The course will cover statistical applications in medicine, mental health, environmental science, analytical chemistry, and public policy.

,Lectures are oriented around specific examples from a variety of content areas. Opportunities for the class to work on interesting applied problems presented by U of C faculty will be provided. Although an overview

, of relevant statistical theory will be presented, emphasis is on the development of statistical solutions to interesting applied problems.

Instructor(s): R. Gibbons Terms Offered: Spring

Prerequisite(s): PBHS 32700/STAT 22700 or STAT 34700 or consent of instructor. Equivalent Course(s): PBHS 33500

STAT 36700. History of Statistics. 100 Units.

This course covers topics in the history of statistics, from the eleventh century to the middle of the twentieth century. We focus on the period from 1650 to 1950, with an emphasis on the mathematical developments in the theory of probability and how they came to be used in the sciences. Our goals are both to quantify uncertainty in observational data and to develop a conceptual framework for scientific theories. This course includes broad views of the development of the subject and closer looks at specific people and investigations, including reanalyses of historical data.

Instructor(s): S. Stigler Terms Offered: Spring

Prerequisite(s): Prior statistics course

Equivalent Course(s): STAT 26700, CHSS 32900, HIPS 25600

STAT 36900. Applied Longitudinal Data Analysis. 100 Units.

Longitudinal data consist of multiple measures over time on a sample of individuals. This type of data occurs extensively in both observational and experimental biomedical and public health studies, as well as in studies in sociology and applied economics. This course will provide an introduction to the principles and methods for the analysis of longitudinal data. Whereas some supporting statistical theory will be given, emphasis will be on data analysis and interpretation of models for longitudinal data. Problems will be motivated by applications in epidemiology, clinical medicine, health services research, and disease natural history studies.

Instructor(s): D. Hedeker Terms Offered: Autumn

Prerequisite(s): PBHS 32400/STAT 22400 or equivalent, and PBHS 32600/STAT 22600 or PBHS 32700/STAT 22700 or equivalent; or consent of instructor. Equivalent Course(s): PBHS 33300

STAT 37400. Nonparametric Inference. 100 Units.

Nonparametric inference is about developing statistical methods and models that make weak assumptions. A typical nonparametric approach estimates a nonlinear function from an infinite dimensional space rather than a linear model from a finite dimensional space. This course gives an introduction to nonparametric inference, with a focus on density estimation, regression, confidence sets, orthogonal functions, random processes, and kernels. The course treats nonparametric methodology and its use, together with theory that explains the statistical properties of the methods.

Terms Offered: Autumn

Prerequisite(s): STAT 24400 is required; alternatively STAT 22400 and exposure to multivariate calculus and linear algebra.

Equivalent Course(s): STAT 27400

STAT 37500. Pattern Recognition. 100 Units.

This course treats statistical models and methods for pattern recognition and machine learning. Topics include a review of the multivariate normal distribution, graphical models, computational methods for inference in graphical models in particular the EM algorithm for mixture models and HMM's, and the sum-product algorithm. Linear discriminative analysis and other discriminative methods, such as decision trees and SVM's are covered as well.

Terms Offered: Spring

Prerequisite(s): Linear algebra at the level of STAT 24300. Knowledge of probability and statistical estimation techniques (e.g., maximum likelihood and linear regression) at the level of STAT 24500

Equivalent Course(s): STAT 24610

STAT 37601. Machine Learning and Large-Scale Data Analysis. 100 Units.

This course is an introduction to machine learning and the analysis of large data sets using distributed computation and storage infrastructure. Basic machine learning methodology and relevant statistical theory will be presented in lectures. Homework exercises will give students hands-on experience with the methods on different types of data. Methods include algorithms for clustering, binary classification, and hierarchical Bayesian modeling. Data types include images, archives of scientific articles, online ad clickthrough logs, and public records of the City of Chicago. Programming will be based on Python and R, but previous exposure to these languages is not assumed.

Instructor(s): J. Lafferty Terms Offered: Spring

Prerequisite(s): (STAT 22000 or STAT 23400) and (CMSC 15400 or CMSC 12200), or consent of the instructor

Equivalent Course(s): CMSC 25025

STAT 37710. Machine Learning. 100 Units.

This course provides hands-on experience with a range of contemporary machine learning algorithms, as well as an introduction to the theoretical aspects of the subject. Topics covered include: the PAC framework, elements of computational learning theory, the VC dimension, boosting, Bayesian learning, graphical models, clustering, dimensionality reduction, linear classifiers, kernel methods including SVMs, and an introduction to statistical learning theory.

Terms Offered: Spring

Prerequisite(s): Consent of instructor

Equivalent Course(s): CMSC 35400

STAT 37750. Compressed Sensing. 100 Units.

The field of compressed sensing seeks to recover a high-dimensional signal from a relatively small number of observations. While impossible in general, in many settings this problem can be solved if x is sparse. Compressed sensing problems arise in countless applications, including image reconstruction, MRI, genetics, and many others. The course will also explore related questions such as different types of signal structure, and low-rank matrix completion (with applications to video denoising and to recommendation systems). This course will cover the theory and algorithms behind compressed sensing, as well as several applications. Students will apply these methods to real data sets as part of their homework. Prerequisites: familiar with linear algebra and probability; some programming experience is helpful but not required (the course will primarily use R or MATLAB). Terms Offered: Spring

Prerequisite(s): STAT 30900. It is helpful but not required to have taken STAT 37601/37710/37790 or equivalent.

Note(s): Not offered in 2014-15

STAT 37790. Topics in Statistical Machine Learning. 100 Units.

"Topics in Statistical Machine Learning" is a second graduate level course in machine learning, assuming students have had previous exposure to machine learning and statistical theory. The emphasis of the course is on statistical methodology, learning theory, and algorithms for large-scale, high dimensional data. The selection of topics is influenced by recent research results, and students can take the course in more than one quarter.

Terms Offered: Autumn

Prerequisite(s): STAT 37710/CMSC 35400 or consent of instructor

STAT 37810. Statistical Computing A. 050 Units.

This course is an introduction to statistical programming in R. Students will learn how to design, write, debug and test functions by implementing several famous algorithms in statistics such as Gibbs Sampling and Expectation Maximization. A basic familiarity with R is needed, but no prior programming experience is required. The course will also introduce students to the use of version control with Git and consider the differences and similarities between R and Python. Prerequisite(s): Instructor Consent.

STAT 37820. Statistical Computing B. 050 Units.

This course concerns statistical computing related to analysis of large data sets. Topics include LASSO and penalized regression models, discrimination and clustering, classification trees, and random forest. Basic large data techniques are an integral part of the course, such as interactive data acquisition from large database, model building, choice of analytical and computational methods, and parallel computing. Simple SQL and Python will be used for data accessing and variable extraction. The main computing software will be R.

Prerequisite(s): Instructor Consent. STAT 37810 recommended.

STAT 37900. Computer Vision. 100 Units.

This course covers deformable models for detecting objects in images. Topics include one-dimensional models to identify object contours and boundaries; two-dimensional models for image matching; and sparse models for efficient detection of objects in complex scenes. Mathematical tools needed to define the models and associated algorithms are developed. Applications include detecting contours in medical images, matching brains, and detecting faces in images. Neural network implementations of some of the algorithms are presented, and connections to the functions of the biological visual system are discussed.

Instructor(s): Y. Amit Terms Offered: Spring

Equivalent Course(s): CMSC 25050, CMSC 35500

STAT 38100. Measure-Theoretic Probability I. 100 Units.

This course provides a detailed, rigorous treatment of probability from the point of view of measure theory, as well as existence theorems, integration and expected values, characteristic functions, moment problems, limit laws, Radon-Nikodym derivatives, and conditional probabilities.

Terms Offered: Winter

Prerequisite(s): STAT 30400 or consent of instructor

STAT 38300. Measure-Theoretic Probability III. 100 Units.

This course continues material covered in STAT 38100, with topics that include Lp spaces, Radon-Nikodym theorem, conditional expectation, and martingale theory. Terms Offered: Spring

Prerequisite(s): STAT 38100

STAT 38500. Brownian Motion and Stochastic Calculus. 100 Units.

A rigorous introduction to Brownian motion and the stochastic integral. Terms Offered: Autumn

Prerequisite(s): STAT 38300 or MATH 31200, or permission of the instructor. Equivalent Course(s): MATH 38509

STAT 38510. Brownian Motion and Stochastic Caluculus. 100 Units.

A rigorous introduction to Brownian motion and the stochastic integral. Terms Offered: Autumn

Prerequisite(s): STAT 38300 or MATH 31200or permission of instructor. Equivalent Course(s): MATH 38511

STAT 38600. Topics in Stochastic Processes. 100 Units.

This will be a course in "high-dimensional" probability aimed at introducing some of the mathematics of empirical processes, concentration, Gaussian random fields, large random matrices, and compressed sensing.

Prerequisite(s): Basic probability and analysis, discrete-time martingales (STAT 30400 and 31300)

Note(s): Not offered in 2014-15

STAT 38620. Social Networks, Probability, Learning, and Game Theory. 100 Units.

This is a research oriented topic course aimed at graduate students. We will first cover some basics of social networks including structure and analysis of such networks and models that abstract their basic properties. Then we will focus on some recent research on a few selected topics/models, and aim to discuss one representative example in each of the following topics: (1) Probabilistic models and statistical learning based on empirical observation; (2) Stochastic processes (such as spread of information) and game-theoretical behavior on social networks as well as corresponding optimization problems; (3) Connections with social choices relating to collective decision making; (4) Some algorithmic aspects of networks. The students should have solid knowledge in at least two of the following areas: (1) Probability theory (either 31200-31300 or 38100-38300). (2) Statistics (either 24400-24500-24610 or 30400-301100-30210). (3) Basic knowledge in game theory and algorithms. In addition, students should be comfortable with undergraduate linear algebra as well as elementary combinatorics.

Terms Offered: Winter

Prerequisite(s): Consent of instructor. Students need to be familiar with two out of the following three: probability (no need for measure theory)/statistics/game theory (at intro level).

Note(s): Not offered in 2014-15

STAT 38650. Random Matrices and Related Topics. 100 Units.

This course will be an introduction to the spectral theory of large random matrices and related topics in probability. The first part of the course will be devoted to \bulk spectral properties of Wigner and sample covariance matrices (that is, the empirical distribution of their eigenvalues), leading to the Wigner semi-circle law and the Marchenko-Pastur theorem. The second part will focus on the Gaussian orthogonal and unitary ensembles and on the distribution theory of the top eigenvalue (Tracy-Widom theory). This will lead to the study of orthogonal polynomials, Fredholm determinants, determinantal point processes, and Toeplitz matrices. Relationships to various combinatorial problems in probability, including asymmetric exclusion processes, last-passage percolation, and various stochastic models of growth and deposition, will be studied. Several other related topics may be discussed, depending on the interests and backgrounds of the audience and the instructor. Note(s): Not offered in 2014-15

STAT 38660. Random Planar Geometry. 100 Units.

This is a research topic course on certain aspects of random planar geometry. The two central models to be discussed are Liouville quantum gravity which arises from exponentiating a two-dimensional Gaussian free field, as well as uniform infinite planar triangulation/quadrangulation. We will mainly focus on the discrete perspectives of these models, but will also at times discuss the connections to the continuous counterparts. We will concentrate on the metric properties of these random surfaces (including geodesic distances and the electric resistances), as well as their connections to the random motion on these random surfaces.

Terms Offered: Autumn

Prerequisite(s): Recommended 38100/38300 sequence, or experience with measuretheoretical probability.

STAT 39000. Stochastic Calculus. 100 Units.

The course starts with a quick introduction to martingales in discrete time, and then Brownian motion and the Ito integral are defined carefully. The main tools of stochastic calculus (Ito's formula, Feynman-Kac formula, Girsanov theorem, etc.) are developed. The treatment includes discussions of simulation and the relationship with partial differential equations. Some applications are given to option pricing, but much more on this is done in other courses. The course ends with an introduction to jump process (Levy processes) and the corresponding integration theory. *Program requirement*.

Instructor(s): G. Lawler Terms Offered: Winter Equivalent Course(s): FINM 34500

STAT 39700. Preparing to Teach Statistics. 100 Units.

This course is designed to help graduate students prepare to teach introductory statistics to undergraduates at the University of Chicago and elsewhere. Students will explore best practices for teaching methods through reading and reflection, classroom observation, teaching practice, and discussion. Topics include types of first courses, recommended course content, goals for student learning, syllabus design, implementing a data-oriented course, and classroom techniques for lecturing, blackboard use, and technology. Students will be introduced to strategies for teaching methods to promote learning, developing assessments of student learning, providing feedback to students, and supervising teaching assistants and graders. Students will develop a familiarity with the available journals, conferences, and online teaching resources provided by the statistics education community. Terms Offered: Autumn

Prerequisite(s): Only open to graduate students in the Ph.D. Program in Statistics

STAT 39800. Field Research. Variable Units.

This Summer Quarter course offers graduate students in the Statistics Department the opportunity to apply statistics knowledge that they have acquired to a real industry or business situation. During the summer quarter in which they are registered for the course, students complete a paid or unpaid internship of at least six weeks. Prior to the start of the work experience, students secure faculty consent for an independent study project to be completed during the internship quarter. Terms Offered: Summer only

Prerequisite(s): Consent of instructor and faculty advisor

STAT 39900. Master's Seminar. Variable Units.

This course is for Statistics Master's students to carry out directed reading or guided work on topics related to their Master's papers.

STAT 40100. Reading/Research: Statistics. Variable Units.

This course allows doctoral students to receive credit for advanced work related to their dissertation topics. Students register for one of the listed faculty sections with prior consent from the respective instructor. Students may work with faculty from other departments; however, they still must obtain permission from and register with one of the listed faculty members in the Department of Statistics.

Terms Offered: All quarters

Prerequisite(s): Consent of instructor

STAT 41500-41600. High-Dimensional Statistics I-II.

These courses treat statistical problems where the number of variables is very large. Classical statistical methods and theory often fail in such settings. Modern research has begun to develop techniques that can be effective in high dimensions, and that can be understood theoretically. The first quarter introduces a range of statistical frameworks for finding low-dimensional structure in high-dimensional data, such as sparsity in regression, sparse graphical models, or low-rank structure. This quarter emphasizes methods for estimation and inference developed in these areas, along with theoretical analysis of their properties. The second quarter emphasizes foundational aspects of high-dimensional statistics, focusing on principles that are used across a range of problems and are likely to be relevant for methods developed in the future. Topics include "the curse of dimensionality," elements of random matrix theory, properties of high-dimensional covariance matrices, concentration of measure, dimensionality reduction techniques, and handling mis-specified models. The courses may be taken separately.

STAT 41500. High-Dimensional Statistics I. 100 Units.

Terms Offered: Autumn Prerequisite(s): STAT 30100 and STAT 30400 and STAT 31015, or consent of instructor

STAT 41600. High-Dimensional Statistics II. 100 Units.

Terms Offered: Spring Prerequisite(s): STAT 30100 or STAT 30400 or STAT 31015, or consent of instructor

STAT 41600. High-Dimensional Statistics II. 100 Units.

Terms Offered: Spring Prerequisite(s): STAT 30100 or STAT 30400 or STAT 31015, or consent of instructor

STAT 42510. Theoretical Neuroscience: Single Neuron Dynamics and Computation. 100 Units.

This course is the first part of a three-quarter sequence in theoretical/computational neuroscience. It will focus on mathematical models of single neurons. Topics will include: basic biophysical properties of neurons; Hodgkin-Huxley model for action potential generation; 2D models, phase-plane analysis and bifurcations leading to action potential generation; integrate-and-fire-type models; noise; characterization of neuronal activity with stochastic inputs; spatially extended models; models of synaptic currents and synaptic plasticity; unsupervised learning; supervised learning; reinforcement learning.

Terms Offered: Autumn

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory

Equivalent Course(s): CPNS 35510

STAT 42520. Theoretical Neuroscience: Network Dynamics and Computation. 100 Units.

This course is the second part of a three-quarter sequence in theoretical/ computational neuroscience. It will focus on mathematical models of networks of neurons. Topics will include: firing rate models for populations of neurons; spatially extended firing rate models; models of visual cortex; models of brain networks at different levels; characterization of properties of specific brain networks; models of networks of binary neurons, mean rates, correlations, reductions to rate models; learning in networks of binary neurons, associative memory models; models of networks of spiking neurons: asynchronous vs synchronous states; oscillations in networks of spiking neurons; learning in networks of spiking neurons; models of working memory; models of decision-making.

Terms Offered: Winter

Prerequisite(s): Prior exposure to differential equations, linear algebra, probability theory, STAT 42510 or instructor consent.

Equivalent Course(s): CPNS 35520

STAT 42600. Theoretical Neuroscience: Statistics and Information Theory. 100 Units.

This course is the third part of a three-quarter sequence in theoretical/computational neuroscience. It begins with the spike sorting problem, used as an introduction to inference and statistical methods in data analysis. We then cover the two main sections of the course: I) Encoding and II) Decoding in single neurons and populations. The encoding section will cover receptive field analysis (STA, STC and non-linear methods such as maximally informative dimensions) and will explore linear-nonlinear-Poisson models of neural encoding as well as generalized linear models and newer population coding models. The decoding section will cover basic methods for inferring the stimulus from spike train data, including both linear and correlational approaches to population decoding. The course will use examples from real data (where appropriate) in the problem sets which students will solve using MATLAB.

Instructor(s): S. Palmer Terms Offered: Spring

Prerequisite(s): Prior exposure to basic calculus and probability theory, CPNS 35500 or instructor consent.

Equivalent Course(s): CPNS 35600, ORGB 42600

STAT 45800. Workshop on Collaborative Research in Statistics, Computing, and Science. 100 Units.

This course aims to bring together researchers with expertise in statistics, computation, and basic sciences, to work together to produce a solution to a particular problem. The problem we will focus on is the following: how can we improve the way that statistical comparisons are performed? No knowledge of this problem is assumed: it will be introduced in full at the start of the class, together with an outline for an initial proposed approach to addressing the problem. In brief the motivation is as follows:

Many new statistical methods are published without any software implementation, and without any comparisons with existing methods. Even when comparisons are made, usually the comparisons are performed by a single research group who has developed one of the methods, raising the concern that the comparison may unfairly favor this method. Indeed, this problem is almost inevitable, even if the authors are extremely fastidious: any research group will have different levels of expertise with different methods, and tend to be more effective in applying their own method. Indeed, getting a method to work well for a particular problem may in itself be a research project. On top of this, performing these kinds of comparisons is incredibly time-consuming: at a minimum one has to familiarize oneself with a range of software products, their input/output requirements, and their various runtime options; create an infrastructure for running them; and write scripts to compare their results. And in fast-moving fields new methods or software updates appear so frequently that comparisons are out of data before they even appear. In summary, the current system results in a large amount of wasted effort, with multiple groups performing redundant and sub-optimal comparisons.

Our goal will be to design and create public internet repositories which will allow methods to be compared with one another in a reproducible and easily-extensible way. The repositories will provide "push-button" reproducibility of all comparisons: running a single script will run all the methods in the repository on all the data sets, and produce tables and graphs comparing performances. It will be simple to add code for a new method, or a new data set, and re-run the comparison script. As a starting point we will consider the problem of large-scale (sparse) regression, and create a repository that can be used to compare methods such as LASSO, Elastic Net, Bayesian Variable selection regression, and other competing methods. Other problems will be selected depending on the interests of the audience.

We will work together to implement, test, document and improve the proposed approach. It is expected that each student will bring one or more relevant skills to the table (see list below), as well as an enthusiasm to learn new relevant skills. An ambitious goal is that by the end of the class we will have functional and welldocumented software implementing methods that work for the problem in hand. A less ambitious goal is that we will have learned something about the benefits and challenges of working together with people with different skill sets, as well as being exposed to various methods for making research better (eg version control via git and reproducible programming practices).

Questions to the instructor: Matthew Stephens, mstephens@uchicago.edu Here's a nonexhaustive list of relevant skills. It is expected that each student will have expertise in one or more of these, and enthusiasm to learn others (from each other!).

Statistics: Penalized Regression, LASSO, Elastic Net, Hierarchical models, Bayesian methods

THE DIVISION OF THE SOCIAL SCIENCES

Dean

- David Nirenberg Deputy Dean and Master of the Collegiate Division
- James Sparrow Dean of Students
- Patrick Hall Associate Dean of Students
- Kelly Therese Pollock Assistant Dean of Students
- Will Gossin-Wilson

The Division of the Social Sciences includes the departments, committees and programs which are engaged particularly in the study of human beings in social and temporal contexts; the origins, development, and structure of institutions and ideas, and the relationships between individuals and among groups of individuals. Research and instruction, which are strongly interdisciplinary, focus on interpreting the complexity of human experience through time and explore the interactions between diverse peoples and the world in which they live.

The division welcomes as students potential researchers, scholars, and teachers, as well as those who seek in the social sciences the enrichment of their cultural preparation for the appreciation of life. The division awards the degrees of Master of Arts and Doctor of Philosophy. The division also cooperates in the undergraduate programs leading to the degree of Bachelor of Arts awarded by the College. Students seeking the Bachelor of Arts degree should consult the College's publication, *Courses and Programs of Study*.

Programs leading to the Ph.D. are offered by the Departments of Anthropology, Comparative Human Development, Economics, History, Political Science, Psychology, and Sociology, as well as the John U. Nef Committee on Social Thought, and also, the Committee on the Conceptual and Historical Studies of Science. Programs leading to the M.A. are offered by the Committee on International Relations, the Center for Latin American and Caribbean Studies, the Center for Middle Eastern Studies, and the Master of Arts Program in the Social Sciences (MAPSS).

Admission to the Division

The Division of the Social Sciences considers for admission to its graduate programs students who have a minimum of a bachelor's degree from an accredited college, or equivalent training. Students apply for admission to the division through the Office of the Dean of Students in the Division of the Social Sciences; applications are subsequently evaluated by the faculties of the various programs. Applications can be found at https://socialsciences.uchicago.edu/admissions/apply. Questions should be directed to admissions@ssd.uchicago.edu.

Degrees

MASTER OF ARTS

The degree is awarded for competence in a field of study, not solely for satisfactory completion of a set number of courses.

The general requirements for the master's degree are as follows:

- 1. In programs that recommend only the awarding of the master's degree, at least nine courses and three quarters of residence in the division. In departments and committees that recommend the awarding of the Ph.D. degree, at least three full time quarters (or their part time equivalent) of Scholastic Residence.
- 2. Completion of the program of study and other requirements prescribed by the student's department or committee.
- 3. In almost all departments and committees, presentation of an acceptable master's research paper or thesis.
- 4. In certain departments and committees, satisfactory performance on a final comprehensive examination.
- 5. Any additional requirements set by the separate departments or committees.

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is awarded for mastery of subject matter and demonstration of research capacity, not solely for completion of a set number of requirements.

The general requirements for the Doctor of Philosophy degree are:

1. Residence requirement and program requirements. Students in all Ph.D. degree programs must be registered in accordance with the University Doctoral Residence System.

Students must complete the requirements set by their particular academic programs (including courses, seminars, research work, and examinations). These requirements vary from program to program within the division.

Portions of the program requirements may sometimes be satisfied on the basis of equivalent work done at other institutions or in other units of the University. The student's department or committee determines whether previously earned academic credit and degrees will be accepted as partial fulfillment of program requirements.

- 2. Admission to candidacy at least eight months before the date the degree is to be conferred. The student is admitted to candidacy by the dean of students upon the recommendation of the student's department or committee after completion of the following requirements:
 - a. Completion of the work required for a master's degree even if the formal M.A. degree is not taken.

- b. Successful performance on the departmental preliminary examination(s), if required. Ordinarily, this is taken after the completion of the first year of work.
- c. Approval by the department or committee of a dissertation proposal and a program of research.
- d. Satisfactory completion of any additional requirements set by the separate departments or committees.
- 3. Doctoral dissertation. The candidate is expected to submit to the department or committee an acceptable doctoral dissertation which makes an original contribution to knowledge within the field of inquiry. This step is necessary before the final oral examination is scheduled.
- 4. The final oral examination and defense of the dissertation.



MASTER OF ARTS PROGRAM IN THE SOCIAL SCIENCES

Executive Committee

- Ralph A. Austen (Emeritus), History
- Dain Borges, History
- Elisabeth Clemens, Sociology
- Michael P. Conzen, Geographical Studies
- Chad Cyrenne (Ex officio), Social Sciences
- Jane Dailey, History
- Judith B. Farquhar, Anthropology
- Raymond D. Fogelson (Emeritus), Anthropology, Comparative Human Development
- Morris Fred (Ex officio), Social Sciences
- Rachel Fulton-Brown, History
- Susan Goldin Meadow, Psychology, Comparative Human Development
- Ramón Gutiérrez, History
- Gary Herrigel, Political Science
- Alan L. Kolata, Anthropology
- John J. MacAloon (Ex officio), Social Sciences
- Martha K. McClintock, Psychology, Comparative Human Development
- Omar McRoberts, Sociology
- Howard Nusbaum, Psychology, Computational Neuroscience
- Nathan Tarcov, Political Science, Social Thought
- Richard P. Taub, Sociology, Comparative Human Development Faculty Director
- Dain Borges

Managing Director

Chad Cyrenne

Earl S. Johnson Instructors

- Samantha Fan, Psychology
- Elina Hartikainen, Anthropology Lecturers/Senior Lecturers
- Morrie Fred, Anthropology
- Darcy Heuring, History

GENERAL INFORMATION

The Master of Arts Program in the Social Sciences (MAPSS) is a one year program of graduate studies leading to the A.M. (Masters of Arts) degree. It offers

preeminent training for those aspiring to go on for funded Ph.D. study in the social sciences; each year 55-70 of our graduates do so successfully, including over 100 now in Ph.D. programs at UChicago. MAPSS also offers an exceptional program of career placement, for those who wish to take their social science training directly into a variety of professional fields. Each student works closely with the program directors, our senior academic staff, and an assigned preceptor, designing a customized curriculum, defining an area of scholarly research, and writing the M.A. thesis. A joint BA/MA and several dual degree options - in Booth and Harris - are also available.

The program is well suited for those who wish to explore a problem or area of interest from an interdisciplinary perspective, or to strengthen their training and achievement in a single discipline. Some MAPSS students acquire skills and knowledge for careers that make use of the social sciences; others prepare for further graduate work or professional training. The program also provides students an opportunity to explore social science fields where they have had little prior exposure, before making a major professional or educational commitment.

Graduates of the program also enter or return to a wide range of careers for which the A.M. is increasingly the desired degree. Such careers include consulting, teaching, counseling, publishing, health care, government service, public affairs, nonprofit administration, contract research, community organizing, or arts and museum curation. A national network of MAPSS alumni, in concert with our inhouse Director of Career Services, enthusiastically assists our students in identifying career paths and in securing competitive placements.

Preceptors

Students work closely with an assigned preceptor, an advanced doctoral student charged with assuring that each MAPSS student completes the program as efficiently and successfully as possible. Preceptors guide students in choosing courses, in defining their areas of academic specialization, and in the writing of their M.A. theses. Preceptors also assist students in finding lab placements or faculty sponsors for their M.A. research.

Program Requirements and Course Work

MAPSS students must complete our core course and eight other graduate classes, satisfy our methods requirement, and earn a minimum B as their cumulative grade. Students must also submit a faculty-approved M.A. thesis to earn the degree.

COURSE WORK

The nine courses must include the core course and meet the methods requirement, as described below. The core course, Perspectives in Social Science Analysis, provides a critical understanding of the major theoretical approaches used by professional social scientists. Because Perspectives is offered only in the Autumn Quarter, students may not begin the MAPSS program at any other time of year.

Students must fulfill a methods requirement. MAPSS offers courses in historical, ethnographic and interpretive methods. Dozens of other methods courses, from

statistics, network analysis, game theory, involved interviewing, comparative case study, rational choice, comparative historical analysis, experimental methods, organizational analysis, and survey research are offered across campus each year. In consultation with the program directors, students may also fulfill their requirement by demonstrating prior methodological training.

Courses are selected with the guidance of a MAPSS preceptor. Students register for three graduate courses per quarter, beginning in September, and complete their course requirements by the following June. Those seeking part-time alternatives should contact the program directors.

The Master's Paper

Students write the paper under the supervision of any Chicago faculty member they can interest in their research, and with the assistance of their preceptor. During the winter quarter, the preceptors organize and lead M.A. proposal workshops. Both the faculty sponsor and the preceptor provide a written evaluation and a letter grade once the final draft is submitted. A very large number of Chicago faculty participate year-by-year. In a typical cohort of 170 M.A. students, we often have as many as 120 different faculty sponsors.

Some recent M.A. paper titles will suggest the extraordinary range of research interests that we accommodate:

"Class or Group Identity? Rethinking the 1967-69 Ocean Hill-Brownsville School Strikes for Left Coalitional Politics"

"Poisoned Futures: Pesticide Usage and Agrarian Suicides in Vidarbha, India"

"Performing at Free Street: At-Risk Adolescents' Experiences in a Dramatic Arts Program"

"Bilateral Activation Tasks and Memory Retrieval: Effects of Aging"

"Deepening Democracy or Diverting Attention? Participatory Democracy and the Community Council Movement in Venezuela"

"Pricing the Atmosphere: Commensuration and the Case of the Chicago Climate Exchange"

"Democratic Leadership in Athens and its Role in Thucydides' Political Thought"

"The Socialization of Math Anxiety: The Relationship Between Early Math Talk and Later Math Attitudes"

"Capacity and the Duty to Intervene: Considerations on the Agency Problem of Humanitarian Intervention"

"Neural Activity Reflecting Affective Impact of Addressee and Emotional Words in Speech Perception"

"Intimate Segregation: Gentrification and the New Landscape of Race"

ADMISSION

To be eligible for review and admission, MAPSS applicants must meet the formal requirements of the Graduate Social Sciences Division. Submission of Graduate Record Examination (GRE) scores is required for all but the joint BA/MA candidates.

Applicants from non-English speaking countries must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) unless they have studied in an English language University and meet the Division's expectations for an exemption. Contact the SSD Dean of Students Office for more details, including information on the minimum expected TOEFL or IELTS scores.

MAPSS is designed to be completed in three consecutive academic quarters, with some students graduating in June and the majority graduating in August. All financial aid is merit-based, and the MAPSS program offers partial tuition scholarships on a highly competitive basis. Part-time study is possible, but such students are not eligible for financial aid.

HOW TO APPLY

MAPSS applications are administered through the SSD Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines, and department-specific information, is available online at: https://applyssd.uchicago.edu/apply/.

Questions pertaining to admission and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. If necessary, any application materials that cannot be uploaded can be mailed to:

The University of Chicago Division of the Social Sciences Admissions Office, Foster 107 1130 East 59th Street Chicago, IL 60637

For additional information about the program, contact E.G. Enbar, our Student Affairs Administrator, at 773-702-8312 or egenbar@uchicago.edu. Please also visit our website: http://mapss.uchicago.edu/



Master of Arts in Latin American Studies - Social Sciences

DIRECTOR

Brodwyn Fischer, Department of History and the College

STUDENT AFFAIRS COORDINATOR (PROGRAM ADVISOR)

Jamie Gentry

e-mail: jagentry@uchicago.edu phone: 773.702.8420

Please see the entry for Center for Latin American Studies (p. 56) for the list of the Latin American Studies faculty, also available at o (http://clas.uchicago.edu/page/people)n the CLAS website (http://maclas.uchicago.edu).

The Center for Latin American Studies administers a Master of Arts degree program in Latin American Studies. The Master of Arts program is a one year program of graduate studies that provides students with a thorough knowledge of the cultures, history, politics, and languages of the region. Students benefit from various resources that put the University of Chicago at the forefront of research and scholarship on Latin America, including world renowned faculty, top quality library resources, graduate workshops, and field research grant opportunities. Please see the Center for Latin American Studies entry in the Graduate Announcements for full details on Center resources. The Center also administers a Bachelor of Arts (major and minor) in Latin American Studies, and a BA to MA degree program (for details please see t (http://clas.uchicago.edu/page/degree-programs)he CLAS degree programs webpages (https://clas.uchicago.edu/page/degree-programs)).

The master's program attracts students who will benefit from interdisciplinary training in a highly individualized and flexible program. Each student works closely with faculty and the program advisor to design a customized curriculum, define an area of scholarly research, and write a master's paper. Students take advantage of the program's flexibility to advance their academic and/or career objectives before making a major professional or educational commitment. Some students approach a research interest from a multidisciplinary perspective. Others strengthen their training in a single discipline as it relates to Latin American Studies, or explore new fields.

Through the M.A. Proseminar, the required common core of the master's program, students gain a critical understanding of the major theoretical approaches, principal research methods, and current trends in Latin American Studies. During the autumn and winter quarters of the Proseminar students develop the proposal for their master's paper. The master's paper is meant to demonstrate the student's ability to apply formal training in Latin American Studies toward a specific and original

research problem. Primary Latin Americanist faculty at the University of Chicago serve as guest lecturers in the Proseminar to introduce students to their research.

The master's program provides students with the opportunity to develop and enhance skills and knowledge appropriate for careers related to Latin America or as preparation for further graduate work or professional training. Graduates of the program enter or return to careers for which the master's degree is increasingly an entry-level requirement, including secondary and higher education, government, business, and various cultural organizations and non-profit agencies. Others enter doctoral and professional degree programs with support and advice from Latin American Studies staff and faculty.

Admission to the Master's Program

Prospective students to the Master of Arts program in Latin American Studies may apply to the program through the Division of the Social Sciences or through the Division of the Humanities and will receive the degree from the division through which they have been admitted.

Information on How to Apply

The application process for admission and financial aid for all graduate programs in is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online: Division of the Humanities (http://humanities.uchicago.edu/students/ admissions/apply-now) Social Sciences Division (https://apply-ssd.uchicago.edu/apply)

Social Sciences Division (https://apply-ssd.uchicago.edu/apply)

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). Current minimum scores, etc., are provided with the application.

Students who wish to earn a Ph.D. degree should apply to a degree program in one of the graduate departments or committees in the Division of the Humanities or the Division of the Social Sciences. Foreign students should be advised that in the United States completion of a master's degree program is generally not a prerequisite to entering a Ph.D. program.

Program Requirements

Upon entering the program, students will work under academic direction of the CLAS Student Affairs Coordinator and the CLAS Postdoctoral Lecturer to develop a specific program of study, cultivate their research interests, and identify a faculty

advisor for their master's paper. The basic components of the master's program are described below.

LANGUAGES

A fundamental requirement of the program is proficiency in one of the spoken languages (other than English) of Latin America and the Caribbean. This requirement normally will be met in Spanish or Portuguese. However, substitution of an Amerindian language (such as Aymara, K'iche' Maya, or Yucatec Maya) or a language spoken in the Caribbean (such as Hatian Kreyol) is permissible with the approval of the program advisor. Petitions for substitution will be evaluated in light of the student's prior competency and curricular program and the adequacy of instructional resources in the substitute language. Advanced Proficiency Examinations will be administered to evaluate the entering student's language skills. Students usually meet the language requirement through the Advanced Proficiency Examination in Spanish or Portuguese.

Course Requirements

The standard course requirement is nine quarter courses, to be met as follows: the M.A. Proseminar in Latin American Studies; five courses in Latin American and Caribbean Studies; and three disciplinary elective courses. Students are expected to fulfill the language requirement through proficiency examination, and complete the master's program in three quarters of course work.

THE MA PROSEMINAR IN LATIN AMERICAN STUDIES

Through the MA Proseminar, the required common core of the master's program, students gain an introduction to the variety of disciplinary approaches, discourses, and foci that fall under the large rubric of Latin American Studies. The Proseminar introduces students to specialists in the field at the University of Chicago and to the research and investigation in which they are involved. Led by the Postdoctoral Lecturer in Latin American Studies, the Proseminar meets during the Autumn and Winter quarters.

5 Latin American Content Courses

Each quarter CLAS compiles a list of University-wide courses with Latin American content. Courses which focus on disciplinary, methodological or comparative topics (such as *International Relations Theory* or *Indigeneity*) may also be counted toward this requirement, provided the student completes a paper or other major project treating a Latin American theme. Students choose their content courses in consultation with the Program Advisor and the CLAS Postdoctoral Lecturer.

3 Disciplinary Elective Courses

These courses may have Latin American content, but they are often taken in order to gain a specific disciplinary grounding, to explore a particular theoretical framework, or to develop skills in a particular research methodology. Non-degree graduate level courses taken and completed at the University prior to admission to the master's program may be used in fulfillment of elective requirements, upon approval of the Program Advisor. Students choose their elective courses in consultation with the Program Advisor and the CLAS Postdoctoral Lecturer.

Credits towards the Master of Arts in Latin American Studies must be taken at the graduate level (courses designated as 30000 or above). However, certain lower level courses may be accepted, at the discretion of the program advisor. All course requirements can be met in three academic quarters.

COURSES

Courses pertinent to the Latin American area are offered through the individual departments and committees of the Divisions of the Social Sciences and the Humanities, and through the University's professional schools. Please refer to the listings in these Announcements and in the quarterly Time Schedules for specific offerings. Additionally, special courses are offered by senior visiting Latin Americanist faculty through the Center's Tinker Visiting Professorship. Each quarter the Center compiles a comprehensive list of Latin American and Caribbean courses to be offered at the University available on the CLAS webpage (http://clas.uchicago.edu/page/courses) or through classes.uchicago.edu.

The Master's Paper

In addition to the course requirements outlined above, every master's degree candidate is required to submit a master's paper. This paper is meant to demonstrate the student's ability to apply formal training in Latin American and Caribbean studies toward a specific research problem developed over the course of the program. The research and writing of this paper will be conducted under the guidance of a faculty advisor and the CLAS Postdoctoral Lecturer. A student may register for the course LACS 40300 Master's Paper Preparation, which is arranged on an individual basis with the faculty advisor for the project. This course, while optional, may be counted as one of the five required Latin American Studies core courses.

FOR ADDITIONAL INFORMATION ABOUT THE MASTER OF ARTS IN LATIN AMERICAN STUDIES PROGRAM, PLEASE SEE VISIT THE CLAS WEBSITE (HTTP://CLAS.UCHICAGO.EDU/PAGE/ABOUT) OR CALL CLAS STUDENT AFFAIRS COORDINATOR JAMIE GENTRY AT (773) 702-8420.

TENTATIVE COURSE OFFERINGS 2015-16

*For a continually updated list of course offerings, please visit the Center for Latin American Studies webpage (http://maclas.uchicago.edu/page/courses) or classes.uchicago.edu

LACS 16100. Introduction to Latin American Civilization I. 100 Units.

Autumn Quarter examines the origins of civilizations in Latin America with a focus on the political, social, and cultural features of the major pre-Columbian civilizations of the Maya, Inca, and Aztec. The quarter concludes with an analysis of the Spanish and Portuguese conquest, and the construction of colonial societies in Latin America.

Instructor(s): E. Kourí Terms Offered: Autumn Equivalent Course(s): ANTH 23101,CRES 16101,HIST 16101,HIST 36101,LACS 34600,SOSC 26100

LACS 16200. Introduction to Latin American Civilization II. 100 Units.

Winter Quarter addresses the evolution of colonial societies, the wars of independence, and the emergence of Latin American nation-states in the changing international context of the nineteenth century.

Instructor(s): M. Tenorio Terms Offered: Winter

Equivalent Course(s): ANTH 23102,CRES 16102,HIST 16102,HIST 36102,LACS 34700,SOSC 26200

LACS 16300. Introduction to Latin American Civilization III. 100 Units.

Spring Quarter focuses on the twentieth century, with special emphasis on the challenges of economic, political, and social development in the region. Instructor(s): B. Fischer Terms Offered: Spring

Equivalent Course(s): ANTH 23103,CRES 16103,HIST 16103,HIST 36103,LACS 34800,SOSC 26300

LACS 22501-22502-22503. Elementary Haitian Kreyol I-II-III.

This three-course sequence will provide students with an in-depth study of the Haitian Kreyol language in its modern context, with emphasis on developing students' proficiency in speaking and writing, and in listening and reading comprehension. The course will also provide necessary cultural and historical context.

LACS 22501. Elementary Haitian Kreyol I. 100 Units.

Instructor(s): Lecturer Terms Offered: Autumn 2015 Equivalent Course(s): LACS 32501

LACS 22502. Elementary Haitian Kreyol II. 100 Units. Instructor(s): Lecturer Terms Offered: Winter 2016 Equivalent Course(s): LACS 32502

LACS 22503. Elementary Haitian Kreyol III. 100 Units. Instructor(s): Lecturer Terms Offered: Spring 2015 (tentative) Equivalent Course(s): LACS 32503

LACS 22502-22503. Elementary Haitian Kreyol II-III.

LACS 22502. Elementary Haitian Kreyol II. 100 Units.

Instructor(s): Lecturer Terms Offered: Winter 2016 Equivalent Course(s): LACS 32502

LACS 22503. Elementary Haitian Kreyol III. 100 Units.

Instructor(s): Lecturer Terms Offered: Spring 2015 (tentative) Equivalent Course(s): LACS 32503

LACS 22503. Elementary Haitian Kreyol III. 100 Units.

Instructor(s): Lecturer Terms Offered: Spring 2015 (tentative) Equivalent Course(s): LACS 32503

LACS 24512-24513-24514. Intermediate Haitian Kreyol I-II-III.

This three-course sequence will enhance students' understanding of Haitian Kreyol with continued study of the language in its modern context, with emphasis on developing students' proficiency in speaking, writing, listening, and reading comprehension at an intermediate level.

LACS 24512. Intermediate Haitian Kreyol I. 100 Units. Terms Offered: Autumn Equivalent Course(s): LACS 34512

LACS 24513. Intermediate Haitian Kreyol II. 100 Units. Terms Offered: Winter Equivalent Course(s): LACS 34513

LACS 24514. Intermediate Haitian Kreyol III. 100 Units. Terms Offered: Spring Equivalent Course(s): LACS 34514

LACS 24513. Intermediate Haitian Kreyol II. 100 Units.

Terms Offered: Winter Equivalent Course(s): LACS 34513

LACS 24514. Intermediate Haitian Kreyol III. 100 Units.

Terms Offered: Spring Equivalent Course(s): LACS 34514

LACS 29700. Reading and Research in Latin American Studies. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Consent of faculty supervisor and program adviser Note(s): Students are required to submit the College Reading and Research Course Form. Typically taken for a quality grade. Equivalent Course(s): LACS 40100

LACS 29801. BA Colloquium. 100 Units.

This colloquium, which is led by the preceptor and BA adviser, assists students in formulating approaches to the BA essay and developing their research and writing skills, while providing a forum for group discussion and critiques. Graduating students present their BA essays in a public session of the colloquium during the Spring Quarter.

Terms Offered: Autumn, Winter, Spring

Note(s): Required of students who are majoring in Latin American Studies. Students must participate in all three quarters but register only in Autumn Quarter.

LACS 29900. Preparation of the BA Essay. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Consent of faculty supervisor and program adviser. Students are required to submit the College Reading and Research Course Form. Note(s): Typically taken for a quality grade.

LACS 40100. Reading and Research in Latin American Studies. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer

Prerequisite(s): Consent of faculty supervisor and program adviser Note(s): Students are required to submit the College Reading and Research Course Form. Typically taken for a quality grade. Equivalent Course(s): LACS 29700

LACS 40300. MA Paper Pre: Latin American Studies. 100 Units.

Terms Offered: Autumn, Winter, Spring, Summer Prerequisite(s): Instructor Consent required

LACS 40501. MA Proseminar. 100 Units.

Required course for the master's in Latin American Studies degree program. Students will gain an introduction to the variety of disciplinary approaches, discourses, and foci that fall under the large rubric of Latin American Studies. The proseminar introduces students to specialists in the field at the University o fChicago and to the research and investigation in which they are involved. Open only to program students.

Terms Offered: Autumn



Master of Arts in Middle Eastern Studies - Social Sciences

Director

- Hakan Karateke Deputy Director
- Orit Bashkin Deputy Director for Academic Programs
- Paul E. Walker Associate Director
- Thomas E. R. Maguire Project Assistant
- Brittany Ciboski Public Education Project Director
- Alexander Barna

Please see entry for Center for Middle Eastern Studies for the list of Middle Eastern Studies faculty, also available at http://cmes.uchicago.edu/.

The Center for Middle Eastern Studies offers an interdisciplinary Master of Arts program designed for students who wish to use their knowledge of the Middle East in careers other than university teaching and research. The program is also suitable for students considering an academic career who have not had the appropriate academic background for direct entrance into a doctoral program. Language and area studies preparation may be supplemented by relevant course work in a professional school or department. Students may be admitted to the Master of Arts program in either the Division of the Social Sciences or the Humanities and will receive the degree from the division through which they have registered. Students with significant previous training in Middle Eastern or Islamic studies who wish to earn a doctoral degree leading to careers in research and college or university teaching should apply for admission directly to one of the graduate doctoral departments or committees of the University.

There are two tracks—modern and ancient—for the MA program in Middle Eastern Studies. The modern program covers the time period from the rise of Islam until the present. The ancient track, offered in collaboration with the faculty of the Department of Near Eastern Languages and Civilizations, focuses on the cultures and languages of the ancient Near East. The application process, degree requirements, and the rules and conditions for financial aid are similar for both programs.

Admission

Applicants for the Master of Arts in Middle Eastern Studies are expected to meet the graduate admission requirements of the University and of the division to which they apply. In addition, applicants to the Middle Eastern Studies program must submit an academic writing sample. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

Students must enter the program in the autumn quarter. Although the program is designed for full time students, applications from those who can attend only on a part time basis will be considered.

How to Apply Through the Division of the Social Sciences

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online (https://socialsciences.uchicago.edu/admissions/apply).

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415.

Joint Program in Business Administration and Middle Eastern Studies

Benefiting from the combined strengths of the Center and the Graduate School of Business (http://www.chicagobooth.edu) -- one of the finest business schools in the country -- this three-year program helps students gain a firm grasp of the languages, history, and social institutions of the Middle East while acquiring the basic skills for careers in international business. To apply for the joint M.A. in Middle Eastern Studies/Masters in Business Administration, please click here (http://www.chicagobooth.edu/programs/full-time/admissions).

Joint Program in Public Policy and Middle Eastern Studies

This dual degree program addresses the needs of students wishing to acquire a solid background in modern Middle Eastern languages, history, and civilization while developing their abilities in policy analysis in preparation for professional careers in scholarly, educational, governmental, non-governmental, and business environments in the United States and abroad. This program requires approximately 5 quarters of study in the Center for Middle Eastern Studies and 4 quarters of study in the Harris School of Public Policy (http://harris.uchicago.edu/admissions-and-aid). Applicants for the joint program must apply to both the Harris School (https://grad-application.uchicago.edu) and the Division of the Social Sciences (https://socialsciences.uchicago.edu/admissions/apply) separately.

PROGRAM REQUIREMENTS

The requirements are satisfactory completion of:

- Six quarters of a Middle Eastern (ancient or modern) language (through at least two year proficiency);
- One quarter core colloquium: Approaches to the Study of the Middle East, or Approaches to the Study of the Ancient Near East;
- Three quarters of an approved integrated Middle Eastern survey course.
- Seven courses in relevant electives;
- One course in thesis preparation, or reading and research;
- A master's thesis.

Only courses taken for a quality grade count toward fulfilling the requirements. No P or R grades will be accepted.

Elective courses may concentrate on one area or explore several of the fields of ancient or modern Middle Eastern studies such as, for example, Archaeology, Cuneiform Studies, Egyptology, Semitic linguistics, Arabic, Persian or Turkish literature, as well as related disciplines such as Art History, Anthropology, Classics, History, Linguistics, Political Science and Sociology.

LANGUAGE

Placement interviews will be given so that entering students may register for courses at the appropriate level of instruction.

Students who elect to study Arabic will concentrate on the modern literary language. Students who elect to study Persian, Turkish, Uzbek, Armenian, or Hebrew will concentrate on the modern and contemporary idiom.

CORE COURSES

For the modern track MA, all students are required to take the core colloquium Approaches to the Study of Middle East (CMES 30001). Students must enroll in one of the following three quarter sequences: Islamic History & Society (NEHC 31000, 31100, 31200/HIST 35704, 35804, 35904), or Islamic Thought & Literature (NEHC 30601, 30602, 30603/ SOSC 22000, 22100, 2220). Those with substantial previous work in Islamic studies will be advised to substitute, where appropriate, more advanced and specialized courses in the field.

ELECTIVES

In consultation with advisers, students select courses providing instruction in skills related to their future careers. These courses may be in research methodology; statistics; cross cultural, demographic, or economic analysis; or computer training. They may be selected from the offerings of departments in the graduate divisions, such as the Departments of Economics, Statistics, or Sociology; or of the professional schools, such as the Graduate School of Business, the Law School, the Harris School of Public Policy Studies or the School of Social Service Administration. Students are strongly encouraged to consider participating in the University Writing Program (Little Red Schoolhouse).

COURSES

Consult in the Announcements and the quarterly Time Schedules the listings of the Departments of Art History, Anthropology, English Language & Literature, History, Music, Near Eastern Languages & Civilizations, Political Science, Sociology, South Asian Languages & Civilizations, and the Committee on Geographical Studies.

MASTER'S THESIS

Students are required to submit a master's thesis that should deal with a problem relevant to the student's intended career and should give evidence of the specialized disciplinary aspects of his or her training. The student's program adviser and a faculty member with special interest in the subject of the paper will guide the research and writing of the paper and judge whether it exhibits proof of competence in the field. During the writing of the paper, the student will register for a thesis preparation or reading and research course. The thesis title will be listed on the student's transcript.



DEPARTMENT OF ANTHROPOLOGY

Chair

- Kathleen D. Morrison Professors
- Michael Dietler
- Susan Gal
- John D. Kelly
- Karin Knorr Cetina, Sociology
- Alan L. Kolata
- Joseph P. Masco
- William T.S. Mazzarella
- Kathleen D. Morrison
- Stephan Palmié
- Michael Silverstein
- Russell H. Tuttle

Associate Professors

- Hussein Ali Agrama
- P. Sean Brotherton
- Julie Y. Chu
- Shannon Dawdy
- François G. Richard
- Justin B. Richland
- Kaushik Sunder Rajan

Assistant Professors

- Michael Fisch
- Constantine Nakassis
- Alice Yao

Lecturer

- Felipe Gaitan-Amman
- Maria Ceclia Lozada Cerna
- Mark Lycett
- Emeritus Faculty
- Manuela Carneiro da Cunha
- Judith B. Farquhar
- James W. Fernandez
- Raymond D. Fogelson
- Paul Friedrich
- McKim Marriott

- Nancy D. Munn
- Ralph W. Nicholas
- Marshall D. Sahlins
- Raymond T. Smith
- Terence S. Turner

Anthropology seeks an understanding of human nature, society, and culture in the widest comparative and historical framework. The department's teaching program provides Ph.D. training for research workers and teachers in the various branches of anthropological science. Lectures, tutorial guidance, laboratory instruction, and research seminars provide opportunities for advanced study in sociocultural and linguistic anthropology and archaeology. Course work, but not a graduate degree program, is also offered in physical anthropology.

The purpose of the department is the advancement of anthropological research; this goal is achieved in the graduate program by the development of creative scholars and scientists. The various educational guidelines that are established from time to time by the department as a whole as well as by the particular specialized fields are intended to aid in this development. All programs, however, are designed to be adaptable to the specific needs and research interests of individual students. Graduate students are encouraged to go forward as rapidly as previous preparation and special powers permit. The identification of specific research problems and the pursuit of these problems through the writing of original papers are skills that are emphasized and fostered as early as possible. This experience develops gradually into the substantial research project that is undertaken for the doctorate.

Graduate students and faculty in the department regularly participate in a large number of interdisciplinary workshops. Some are regional (e.g., African Studies; Latin America and the Caribbean; U.S. Locations; Art and Politics of East Asia; East Asia: Politics, Economy and Society; East Asia: Transregional Histories; Interdisciplinary Approaches to Modern France and the Francophone World; Latin American History; Middle East History and Theory; Theory and Practice in South Asia; and Visual and Material Perspectives on East Asia), some thematic (e.g., Interdisciplinary Archaeology; Ancient Societies; City, Society, and Space; Self and Subjectivity; Education; EthNoise!: Ethnomusicology; Gender and Sexuality Studies; Human Rights; Mass Culture; Knowledge/Value; Race and Religion; Reproduction of Race and Racial Ideology; Semiotics: Culture in Context; and Social History), and some theoretically oriented (e.g., Contemporary Philosophy; History, Philosophy and Sociology of Science; Political Theory; Social Theory).

Graduate students beyond the first year may serve as course or laboratory assistants, and later, as lecturers in College programs. The department also awards Starr Lectureships each year, on a competitive basis, to advanced graduate students. Starr Lecturers teach courses on their areas of specialization in the anthropology concentration in the College.

For additional information about the Department of Anthropology and the interests of its faculty members, please see: http://anthropology.uchicago.edu/

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: https://applyssd.uchicago.edu/apply/

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. Most of the documents needed for the application can be uploaded through the online application. Any additional correspondence and materials sent in support of applications should be mailed to:

The University of Chicago Division of the Social Sciences Admissions Office, Foster 107 1130 East 59th Street

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

PROGRAMS OF STUDY

Sociocultural and Linguistic Anthropology

Sociocultural anthropology is concerned with the investigation of human society, culture, and the human relation to nature through intensive ethnographic investigation and wide ranging comparison. It is closely related to the other generalizing social sciences and to the interpretive disciplines of the humanities. Cross disciplinary study is encouraged; graduate students in anthropology often include courses from related fields in their programs.

The Ph.D. program in sociocultural and linguistic anthropology has three prefield phases, each normally designed as one year's work, although under certain circumstances accelerated progress through the later phases is possible.

Phase I introduces the student to the development of social and cultural theory and to the scholarly interests of the faculty in the department. First year students also take courses in particular specialist areas of ethnography and theory in order to frame research interests in preparation for the dissertation project. Course requirements in the first year include The Development of Social and Cultural Theory (two double courses) and Introduction to Chicago Anthropology. In addition students take four other courses dealing with their areas of interest selected in consultation with the first year advisor. The requirements of Phase I apply to all entering graduate students, regardless of whether they hold a master's degree in anthropology from another institution.

Phase II training is directed toward acquiring a deeper knowledge of the special area and theoretical topics on which research will be focused, as well as toward obtaining a broader anthropological understanding in preparation for the Ph.D. qualifying examination. With the exception of those whose master's theses from elsewhere are approved by the department, every second year student completes

a master's paper during that year. The Ph.D. qualifying examination is normally taken during the spring of the second year or the autumn of the third year. The department also requires all students in sociocultural and linguistic anthropology to take the course in Anthropological Research Methods and to demonstrate competence in a foreign language by achieving a High Pass on a University foreign language reading examination, preferably by the end of the second year. The language will be specified by the student's advisory committee. (A foreign language is required only for the Ph.D. degree. No foreign language is required for the M.A.)

Phase III is a pre research training period during which the student hones a dissertation proposal and grant applications and develops advanced research skills. Upon fulfillment of all pre dissertation academic requirements and the acceptance of the dissertation proposal at a hearing in the department, the student is admitted to candidacy for the Ph.D. degree and proceeds to research and/or field work and the writing of the dissertation.

The linguistic anthropologist is concerned with phonetic, phonological, grammatical, semantic, and paralinguistic systems and with their relations to social, cultural and personal ones. A student who chooses linguistic anthropology as the major sub field within the Department of Anthropology should prepare at least one sub field each in linguistics and anthropology and satisfy the language requirement. Students of linguistic anthropology are generally advised to take at least six courses in technical linguistics.

JOINT DEGREE IN ANTHROPOLOGY AND LINGUISTICS

In addition to linguistic anthropology as a sub field within the Department of Anthropology, there is also a joint Ph.D. program available to students who are admitted first to the Department of Anthropology and subsequently to the Department of Linguistics. Joint degree students complete the requirements of both departments, including distinct introductory and advanced courses stipulated by each, the departmental qualifying examinations in appropriate special fields, and the language requirements, including additional foreign languages for the Linguistics Ph.D. The student's dissertation advisory committee consists of three or more members of the faculty; at least one must be a member of the Department of Anthropology but not the Department of Linguistics, and at least one in Linguistics but not in Anthropology. After approval for hearing by the advisory committee, the student's dissertation proposal must be approved in a hearing open to the faculty of both departments, and similarly for the final defense of the single doctoral dissertation that the student writes.

Admission to the Joint Degree Program in Anthropology and Linguistics cannot be approved until at least the second year, after successful completion of the core (first year) coursework and examinations in Linguistics, although students should declare interest in the joint program on the graduate application and to the chair of the Department of Anthropology and to the linguistic anthropologists soon after arriving on campus.

ARCHAEOLOGY

The archaeology program emphasizes the comparative study of complex societies throughout the world grounded in a close articulation of archaeology, history and sociocultural anthropology. The program stresses the integration of social and cultural theory in the practice of archaeology and, in particular, forges strong links with the historical anthropology that is one of the recognized strengths of the department. In addition to preparing archaeology students for anthropologically informed fieldwork and interpretation, an important element of this interdisciplinary approach is the inauguration of a training program offering students the methodological skills and theoretical grounding necessary to undertake innovative ethnoarchaeological research.

Current faculty strengths include archaeology of Latin America (focusing on the later prehistory and colonial periods of the Andes and Mesoamerica), the United States (focusing on the historical/urban archaeology of New Orleans and Birmingham, creole societies, race and ethnicity, material culture), Europe (from the Paleolithic to the Celtic Iron Age), South Asia and Oceania (state formation in South India, agricultural intensification, precolonial an early colonial periods), and China and mainland southeast Asia (Bronze age, imperialism, cross cultural interactions) as well as ethnoarchaeology in Africa and experimental archaeology in South America. Associated faculty at the Oriental Institute and in other University departments specialize in complex societies of the Near East, Egypt, Greece, Rome, India, and China.

Research interests include: urbanism, state formation, imperialism, colonial interaction, industrialization, art and symbolism, spatial analysis, politics, ritual and religion, human environment interactions, agricultural systems, material culture, economic anthropology, political economy and the socio historical context and politics of archaeology. Faculty members in archaeology have major, ongoing field research projects in Bolivia, Peru, France, Spain, Cambodia, India, China, Senegal, and the southern & southeastern United States and also have research interests in Kenya and Hawaii.

The archaeology program requires that students complete a total of 18 courses to qualify for the Ph.D., some of which may be reading and research in the field of specialization. Students normally enroll in nine courses per year during their first two years in the program. Within the first two years, students will complete five required courses that are designed to provide a comprehensive grounding in social and cultural theory, as well as the theory and specific methods of archaeology. (A foreign language is required only for the Ph.D. degree. No foreign language is required for the M.A.)

In the first year, course requirements include The Development of Social and Cultural Theory offered over the autumn and winter quarters. The two quarter sequence is equivalent to four course credits. In the spring archaeology students take Theory and Method in Archaeology, also a double credit course. The remaining course requirements in the program, to be met in the first or second year, are Introduction to Chicago Anthropology, and a quantitative methods course approved by the faculty. For the rest of their course work, students enjoy a broad range of elective courses in archaeology, sociocultural anthropology, history, physical anthropology, Classical or Near Eastern studies, statistics, computer science and geophysical sciences. In addition, archaeology students are strongly encouraged to gain technical experience in one of the university's regular summer field schools or other research excavations.

By the end of the first year in residence, the archaeology student must form an advisory committee of three faculty members. The committee will be chaired by the faculty member of the student's choice. With the exception of those students with A.M. theses from other institutions which are approved by the department, each student will complete an A.M. paper during the second year. In addition, by the end of year two, each student takes an written and oral examination from the members of his/her advisory committee in the areas of chosen specialization. The oral examination, lasting roughly an hour and a half, is designed to test basic command of the literature and methods necessary to pursue Ph.D. research in a chosen area. In the third year, having passed the qualifying exam, archaeology students are required to take the archaeological research design seminar. By the end of the third year, students must defend a dissertation proposal before the faculty and interested students. Upon fulfillment of all academic requirements and the acceptance of the dissertation proposal, students are admitted to candidacy for the Ph.D. degree.

PHYSICAL ANTHROPOLOGY

Courses in physical anthropology, mainly directed towards evolutionary anthropology and primatology, are offered in the department; but applications for graduate study in Physical Anthropology are no longer accepted.

COURSES

The department website offers descriptions of graduate courses scheduled for the current academic year: http://anthropology.uchicago.edu/undergrad_program/ graduate_courses

ANTHROPOLOGY COURSES

ANTH 30000. Anthropological Theory. 100 Units.

Since its inception as an academically institutionalized discipline, anthropology has always addressed the relation between a self-consciously modernizing West and its various and changing others. Yet it has not always done so with sufficient critical attention to its own concepts and categories — a fact that has led, since at least the 1980s, to considerable debate about the nature of the anthropological enterprise and its epistemological foundations. This course provides a brief critical introduction to the history of anthropological thought over the course of the discipline's long twentieth century, form the 1880s to the present. Although we focus on the North American and British traditions, we review important strains of French and, to a lesser extent, German social theory in chronicling the emergence and transformation of modern anthropology as an empirically based, but theoretically informed, practice of knowledge production about human sociality and culture. Instructor(s): S. Palmie Terms Offered: Winter Equivalent Course(s): ANTH 21107

ANTH 30405. Anthropology of Disability. 100 Units.

This seminar undertakes to explore "disability" from an anthropological perspective that recognizes it as a socially constructed concept with implications for our understanding of fundamental issues about culture, society, and individual differences. We explore a wide range of theoretical, legal, ethical, and policy issues as they relate to the experiences of persons with disabilities, their families, and advocates. The final project is a presentation on the fieldwork.

Instructor(s): M. Fred Terms Offered: Autumn

Prerequisite(s): Third- or fourth-year standing

Equivalent Course(s): MAPS 36900, ANTH 20405, CHDV 30405, HMRT 25210, HMRT 35210, SOSC 36900

ANTH 30415. American Legal Culture. 100 Units.

This seminar examines how the values and norms of American Legal Culture are constructed through both the experiences of the general public and socialization of key actors in institutions such as law schools/firms, popular media, courts, police, and jails/prisons. Sessions combine discussion of relevant literature with presentations by Chicago-area experts from these various institutions. Seminar participants conduct fieldwork in related sites in the Chicago area, presenting the results of their research projects in the final session(s) of the course. Instructor(s): M. Fred Terms Offered: Not offered 2012–13; will be offered 2013–14 Prerequisite(s): Third- or fourth-year standing for undergraduates Equivalent Course(s): LAWS 93801,MAPS 46701,LLSO 26203,SOSC 30416

ANTH 31700. Slavery and Unfree Labor. 100 Units.

This course offers a concise overview of institutions of dependency, servitude, and coerced labor in Europe and Africa, from Roman times to the onset of the Atlantic slave trade, and compares their further development (or decline) in the context of the emergence of New World plantation economies based on racial slavery. We discuss the role of several forms of unfreedom and coerced labor in the making of the "modern world" and reflect on the manner in which ideologies and practices associated with the idea of a free labor market supersede, or merely mask, relations of exploitation and restricted choice.

Instructor(s): S. Palmié Terms Offered: TBD Equivalent Course(s): ANTH 22205,CRES 22205,LACS 22205,LACS 31700

ANTH 32100. Culture, Power, Subjectivity. 100 Units.

This course takes up the classic, yet endlessly fascinating subject of the relationship of historically produced cultural structures and their relationship to individual and collective forms of subjectivity. Since the topic is huge, we will address it by reading classic texts in depth, analyzing them for the diverse ways in which classic social thinkers like Marx, Durkheim, Weber, Althuser, Bourdieu and Foucault have thought about the relationship between individuals and collectivities. Key questions we will address include the ways in social and economic formations structure the possibilities for individual human action, the relationship between religious formations and historical transformations, the role of class in the inculcation of taste and desire, and the ways in which, throughout the 19th century, new power/ knowledge formations have created new ways through with subject formation takes place.

Instructor(s): J. Cole Terms Offered: Autumn Prerequisite(s): Undergraduates require consent of instructor. Note(s): CHDV Distribution, C*; 2*,3*,4* Equivalent Course(s): CHDV 32100

ANTH 32220. Love, Conjugality, and Capital: Intimacy in the Modern World. 100 Units.

A look at societies in other parts of the world demonstrates that modernity in the realm of love, intimacy, and family often had a different trajectory from the European one. This course surveys ideas and practices surrounding love, marriage, and capital in the modern world. Using a range of theoretical, historical, and anthropological readings, as well as films, the course explores such topics as the emergence of companionate marriage in Europe and the connections between arranged marriage, dowry, love, and money. Case studies are drawn primarily from Europe, India, and Africa.

Instructor(s): J. Cole, R. Majumdar Terms Offered: Winter 2013 Prerequisite(s): Any 10000-level music course or consent of instructor Note(s): This course typically is offered in alternate years.

ANTH 32225. Transnational Kinship, Intimacy and Migration. 100 Units.

Across the world, people are on the move like never before: migration across national boundaries is a fact of life. And kinship -- the making and transforming of families, and the way kin processes interact with states and political economies, is central to this process. Not only do migrants often immigrate in order to support families back in their countries of origin, even babies or genetic material can also cross transnational boundaries in order to create new kinds of families. This course comprises an intensive introduction to recent literature on the question of kinship and migration. Questions we will address include: What are the effects of family reunification law which explicitly tries to privilege certain kinds of families in the context of migration? What happens when the roles traditionally associated with wifehood or motherhood stretch across national boundaries? What happens when people adopt children from other countries, grafting them onto new families? And how does the circulation of genetic material in the case of assisted reproduction create new kinds of belonging? By reading a series of recent ethnographies on issues including marriage migration and adoption, participants will gain insight into the complex ways in which the making and unmaking of kin ties creates new kinds of belonging and new forms of exclusion in the today's world.

Instructor(s): J. Cole Terms Offered: Spring

Prerequisite(s): Self, Culture, and Society or equivalent

Note(s): Not offered 2014-15

ANTH 32300. The Anthropology of Science. 100 Units.

Reading key works in the philosophy of science, as well as ethnographic studies of scientific practices and objects, this course introduces contemporary science studies. We interrogate how technoscientific "facts" are produced, discussing the transformations in social order produced by new scientific knowledge. Possible topics include the human genome project, biodiversity, and the digital revolution. Instructor(s): J. Masco Terms Offered: TBD

Equivalent Course(s): ANTH 22105, HIPS 21301

ANTH 32315. Anthropology of the Machine. 100 Units.

Postwar cybernetics is typically associated with the emergence of information theory, the development of digital computing, Cold War infrastructure, and research into Artificial Intelligence. As such, it is problematized for its relation to the military industrial complex, novel mechanisms of social control, and dismal science fiction scenarios. Yet postwar cybernetics also gave rise to another more philosophically oriented conceptual trajectory concerned with a theory of in-formation, Artificial Life, and new ways thinking technology. This seminar is primarily concerned with this latter dimension of cybernetics and attempts to draw attention to its pervasive presence in contemporary social thought. Specifically, we will trace its resonance in current anthropological trends that emphasize emergence, non-representational theory, materiality, affect, and intensity. In addition, we will explore the kind of methodology that it suggests. The seminar will involve a close reading and discussion of texts and is intended mainly for Ph.D. students. Instructor(s): M. Fisch

ANTH 32530. Ethnographic Film. 100 Units.

This seminar explores ethnographic film as a genre for representing "reality," anthropological knowledge, and cultural lives. We examine how ethnographic film emerged in a particular intellectual and political economic context, as well as how subsequent conceptual and formal innovations have shaped the genre. We also consider social responses to ethnographic film in terms of (1) the contexts for producing and circulating these works, (2) the ethical and political concerns raised by cross-cultural representation, and (3) the development of indigenous media and other practices in conversation with ethnographic film. Throughout the course, we situate ethnographic film within the larger project for representing "culture," addressing the status of ethnography, museum exhibitions, documentary film). Instructor(s): J. Chu Terms Offered: Winter Equivalent Course(s): ANTH 22530

ANTH 32535. Engaging Media: Thinking about Media and Their Audiences. 100 Units.

In the first part of the course we look at how post-World War II mass communications and "classical" film theory theorized communication and spectatorship; in particular, we trace the dialogue between these liberatory models and the totalitarianism and propaganda (i.e., top-down models of control) of the times. We then look at theories of mass media reception and spectatorship that put ideology at the center of their analysis, interrogating theories of the "receiver" of media messages as cultural dope (Frankfurt school Marxism), psychoanalytic and (post-)Marxist theories of spectatorship ("Screen" theory), feminist critiques of film spectatorship, and reactions to the above in cognitivist film studies. We then turn to British Cultural Studies' theories of media, focusing on how such work attempts to reconcile models of reception as ideologically unproblematic and as determined by the ideological structures of production and reception. Particular focus is given to the theoretical arguments regarding ideology and media, the notion of "code," and the differences and similarities in the model of communication with the sociology of mass communication. In the second half of the course we look at anthropological approaches to media and how anthropologists have taken up the issue of media reception. Why have anthropologists largely ignored media and reception studies until recently? What kinds of contributions can anthropology make to the theorization and methodological approach to reception? By critically looking at ethnographies of reception, we problematize the concept of reception proper, looking at more holistic ways of dealing with the issue of the mediation of social life. In the final part of the course we re-evaluate what we mean by "mass media" and "reception." First we look media (con)texts that blur the duality of production/reception. We then consider new forms of media and to what extent "reception" as a category even makes sense in attempting to understand how engagement with such new media functions. Instructor(s): C. Nakassis Terms Offered: TBD Equivalent Course(s): ANTH 22535

ANTH 33106. Indigeneities. 100 Units.

Depending on how you look at it, questions of indigeneity – the who, how, what, and why of peoples that either identify, or are identified, as "native" - are questions that at once transcend, entail, and/or are produced by Euro-American scholarly, political, and legal inquiry. Whether assailed as the product of colonial orientalism or celebrated as the ur-subjectivity of those who resist it (or something in between), the claims of, to, and about indigeneity continue to excite and demand attention scholarly and political. Indeed some argue that politics of indigeneity have gained unique traction in recent decades, as indigenous actors, scholars, and their advocates have pressed for changes to legal, political, and cultural/scientific regimes that have indigenous affairs as their chief objects of inquiry. One need only consider the 2007 passage of the UN Declaration of the Rights of Indigenous Peoples, the legal decisions acknowledging the force of native title in the Supreme Courts of Australia and Canada, and even the changes in various regimes of research concerning the social scientific study of native peoples and/or the representation of their material culture, all of which happened less than 20 years ago. Despite these long-standing interests and recent social, politica,l and economic gains, indigenous communities remain among the most vulnerable in the world. These trenchant inequalities beg the question, how does the condition of indigeneity relate to the various social forces shaping the world today and to the lived experiences of those who claim to be, or get named as, indigenous. It is towards an exploration of this question that this course is dedicated. Among the lines of inquiry that we will pursue in the course are: (1) tracing the genealogies of indigeneity as a notion, both in Euro-American human sciences and in other epistemological traditions; (2) considering the role that notions of indigeneity play in contemporary national and international political regimes; (3) exploring how indigeneity is claimed or disclaimed, by different peoples around the world, and why; and (4) considering the ways in which notions of indigeneity are being figured in new regimes of possession and commodification, including intellectual property, genetics and genome mapping, and the role of indigenous knowledge in resource extraction and bioprospecting. In pursuing these questions this course will endeavor to tease out the manifold relationships that the rising politics of indigeneity at the dawn of the 21st century has to other global political economic phenomena. Simultaneously, the course will also attend to the ways in which different peoples, caught up in different sociopolitical milieu, orient to the notion of indigeneity as it articulates with their lived experiences with matters of autochthony (the state of being "from here"), allochthony (being "from elsewhere"), and the consequences of those distinctions to their everyday lives.

Instructor(s): J. Richland Terms Offered: Winter Equivalent Course(s): ANTH 22606

ANTH 33107. Indigenous Methodologies. 100 Units.

The 1969 publication of Vine Deloria Jr.'s Custer Died for your Sins forever changed the landscape for academic research with indigenous communities in North America, if not the world. Declaring, "Indians have been cursed above all other peoples in history. Indians have anthropologists." (Deloria 1988[1969]: 78), Deloria's broadside was aimed at a social science academy whose research methods, ethics, and findings he felt offered little concrete benefit to the indigenous peoples whose lives they studied. Whether accurate or not, the critique sent ripples not only through the academy, but through policy circles and the native communities themselves, inaugurating a period of remarkable refiguring of the legal, scholarly, and interpersonal landscapes against which social science research on indigenous peoples is constituted. This refiguring has emerged in a variety of modes and with different effects and outcomes. In this course, students will be introduced to the evolving ethics, methods, policies, and epistemologies shaping social science research with indigenous communities in North America. In addition, in the second half of the quarter, students will get firsthand experience working on issues of relevance to social science research with indigenous communities under the supervision of Prof. Richland and leadership at two institutions in Chicago -the Title VII American Indian Education Program and the North American Anthropology Division of the Field Museum. In this part of the course, students will be paired up and work on independent projects that are designed to address the needs and interests of these organizations and the indigenous peoples with which they work, and then to initiate their own academic inquiry alongside those projects. These projects will provide you with an opportunity to understand and implement the theories, ethics, and methods learned in class, revealing the rewards and challenges of conducting research programs that engage leading theories and debates in the academy while also making real contributions to the indigenous communities with which students are working. Instructor(s): J. Richland Terms Offered: TBD Equivalent Course(s): ANTH 22609

ANTH 33610. Medicine and Society in Twentieth-Century China. 100 Units. This course is a survey of historical and anthropological approaches to medical knowledge and practice in twentieth-century China. Materials cover early modernizing debates, medicine and the state, Maoist public health, traditional Chinese medicine, and health and medicine in popular culture. Instructor(s): J. Farquhar Terms Offered: TBD Equivalent Course(s): ANTH 23600,HIPS 22601

ANTH 33620. Medicine and Anthropology. 100 Units.

The rise of modern biological medicine into global dominance dates from the 18th century, with the field developing in tandem with technological industrialization, scientific objectivism, and secular modernism in writing and social theory. The things we now have before us in the medical field – doctors, patients, drugs, symptoms, diseases, pacemakers, antiseptic wipes, psychologies, therapeutic protocols, health insurance, white coats, immunizations, folk remedies, and much more—are many of the things that ground all of our ethics and our politics in contemporary North America. In order to better understand how medicine affects wider worlds of experience and action, this course gathers a number of historical and ethnographic studies of medical knowledge and practice for careful study. In a series of readings and discussions we will consider the social and political economic shaping of illness and suffering and the "culture-bound" character of diseases; we will examine medical and healing systems-well beyond biomedicine-as social institutions and as sources of epistemological authority; and we will read about the knowledge politics of medical experts and their clients and patients. Topics covered will also include the problem of belief; local theories of disease causation and healing efficacy; the placebo effect and contextual healing; theories of embodiment; medicalization; modernity and the distribution of risk; the meanings and effects of medical technologies; and the relatively recent global health movement. Instructor(s): J. Farguhar Terms Offered: TBD

Equivalent Course(s): ANTH 23620, CHDV 23620, CHDV 33620

ANTH 33700. Capitalism, Colonialism, and Nationalism in the Pacific. 100 Units. This course compares colonial capitalist projects and their dialogic transformations up to present political dilemmas, with special attention to Fiji, New Zealand, and Hawai'i, and a focus on the labor diaspora, the fates of indigenous polities, and tensions in contemporary citizenship. We will compare Wakefield's "scientific colonization" in New Zealand, Gordon's social experiments and indentured labor in Fiji, and the plantations, American annexation, tourism, and the military in Hawai'i. We will compare the colonial experiences of the Maori, Hawaiians, and indigenous Fijians, and also those of the immigrant laborers and their descendants, especially white New Zealanders, the South Asians in Fiji, and the Japanese in Hawai'i. General propositions about nationalism, capitalism "late" and otherwise, global cultural flows, and postcolonial subject positions will be juxtaposed with contemporary Pacific conflicts.

Instructor(s): J. Kelly

Equivalent Course(s): ANTH 23700

ANTH 34502. Anthropology of Museums I. 100 Units.

Instructor(s): M. Fred Terms Offered: Winter Prerequisite(s): Advanced standing and consent of instructor Equivalent Course(s): ANTH 24511,CHDV 38101,CRES 34501,MAPS 34500,SOSC 34500

ANTH 34705. Jurisdiction: Language and the Law. 100 Units.

Instructor(s): J. Richland Terms Offered: TBD Equivalent Course(s): ANTH 24705 **ANTH 34900. Big Science and the Birth of the National Security State. 100 Units.** This course examines the mutual creation of big science and the American national security state during the Manhattan Project. It presents the atomic bomb project as the center of a new orchestration of scientific, industrial, military, and political institutions in everyday American life. Exploring the linkages between military technoscience, nation-building, and concepts of security and international order, we interrogate one of the foundation structures of the modern world system. Instructor(s): J. Masco Terms Offered: TBD

Equivalent Course(s): ANTH 22400, HIPS 21200

ANTH 35110. Cultural Psychology. 100 Units.

There is a substantial portion of the psychological nature of human beings that is neither homogeneous nor fixed across time and space. At the heart of the discipline of cultural psychology is the tenet of psychological pluralism, which states that the study of "normal" psychology is the study of multiple psychologies and not just the study of a single or uniform fundamental psychology for all peoples of the world. Research findings in cultural psychology thus raise provocative questions about the integrity and value of alternative forms of subjectivity across cultural groups. In this course we analyze the concept of "culture" and examine ethnic and cross-cultural variations in mental functioning with special attention to the cultural psychology of emotions, self, moral judgment, categorization, and reasoning.

Instructor(s): R. Shweder Terms Offered: Autumn

Prerequisite(s): Third- or fourth-year standing. Instructor consent required. Note(s): CHDV Distribution, B, C; 2*, 3*

Equivalent Course(s): AMER 33000, ANTH 24320, CHDV 31000, GNSE 21001, GNSE 31000, PSYC 23000, PSYC 33000, CHDV 21000

ANTH 35115. Culture, Mental Health, and Psychiatry. 100 Units.

While mental illness has recently been framed in largely neurobiological terms as "brain disease," there has also been an increasing awareness of the contingency of psychiatric diagnoses. In this course, we will draw upon readings from medical and psychological anthropology, cultural psychiatry, and science studies to examine this paradox and to examine mental health and illness as a set of subjective experiences, social processes, and objects of knowledge and intervention. On a conceptual level, the course invites students to think through the complex relationships between categories of knowledge and clinical technologies (in this case, mainly psychiatric ones) and the subjectivities of persons living with mental illness. Put in slightly different terms, we will look at the multiple links between psychiatrists' professional accounts of mental illness vary across social and cultural settings? How are experiences of people suffering from mental illness shaped by psychiatry's knowledge of their afflictions?

Instructor(s): E. Raikhel Terms Offered: Winter

Prerequisite(s): Undergraduates must have previously completed a SOSC sequence. Note(s): CHDV Distribution, C, D; 3*, 4*

Equivalent Course(s): ANTH 24315, CHDV 33301, HIPS 27302, CHDV 23301

ANTH 35305. Anthropology of Food and Cuisine. 100 Units.

Contemporary human foodways are not only highly differentiated in cultural and social terms, but often have long and complicated histories. Anthropologists have long given attention to food. But, until quite recently, they did so in an unsystematic, haphazard fashion. This course explores several related themes with a view towards both the micro- and macro-politics of food by examining a range of ethnographic and historical case studies and theoretical texts. It takes the format of a seminar augmented by lectures (during the first few weeks), scheduled video screenings, and individual student presentations during the rest of the course. Instructor(s): J. Farquhar Terms Offered: TBD Equivalent Course(s): ANTH 25305

ANTH 35325. History and Culture of Baseball. 100 Units.

Study of the history and culture of baseball can raise in a new light a wide range of basic questions in social theory. The world of sports is one of the paradoxical parts of cultural history, intensely intellectually scrutinized and elaborately "covered" by media, yet largely absent from scholarly curricula. Perhaps more than any other sport, baseball has even drawn a wide range of scholars to publish popular books about it, yet has produced few professional scholars whose careers are shaped by study of it. In this course, we will examine studies that connect the cultural history of baseball to race, nation, and decolonization, to commodity fetishism and the development of capitalist institutions, to globalization and production of locality. We will compare studies of baseball from a range of disciplinary perspectives (economics, evolutionary biology, political science, history, and anthropology) and will give special attention to the culture and history of baseball in Chicago. We hope and expect that this course will be a meeting ground for people who know a lot about baseball and want to learn more about cultural anthropology, and people who are well read in anthropology or social theory who want to know more about baseball. The course will draw heavily on the rich library of books and articles about baseball, scholarly and otherwise, and will also invite students to pursue their own research topics in baseball culture and history. Instructor(s): J. Kelly Terms Offered: TBD

Equivalent Course(s): ANTH 25325

ANTH 35410. Anthropology of Everyday Life. 100 Units.

In an effort to clarify the field of everyday life ethnography and stimulate critical reflection on the everyday lives we all lead, this course draws on three bodies of literature: (1) classic anthropological approaches to studying social life (e.g., behaviorism and utilitarianism, the sacred/profane distinction, phenomenology, habitus and practice); (2) twentieth-century cultural Marxist critical theory; and (3) recent studies of popular culture. This course includes a workshop component to accommodate student projects.

Instructor(s): J. Farquhar Terms Offered: Not offered 2013-14; will be offered 2014-15

ANTH 35500. The Anthropology of Development. 100 Units.

This course applies anthropological understanding to development programs in "underdeveloped" and "developing" societies. Topics include the history of development; different perspectives on development within the world system; the role of principal development agencies and their use of anthropological knowledge; the problems of ethnographic field inquiry in the context of development programs; the social organization and politics of underdevelopment; the culture construction of "well-being;" economic, social, and political critiques of development; population, consumption, and the environment; and the future of development. Instructor(s): A. Kolata Terms Offered: Not offered 2015-16; will be offered 2016-17 Equivalent Course(s): ANTH 22000,ENST 22000

ANTH 35908. Balkan Folklore. 100 Units.

Vampires, fire-breathing dragons, vengeful mountain nymphs. 7/8 and other uneven dance beats, heart-rending laments, and a living epic tradition. This course is an overview of Balkan folklore from historical, political, and anthropological perspectives. We seek to understand folk tradition as a dynamic process and consider the function of different folklore genres in the imagining and maintenance of community and the socialization of the individual. We also experience this living tradition firsthand through visits of a Chicago-based folk dance ensemble, "Balkan Dance."

Instructor(s): A. Ilieva

Equivalent Course(s): ANTH 25908,CMLT 23301,CMLT 33301,NEHC 20568,NEHC 30568,REES 36800,REES 26800

ANTH 36200. Ceramic Analysis for Archaeologists. 100 Units.

This course introduces the theoretical foundations and analytical techniques that allow archaeologists to use ceramics to make inferences about ancient societies. Ethnographic, experimental, and physical science approaches are explored to develop a realistic, integrated understanding of the nature of ceramics as a form of material culture. Practical training in the use of the ceramic labs is included. Instructor(s): M. Dietler Terms Offered: Winter Prerequisite(s): Consent of instructor

ANTH 36700. Archaeology of Race and Ethnicity. 100 Units.

The correlation between ethnic groups and patterns in material culture lies at the heart of many archaeological problems. Over the last several years, a new emphasis on the social construction of racial and ethnic identities has invited a re-examination of the ways in which aspects of the material world (i.e., architecture, pottery, food, clothing) may participate actively in the dialectical process of creating or obscuring difference. This seminar surveys historical debates and engages with current theoretical discussions within archaeology concerning race and ethnicity in complex societies.

Instructor(s): S. Dawdy Terms Offered: Will be offered 2013–14 Prerequisite(s): Consent of instructor

ANTH 36705. Celts: Ancient, Modern, Postmodern. 100 Units.

Celts and things Celtic have long occupied a prominent and protean place in the popular imagination, and "the Celts" has been an amazingly versatile concept in the politics of identity and collective memory in recent history. This course is an anthropological exploration of this phenomenon that examines: (1) the use of the ancient past in the construction of modern nationalist mythologies of Celtic identity (e.g. in France and Ireland) and regional movements of resistance to nationalist and colonialist projects (e.g. in Brittany, Ireland, Scotland, Wales, Gallicia, Asturias); (2) the construction of transnational ethno-nostalgic forms of Celtic identity in modern diasporic communities (Irish, Scottish, etc.); and (3) various recent spiritualist visions of Celticity that decouple the concept from ethnic understandings (e.g. in the New Age and Neo-Pagan movements). All of these are treated in the context of what is known archaeologically about the ancient peoples of Europe who serve as a symbolic reservoir for modern Celtic identities. The course explores these competing Celtic imaginaries in the spaces and media where they are constructed and performed, ranging from museums and monuments, to neo-druid organizations, Celtic cyberspace, Celtic festivals, Celtic theme parks, Celtic music, Celtic commodities, etc.

Instructor(s): M. Dietler

Equivalent Course(s): ANTH 21265

ANTH 37201-37202. Language in Culture I-II.

This two-quarter course presents the major issues in linguistics of anthropological interest. These courses must be taken in sequence.

ANTH 37201. Language in Culture I. 100 Units.

Among topics discussed in the first half of the sequence are the formal structure of semiotic systems, the ethnographically crucial incorporation of linguistic forms into cultural systems, and the methods for empirical investigation of "functional" semiotic structure and history. Instructor(s): M. Silverstein Terms Offered: Autumn Prerequisite(s): Consent of instructor Equivalent Course(s): CHDV 37201,LING 31100,PSYC 47001

ANTH 37202. Language in Culture II. 100 Units. The second half of the sequence takes up basic concepts in sociolinguistics and their critique. Instructor(s): Susan Gal Terms Offered: Winter Prerequisite(s): Consent of instructor Equivalent Course(s): LING 31200,PSYC 47002

ANTH 37202. Language in Culture II. 100 Units.

The second half of the sequence takes up basic concepts in sociolinguistics and their critique.

Instructor(s): Susan Gal Terms Offered: Winter

Prerequisite(s): Consent of instructor

Equivalent Course(s): LING 31200, PSYC 47002

ANTH 37500. Morphology. 100 Units.

Looking at data from a wide range of languages, we will study the structure of words. We will consider the nature of the elements out of which words are built and the principles that govern their combination. The effects of word structure on syntax, semantics, and phonology will be examined. We will think critically about the concepts of morpheme, inflection, derivation, and indeed, the concept of word itself.

Instructor(s): Amy Dahlstrom Terms Offered: Spring Prerequisite(s): LING 20001 Equivalent Course(s): LING 31000

ANTH 37605. Language, Culture, and Thought. 100 Units.

Survey of research on the interrelation of language, culture, and thought from the evolutionary, developmental, historical, and culture-comparative perspectives with special emphasis on the mediating methodological implications for the social sciences.

Instructor(s): J. Lucy Terms Offered: Spring

Prerequisite(s): Grad status, Undergrads in 3rd or 4th year, or permission of instructor.

Note(s): CHDV Distribution, B*, C*; 2*, 3*, 5*

Equivalent Course(s): ANTH 27605, CHDV 31901, PSYC 21950, PSYC 31900, LING 27700, LING 37700, CHDV 21901

ANTH 38100. Evolution of the Hominoidea. 200 Units.

This course is a detailed consideration of the fossil record and the phylogeny of Hominidae and collateral taxa of the Hominidea that is based upon studies of casts and comparative primate osteology.

Instructor(s): R. Tuttle Terms Offered: TBD

Prerequisite(s): Third- or fourth-year standing and consent of instructor Equivalent Course(s): ANTH 28100, EVOL 38100, HIPS 24000

ANTH 38200. Comparative Primate Morphology. 200 Units.

This course covers functional morphology of locomotor, alimentary, and reproductive systems in primates. Dissections are performed on monkeys and apes. Instructor(s): R. Tuttle Terms Offered: TBD

Equivalent Course(s): ANTH 28300, EVOL 38200, HIPS 23500

ANTH 38210. Colonial Ecologies. 100 Units.

This seminar explores the historical ecology of European colonial expansion in a comparative framework, concentrating on the production of periphery and the transformation of incorporated societies and environments. In the first half of the quarter, we consider the theoretical frameworks, sources of evidence, and analytical strategies employed by researchers to address the conjunction of environmental and human history in colonial contexts. During the second half of the course, we explore the uses of these varied approaches and lines of evidence in relation to specific cases and trajectories of transformation since the sixteenth century.

Instructor(s): M. Lycett Terms Offered: Not offered 2012–13; will be offered 2013–14 Equivalent Course(s): LACS 28210,ANTH 28210,ENST 28210

ANTH 38220. Naturalizing Disaster: Nature, Vulnerability, and Social History. 100 Units.

The United Nations International Strategy for Disaster Reduction defines disaster in three crucial terms: hazards, vulnerability, and capacity. While only the first of these can be "natural" in the way that that term is commonly understood, catastrophic events and processes are frequently represented as exogenous, autonomous, and unpredictable elements of a bio-physical world. Beginning from the theorization of disaster as a property of nature, this seminar examines the political ecology of drought, flood, earthquake, and famine in their historical, economic, and cultural contexts, focusing on community vulnerability and capacity as outcomes of socionatural histories and relations. Drawing on historical and contemporary case studies, we will consider a number of dimensions of the dynamic between nature, dislocation, and communities in an increasingly vulnerable world. Instructor(s): M. Lycett and P. Drake Terms Offered: Not Offered 2015-16 Equivalent Course(s): ANTH 28200,ENST 26201

ANTH 38300. Celebrity and Science in Paleoanthropology. 100 Units.

This seminar explores the balance among research, "showbiz" big business, and politics in the careers of Louis, Mary, and Richard Leakey; Alan Walker; Donald Johanson; Jane Goodall; Dian Fossey; and Biruté Galdikas. Information is gathered from films, taped interviews, autobiographies, biographies, pop publications, instructor's anecdotes, and samples of scientific writings.

Instructor(s): R. Tuttle Terms Offered: Not offered 2015-16; will be offered 2016-17 Equivalent Course(s): ANTH 21406,HIPS 21100

ANTH 38400. History and Theory of Human Evolution. 100 Units.

This course is a seminar on racial, sexual, and class bias in the classic theoretic writings, autobiographies, and biographies of Darwin, Huxley, Haeckel, Keith, Osborn, Jones, Gregory, Morton, Broom, Black, Dart, Weidenreich, Robinson, Leakey, LeGros-Clark, Schultz, Straus, Hooton, Washburn, Coon, Dobzhansky, Simpson, and Gould.

Instructor(s): R. Tuttle Terms Offered: Winter Equivalent Course(s): ANTH 21102,EVOL 38400,HIPS 23600

ANTH 38800. Bioarchaeology and the Human Skeleton. 100 Units.

This course is intended to provide students in archaeology with a thorough understanding of bioanthropological and osteological methods used in the interpretation of prehistoric societies by introducing bioanthropological methods and theory. In particular, lab instruction stresses hands-on experience in analyzing the human skeleton, whereas seminar classes integrate bioanthropological theory and application to specific cases throughout the world. Lab and seminar-format class meet weekly.

Instructor(s): M. C. Lozada Terms Offered: Winter Equivalent Course(s): ANTH 28400,BIOS 23247

ANTH 40100. The Inka and Aztec States. 100 Units.

This course is an intensive examination of the origins, structure, and meaning of two native states of the ancient Americas: the Inka and the Aztec. Lectures are framed around an examination of theories of state genesis, function, and transformation, with special reference to the economic, institutional, and symbolic bases of indigenous state development. This course is broadly comparative in perspective and considers the structural significance of institutional features that are either common to or unique expressions of these two Native American states. Instructor(s): A. Kolata Terms Offered: Not offered 2015-16; will be offered 2016-17 Equivalent Course(s): ANTH 20100,LACS 20100,LACS 40305

ANTH 40205. Knowledge/Value. 100 Units.

This course broadly interrogates conceptual and empirical linkages between epistemology and value. It works on the assumption that we are at a historical moment when epistemology, value and the nature of their articulation are all emergent and at stake. The course is closely coupled to a workshop on "Knowledge / Value" that will be held at the end of spring quarter, which will be a broad consideration of the nature of the fact / value distinction in the context of technoscience, law and finance. Students taking this course will be expected to actively participate in the workshop. Readings will be related to the workshop, but will also include other texts that are foundational in considering questions of Knowledge / Value.

Instructor(s): K. Sunder Rajan

ANTH 40340. The Social Lives of Brains. 100 Units.

This course examines recent historical and anthropological scholarship on neuroscience, psychiatry, and psychology through a focus on these fields' principal material object of inquiry and intervention: the brain. We will address topics such as brains in circulation as research objects; brain imaging; neuro-anatomy and neuropathology; the relationship between mind and brain; and brains in non-human organisms and non-organic systems. Through readings in these and other topics, we will explore modern scholarship in neuroscience and brain research, as well as examine the varied meanings that different groups of people in different times and places have brought to the question of embodied human consciousness. Instructor(s): E. Raikhel, M. Rossi Terms Offered: Winter

Prerequisite(s): Graduate students only

Note(s): CHDV Distribution, 4*

Equivalent Course(s): CHSS 43400, HIST 57401, CHDV 43400

ANTH 41100. Ethnography of Europe. 100 Units.

This seminar breaks with the tradition of considering Eastern and Western Europe in different courses and with different theoretical questions. Instead we will start with the political and scholarly division of Europe itself as our first conceptual issue, asking how the division was recast by the Cold War and now recast again in light of the Maastricht Treaty and 1989. Interactions and social processes that cross this divide will provide the objects for analysis in the course. We will also consider how any single phenomenon -- e.g. migration or tourism -- is understood in divergent ways depending on the symbolic geography that is assumed by the investigator. Our task will be to analyze the connections between such different conceptualizations, and between sociocultural processes in different corners of the continent. The topics to be taken up include: nationalisms and citizenships; the morality of capitalism; bureaucracy; regionalism and new forms of sovereignty; politics of sex and reproduction; utopias and dystopias -- the fate of state socialism; tourism and xenophobia; comparative mafias; memory, nostalgia and revivals. Students will be asked to lead discussions of topics of their choice and/or to present works-in-progress that analyze one or more of these issues. Instructor(s): S. Gal

ANTH 41200. Anthropology of History. 100 Units.

Anthropologists have long been concerned with the temporal dimension of human culture and sociality, but, until fairly recently (and with significant exceptions), have rarely gone beyond processual modeling. This has dramatically changed. Anthropologists have played a prominent role in the so-called "historic turn in the social sciences", acknowledging and theorizing the historical subjectivities and historical agency of the ethnographic "other", but also problematizing the historicity of the ethnographic endeavor itself. The last decades have not only seen a proliferation of empirically rich and theoretically sophisticated historical ethnographies, but also a decisive move towards ethnographies of the historical imagination. Taking its point of departure from a concise introduction to the genealogy of the trope of "historicity" in anthropological discourse, this course aims to explore the possibilities of an anthropology of historical consciousness, discourse and praxis – i.e. the ways in which human groups select, represent, give meaning to, and strategically manipulate constructions of the past. In this, our discussion will not just focus on non-western forms of historical knowledge, but include the analysis of western disciplined historiography as a culturally and historically specific form of promulgating conceptions of the past and its relation to the present. Instructor(s): S. Palmié

ANTH 41810. Signs and the State. 100 Units.

Relations of communication, as well as coercion, are central though less visible in Weber's famous definition of the state as monopoly of legitimate violence. This course reconsiders the history of the state in connection to the history of signs. Thematic topics (and specific things and sites discussed) include changing semiotic technologies; means; forces and relations of communication (writing, archives, monasteries, books, "the" internet); and specific states (in early historic India and China, early colonial/revolutionary Europe, especially France, Britain, and Atlantic colonies, and selected postcolonial "new nations"). Instructor(s): J. Kelly Terms Offered: TBD

Equivalent Course(s): ANTH 22710

ANTH 41900. Crowds and Publics. 100 Units.

The figure of the unruly crowd, anxiously invoked by social theorists from the late nineteenth century to the mid-twentieth century, was the dystopian alter ego of democratic mass society. Conversely, the figure of the rational mass public, invoked as an ideal from the middle of the twentieth century onwards, relies upon a demonization of the affectively volatile crowd. Oddly, given that they are so intimately related, the two figures of the crowd and the public are rarely explicitly theorized together. This seminar, moving from the early crowd psychology of Le Bon through to contemporary critiques of Habermas, offers an opportunity to redress this lacuna in two ways. On the one hand, we will explore the relationship between affectivity and politics in a wide range of writings. On the other, we will consider the historical relation between theory and social change during a period that stretches from the dawning of mass publicity through the heyday of fascism and on to the diversified terrain of contemporary identity politics. Students will be responsible for classroom presentations as well as a term paper based on the readings.

Instructor(s): W. Mazzarella

ANTH 41901. The Crowd. 100 Units.

At the end of the nineteenth century, the figure of the unruly, affect-laden crowd appeared as both the volatile foundation and the dystopian alter ego of the democratic mass society. By the middle of the twentieth century, following the traumatic excesses of communism and fascism in Europe, the crowd largely disappeared from polite sociological analysis - to be replaced by its serene counterpart, the communicatively rational public. At the turn of the twenty-first century, however, the previously demonized crowd has unexpectedly returned, now in the valorized guise of 'the multitude' - in part as a result of a growing sense of the exhaustion of the categories of mainstream liberal politics. This seminar tracks the trajectory of the crowd, from mass to multitude, through a series of classic readings and recent interventions. Students will be responsible for classroom presentations as well as a term paper based on the readings.

Instructor(s): W. Mazzarella

ANTH 42500. Anthropology of the Afro-Atlantic World. 100 Units.

Although originally pioneered, more than three generations ago, by scholars and critics such as C.L.R. James, Eric Williams, W.E.B. DuBois, or Walter Rodney, conceptions of an "Atlantic World" have only recently come to prominence in Anthropology. In the past decade, however, students of Africa and the Americas have increasingly begun to phrase their inquiries in terms transcending entrenched geographical divisions of labor within the social sciences, aiming to include Africa, the Americas, and, to a certain extent, Europe into a single analytic field. Parts of this course will be devoted to a concise introduction to some of the major theoretical positions within, and controversies surrounding the new "Atlantic" anthropology of Africa and its New World diasporas. After this, we will examine a number of recent monographs and/or major articles exemplifying the promises and pitfalls of theoretical conceptions and methodological procedures that attempt to go beyond mere transregional comparison or linear historical narratives about "African influences", and aim at analytically situating specific ethnographic or historical scenarios within integrated perspectives on an "Afro-Atlantic World". Instructor(s): S. Palmié.

Equivalent Course(s): LACS 42500

ANTH 42600. Cultural Politics of Contemporary India. 100 Units.

Structured as a close-reading seminar, this class offers an anthropological immersion in the cultural politics of urban India today. A guiding thread in the readings is the question of the ideologies and somatics of shifting "middle class" formations; and their articulation through violence, gender, consumerism, religion, and technoscience.

Instructor(s): W. Mazzarella Terms Offered: TBD Equivalent Course(s): ANTH 25500,SALC 20900,SALC 30900

ANTH 42900. Performance and Politics in India. 100 Units.

This seminar considers and pushes beyond such recent instances as the alleged complicity between the televised "Ramayana" and the rise of a violently intolerant Hindu nationalism. We consider the potentials and entailments of various forms of mediation and performance for political action on the subcontinent, from "classical" textual sources, through "folk" traditions and "progressive" dramatic practice, to contemporary skirmishes over "obscenity" in commercial films.

Instructor(s): W. T. S. Mazzarella Terms Offered: Not offered 2012–13; will be offered 2013–14

ANTH 43700. Weber, Veblen and Genealogies of Global Capitalism. 100 Units.

Two intellectual traditions have dominated discussion of the history of capitalism: classical to neo-classical economics, and Marxism. This course searches for other possibilities. It focuses on critical comparative reading of Thorstein Veblen's theory of the late modern "new order" and Max Weber's comparative sociology, but will also read widely among other authors, including Simmel, Sombart, Mahan, Tolstoy and Gandhi. Questions to engage will include: relations between capital, the state, and military force (between means of production and means of coercion); commerce in Asia before European colonialism and the rise of colonial plantations and monopoly trading companies; types of capital, the rise and spread of joint-stock companies, stock markets, and capitalist corporations; the "new order," decolonization and the nation-state.

Instructor(s): J. Kelly

ANTH 43715. Self-Determination: Theory and Reality. 100 Units.

From the Versailles Conference (1919) through the Bandung Conference (1955) and beyond, global politics has been reorganized by efforts to implement and sustain political sovereignty on the basis of national self-determination. This course examines the theories informing this American-led plan and its real consequences, with attention to India, Algeria, Indo-China, New Zealand, Fiji, and Hawaii. Dilemmas in decolonization, partitions, the consequences of the cold war, and the theory and practice of counterinsurgency are discussed together with unintended consequences of the plan in practice, especially the rise of political armies, NGOs, and diaspora.

Instructor(s): J. Kelly Terms Offered: Winter Equivalent Course(s): ANTH 23715

ANTH 43720. Weber, Bakhtin, Benjamin. 100 Units.

Ideal types? The iron cage? Captured speech? No alibis? Dialectical Images? Charismatic authority? Heteroglossia? Modes of Domination? Seizing the flash? Finished, monological utterances? Conditions of possibility? Strait gates through time? Weber, Bakhtin, and Benjamin provide insights and analytical tools of unsurpassed power. Scholars who use them best have faced and made key decisions about social ontology and social science epistemology, decisions that follow from specific, radical propositions about society and social science made by these theorists and others they engage, starting at least from Immanuel Kant. This course is designed for any student who wants to more clearly understand the arguments of Weber, Bakhtin, and Benjamin, and to understand more broadly the remarkable trajectories of German social theory after Kant. It is designed especially for anyone hoping to use some of their conceptions well in new research. (Yes, Bakhtin is Russian, and cultural theory in Russia and the U.S. too will come up.) Fair warning: this course focuses on four roads out of Kant's liberal apriorism (including culture theory from Herder to Boas and Benedict, as well as Benjamin and the dialectical tradition, Bakhtin's dialogism, and Weber's historical realism). We will spend less time on good examples of current use of Weber's, Bakhtin's, and Benjamin's ideas than on the writings of Weber, Bakhtin, and Benjamin themselves, and their predecessors and interlocutors (including Herder, Hegel, Clausewitz, Marx, Ihering, and Simmel). The premise of the course is that you will do more in your own research with a roadmap than with templates.

Instructor(s): J. Kelly Terms Offered: TBD

Equivalent Course(s): ANTH 22715

ANTH 43800. Approaches to Gender in Anthropology. 100 Units.

This course examines gender as a cultural category in anthropological theory, as well as in everyday life. After reviewing the historical sources of the current concern with women, gender, and sexuality in anthropology and the other social sciences, we critically explore some key controversies (e.g., the relationship between production and reproduction in different sociocultural orders; the links between "public" and "private" in current theories of politics; and the construction of sexualities, nationalities, and citizenship in a globalizing world).

Instructor(s): S. Gal

Note(s): Will be offered 2015–16

Equivalent Course(s): GNDR 25201, GNDR 43800, ANTH 25200

ANTH 43805. Nature/Culture. 100 Units.

Exploring the critical intersection between science studies and political ecology, this course interrogates the contemporary politics of "nature." Focusing on recent ethnographies that complicated our understandings of the environment, the seminar examines how conceptual boundaries (e.g., nature, science, culture, global/ local) are established or transgressed within specific ecological orders). Instructor(s): J. Masco Terms Offered: Winter (Tentative) Equivalent Course(s): ANTH 23805,CHSS 32805,HIPS 26203

ANTH 44700. Specters of Marx: Matter, Mind, Method. 100 Units.

In this seminar, we will interrogate a certain number of Marxist perspectives, and examine how/whether they can help to shed light on the relationship between ideas, material expressions, and social analysis in a post-Marxist world. While many post-mortems have been sung for Marxism, and many allegations of bankruptcy declared, there is often limited or distant engagement with the core texts from which this critique departs. Moreover, recent critical homage, such as Jacques Derridas /Specters of Marx/, seems to suggest that the force of Marx's spirit lives on not as timeless doctrine, to be sure, but as recombinant traces, orientations, and possibilities embedded in the work of writers influenced by his thought. Without losing sight of the historical logics of capitalism and the state, we will focus on key texts in the Marxist intellectual tradition as they relate to issues of mind, matter, and method. Starting with Marx himself, the seminar will unfold in roughly chronological and thematic progression to track how his seminal ideas have been amplified, transformed, or undermined by later generations of social theorists (Lukács, Gramsci, Adorno, Benjamin, Althusser, Debord, Lefèbvre, Ollman, Sayer, Derrida, Jameson, Eagleton, Zizek). In the process, we will critically reflect on Marxist engagements with ideas of culture, space, time, history, ideology, hegemony, modernity, and politics, to name but a few.

Each of these topics could easily be the focus of a whole course. In this light, the seminar hopes to offer an introduction to ideas and concepts, while striving for depth of analysis. This being said, a modicum of familiarity with the broad horizon of Marxist thinking (e.g. labor, relations of production, commodity, fetishism, value, consciousness, alienation, etc.) will be useful and is strongly recommended. Instructor(s): F. Richard

ANTH 45300. Explorations in Oral Narrative (The Folktale) 100 Units.

This course studies the role of storytelling and narrativity in society and culture. Among these are a comparison of folktale traditions, the shift from oral to literate traditions and the impact of writing, the principal schools of analysis of narrative structure and function, and the place of narrative in the disciplines (i.e., law, psychoanalysis, politics, history, philosophy, anthropology).

Instructor(s): J. Fernandez Terms Offered: Not offered 2015-16; will be offered 2016-17

Equivalent Course(s): ANTH 21305

ANTH 45405. Maverick Markets: Cultural Economy and Cultural Finance. 100 Units.

What are the cultural dimensions of economic and financial institutions and financial action? What social variables influence and shape 'real' markets and market activities? 'If you are so smart, why aren't you rich?' is a question economists have been asked in the past. Why isn't it easy to make money in financial areas even if one knows what economists know about markets, finance and the economy? And why, on the other hand, is it so easy to get rich for some participants? Perhaps the answer is that real markets are complex social and cultural institutions which are quite different from organizations, administrations and the production side of the economy. The course addresses these differences and core dimensions of economic sociology. This course provides an overview over social and cultural variables and patterns that play a role in economic behaviour and specifically in financial markets. We draw on the 'New Economic Sociology' which emerged in the late 70's and early 80's from the work of Harrison White, Marc Granovetter, Viviana Zelizer, Wayne Baker and others. We also draw on recent analysis of the relationship between knowledge, technology and economic and financial institutions and behaviour, and include an emerging body of literature on the financial crisis of 2008-09. The readings examine the historical and structural embeddedness of economic action and institutions, the different constructions and interpretations of money, prices and other dimensions of a market economy, and how a financial economy affects organizations, the art world and other areas.

Instructor(s): K. Knorr Cetina Terms Offered: Spring Note(s): Open to advanced undergraduates Equivalent Course(s): SOCI 40172

ANTH 45600. When Cultures Collide: The Multicultural Challenge in Liberal Democracy. 100 Units.

Coming to terms with diversity in an increasingly multicultural world has become one of the most pressing public policy projects for liberal democracies in the early 21st century. One way to come to terms with diversity is to try to understand the scope and limits of toleration for variety at different national sites where immigration from foreign lands has complicated the cultural landscape. This seminar examines a series of legal and moral questions about the proper response to norm conflict between mainstream populations and cultural minority groups (including old and new immigrants), with special reference to court cases that have arisen in the recent history of the United States.

Instructor(s): R. Shweder Terms Offered: Winter

Note(s): CHDV Distribution, C; 3*

Equivalent Course(s): PSYC 45300, HMRT 35600, GNDR 45600, CHDV 45600

ANTH 46020. Archaeology of Modernity. 100 Units.

This course covers the development, themes, practices, and problems of the archaeology of the modern era (post 1450 AD), or what in North America is better known as the subfield of "historical archaeology." Texts and discussions address topics such as the archaeology of colonialism, capitalism, industrialization, and mass consumption. Case studies from plantation archaeology, urban archaeology, and international contexts anchor the discussion, as does a consideration of interdisciplinary methods using texts, artifacts, and oral history. Our goal is to understand the historical trajectory of this peculiar archaeological practice, as well as its contemporary horizon. The overarching question framing the course is: what is modernity and what can archaeology contribute to our understanding of it? Instructor(s): S. Dawdy Terms Offered: TBD Equivalent Course(s): ANTH 26020

ANTH 46505. Non-Industrial Agriculture. 100 Units.

Agriculture is, fundamentally, a human manipulation of the environment, a deliberately maintained successional state designed to serve human needs and desires. In this course, we use the history of non-industrial agriculture to think through some contemporary concerns about environmental change and the sources of our food—including topics such as genetically modified plants, fertilizers, sustainability, and invasive species. Beginning with the origins of agriculture in the early Holocene, we examine several forms of so-called "traditional" agriculture in the tropics and elsewhere, from swidden to intensive cropping. While the course is framed in terms of contemporary concerns, our focus is primarily historical and ethnographic, focusing on the experiences of agriculturalists over the last ten thousand years, including non-industrial farmers today. Students will be expected to produce and present a research paper.

Instructor(s): K. Morrison Terms Offered: Winter Equivalent Course(s): ANTH 26505,ENST 26505

ANTH 46700. Colonial Landscapes. 100 Units Units.

This seminar will explore the ways in which both conscious strategies and practices of colonial control and the unintended effects of colonial encounters have altered the built environment which structures lived experience of the colonial situation for both alien agents and indigenous peoples. At the same time, it will seek to discern the ways in which the conjuncture of differing perceptions of the landscape have affected the experience of colonial encounters and transformations of identity. The seminar is especially concerned to explore possibilities for the archaeological investigation of ancient colonial landscapes; and the ancient Western Mediterranean will serve as a primary empirical focus against which general theoretical constructs and research strategies will be evaluated. Topics include the cultural economy of place and space; the guilt environment, habitus and social practice; monumentality, memory and ritual; networks of communication; cadasters and the agrarian landscape; and landscape and the inscription and contestation of colonial hegemony. Instructor(s): M. Dietler

ANTH 46800. Ethnoarchaeology and Material Culture. 100 Units.

This seminar explores the theoretical contributions and research methods of the still developing hybrid subfield of anthropology designed to aid archaeological interpretation by undertaking ethnographic research emphasizing the social understanding of material culture. It also attempts to show the potential ethnoarchaeological research to provide a privileged site of conjuncture between the interests of archaeology and cultural anthropology. The course will proceed primarily by means of a close critical examination of selected ethnoarchaeological case studies and readings in material culture theory. The goals of the course include developing: (1) an appreciation of the range of theoretical approaches being applied to the study of material culture and their relative utility for archaeological interpretation, (2) an understanding of the special problems raised by the process of archaeological interpretation and the nature of archaeological data, and (3) a critically astute competence in evaluating, designing, and executing the techniques and research strategies of ethnoarchaeological fieldwork. Instructor(s): M Dietler

ANTH 46820. Social Life of Things (And Beyond): Objects, People, Value. 100 Units.

Twenty years ago, Arjun Appadurai published a seminal collection on The Social Life of Things, marking a watershed in anthropological understandings of consumption, circulation, and production, and the role of objects in mediating between cultural sensibilities and economic flows. This work has stimulated a wealth of interest in materiality, and over the years, research has sought to expand the insights of Appadurai's collection to shed greater light on the relationship between mind, matter, and subjectivity. Drawing on these recent developments, this course aims to explore the material dimensions of cultural life and cultural production. As we engage with contemporary and classic writings in cultural anthropology, archaeology, philosophy, and social theory, we will grapple with several key issues: the boundaries between objects and subjects; the agency of persons and things; the relationship between objects and meaning, between experience and imagination; and the production of sociality in the actions/transactions linking people to their material world. The question of value is crucially implicated in these processes, and will require particular attention. And because material transactions are embedded in overlapping fields of power and politics, we will remain attentive to the ways in which objects make/mark/transgress difference, inequalities, and social boundaries. While we will discuss theories of materiality *per se*, our focus will rest mostly in theorizing how things work in and through concrete social and historical contexts. In this light, ethnographic studies will provide precious resources in helping us outline the logics, terrains, and lineaments of material and cultural production. Indeed, a central goal of this course is to examine how we can mobilize ethnographic insights on object worlds to reframe or expand archaeological inquiries and possibilities, and how, in turn, archaeological imaginations may help to enhance anthropological understandings of materiality.

Instructor(s): F. Richard

ANTH 46821. Materiality. 100 Units.

Materiality is on everyone's lips these days. Literatures across the disciplines are full of living bodies and concrete experiences, object biographies, 'theories of things,' a return to 'matter,' 'new' materialisms spun out of 'old' ones... While generative, materiality's ubiquity also betrays a gap, an ambiguity, an absence. For what materiality is exactly remains unsure. Some seem to use it as a descriptive shorthand for the material world. Others as an analytic tending to the materialness of existence. Or as a discourse on it. For others still, it denotes the tangible effects of actions, practice, signs, and thought. Or a framework for unpacking the relationships mediating between people and things... Conjurations abound, yet seldom escape a certain circularity ("materiality studies... materiality?"). The concept has been used to frame a near infinite horizon of topics, from artefacts, of course, to cosmology, faith, finance, and absence, encompassing phenomena both enduring and ephemeral, both there and not-there. In taking on so much, has materiality outlasted its usefulness? What analytic work did it perform in the first place? With these considerations as background, through classic and recent literatures, this seminar will examine the relevance of 'materiality' (epistemologically, conceptually, methodologically) to anthropologies of the contemporary world, at a time when the ontologies of old are dissolving into a bubbling landscape of mixtures, hybridities, and posthumanities, which forces us to rethink basic questions of identity, agency, ethics and politics.

Instructor(s): F. Richard

ANTH 46821. Materiality. 100 Units.

Materiality is on everyone's lips these days. Literatures across the disciplines are full of living bodies and concrete experiences, object biographies, 'theories of things,' a return to 'matter,' 'new' materialisms spun out of 'old' ones... While generative, materiality's ubiquity also betrays a gap, an ambiguity, an absence. For what materiality is exactly remains unsure. Some seem to use it as a descriptive shorthand for the material world. Others as an analytic tending to the materialness of existence. Or as a discourse on it. For others still, it denotes the tangible effects of actions, practice, signs, and thought. Or a framework for unpacking the relationships mediating between people and things... Conjurations abound, yet seldom escape a certain circularity ("materiality studies... materiality?"). The concept has been used to frame a near infinite horizon of topics, from artefacts, of course, to cosmology, faith, finance, and absence, encompassing phenomena both enduring and ephemeral, both there and not-there. In taking on so much, has materiality outlasted its usefulness? What analytic work did it perform in the first place? With these considerations as background, through classic and recent literatures, this seminar will examine the relevance of 'materiality' (epistemologically, conceptually, methodologically) to anthropologies of the contemporary world, at a time when the ontologies of old are dissolving into a bubbling landscape of mixtures, hybridities, and posthumanities, which forces us to rethink basic questions of identity, agency, ethics and politics.

Instructor(s): F. Richard

ANTH 46821. Materiality. 100 Units.

Materiality is on everyone's lips these days. Literatures across the disciplines are full of living bodies and concrete experiences, object biographies, 'theories of things,' a return to 'matter,' 'new' materialisms spun out of 'old' ones... While generative, materiality's ubiquity also betrays a gap, an ambiguity, an absence. For what materiality is exactly remains unsure. Some seem to use it as a descriptive shorthand for the material world. Others as an analytic tending to the materialness of existence. Or as a discourse on it. For others still, it denotes the tangible effects of actions, practice, signs, and thought. Or a framework for unpacking the relationships mediating between people and things... Conjurations abound, yet seldom escape a certain circularity ("materiality studies... materiality?"). The concept has been used to frame a near infinite horizon of topics, from artefacts, of course, to cosmology, faith, finance, and absence, encompassing phenomena both enduring and ephemeral, both there and not-there. In taking on so much, has materiality outlasted its usefulness? What analytic work did it perform in the first place? With these considerations as background, through classic and recent literatures, this seminar will examine the relevance of 'materiality' (epistemologically, conceptually, methodologically) to anthropologies of the contemporary world, at a time when the ontologies of old are dissolving into a bubbling landscape of mixtures, hybridities, and posthumanities, which forces us to rethink basic questions of identity, agency, ethics and politics.

Instructor(s): F. Richard

ANTH 46821. Materiality. 100 Units.

Materiality is on everyone's lips these days. Literatures across the disciplines are full of living bodies and concrete experiences, object biographies, 'theories of things,' a return to 'matter,' 'new' materialisms spun out of 'old' ones... While generative, materiality's ubiquity also betrays a gap, an ambiguity, an absence. For what materiality is exactly remains unsure. Some seem to use it as a descriptive shorthand for the material world. Others as an analytic tending to the materialness of existence. Or as a discourse on it. For others still, it denotes the tangible effects of actions, practice, signs, and thought. Or a framework for unpacking the relationships mediating between people and things... Conjurations abound, yet seldom escape a certain circularity ("materiality studies... materiality?"). The concept has been used to frame a near infinite horizon of topics, from artefacts, of course, to cosmology, faith, finance, and absence, encompassing phenomena both enduring and ephemeral, both there and not-there. In taking on so much, has materiality outlasted its usefulness? What analytic work did it perform in the first place? With these considerations as background, through classic and recent literatures, this seminar will examine the relevance of 'materiality' (epistemologically, conceptually, methodologically) to anthropologies of the contemporary world, at a time when the ontologies of old are dissolving into a bubbling landscape of mixtures, hybridities, and posthumanities, which forces us to rethink basic questions of identity, agency, ethics and politics.

Instructor(s): F. Richard

ANTH 47615. Citationality and Performativity. 100 Units.

This class explores the concept of citationality—the (meta)semiotic form and quality of reflexive interdiscursive practices—and its relationship to various social forms and formations. Particular focus is given to the citational form of performativity and the performativity of citational acts. In the first part of the class we explore issues of reflexivity and (meta)semiosis through Charles Sanders Peirce's semiotic and its reformulation by linguistic anthropology. We then turn to J. L. Austin's discussion of performativity, Jacques Derrida's critique of speech act theory, and Judith Butler's reading of Derrida. The second part of the class explores various forms of citationality, including reported speech; gender performativity; forms of negation and disavowal; mimicry, passing, and pretending; mockery and parody; and commodity and brand fetishes.

Instructor(s): C. Nakassis

ANTH 48210. Colonial Ecologies. 100 Units.

This seminar explores the historical ecology of European colonial expansion in a comparative framework, concentrating on the production of periphery and the transformation of incorporated societies and environments. In the first half of the quarter, we consider the theoretical frameworks, sources of evidence, and analytical strategies employed by researchers to address the conjunction of environmental and human history in colonial contexts. During the second half of the course, we explore the uses of these varied approaches and lines of evidence in relation to specific cases and trajectories of transformation since the sixteenth century. Instructor(s): M. Lycett, K. Morrison Terms Offered: Spring Equivalent Course(s): ANTH 28210,ENST 28210

ANTH 48400. Fieldwork in the Archives. 100 Units.

This is a methods seminar designed for both archaeology and sociocultural graduate students interested in, or already working with, archival materials and original texts. The goal of the course is to develop a tool-kit of epistemological questions and methodological approaches that can aid in understanding how archives are formed, the purposes they serve, their relation to the culture and topic under study, as well as how to search archives effectively and read documents critically. We will survey different types of documents and archives often encountered in fieldwork, and sample approaches taken by historians, anthropologists, and archaeologists from contexts as diverse as the ancient Near East to 1970's Cuba. This seminar will also be driven by the problems and examples that students bring to the discussion. A major outcome will be a research paper that uses original documents from the student's own fieldwork or from locally available archive sources identified during the course. Instructor(s): S. Dawdy

ANTH 48710. Death, the Body, and the Ends of Life. 100 Units.

Is death a universal and natural condition? Is life necessarily its opposite? Anthropologists have sought to problematize the biological and psychological 'reality' of death by drawing out the conditional ways death is constructed and experienced across different cultural contexts. These range from 'normal' deaths to the unconventional (e.g. sorcery killings and human sacrifice) and even virtual deaths. How might these culturally specific accounts be open to comparison and influence new conceptualizations? This course will explore this wide-ranging literature to foreground how death puts self, personhood, and the *social* into question while engaging the body or corpse as a site of this cultural (re)production. A focus of the course is to seek out a possible productive tension between death as a form of cultural representation to those that analyze the making and allowing of life and death. Tracing classic to recent ethnographic, archaeological, psychological writings, this course will explore themes such as grief and mourning, the undead, immortality, disposals and funerals, and the materiality of dying.

Instructor(s): A. Yao Terms Offered: TBD Equivalent Course(s): ANTH 28420

ANTH 50500. Commodity Aesthetics: Critical Encounters. 100 Units.

Walter Benjamin and Theodor Adorno's classic writings on the relationship between cultural production, capitalism and aesthetic experience, value and embodiment are back on the anthropological agenda. Why should this be the case? What relevance does the cultural critique of the Frankfurt School hold for contemporary ethnographic projects? Although this seminar in a sense hinges on the work of Benjamin and Adorno, it is above all an attempt to locate the questions they asked in relation to a longer philosophical genealogy: broadly, German critical responses to capitalist modernity and its particular claims on the senses. Readings will include excerpts from key texts by Kant, Hegel, Marx, Lukacs, Weber, Simmel, Balasz, Kracauer, Adorno, and Benjamin.

Instructor(s): W. Mazzarella

ANTH 50501. Žižek. 100 Units.

Academic stand-up? Intellectual rock star? Slavoj Žižek's frenetic, eclectic style has often led the theoretical and political seriousness of his project to be eclipsed by his celebrity. Through a series of readings from his most substantial works, this seminar explores the originality of Žižek's attempt (in a poststructuralist, post-socialist world) to bring Lacanian psychoanalysis into conversation with the Kant-Hegel-Marx lineage of theorizing modernity.

Instructor(s): W. Mazzarella

ANTH 50620. Reading Foucault. 100 Units.

Foucault has long been part of anthropology's canon of interlocutors, an engagement that has often been highly generative (though not without detractors). The recent publication (in French and English) of Foucault's lectures at the *Collège de France*, and other writings and interviews completed before his death, has revealed a different Foucault, who reprises, expands, and refines themes broached earlier in his career. This 'late Foucault' will be the object of this course. Conceived as a reading seminar, the course will consist of weekly substantive engagements with Foucault's writings on ethics, subjectivity, knowledge, politics, and government, with an eye for their resonance with contemporary anthropological thought, *problèmatiques*, and concerns.

Instructor(s): F. Richard

ANTH 50700. Seminar: Biopower. 100 Units.

The politics of life in modernity has come to occupy center stage in the human sciences. Studies of modern techniques of governmentality, the naturalizations of transnational neoliberalism, the medicalization of social and historical experience, and the growing hegemony of an interventionist bioscience offer some of the most interesting and challenging models for a contemporary and cosmopolitan anthropology. This seminar will read a number of recent studies in anthropology, science studies, and critical social theory in an effort to better grasp the centrality of the life sciences and biotechnology in modern and contemporary arrangements of power. We will presume that most students will have already read the germinal writings of Georges Canguilhem (The Normal and the Pathological), Michel Foucault (The Birth of the Clinic, Madness and Civilization, Discipline and Punish, "Governmentality"), and Giorgio Agamben (Homo Sacer). These works will not be assigned. (Students who have not read this work are also welcome to enroll, of course.) The materials assigned for the course will first address broad social-theoretical concerns with life and modernist forms of power, then turn to some powerfully analyzed ethnographies of medicine and other institutions that govern life. The third part of the course will turn to science studies and some methodologically innovative approaches to the ethnography of power/knowledge in the "contemporary" moment.

Instructor(s): J. Farquhar

ANTH 50705. Capital and Biocapital. 100 Units.

This course will explore some recent work on the political economy of the life sciences, exploring what myself and others have called biocapital. But it will do so through a reading of Marx. It will, therefore, be a course in two parts. The first half of the course will involve reading sections of the later Marx (probably some combination of *The Grundrisse* and *Capital*). The second half will involve reading various contemporary works on biocapital, in what Stefan Helmreich has referred to as "Weberian-Marxist" and "Marxist-feminist" veins. Instructor(s): K. Sunder Rajan

ANTH 50720. Knowledge/Value: Life Sciences and Information Sciences. 100 Units.

Instructor(s): K. Sunder Rajan

ANTH 51920. Enigma of the Network. 100 Units.

So much has been written about networks, especially since the advent of the Internet, that it is difficult to know how and where to begin specifying the term. Responding to these circumstances, Bruno Latour writes that "the word network is so ambiguous that we should have abandoned it long ago." Far from abandoning it we have embraced it, and with such vigor that everything and everyone seems to be part of a network. This has rendered the network even more indeterminate while amplifying the enigma of its putatively positive and negative capacities. Some current notions of the network suggest that it is the contemporary fundamental social form, others specify it as a cooperative arrangement of human and nonhuman actors dispersed in space and time and enabled through electronic communication technologies. The network has come to be an organizational imperative, a paradigm of emergence, and an inherent emergent paradigm. This course will explore several different iterations of the network through close readings of texts that celebrate, critique, expand, and think the network. Special attention will be paid to neo-materialist conceptions of the network that problematize its representational register.

Instructor(s): M. Fisch

ANTH 52100. Seminar: Anthropologies of Body and Experience. 100 Units.

Classically in sociocultural anthropology bodies occupied a default position that could be safely left to the biological sciences. Since the 1980s, however, the combined influence of Foucault, phenomenology, feminism, and medical anthropology has made bodies ("the body," embodiment, bodiliness) a topic in new ways. Once the life of the body has been made an issue for anthropology, many other areas of interest are somewhat recast: consciousness, materialism, subjectivity, agency, discipline, everyday life, practice, and experience all come into play in new ways. No one seminar could accommodate even the majority of work claiming to elucidate these newly framed topics. This course will narrow the field by considering embodiment together with the vexed theoretical and empirical question of experience. Readings (and a few films) will fall into the following broad categories: phenomenology and the critique of phenomenology; representations and their consumption; materialist methods in the interpretation of culture; sexuality and the Freudian body; non-Western theories of bodies and experience; virtual bodies and the senses; bodies (in)visible in ethnography and history. Instructor(s): J. Farquhar

ANTH 52700. The Anthropology of Security. 100 Units.

One of the foundational concepts of international order is the notion of security. Though this category is rarely defined in practice, it is the basis for war and peace, for the internal management of populations within states, as well as a rhetorical structure that is increasingly used to mobilize resources (economic, military, and ideological). This seminar interrogates the concept of security through the theoretical literature informing state concepts of security, through ethnographic studies of insecurity, and particularly, through an analysis of U.S. power in the post-Cold War period.

Instructor(s): J. Masco

ANTH 52710. Publics, Privates, Secrets. 100 Units.

George Simmel once wrote that secrecy was "one of the greatest achievements of humanity" because it added complexity to social life, making every social encounter a complex negotiation over concealment or revelation. This course explores the critical theory of secrecy, and its others -- the public and the private. We will assess how the deployment or withholding of knowledge is constitutive of experiences of self, social life, and state power.

Instructor(s): J. Masco

ANTH 52715. Anticipatory Knowledge. 100 Units.

Prognosis, prediction, forecasting, risk, threat – we live at a time of proliferating expert anticipatory futures. This seminar explores how the future is brought into the present as a means of establishing new modes of governance. It focuses on the historical evolution of expert regimes from closed world systems to emerging forms, tracking how notions of danger (marked as crisis, disaster, and catastrophe) index and invade the present. The seminar approaches expert futurism as a vehicle for thinking through complex systems, ethics and knowledge production, and the role of the imaginary in security institutions (crossing techno-scientific, military, financial, environmental, and health domains). Instructor(s): J. Masco

ANTH 53320. Urban Emergence. 100 Units.

This course considers the aesthetics, politics, economies, and lived experiences that materialize in relation with thinking the city as a paradigm of emergence and/or an emergent paradigm. As such, it is concerned with the city as a site of generative tension between sedimented practices and nascent phenomena, top-down planning and self-organization, and spatialized morality and temporal becomings. In traversing these themes, it attends to the city as an object, process, and site of reflective theorization. The approach will be both historical and comparative, guided by urban social theory and ethnographic engagements that highlight the sociocultural irreducibility of specific urban conditions, experiences, and questions. Special attention will be given to questions of urban experience and theory vis-à-vis the effects of mass mediation, governmentality, infrastructure, architecture, affective and sensorial registers. This is a graduate seminar but open to undergraduates by permission from the instructor.

Instructor(s): M. Fisch

ANTH 53815. Public Affect. 100 Units.

Affect is everywhere in cultural theory today, and public life is supposedly more affective than it ever was before. Affect represents freedom from the prison-house of reason. Affect represents enslavement to sentiment and passion. Affect is emotion. Affect is not emotion, but rather something more corporeal. Affect is intuitive. Affect is deliberate. Affect is transcendent. Affect is socially and historically mediated. How can we begin to grasp this ubiquitous yet enigmatic concept? In this advanced graduate seminar, we will engage with a series of texts that seek, in very different ways, to mobilize affect as a category of social analysis. A continuous conceptual thread will be a consideration of how a notion of affect might serve to mediate between dialectical and immanentist critical traditions. Instructor(s): W. Mazzarella

ANTH 53820. Mediation, Modernities and Beyond in Japan. 100 Units.

This seminar engages questions surrounding technological mediation and modernity through the particular socio-historical circumstances of Japan. Our focus will be on the relation in modernity between media and new social forms, representation, experiences and subjectivities. We will explore how contemporary emergent forms of technological media challenge some of the dominant theoretical assumptions that have guided discussions concerning the impact of technological media in the twentieth century. Ultimately, our goal will be to imagine new approaches to contemporary Japan as well as other sites of dense technological mediation. While our overall focus will be on Japan, the readings and discussions will speak across geopolitical boundaries.

Instructor(s): M. Fisch

ANTH 53825. The Anthropology of Sound. 100 Units.

This course is an intensive reading seminar surveying some key works and debates relevant to the anthropological study of sound and sensibility. Students will examine the relation of sound to "modern" modes of reasoning, sentiment and historical consciousness, space and place, the ethics of listening, mechanical reproduction, infrastructure, the phenomenology and politics of voice and silence, the "problem" of noise and the weaponization of sound technologies. The class will involve active listening exercises and an audio production assignment. Readings will include Feld, Schaefer, Corbin, Sterne, Adorno, Kittler, Derrida, Barthes, Hirschkind, Cage, Attali. Instructor(s): J. Chu

ANTH 53900. Modern China: Anthropological and Historical Studies. 100 Units.

This graduate seminar will cover a range of recent studies of (mostly) 20th century China. Though one goal of the course is simply to digest and evaluate the best recent social , cultural and political reporting on Chinese modernities, another goal is to consider questions of method in anthropology and history in the wake of area studies eclecticism. For those not planning to do research in East Asia these readings could serve as a useful case study of theory and method after area studies. Ethnographies will include books by Anagnost, Farquhar, Litzinger, Liu, Rofel, Scheid, Schein, and Yan as well as a number of articles. Historical studies will focus on cultural histories, including some that examine early sources of Chinese traditions (e.g. Kuriyama, Jullien). Because literary and media studies have been influential in Chinese studies, some works in these fields will be covered as well. Instructor(s): F. Farquhar

ANTH 54400. Paradoxes of Race. 100 Units.

Notionally grounded in nature, race has a history. We know that racializing discourses and practices are distinctly modern phenomena, intellectually postdating, rather than informing enlightenment ideas about the biological origins of human variation, yet simultaneously growing out of the practical exigencies of the establishment of European domination in colonial scenarios. The historical "artificiality" and ethnographic variability of contemporary projections of embodied racial otherness notwithstanding, ideologies of "race" inform not just patterns of everyday sociality and conflict, but become enshrined in legal and scientific (e.g. medical) policies often explicitly geared towards anti-racist goals. This course examines racializing ideas and practices in several historical and contemporary social and cultural contexts not only with a view towards establishing a genealogy of conceptions of racial difference, but in order to develop a perspective on how to disrupt the social routinization and effectiveness of race as both a discriminatory technos, and a template for self-making.

Instructor(s): S. Palmié.

ANTH 54410. Hybridity. 100 Units.

Ever since the late 1980s when James Clifford discovered that the "pure products" had "gone crazy", and Ulf Hannerz alerted us to the fact that the "world" was "in creolization", notions of "hybridity" and "hybridization" (and their various conceptual relatives such as mestizaje, creolization, syncretism, and so forth) have enjoyed increasing currency in our discipline. Often seen as the results of globalization-induced and medially accelerated Hyperdiffusionism, "hybrids", it seems, are the ubiquitous sign of a postmodern denouement of both "cultures" as "we knew them" (once, when we were "modern"), and the antidote to older anthropological reifications. How ironic then that while the "hybrid" obviously gestures toward what Marilyn Strathern has called "post-plural" conceptions of culture, the languages that are supposed to make it analytically visible often hearken back to the vocabularies of regimes of "breeding" ("hybrid" or "creole"), religious orthodoxies ("syncretism"), systems of racial exclusion and domination ("mestizaje"), or other institutional mechanisms and practices that reproduce and police categorical boundaries - often in order to stabilize particular distributions of power and privilege. This experimental course aims less to scrutinize the analytical utility of the conceptual language these terms appear to put at our disposal, than to probe into the epistemological conditions and taxonomic politics that make "the hybrid" thinkable in the first place, and seemingly "good to think" at the current moment. The central question it poses is: how do we know that something is "hybrid" (or not)? After a very brief initial survey of contemporary "hybridology" and the forms of analysis it seeks to supercede, we will take our departure from Bruno Latour's suggestion that "hybrids" are the inevitable products of practices of categorical "purification". In line with this, we will examine the politics of classificatory discernment, recognition, and naturalization that are productive of both the "purities" and the "hybrids" that appear to stand out, and even ostensibly militate, against them. After a foray into taxonomics and "natural kind" philosophy, we will discuss an array of case studies concerning the maintenance of classificatory infrastructures and categorical boundaries in regard to species, sex, language, race, and distinctions between humans and animals, nature and society, persons and things, and life and death. My hunch is that we might conclude that contemporary "hybridity"-talk is epistemologically problematic and politically troubling because far from destabilizing normalized categorical schemes, it necessarily reinforces precisely those distinctions that make "hybrid anomalies" visible in the first place. However, I remain entirely open to be convinced of the merits of hybridity (or rather: conceptualizations of it that I have, so far, failed to take into account). Instructor(s): S. Palmié

ANTH 54510. Nationalism, Sentimentality, and Judgment. 100 Units.

This course examines some canonical texts on nationalism, considers the specificities of nationalist solidarity in comparison to other visions of collectivity, and, drawing on contemporary theories of affect and political judgment, seeks to understand the enduring appeal of the nation form. Focusing not only on conventional accounts of citizen fear, longing, and suffering but also on contemporary challenges to nation-state configurations, the seminar takes theoretical insights from anthropology and political science, as well as history, sociology, and cultural studies. Among the authors we shall read are Anderson, Arendt, Asad, Balibar, Berlant, Brubaker, Chakrabarty, Gellner, Habermas, and Massumi. (C) Instructor(s): L. Wedeen Terms Offered: Autumn Equivalent Course(s): PLSC 49401

ANTH 54800. Uncanny Modernities. 100 Units.

This seminar examines the concept of the "uncanny" as an ethnographic topic. Pursuing the linkages between perception, trauma, and historical memory, this course asks if the modern state form necessarily produces the uncanny as a social effect. We explore this theme through works of Freud, Lacan, Derrida, Benjamin, and Foucault, as well as recent ethnographies that privilege the uncanny in their social analysis.

Instructor(s): J. Masco Terms Offered: TBD Equivalent Course(s): ANTH 24800

ANTH 54820. Post-Nature. 100 Units.

This graduate seminar explores recent work at the intersection of science studies, anthropology, and political ecology exploring ecological endangerment. Considering the planetary effects of toxicity -- scaled from individual organisms and ecologies to broader issues of climate -- the class considers a natural world radically remade by industrial process. Readings will engage a wide range of current critical theory on the emerging politics of nature -- from endangerment to post-humanism to chemical dependencies to atmospheres. Ultimately, the course will consider the ethnographic terms and theoretical implications of living post-nature. Instructor(s): J. Masco

ANTH 55400. Utopia. 100 Units.

Some claim that utopian thought was a casualty of the late twentieth century, and that we now live in a post-utopian age. This seminar calls this claim into question by exploring the various ways in which utopianism (and its dark twin, dystopianism) continue to structure our lives. We will ask what utopianism implies as social critique, as imaginary practice, and as political-cultural ideology. Departing from a series of classic utopian texts, we move into detailed engagements with Marxist utopias, modernist architectural utopias, anti-colonial utopias, totalitarian utopias, consumerist utopias and technological and/or virtual utopias. Instructor(s): J. Masco, W. Mazzarella

ANTH 55400. Utopia. 100 Units.

Some claim that utopian thought was a casualty of the late twentieth century, and that we now live in a post-utopian age. This seminar calls this claim into question by exploring the various ways in which utopianism (and its dark twin, dystopianism) continue to structure our lives. We will ask what utopianism implies as social critique, as imaginary practice, and as political-cultural ideology. Departing from a series of classic utopian texts, we move into detailed engagements with Marxist utopias, modernist architectural utopias, anti-colonial utopias, totalitarian utopias, consumerist utopias and technological and/or virtual utopias. Instructor(s): J. Masco, W. Mazzarella

ANTH 55605. Regulating Il/Licit Flows: State, Territoriality, Law. 100 Units.

This course examines how changing state practices, legal norms and technical innovations have variously shaped the flows of people, goods, capital and information within and beyond the "national order of things." Drawing on anthropological theories and methods, we will explore both the historical genealogies and emergent forms of state sovereignty and territoriality and their relation to the production of "lawful" movements vis-à-vis illicit flows. The course is divided into two parts. Part I introduces students to anthropological approaches for analyzing the different spaces of state regulation (land, the seas, the market, checkpoints, refugee camps) while Part II focuses on the pragmatics and effects of law on the movement of various persons (citizens, refugees, migrants) and commodities (drugs, money, contraband). Instructor(s): J. Chu

ANTH 56000. The Preindustrial City. 100 Units.

This seminar will be an intensive examination of the origins and structure of the preindustrial city, with an emphasis on social theories of the city that will take us into the spectrum of preindustrial/industrial/post-industrial cities. Lectures, discussions and participant presentations will be framed around an examination of theories of urban genesis, function, and meaning with speicl reference to the economic, sociological and ideological bases of city development. The seminar is broadly comparative in perspective and will consider the nature of the preindustrial city in a variety of regional and temporal contexts.. Although substantial emphasis will be placed on preindustrial urban formations and urban-rural relations, we will also touch upon issues relating to more recent historical and contemporary patterns of urbanism.

Instructor(s): A. Kolata

ANTH 56010. The City in History. 100 Units.

This seminar will be in intensive examination of the origins, structure and cultural experience of city life. Lectures, discussion and participant presentations will be framed around an examination of theories of urban genesis, function, and meaning with special reference to the economic, sociological and ideological bases of city development. The seminar is broadly comparative in perspective and will consider the nature of the city in a variety of regional and temporal contexts with an emphasis on social theories of the city that will take us into the spectrum of preindustrial/industrial/post-industrial cities. The seminar will consist of initial orienting lectures, discussion of selected texts concerned with social theories of the city, and presentation of research projects by class participants. Instructor(s): A. Kolata

ANTH 56200. The Human Environment: Ecological Anthropology and Anthropological Ecology. 100 Units.

This graduate seminar is framed around a critical intellectual history of Nature/ Culture concepts from the 18th century to the present. We will explore multiple, contradictory strands of social thought regarding Human/Environment interactions, including the concepts of Descartes, Thoreau, Linneaeus, Darwin, and Spencer, as well as a broad range of contemporary analysts. We will be particularly engaged in exploring the tensions between dualistic and monadic conceptions of the Human/ Environment relationship.

Instructor(s): A. Kolata

ANTH 56305. Time and Temporality. 100 Units.

How is time understood, experienced, and represented by different human societies? How are we to understand the social significance of ruins, heirlooms, origin stories, science fiction and millenarianism? How can we (re)construct past times? How do imagined futures structure practice? Does modernity represent a rent in the fabric of human time, as it so often claims? How do temporalities affect our research? We will explore these and other questions through a reading of philosophical, anthropological, and archaeological texts on time and temporality, drawing on sources as disperse as Heraclitus, Marx, Benjamin, Munn, Bradley, Koselleck, Gell, and Dietler. While the course may be of special interest to archaeologists and will emphasize how time is spatialized and materialized, the discussion and readings will be broad and interdisciplinary. Instructor(s): S. Dawdy

ANTH 56500. The Archaeology of Colonialism. 100 Units.

This seminar is a comparative exploration of archaeological approaches to colonial encounters. It employs temporally and geographically diverse case studies from the archaeological and historical literature situated within a critical discussion of colonial and postcolonial theory. The course seeks to evaluate the potential contribution of archaeology both in providing a unique window of access to precapitalist forms of colonial interaction and imperial domination and in augmenting historical studies of the expansion of the European world-system. Methodological strategies, problems, and limitations are also explored. Instructor(s): M. Dietler

ANTH 56515. The Underworld: Archaeology of Crime and Informal Economies. 100 Units.

Archaeology often claims to substantiate undocumented histories. In such a view, almost any kind of archaeology performs a type of forensics of informal social and economic processes. We will take an epistemological look at the most literal examples – archaeological interpretations of criminal acts and informal and/or illegal economic practices. Readings will span from classic foundations of economic anthropology and economic archaeology to the artifactual evidence used to interpret felicide, smuggling, prostitution, and contemporary war crimes. The central questions around which this student-led seminar will focus are: what are the evidentiary logics of archaeology?; what is at stake in parsing social and economic practices into 'formal' and 'informal' domains?; and what are the challenges and potentials of doing an archaeology of practices intended to leave no trace? Instructor(s): S. Dawdy

ANTH 57701. Linguistic Anthropology Seminar: Boundaries, Borders, Contacts: Processes of Differentiation. 100 Units.

The question of boundaries - - between languages, cultures, ethnic groups, institutions, disciplines, territories - - has been a central one in anthropological theorizing. Herderian assumptions equating supposedly grounded languages with territorially delimited culture (on the implicit model of nation-states) were foundational for the discipline. Noteworthy is the persistence of such terms as analysis despite repeated scholarly attacks on the notion of groundedness in language and culture, and attacks on the related assumption of homogeneity within supposed boundaries. We have recently witnessed yet another revival (and critique) of terms meant to recognize the regularity with which boundaries are breached: "hybridity," "syncretism," "creolization," "crossings," "borderlands," "global/local," and "frontiers." This course examines critically the current use of such terms. The goal of the course is to survey and develop the semiotic, sociolinguistic and institutional processes - - for instance of differentiation, stereotypy, commensuration, and standardization - - that create and regiment cultural difference, and that are often simply glossed (and glossed over) when spatial metaphors are applied to culture, language and space itself. A focus on language ideologies and linguistic differentiation will be our conceptual starting point.

Instructor(s): S. Gal

ANTH 57710. Linguistic Anthropology Seminar: Translation and Textual Circulation: Communicative Aspects of Transnational Processes. 100 Units. This seminar investigates communicative dimensions of globalization. How are movements of people, objects and texts mediated by semiotic processes and by linguistic practices. Some questions concern form: How are texts and text artifacts transformed in the process of moving across national spaces regimented by different standard languages? How does this movement change the national spaces? Is "movement" the apt characterization of this process, or rather imitation, citation, iteration? The political economy of literary and technical translation in this conventional sense is our starting point in the seminar. But denotational codes (named languages) are only one of the sites at which various transformations occur in the apparent movements of texts and practices. The goal of the seminar is to examine "translation" as also a pragmatic process, worked across systems of indexicality, across differently situated discursive formations. Ethnography itself has often been characterized as a discipline of translation in this sense. How and when are commensurabilities established not only between languages but among different registers and discourses (e.g. medical to legal to commonsense)? What social roles and institutions create and mediate commensurabilities or ruptures in specific ethnographic and political contexts? How can we study the nodes of control and conflict? Of censorship, stoppage and obstruction? More generally, what limits are imposed on cultural forms as the condition of their circulation across various types of institutions? How are cultural forms – texts, practices – made transportable and transposable? When are boundaries between cultural, ethnic, linguistic, social units created, contested or erased through such transposition. Starting with notions of entextualization, recontextualization, language ideology and interdiscursivity as developed in recent linguistic anthropology, the seminar aims to read criticallyacross current ethnographic literature on topics such as: "cultural translation," "cultures of circulation," "publics," "translation studies," "trading zones," and "semiotics of global flows." Instructor(s): S. Gal

ANTH 57715. Linguistic Anthropology Seminar: Narrative. 100 Units.

The goal is to find and analyze narratives in ethnographic materials: what counts as narratives, how they are (sometimes) institutionalized, their effects on social organizations and their implications for various cultural processes such as, for instance, memory and tradition, political conflict, career building, nation-making, regionalization, health-maintenance, among others. We will try various modes of narrative analysis to see how they work and why. In the first few weeks, we review some philosophical questions about time and its experience via linguistic/ textual representations, then move to some literary and theory-of- history opinions/ traditions, including the question of emergent story practices and their cultural categorizations. Most of the course will focus on recognizing and analyzing various genres or their fragments in fieldnotes and interviews, in interactions, mass media products and in the ethnographic accounts of others. Seminar participants will present their own field materials or critically read ethnographies focused on narratives (or ones that include such but do not highlight them) and discuss how storytelling-in-action and in interaction operates: e.g. how it might orient and align speakers and produce the textures of social life.

Instructor(s): S. Gal

ANTH 57718. Linguistic Anthropology Seminar: Politics of Translation: Circulations and Commensurations Across Social Domains. 100 Units.

Ethnography has long been considered the "translation" of cultures, but the process of translation has not often been closely examined in anthropology. Since the middle of the 20th century it has been problematized by philosophy of science, in which incommensurability between "paradigms" was thought to block translation across them, undermining the possibility of progress. Similarly, the politics of multiculturalism in many parts of the globe has revived Herderian notions of cultures as "monads" between which there is only miscommunication, apparently undermining the founding assumptions of liberalism. Cultural, ethical, epistemic and linguistic "relativity" were the labels for discussing such matters in earlier decades. Today, these concepts are increasingly problematic as anthropology engages with the ubiquitous facts of circulation: in addition to objects, materials and commodities, financial instruments, discourses, media, methods, theories, political movements, institutional arrangements all seem to "travel" across spacetime, seeming to contradict assumptions of cultural incommensurability. This course asks: How (if at all) do cultural "objects" come to be measured by similar metrics (i.e. commensurated), and/or equated in meaning (i.e. translated) so that they are taken up, recognized, reanimated, imitated in diverse locations and thus seem to travel and circulate. We start with the hypothesis that there are semiotic processes and practices by which translation and commensuration are achieved, fought over, and/or rejected. What are they? Especially: How are the social worlds, "objects," personae and sites of commensuration/translation themselves transformed by these processes. The strategy of the course is to start with practices of linguistic translation, as these are among the mediators of virtually all other commensuration processes. We explore how far linguistic and semiotic practices at language boundaries in specific sociohistorical and ideological circumstances can help illuminate other forms of commensuration and boundary work. What are the implications of these processes for the practice of anthropology? Instructor(s): S. Gal

ANTH 58200. Material Culture and Consumption: Embodied Material Culture --Food, Drink, and Drugs in History. 100 Units.

The Material Culture and Consumption seminar is designed to explore a series of current major research frontiers in the understanding of material culture. This domain of inquiry constitutes an exciting new convergence of interests among the fields of archaeology, cultural anthropology, history, and sociology; hence, the seminar seeks to explore the intersection of novel theoretical developments and empirical research among all these fields. The theme for this year's seminar is "Embodied Material Culture": that is, objects which are produced specifically for consumption by ingestion into the human body. Readings and discussion will center around works that grapple with the social and cultural understanding of food, alcohol, and drugs in ancient and modern contexts. Their close association with the body and the senses, as well as their nutritive and psychoactive properties, make these forms of material culture an especially salient, symbolically charged form of "social fact" and make the study of their consumption a particularly revealing key to social relations, cultural concepts, and articulations of the domestic and political economies.

Instructor(s): M. Dietler

ANTH 58510. Anthropology of Space/Place/Landscape. 100 Units.

Materiality has emerged as a fertile interest in anthropology and other social sciences. Within this broad conceptual umbrella, space, place, and landscape have become critical lenses for analyzing and interpreting people's engagement with their physical surroundings. Once an inert backdrop to social life, a mere epiphenomenon, the material world is now acknowledged as a generative medium and terrain of cultural production: at once socially produced and framing sociality, shaping and constraining human possibilities, both by and against design. This course concerns itself with these articulations: (1) the spatial production of social worlds, (2) its expressions in different cultural and historical settings, and (3) its trails of ambiguous effects. Drawing on several fields, anthropology and geography chiefly, but also art history, architecture, philosophy, and social theory, we will explore how the triad of space/place/landscape works on, in, and through different social worlds and its role in the making of social experience, perception, and imagination. We will also reflect on how spatial formations frequently elude the very social projects that have birthed them. The objective of the course is to provide you with a foundation in contemporary spatial thought, which can be creatively applied to questions of spatiality in your own research setting. Instructor(s): F. Richard Terms Offered: TBD Equivalent Course(s): ANTH 28510

ANTH 58515. Style. 100 Units.

Style is a paradoxical concept that seemingly defies description and interpretation. It is shared and individual, timeless yet impossibly mutable. Style also inspires and limits, defining traditional and novel forms of human expression. This course considers how the different stakes of representation are worked through the analytic of style. Surveying theoretical perspectives across several disciplines -- anthropology, art history, architecture, and technology studies -- this course reconsiders the conceptual basis of style and its applications to ethnographic and archaeological cases while attempting an exploration of its cognitive and affective dimensions.

Instructor(s): A. Yao

ANTH 58600. Social Theory of the City. 100 Units.

This graduate seminar explores various historical, sociological and anthropological theories of cities. The course analyzes major theoretical frameworks concerned with urban forms, institutions and experience as well as particular instances of city development from pre-modern to contemporary periods. The seminar will consist of initial orienting lectures, discussion of selected texts concerned with social theories of the city, and presentation of research projects by class participants. Instructor(s): A. Kolata

ANTH 58702. Archaeologies of Political Life. 100 Units.

This seminar examines how archaeologists have approached political life in the past forty years. Its aim is to question the categories through which political worlds are often studied (beginning with such unwieldy terms as 'states,' 'chiefdoms,' 'complexity,' etc.) and complicate analyses of politics in the past. Rather than relying on concepts that already predetermine the outcome of political functioning, we will read key texts in anthropology and political theory (on sovereignty, domination, legitimacy, political economy, governance, ideology, hegemony, subjectivity, anarchy) to dissect the foundations and operations of power, expose its cultural logics, and explore the processes behind the categories. Some of the questions that will guide our discussions include: How do politics work in both past and present? Through what channels and modalities? With what effects (anticipated or not)? And what role does the material world play in mediating these relations? Each week will pair theoretical readings with case-studies drawn from different parts of the world and from different moments in history. Through this seminar, students will gain familiarity with classic archaeological thinking on power and critical perspectives steering contemporary studies of past politics.

Instructor(s): F. Richard Terms Offered: TBD Equivalent Course(s): ANTH 28702

ANTH 59500. Archaeology Laboratory Practicum. 100 Units.

This hands-on lab practicum course exposes students to various stages of artifact processing on a collection from a recently excavated site (e.g., washing, sorting, flotation, identification, data entry, analysis, report preparation, curation). The primary requirement is that students commit to a minimum of nine hours of lab work per week, with tasks assigned according to immediate project needs. Instructor(s): F. Richard, S. Dawdy Terms Offered: Various Prerequisite(s): Consent of instructor Note(s): Undergraduates may take this course only once for credit.

Equivalent Course(s): ANTH 29500



DEPARTMENT OF COMPARATIVE HUMAN DEVELOPMENT

Chair Margaret Beale Spencer Professors Jennifer Cole Susan Goldin-Meadow Sydney Hans Don Kulick Susan Levine John A. Lucy Dario Maestripieri Martha K. McClintock **Richard Shweder** Associate Professors William Goldstein Guanglei Hong Micere Keels Jill Mateo Anna Mueller Eugene Raikhel Lindsey Richland Faculty Associates Kathleen Cagney E. Summerson Carr Judith Farquhar Salikoko Mufwene Kristen Schilt Linda Waite Amanda Woodward **Emeritus Faculty** R. Darrell Bock Mihaly Csikszentmihalyi Irene Elkin Ray Fogelson Eugene T. Gendlin David E. Orlinsky Nancy Stein Susan Stodolsky **Richard Taub**

The Department of Comparative Human Development was founded in 1940 by Carl Rogers (psychologist), Lloyd Warner (anthropologist), Robert Havighurst (sociologist), and Ralph Tyler (educator), to focus on the study of the individual within context. Its faculty believes that social life is too complex to be left within any one discipline. Consequently, the department brings together anthropologists, psychologists, sociologists, biologists, and applied statisticians whose work extends disciplinary boundaries and synthesizes theories, insights, questions, and methods from across the social science spectrum.

Some current research programs include the impact of globalization on family relationships and the transition to adulthood, the relation of language to thought, the health consequences of social experiences, cultural politics of gender and sexual identity, models of biopsychological development, the nature of the self, the ethical and moral issues raised by increasingly multicultural societies, variations in the learning process in educational settings, and methods for investigating causality.

Each student is given faculty assistance in (1) planning a program of courses and training; (2) fulfilling the Divisional and Departmental steps leading to the Ph.D. degree; (3) obtaining a professional position after graduation. Each entering student is assigned to a faculty advisor who will serve until the student chooses a research advisor. The student should also consult with the Comparative Human Development Secretary for information regarding procedures.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: https://applyssd.uchicago.edu/apply/

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. Most of the documents needed for the application can be uploaded through the online application. Any additional correspondence and materials sent in support of applications should be mailed to:

The University of Chicago Division of the Social Sciences Admissions Office, Foster 107 1130 East 59th Street Chicago, IL 60637

DEPARTMENT COURSE GUIDELINES

TERMS:

Required- Every Comparative Human Development Graduate Student must take this course

Distribution- Students need to take at least one qualified course in each of the 6 Graduate areas

Specialization- Students must take two additional courses in one of the 6 areas in which they wish to focus their studies

EVERY CHD STUDENT MUST TAKE THE FOLLOWING COURSES FOR A QUALITY GRADE:

- CHDV 40000 HD Concepts
- Six distribution courses, one in each program area:
 - Comparative Behavioral Biology (1)
 - Society, Institutions, Culture and the Life Course (2)
 - Cultural Psychology, Psychological Anthropology, Immigration Studies (3)
 - Health, Vulnerability and Culture (4)
 - Language and Communication in Thought and Interaction (5)
 - Methods in Human Development Research (M)
- Intermediate Statistics from among the following:

CHDV 30101	Applied Statistics in Human Development Research	100
PPHA 31000	Statistics for Public Policy I (**)	100
PPHA 31100	Statistics for Public Policy II (**)	100
STAT 22000	Statistical Methods and Applications	100

(**) Both courses must be taken in sequence to fulfill requirement

- CHDV 42401 Trial Research in Human Development I and CHDV 42402 Trial Research in Human Development II. May be taken pass/fail.
- Two additional CHD courses in chosen area of specialization. If Methods in Human Development Research is your area of specialization, you must choose an additional area of specialization to take two courses in.

Students are not required to complete all these requirements by the end of their second year. However, they must have five quality grades by the end of spring of their first year, and ten quality grades by the end of the second year. A grade of B or better is required to satisfy the requirements of these courses. On average a graduate student should take at least two courses for quality grades in each quarter of their first two years. In addition, students will participate in elective courses and workshops in the department, and the University in consultation with their advisors.

Required Courses

CHDV 40000 HD Concepts will introduce students to the history, theoretical bases, and concepts of the field of human development, and to the major areas of inquiry in the Department of Comparative Human Development. This is taken during the fall quarter of the first or second year.

The seminars (CHDV 42401 Trial Research in Human Development - I and CHDV 42402 Trial Research in Human Development - II) will launch students into their research projects and will guide them from the beginning to the completion of those projects.

All students are required to enroll in a trial research seminar in the winter quarter of the first year and the autumn quarter of the second year. Trial research papers are due by spring quarter of the second year. The trial research project must be completed and formally approved by the faculty during the spring quarter of the student's second year, then presented at the student Trial Research Conference. Students are expected to report regularly on the progress of their research to the trial research seminars. The trial research is carried out under the direction of the research advisor and is read by one other faculty member.

Advisors

Each student is assigned a faculty member at the beginning of the first year of study to serve as a research advisor. Students may change research advisors as their needs and interests evolve, but students are expected to be affiliated with one or more research advisors throughout their graduate careers

Evaluations

All students are evaluated each year in the program. To be considered in good standing and for continuation of financial aid, first and second year students must have earned at minimum five quality grades (B or better) over autumn and winter quarters by the time of the spring review, with satisfactory spring grades expected to follow. The evaluation at the end of the second year is particularly important, as it determines whether a student will be permitted to conduct dissertation research.

Students are expected to maintain an average of B+ or better. A student who can demonstrate basic competence in the core curricular areas may petition the faculty through the Chair's office to place into an advanced course in the same area. A well-qualified student may place out of intermediate statistics by examination provided by the instructor of the statistics course. If a student can demonstrate that they are unable to take any of the designated Methods courses, they may petition through the Chair's office to have an equally relevant and rigorous course from another department count towards the requirement.

Workshops

The University's Council on Advanced Studies oversees a series of interdisciplinary workshops, each of which reflects the research interests of a particular group of faculty members and graduate students. The following workshops are sponsored by faculty members and organized by graduate students from the Department of Comparative Human Development (often in collaboration with faculty and students from other departments): Comparative Behavioral Biology; Self and Subjectivity; Education. A full list of workshops is available at http://cas.uchicago.edu/.

COURSES

For more recently updated course plans, please see the *Courses* link at the top of this page, the *Comparative Human Development Website* (http://humdev.uchicago.edu), or the quarterly *Time Schedules* (http://timeschedules.uchicago.edu).

Programs

Students in consultation with faculty advisors develop their program of study appropriate to their professional goals and research interests. The department's central areas of study are described below.

COMPARATIVE BEHAVIORAL BIOLOGY (1)

This program investigates behavioral processes at the social, psychological and biological levels of organization in both humans and nonhuman animals. Current research is concentrated in three main areas. In the area of behavioral and reproductive endocrinology, research conducted with rodents and humans investigates the social and behavioral control of fertility and reproduction and the role of hormone behavior interactions in development throughout the life span. Specific topics of interest include mechanisms and function of estrous and menstrual synchrony, facultative adjustment of sex ratios, pheromonal communication, reproductive senescence, psychosomatics in obstetrics and gynecology, and the behavioral modulation of the immune function. In the area of comparative development, we use nonhuman primate and rodent models of parenting and development to investigate social, emotional, and endocrine aspects of mother infant attachment and infant development, with particular emphasis on interindividual variability both within and outside the normal range. Other topics of interest include affiliative and aggressive behavior, mating strategies, nonverbal communication and social cognition in rodents, primates and humans. In the area of social neuroscience, one topic of interest is evaluative processes, e.g., affective, attitudinal, or emotional operations by which individuals discriminate hostile from hospitable environments. Of interest as well is in the role of social and autonomic factors in individuals endocrine and cellular immune response to stress and illness vulnerability. Throughout, the research approach is characterized by the integration of social and biological levels of analysis. Example courses listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30901	Biopsychology of Sex Differences	100
CHDV 34300	Primate Behavior and Ecology *	100
CHDV 34800	Kinship and Social Systems *	100
CHDV 37500	Research Seminar in Animal Behavior I **	100
CHDV 37502	Research Seminar in Animal Behavior II **	100
CHDV 37503	Research Seminar in Animal Behavior III **	100
CHDV 37850	Evolutionary Psychology *	100
CHDV 37950	Evolution and Economics of Human Behavior	100
CHDV 40900	Behavioral Ecology	100
PSYC 48001	Mind and Biology Proseminar I (=CHDV 38000) **	000
PSYC 48002	Mind and Biology Proseminar II (=CHDV 38100) **	000

PSYC 48003	Mind and Biology Proseminar III (=CHDV 38200) **	100
CHDV 48414	Evolution of Human Development *	100

(**) All three quarters of sequence must be taken in order to receive a letter grade.

SOCIETY, INSTITUTIONS, CULTURE AND THE LIFE COURSE (2)

The Department of Comparative Human Development has a long tradition of examining "development" not just in childhood, but over the entire life course. A basic premise of our approach is that how people change over their lives is shaped by, and also shapes, social institutions, cultural practices, material circumstances and biological potential. We are also interested in how normative models of human development become institutionalized, materialized, and potentially contested as they travel across different cultural or economic settings. Some current areas of research include the influence of families, peers, neighborhoods and economic inequality on individual trajectories and outcomes; the role of youth and generational change in contemporary social life; and how early childhood exposure to social and psychological deprivation contributes to subsequent vulnerability or resilience. A particular strength of the department is the study of how children learn in school settings and the role of gesture in learning and cognition. Faculty focused on education have unique expertise in the quantitative analysis of large data sets to distinguish the cross-cutting effects of age, cohort, and institutional context. We also seek to develop new experimental and qualitative methods that assess the relationship between cognitive competence and interaction in instructional settings. Faculty and students interested in life-course issues also engage in cross-cultural research in places as diverse as Madagascar, Mexico, India and Papua New Guinea. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 23900	Introduction to Language Development	100
CHDV 30304	Urban Neighborhoods and Urban Schools: Community	100
	Economic Opportunity and the Schools *	
CHDV 30305	Inequality in Urban Spaces	100
CHDV 31000	Cultural Psychology *	100
CHDV 31600	Seminar in Language Development	100
CHDV 31901	Language, Culture, and Thought [*]	100
CHDV 32100	Culture, Power, Subjectivity	100
CHDV 32101	Culture and Power, Part II: Discourse and Performativity	100
CHDV 40207	Development in Adolescents *	100
CHDV 40306	Academic and Behavior Gender Gaps Along the Pathway to Degree Attainment	100
CHDV 41160	New Perspectives on Vulnerability *	100
PSYC 43200	Seminar in Language Development (=CHDV 41601) *	100

PSYC 46650	Embodiment, Thinking, and Learning	100
CHDV 48414	Evolution of Human Development *	100
	1	

Cultural Psychology, Psychological Anthropology, Immigration Studies (3)

Coming to terms with transnational migration and defining the scope and limits of tolerance for ethnic, religious and cultural diversity in North America and Europe has become one of the most pressing concerns for states and citizens in liberal democracies in the 21st century. The Department of Comparative Human Development has long been a leading center for training in psychological anthropology, cultural psychology, culture and mental health, and the cross cultural study of human development, with special attention to what the anthropologist Clifford Geertz once called "the force and durability of ties of religion, language, custom, locality, race, and descent in human affairs." Faculty and students investigate ethnic and cultural sources of diversity in emotional and bodily functioning, conceptions of self and subjectivity, sexuality and gender identity, moral evaluation, and social cognition. We are also concerned with the social and political production and management of social differences as well as the conflicts that arise in the context of contemporary migration. Ethnographic field work both in the United States and abroad is an important component of this program, although students and faculty use multiple methods (qualitative and quantitative, observational, clinical and experimental) to understand the similarities and differences in psychological functioning across human populations. The program encourages the comparative social and cultural analysis of what people know, think, feel, desire and value in India, Japan, China, Russia, Africa and the Middle East, as well as research on the institutions, ideologies and economic circumstances that shape the experience of minorities in places ranging from Norway to France to the United States. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30117	Transnational Kinship, Intimacy and Migration	100
CHDV 30320	Violence and Trauma	100
CHDV 30401	Intensive Study of a Culture: Lowland Maya History and Ethnography	100
CHDV 30600	Social Psychology	100
CHDV 31000	Cultural Psychology *	100
CHDV 31901	Language, Culture, and Thought [*]	100
CHDV 32100	Culture, Power, Subjectivity *	100
CHDV 32101	Culture and Power, Part II: Discourse and Performativity *	100
CHDV 32212	Love, Capital and Conjugality: Africa and India in Comparative Perspective	100
CHDV 33301	Culture, Mental Health, and Psychiatry *	100
CHDV 33302	Disordered States	100

CHDV 41160	New Perspectives on Vulnerability *	100
CHDV 42214	Ethnographic Writing	100
CHDV 43302	Illness and Subjectivity *	100
CHDV 43600	Processes of Judgement and Decision Making	100
CHDV 44700	Seminar: Topics in Judgement and Decision Making	100
CHDV 45600	When Cultures Collide: The Multicultural Challenge in Liberal Democracy [*]	100
CHDV 45601	Moral Psychology and Comparative Ethics	100
CHDV 48415	Displaced Nations and the Politics of Belonging	100

HEALTH, VULNERABILITY AND CULTURE (4)

The Department of Comparative Human Development maintains a tradition of examining health, illness and vulnerability from a variety of social science perspectives. We understand health, illness and vulnerability as experiences that are deeply shaped by inter-related social, political-economic, and psychobiological processes. We are also committed to the idea that how human beings experience distress is inextricable from the ways in which we recognize, represent and respond to it. We are thus equally concerned with the biosocial mechanisms through which health, illness and vulnerability become embodied in particular persons, as we are with the cultural and linguistic processes through which concepts such as "health," "illness" and "vulnerability" are produced, enacted, institutionalized and contested. A particular strength of our program is the study of mental health and illness and of psychiatry as a social institution. Current areas of research include including culture and mental health; the comparative study of medical and healing systems; psychopathology and resilience across the life course; the psychosocial determinants of malignant and infectious disease; disability and vulnerability as conditions of ethical and political life; colonialism and traumatic social memory; the social consequences of the neurosciences and genetics; and illness, subjectivity and embodiment. Faculty and students employ a range of ethnographic, experimental and epidemiological methods, and have carried out fieldwork in settings including China, France, India, Madagascar, Russia, Scandinavia and the United States. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30320	Violence and Trauma	100
CHDV 30405	Anthropology of Disability	100
CHDV 31800	Modern Psychotherapies [*]	100
CHDV 33301	Culture, Mental Health, and Psychiatry st	100
ANTH 33620	Medicine and Anthropology (=CHDV 33620)	100
CHDV 36400	Theories of Emotion and the Psychology of Well Being *	100
CHDV 38701	Social and Cultural Foundations of Mental Health	100

CHDV 40110	Color, Ethnicity, Cultural Context, and Human Vulnerability	100
CHDV 41160	New Perspectives on Vulnerability *	100
CHDV 43204	Medical Anthropology [*]	100
CHDV 43302	Illness and Subjectivity [*]	100
CHDV 43400	The Social Lives of Brains	100
CHDV 44200	Emerging Concepts in Medical and Psychological Anthropology	100
CHDV 45205	Pushing the Boundary: Current Debates on Animals and the Species Divide	100

LANGUAGE AND COMMUNICATION IN THOUGHT AND INTERACTION (5)

This program area supports research and training on how language and other forms of social communication support and shape individual thought and social interaction. The program encompasses three intersecting areas. First, it compares communicative modalities across species, especially among the social mammals, with particular attention to the role played by language in human evolution and development by enabling the emergence of self, culture, and conceptual thought. Second, it compares linguistic and other communicative traditions across human societies with respect to their effects on thought and interaction, with particular attention to the impact of language diversity, multilingualism, the interplay of verbal and nonverbal communication, and language socialization. And third, it compares both within and across societies the various specialized structures and discursive uses of language deployed within specialized institutional settings and ideological regimes such as education, therapy, science, religion, politics, etc. Across all three areas, there is an emphasis on bringing together a firm grounding in the formal analysis of the communicative modalities with substantive understanding of the psychological and social fields within which they operate. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 23900	Introduction to Language Development *	100
CHDV 31901	Language, Culture, and Thought [*]	100
PSYC 43200	Seminar in Language Development (=CHDV 41601) *	100
CHDV 43550	Gesture	100
CHDV 45501	Cognition and Education [*]	100
CHDV 53350	Gesture, Sign, and Language	100

(*) Satisfies the distribution requirement.

METHODS IN HUMAN DEVELOPMENT RESEARCH (M)

Research on human development over the life span and across social and cultural contexts thrives on multiple theoretical perspectives. This research requires creation and improvement of a wide range of research methods appropriately selected for and tailored to specific human development problems. Faculty in the department employ research methods that span the full range from primarily qualitative to primarily quantitative and to strategic mix of both. Across all the substantive domains in Comparative Human Development, theoretical understanding is greatly advanced by methodology; therefore the Department pays serious attention to research design, data collection, analytic strategies, and presentation, evaluation, and interpretations of evidence. The Department has contributed some of the most influential work on psychological scaling on the basis of the item response theory (IRT), multivariate statistical methods, analysis of qualitative data, modeling of human growth, and methods for cross-cultural analysis. Current research interests include (a) assessment of individual growth and change in important domains of development that are often intertwined, (b) examination and measurement of the structure, process, and quality of individual and group experiences in institutionalized settings such as families, schools, clinics, and neighborhoods, and (c) evaluation of the impact of societal changes or interventions on human development via changes in individual and group experiences, with particular interest in the heterogeneity of growth, process, and impact across demographic sub-populations and across social cultural contexts. *Example courses* listed below have been offered in previous years but may not be offered in this academic year.

CHDV 30005	Statistical Methods of Research-2	100
CHDV 30101	Applied Statistics in Human Development Research *	100
CHDV 30102	Introduction to Causal Inference *	100
CHDV 32411	Mediation, Moderation, and Spillover Effects *	100
CHDV 37802	Challenging Legends and Other Received Truths: A Socratic Practicum	100
CHDV 39301	Qualitative Research Methods	100
SOCI 40112	Ethnographic Methods	100
CHDV 42214	Ethnographic Writing [*]	100
CHDV 43248	Research Methods in Behavior and Development	100

(*) Satisfies the distribution requirement.

COMPARATIVE HUMAN DEVELOPMENT COURSES

CHDV 30101. Applied Statistics in Human Development Research. 100 Units. This course provides an introduction to quantitative methods of inquiry and a foundation for more advanced courses in applied statistics for students in social sciences who are interested in studying human development in social contexts. The course covers univariate and bivariate descriptive statistics, an introduction to statistical inference, t test, two-way contingency table, analysis of variance, simple linear regression, and multiple regression. All statistical concepts and methods will be illustrated with applications to a series of scientific inquiries organized around describing and understanding adolescent transitions into adulthood across demographic subpopulations in the contemporary American society. We will use the National Longitudinal Survey of Youth 1997 (NLSY97) throughout the course to reveal disparities between subpopulations in opportunities and life course outcomes. At the end of the course, students should be able to define and use descriptive and inferential statistics to analyze data and to interpret analytical results. No prior knowledge in statistics is assumed. High school algebra and probability are the only mathematical pre-requisites. Every student is required to participate in a lab section. Students will review the course content and learn to use the Stata software in the lab under the TA's guidance.

Instructor(s): G. Hong Terms Offered: Autumn

Prerequisite(s): High school algebra and probability are the only mathematical prerequisites.

Note(s): CHDV Distribution, M*

Equivalent Course(s): CHDV 20101

CHDV 30102. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to equip students with basic knowledge of and analytic skills in causal inference. Topics for the course will include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverseprobability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) and generalized DID methods for crosssection and panel data, and fixed effects model. Intermediate Statistics or equivalent is a prerequisite. This course is a pre-requisite for "Advanced Topics in Causal Inference" and "Mediation, moderation, and spillover effects."

Instructor(s): G. Hong Terms Offered: Winter

Prerequisite(s): Intermediate Statistics

Note(s): Graduate course open to advanced undergraduates. CHDV Distribution, M^* , M^*

Equivalent Course(s): STAT 31900

CHDV 30301. Research on Contextualized Learning, Cognition, and Development. 100 Units.

This seminar explores the theoretical and practical challenges inherent in conducting research that bridges mechanistic studies of cognition and development with investigations of learning situated in and across contexts. Students will engage with methodological and substantive course readings on learning in schools, families, and across diverse communities. In addition, students will participate in, and report on, research projects within this framework.

Instructor(s): L. Richland Terms Offered: Autumn

Prerequisite(s): Graduate course open to undergraduates

Note(s): CHDV Distribution 2*

CHDV 30405. Anthropology of Disability. 100 Units.

This seminar undertakes to explore "disability" from an anthropological perspective that recognizes it as a socially constructed concept with implications for our understanding of fundamental issues about culture, society, and individual differences. We explore a wide range of theoretical, legal, ethical, and policy issues as they relate to the experiences of persons with disabilities, their families, and advocates. The final project is a presentation on the fieldwork. Instructor(s): M. Fred Terms Offered: Autumn Propagaiot(s): Third, or fourth user standing

Prerequisite(s): Third- or fourth-year standing

Equivalent Course(s): MAPS 36900, ANTH 20405, ANTH 30405, HMRT 25210, HMRT 35210, SOSC 36900

CHDV 30901. Biopsychology of Sex Differences. 100 Units.

This course will explore the biological basis of mammalian sex differences and reproductive behaviors. We will consider a variety of species, including humans. We will address the physiological, hormonal, ecological and social basis of sex differences. To get the most from this course, students should have some background in biology, preferably from taking an introductory course in biology or biological psychology.

Instructor(s): J. Mateo Terms Offered: Autumn. Not offered 2015-2016 Equivalent Course(s): EVOL 36900,GNSE 30901,PSYC 31600

CHDV 31000. Cultural Psychology. 100 Units.

There is a substantial portion of the psychological nature of human beings that is neither homogeneous nor fixed across time and space. At the heart of the discipline of cultural psychology is the tenet of psychological pluralism, which states that the study of "normal" psychology is the study of multiple psychologies and not just the study of a single or uniform fundamental psychology for all peoples of the world. Research findings in cultural psychology thus raise provocative questions about the integrity and value of alternative forms of subjectivity across cultural groups. In this course we analyze the concept of "culture" and examine ethnic and cross-cultural variations in mental functioning with special attention to the cultural psychology of emotions, self, moral judgment, categorization, and reasoning.

Instructor(s): R. Shweder Terms Offered: Autumn

Prerequisite(s): Third- or fourth-year standing. Instructor consent required. Note(s): CHDV Distribution, B, C; 2*, 3*

Equivalent Course(s): AMER 33000,ANTH 24320,ANTH 35110,GNSE 21001,GNSE 31000,PSYC 23000,PSYC 33000,CHDV 21000

CHDV 31901. Language, Culture, and Thought. 100 Units.

Survey of research on the interrelation of language, culture, and thought from the evolutionary, developmental, historical, and culture-comparative perspectives with special emphasis on the mediating methodological implications for the social sciences.

Instructor(s): J. Lucy Terms Offered: Spring

Prerequisite(s): Grad status, Undergrads in 3rd or 4th year, or permission of instructor.

Note(s): CHDV Distribution, B*, C*; 2*, 3*, 5*

Equivalent Course(s): ANTH 27605, ANTH 37605, PSYC 21950, PSYC 31900, LING 27700, LING 37700, CHDV 21901

CHDV 32100. Culture, Power, Subjectivity. 100 Units.

This course takes up the classic, yet endlessly fascinating subject of the relationship of historically produced cultural structures and their relationship to individual and collective forms of subjectivity. Since the topic is huge, we will address it by reading classic texts in depth, analyzing them for the diverse ways in which classic social thinkers like Marx, Durkheim, Weber, Althuser, Bourdieu and Foucault have thought about the relationship between individuals and collectivities. Key questions we will address include the ways in social and economic formations structure the possibilities for individual human action, the relationship between religious formations and historical transformations, the role of class in the inculcation of taste and desire, and the ways in which, throughout the 19th century, new power/ knowledge formations have created new ways through with subject formation takes place.

Instructor(s): J. Cole Terms Offered: Autumn Prerequisite(s): Undergraduates require consent of instructor. Note(s): CHDV Distribution, C*; 2*,3*,4* Equivalent Course(s): ANTH 32100

CHDV 32411. Mediation, Moderation, and Spillover Effects. 100 Units.

This course is designed for graduate students and advanced undergraduate students from social sciences, statistics, public health science, public policy, and social services administration who will be or are currently involved in quantitative research. Questions about why a treatment works, for whom, under what conditions, and whether one individual's treatment could affect other individuals' outcomes are often key to the advancement of scientific knowledge. We will clarify the theoretical concepts of mediated effects, moderated effects, and spillover effects under the potential outcomes framework. The course introduces cuttingedge methodological approaches and contrasts them with conventional strategies including multiple regression, path analysis, and structural equation modeling. The course content is organized around application examples. The textbook "Causality in a Social World: Moderation, Mediation, and Spill-Over" (Hong, 2015) will be supplemented with other readings reflecting latest developments and controversies. Weekly labs will provide tutorials and hands-on experiences. All students are expected to contribute to the knowledge building in class through participation in presentations and discussions. Students are encouraged to form study groups, while the written assignments are to be finished and graded on an individual basis. Intermediate Statistics, Introduction to Causal Inference, and their equivalent are prerequisites.

Instructor(s): G. Hong Terms Offered: Spring

Prerequisite(s): Intermediate Statistics, Introduction to Causal Inference, and their equivalent

Note(s): CHDV Distribution, M*; M*

Equivalent Course(s): PSYC 32411, PBPL 29411, STAT 33211, CCTS 32411

CHDV 33301. Culture, Mental Health, and Psychiatry. 100 Units.

While mental illness has recently been framed in largely neurobiological terms as "brain disease," there has also been an increasing awareness of the contingency of psychiatric diagnoses. In this course, we will draw upon readings from medical and psychological anthropology, cultural psychiatry, and science studies to examine this paradox and to examine mental health and illness as a set of subjective experiences, social processes, and objects of knowledge and intervention. On a conceptual level, the course invites students to think through the complex relationships between categories of knowledge and clinical technologies (in this case, mainly psychiatric ones) and the subjectivities of persons living with mental illness. Put in slightly different terms, we will look at the multiple links between psychiatrists' professional accounts of mental illness vary across social and cultural settings? How are experiences of people suffering from mental illness shaped by psychiatry's knowledge of their afflictions?

Instructor(s): E. Raikhel Terms Offered: Winter

Prerequisite(s): Undergraduates must have previously completed a SOSC sequence. Note(s): CHDV Distribution, C, D; 3*, 4*

Equivalent Course(s): ANTH 24315, ANTH 35115, HIPS 27302, CHDV 23301

CHDV 33620. Medicine and Anthropology. 100 Units.

The rise of modern biological medicine into global dominance dates from the 18th century, with the field developing in tandem with technological industrialization, scientific objectivism, and secular modernism in writing and social theory. The things we now have before us in the medical field-doctors, patients, drugs, symptoms, diseases, pacemakers, antiseptic wipes, psychologies, therapeutic protocols, health insurance, white coats, immunizations, folk remedies, and much more-are many of the things that ground all of our ethics and our politics in contemporary North America. In order to better understand how medicine affects wider worlds of experience and action, this course gathers a number of historical and ethnographic studies of medical knowledge and practice for careful study. In a series of readings and discussions we will consider the social and political economic shaping of illness and suffering and the "culture-bound" character of diseases; we will examine medical and healing systems-well beyond biomedicine-as social institutions and as sources of epistemological authority; and we will read about the knowledge politics of medical experts and their clients and patients. Topics covered will also include the problem of belief; local theories of disease causation and healing efficacy; the placebo effect and contextual healing; theories of embodiment; medicalization; modernity and the distribution of risk; the meanings and effects of medical technologies; and the relatively recent global health movement. Instructor(s): J. Farquhar Terms Offered: TBD

Equivalent Course(s): ANTH 23620, ANTH 33620, CHDV 23620

CHDV 34800. Kinship and Social Systems. 100 Units.

This course will use a biological approach to understanding how groups form and how cooperation and competition modulate group size and reproductive success. We will explore social systems from evolutionary and ecological perspectives, focusing on how the biotic and social environments favor cooperation among kin as well as how these environmental features influence mating systems and inclusive fitness. While a strong background in evolutionary theory is not required, students should have basic understanding of biology and natural selection. Course will use combination of lectures and discussion.

Instructor(s): J. Mateo Terms Offered: Autumn Note(s): CHDV Distribution, A; 1* Equivalent Course(s): EVOL 34800

CHDV 37201. Language in Culture I. 100 Units.

Among topics discussed in the first half of the sequence are the formal structure of semiotic systems, the ethnographically crucial incorporation of linguistic forms into cultural systems, and the methods for empirical investigation of "functional" semiotic structure and history.

Instructor(s): M. Silverstein Terms Offered: Autumn

Prerequisite(s): Consent of instructor

Equivalent Course(s): ANTH 37201, LING 31100, PSYC 47001

CHDV 37330. Challenging the Species Boundary. 100 Units.

This graduate seminar is about animals; about how scientific advances and philosophical re-evaluations are bringing about far-reaching changes in how human beings think about animals' capabilities, intelligence, sociality and rights. The seminar will ask what constitutes a species, what differences there are between humans and other animals, where those differences arise from, and what they mean. We will review biological and ethological research on a variety of animals, and philosophical literature that discusses how animals embody a reality that is not adequately reflected in traditional humanistic thinking. Instructor(s): J. Mateo, D. Kulick Terms Offered: Autumn Note(s): Notes: CHDV Distribution, A

CHDV 37500. Research Seminar in Animal Behavior I. 100 Units.

Instructor(s): J. Mateo Terms Offered: Autumn

Prerequisite(s): Graduate students only.

Note(s): Students register for this course in Autumn Quarter and receive credit in Spring Quarter after successful completion of the year's work. CHDV Distribution, 1 Equivalent Course(s): EVOL 37600

CHDV 37502. Research Seminar in Animal Behavior II. 100 Units.

Instructor(s): J. Mateo Terms Offered: Winter Prerequisite(s): Graduate students only. Note(s): CHDV Distribution, 1 Equivalent Course(s): EVOL 37700

CHDV 37503. Research Seminar in Animal Behavior III. 100 Units.

Instructor(s): J. Mateo Terms Offered: Spring Prerequisite(s): Graduate students only. Note(s): CHDV Distribution, 1 Equivalent Course(s): EVOL 37800

CHDV 37950. Evolution and Economics of Human Behavior. 100 Units.

This course explores how evolutionary biology and behavioral economics explain many different aspects of human behavior. Specific topics include evolutionary theory, natural and sexual selection, game theory, cost-benefit analyses of behavior from an evolutionary and a behavioral economics perspective, aggression, power and dominance, cooperation and competition, biological markets, parental investment, life history and risk-taking, love and mating, physical attractiveness and the market, emotion and motivation, sex and consumer behavior, cognitive biases in decision-making, and personality and psychopathology.

Instructor(s): D. Maestripieri Terms Offered: Autumn

Note(s): CHDV Distribution, A; 1*

Equivalent Course(s): PSYC 27950, PSYC 37950, BIOS 29265, CHDV 27950

CHDV 38101-38102. Anthropology of Museums I-II.

This sequence examines museums from a variety of perspectives. We consider the World's Columbian Exposition of 1893, the Native American Graves Protection and Repatriation Act, the image and imagination of African American culture as presented in local museums, and museums as memorials, as exemplified by Holocaust exhibitions. Several visits to area museums required.

CHDV 38101. Anthropology of Museums I. 100 Units.

Instructor(s): M. Fred Terms Offered: Winter Prerequisite(s): Advanced standing and consent of instructor Equivalent Course(s): ANTH 24511,ANTH 34502,CRES 34501,MAPS 34500,SOSC 34500

CHDV 38102. Anthropology of Museums II. 100 Units.

Instructor(s): M. Fred Terms Offered: Winter Prerequisite(s): Advanced standing and consent of instructor

CHDV 38101-38102. Anthropology of Museums I-II.

This sequence examines museums from a variety of perspectives. We consider the World's Columbian Exposition of 1893, the Native American Graves Protection and Repatriation Act, the image and imagination of African American culture as presented in local museums, and museums as memorials, as exemplified by Holocaust exhibitions. Several visits to area museums required.

CHDV 38101. Anthropology of Museums I. 100 Units.

Instructor(s): M. Fred Terms Offered: Winter

Prerequisite(s): Advanced standing and consent of instructor Equivalent Course(s): ANTH 24511,ANTH 34502,CRES 34501,MAPS 34500,SOSC 34500

CHDV 38102. Anthropology of Museums II. 100 Units.

Instructor(s): M. Fred Terms Offered: Winter Prerequisite(s): Advanced standing and consent of instructor

CHDV 39900. Readings: Human Development. 100 Units.

This course is often taken with the student's adviser in preparation for their thesis proposal.

Instructor(s): Staff Terms Offered: Autumn,Spring,Winter Prerequisite(s): Instructor consent required.

CHDV 40000. HD Concepts. 100 Units.

Our assumptions about the processes underlying development shape how we read the literature, design studies, and interpret results. The purpose of this course is two-fold in that, first, it makes explicit both our own assumptions as well as commonly held philosophical perspectives that impact the ways in which human development is understood. Second, the course provides an overview of theories and domain-specific perspectives related to individual development across the life-course. The emphasis is on issues and questions that have dominated the field over time and, which continue to provide impetus for research, its interpretation, and the character of policy decisions and their implementation. Stated differently, theories have utility and are powerful tools. Accordingly, the course provides a broad basis for appreciating theoretical approaches to the study of development and for understanding the use of theory in the design of research and its application. Most significant, theories represent heuristic devices for "real time" interpretations of daily experiences and broad media disseminated messages. Instructor(s): J. Lucy Terms Offered: Autumn

Prerequisite(s): CHD Grad Students Only

Note(s): CHDV Distribution, R

CHDV 40900. Behavioral Ecology. 100 Units.

This graduate seminar will explore current advances of animal social behaviors in their natural contexts, including theoretical and methodological approaches. Format will include reading and analysis of empirical and review articles, as well as an oral presentation on a topic of interest to the student. We will meet once a week. Instructor(s): J Mateo Terms Offered: Winter. Not Offered 2015-2016 Prerequisite(s): Consent of Instructor Equivalent Course(s): EVOL 40900

CHDV 42212. Love, Capital and Conjugality: Africa and India in Comparative Perspective. 100 Units.

Are love and money necessarily opposed? Is arranged marriage primitive? Many would argue yes. It is widely accepted that in modern societies romantic love, the couple and the nuclear family are the "correct" ways to organize intimate life. But, like many other normative ideas, these too were the product of particular historical developments in post-enlightenment Europe. A look at societies in other parts of the world demonstrates all too often that modernity in the realm of love, intimacy and family had a different trajectory from the European one. To characterize marriage, love, and familial relationships as backward or retrograde on grounds of their difference with (normative) models prevalent in the west results in a fundamental misunderstanding of the variety of different ways that societies have forged intimate relations. This course surveys ideas and practices surrounding love, marriage, and capital in the modern world with a particular focus on comparison between Africa and India. The first half of the class concentrates on key theoretical texts that lay the foundation for the study of gender, intimacy and modern life. The latter part of the class examines case studies from Africa and India. Using a range of readings the course will explore such questions as the emergence of companionate marriage in Europe; arranged marriage, dowry, love and money. (C) Instructor(s): J. Cole, R. Majumdar Terms Offered: Winter 2013 Equivalent Course(s): CDIN 45001

CHDV 42214. Ethnographic Writing. 100 Units.

This course is intended for qualitative, anthropologically oriented graduate students engaged in the act of ethnographic writing, be it a thesis, a prospectus or an article. The course is organized around student presentations of work in progress and critical feedback from course participants. It is hoped that each participant will emerge from the course with a polished piece of work. Only graduate students will be admitted and consent of the instructor is mandatory.

Instructor(s): J. Cole Terms Offered: Winter

Prerequisite(s): Permission of instructor, graduate students only. Note(s): CHDV Distribution, M*, 2*, 3*, 4*

CHDV 42401-42402. Trial Research in Human Development - I-II.

This course is taken in the Spring quarter of the first year, and again in the Autumn quarter of the second year. The purpose of this seminar is to help students formulate and complete their trial research projects.

CHDV 42401. Trial Research in Human Development - I. 100 Units.

This course is taken in the Spring quarter of the first year, and again in the Autumn quarter of the second year. The purpose of this seminar is to help students formulate and complete their trial research projects. Instructor(s): Staff Terms Offered: Winter Prerequisite(s): CHD grad students only. Note(s): CHDV Distribution, R

CHDV 42402. Trial Research in Human Development - II. 100 Units.

Second in required Trial Research Seminar sequence. The purpose of this seminar is to help students formulate and complete their trial research projects. Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): CHDV 42401 Trial Research in Human Development - I. CHD graduate students only.

Note(s): CHDV Distribution, R

CHDV 42402. Trial Research in Human Development - II. 100 Units.

Second in required Trial Research Seminar sequence. The purpose of this seminar is to help students formulate and complete their trial research projects.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): CHDV 42401 Trial Research in Human Development - I. CHD graduate students only.

Note(s): CHDV Distribution, R

CHDV 43400. The Social Lives of Brains. 100 Units.

This course examines recent historical and anthropological scholarship on neuroscience, psychiatry, and psychology through a focus on these fields' principal material object of inquiry and intervention: the brain. We will address topics such as brains in circulation as research objects; brain imaging; neuro-anatomy and neuropathology; the relationship between mind and brain; and brains in non-human organisms and non-organic systems. Through readings in these and other topics, we will explore modern scholarship in neuroscience and brain research, as well as examine the varied meanings that different groups of people in different times and places have brought to the question of embodied human consciousness. Instructor(s): E. Raikhel, M. Rossi Terms Offered: Winter

Prerequisite(s): Graduate students only

Note(s): CHDV Distribution, 4*

Equivalent Course(s): CHSS 43400, ANTH 40340, HIST 57401

CHDV 43600. Processes of Judgement and Decision Making. 100 Units.

This course offers a survey of research on judgment and decision making, with emphasis placed on uncertainty and (intrapersonal) conflict. An historical approach is taken in which the roots of current research issues and practices are traced. Topics are drawn from the following areas: evaluation and choice when goals are in conflict and must be traded off, decision making when consequences of the decision are uncertain, predictive and evaluative judgments under conditions of uncertain, incomplete, conflicting, or otherwise fallible information.

Instructor(s): W. Goldstein Terms Offered: Winter

Equivalent Course(s): PSYC 43600

CHDV 44220. Schools as a Social Context. 100 Units.

Education plays a fundamental role in society, both because it determines individuals' life chances and because it has the power to reproduce or ameliorate inequality in society. In this course, we will discuss theoretical and empirical research that examines how schools both perpetuate socioeconomic inequality and provide opportunities for social mobility. We will pay particular attention to the role of schools in the intergenerational transmission of social status, especially based on race, class, gender, and immigrant status and with an emphasis on the U.S. We will also discuss the social side of schools, delving into (1) the role of adolescent culture(s) in youths' educational experiences and human development and (2) social psychological aspects of schooling. Schools are the primary extra-familial socializing institution that youth experience; thus, understanding how schools work is central to understanding the very structure of societies as well as how youth transition into adulthood.

Instructor(s): A. Mueller Terms Offered: Autumn Note(s): CHDV Distribution: B, C; 2* Equivalent Course(s): SOSC 44200

CHDV 44700. Seminar: Topics in Judgement and Decision Making. 100 Units.

This course offers a survey of research on judgment and decision making, with emphasis placed on uncertainty and (intrapersonal) conflict. An historical approach is taken in which the roots of current research issues and practices are traced. Topics are drawn from the following areas: evaluation and choice when goals are in conflict and must be traded off, decision making when consequences of the decision are uncertain, predictive and evaluative judgments under conditions of uncertain, incomplete, conflicting, or otherwise fallible information. Instructor(s): W. Goldstein Terms Offered: Spring

Equivalent Course(s): PSYC 44700

CHDV 45501. Cognition and Education. 100 Units.

Cognition and Education will explore research bridging basic theories of cognition with rigorous studies of educational practice. This exciting pairing yields insights for both psychological theories of cognition and educational theories of practice. Complete psychological theories of cognition must be able to explain thinking and learning in dynamic, everyday contexts. At the same time, this work cannot impact practice without being well grounded in teachers and students' everyday activities. Course readings will include psychological studies of cognition and learning, developmental studies of children's thinking, and educational studies of teaching in STEM (Science, Technology, Engineering, and Mathematics) fields. Instructor(s): L. Richland Terms Offered: Spring Prerequisite(s): Permission required for undergraduates.

Note(s): CHDV Distribution, B; 5*

CHDV 45600. When Cultures Collide: The Multicultural Challenge in Liberal Democracy. 100 Units.

Coming to terms with diversity in an increasingly multicultural world has become one of the most pressing public policy projects for liberal democracies in the early 21st century. One way to come to terms with diversity is to try to understand the scope and limits of toleration for variety at different national sites where immigration from foreign lands has complicated the cultural landscape. This seminar examines a series of legal and moral questions about the proper response to norm conflict between mainstream populations and cultural minority groups (including old and new immigrants), with special reference to court cases that have arisen in the recent history of the United States.

Instructor(s): R. Shweder Terms Offered: Winter

Note(s): CHDV Distribution, C; 3*

Equivalent Course(s): PSYC 45300, ANTH 45600, HMRT 35600, GNDR 45600

CHDV 47500. Research Seminar in Behavioral Biology. 100 Units.

In this seminar we will discuss past, current, and future research in behavioral biology, present and discuss data, read and discuss articles and books, and prepare manuscripts for publication or grant applications.

Instructor(s): D. Maestripieri Terms Offered: Winter

Prerequisite(s): Graduate students only. Consent of Instructor is required. Note(s): CHDV Distribution: 1*

CHDV 47901. Beginning Modern Spoken Yucatec Maya I. 100 Units.

This sequence is a basic introduction to the modern Yucatec Maya language, an indigenous American language spoken by about 750,000 people in southeastern Mexico. Three consecutive quarters of instruction are intended for students aiming to achieve basic and intermediate proficiency. Students receiving FLAS support must take all three quarters. Others may elect to take only the first quarter or first two quarters. Students wishing to enter the course midyear (e.g., those with prior experience with the language) must obtain consent of instructor. Materials exist for a second year of the course; interested students should consult the instructor. Students wishing to continue their training with native speakers in Mexico may apply for FLAS funding in the summer.

Instructor(s): John Lucy

Equivalent Course(s): CHDV 27901, LACS 47901, LACS 27901

CHDV 47902. Beginning Modern Spoken Yucatec Maya II. 100 Units.

This sequence is a basic introduction to the modern Yucatec Maya language, an indigenous American language spoken by about 750,000 people in southeastern Mexico. Three consecutive quarters of instruction are intended for students aiming to achieve basic and intermediate proficiency. Students receiving FLAS support must take all three quarters. Others may elect to take only the first quarter or first two quarters. Students wishing to enter the course midyear (e.g., those with prior experience with the language) must obtain consent of instructor. Materials exist for a second year of the course; interested students should consult the instructor. Students wishing to continue their training with native speakers in Mexico may apply for FLAS funding in the summer.

Instructor(s): J. Lucy Terms Offered: Winter Equivalent Course(s): CHDV 27902,LACS 27902

CHDV 47903. Beginning Modern Spoken Yucatec Maya III. 100 Units.

This sequence is a basic introduction to the modern Yucatec Maya language, an indigenous American language spoken by about 750,000 people in southeastern Mexico. Three consecutive quarters of instruction are intended for students aiming to achieve basic and intermediate proficiency. Students receiving FLAS support must take all three quarters. Others may elect to take only the first quarter or first two quarters. Students wishing to enter the course midyear (e.g., those with prior experience with the language) must obtain consent of instructor. Materials exist for a second year of the course; interested students should consult the instructor. Students wishing to continue their training with native speakers in Mexico may apply for FLAS funding in the summer.

Instructor(s): J. Lucy Terms Offered: Spring. Will tentatively be offered during 2015-16.

Equivalent Course(s): CHDV 27903, LACS 47903, LACS 27903

CHDV 48412. Publications, Grants, and the Academic Job Market. 100 Units.

In this graduate seminar we will discuss how to write and publish scientific articles, prepare grant applications, write CVs and job applications, and give job talks and interviews. In other words, everything students always wanted to know about being successful in academia but were afraid to ask.

Instructor(s): D. Maestripieri Terms Offered: Winter Equivalent Course(s): PSYC 48412

CHDV 49900. Research in Human Development. 100 Units.

This course is often taken with the student's adviser in preparation for their dissertation.

Instructor(s): Staff Terms Offered: Autumn,Spring,Winter Prerequisite(s): Instructor consent required. CHD graduate students only.



Committee on Conceptual and Historical Studies of Science

Chair

- Adrian Johns
- Professors
- Lorraine Daston, Social Thought
- Arnold Davidson, Philosophy
- Judith B. Farquhar, Anthropology
- Michael Foote, Geophysical Sciences
- Jan Goldstein, History
- Adrian Johns, History
- Karin Knorr Cetina, Sociology and Anthropology
- Karl Matlin, Department of Surgery
- Salikoko Mufwene, Linguistics
- Robert J. Richards, History
- Stephen M. Stigler, Statistics
- Alison Winter, History

Associate Professors

- James A. Evans, Sociology
- Joseph Masco, Anthropology
- E. Glen Weyl, Economics Emeritus Faculty
- Leo Kadanoff, Physics and Mathematics
- Robert Perlman, Pediatrics
- William C. Wimsatt, Philosophy

The Committee on Conceptual and Historical Studies of Science (CHSS) is an interdisciplinary graduate program dedicated to advancing social, historical, and philosophical perspectives on science. Its areas of interest are broad, extending across the sciences and from the ancient world to the present day. Its faculty derive from many departments in the University, but particularly from History, Sociology, Anthropology, and Philosophy. We currently have major strengths in the study of evolutionary biology, psychology, and medicine, and in issues of the social activity of science, such as those relating to scientific authority, credibility, communication, and intellectual property. Students in the Ph.D. program have an opportunity to investigate such aspects of the scientific enterprise in depth, within its many rich historical, social, and philosophical contexts. They are also encouraged to grapple with the practices and approaches of science itself.

A brief description of the Committee's degree requirements is provided below, along with a representative list of courses that have been taught in recent years.

For more complete information, you are encouraged to consult the website at http://chss.uchicago.edu/. This site contains an up to date description of faculty research interests, a complete statement of degree requirements, descriptions of individual courses being taught this year, a calendar of events (including meetings of the Committee's regular Workshop in the History, Philosophy, and Sociology of Science), a list of students who have received Ph.D.s from the Committee with the titles of their dissertations, and more.

Those with questions about the Committee should write to the Secretary, The Committee on Conceptual and Historical Studies of Science, The University of Chicago, 1126 East 59th Street, Chicago, IL 60637 (bethcalderon@uchicago.edu).

Application

New students are admitted to the Committee through the Division of the Social Sciences. Applicants will be expected to submit undergraduate transcripts, scores from the general Graduate Record Examination, three letters of recommendation, short descriptions of their interests and/or reasons for wanting to study in CHSS, and a writing sample.

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: https:// socialsciences.uchicago.edu/admissions/apply. Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415.

Our application process is now entirely online (paperless). **All supporting material** - including letters of recommendation, transcripts, and writing samples (if required by a specific department) - **must be submitted electronically through the online application.**

More information about applying to programs in the University of Chicago's Division of the Social Sciences can be found at http://socialsciences.uchicago.edu/page/prospective

Degree Requirements

Every new student in CHSS is assigned an advisor, with whom he or she designs an individual program of study. Because the interests of students within CHSS vary widely, so too do these programs. Yet all students are expected to fulfill certain common requirements. Full and up to date details are given on the website, but the main elements are described here.

Students choose one of the following options:

- 1. SCIENCE OPTION: The student may earn a master's degree in a science (here understood to include mathematics, statistics, and social science).
- 2. PHILOSOPHY OPTION: The student may earn a master's degree in philosophy.
- 3. HISTORY OPTION: The student may earn a master's degree in history.

All students must complete a total of at least eighteen courses at the University for a grade of B or better, including at least seven CHSS courses. They must maintain at least a B+ average every quarter. Those selecting the philosophy or history options must take a coherent series of six courses in a scientific area at the University, approved by the committee and of an appropriately advanced nature. This will normally mean that students must take at least some portion of their science work at a graduate level. Note that if a student enters the program with a master's degree in an appropriate area, the committee determines what level of credit is given for it.

The expected timetable is that students entering with a master's degree will complete coursework by the end of the second year, and those entering without will complete it by the end of year three (see the website for this and other details of the expected timetable).

Among the coursework of the first two years, students should take three courses offered by the committee: Philosophy of Science, History of Science, and Introduction to Science Studies.

Students must them pass two oral examinations. Each student has the option of taking the exams in history of science, philosophy of science, sociology of science, or anthropology of science; but at least one of the exams must be in either history of science or philosophy of science. These exams are, in part, designed by the students themselves.

At this point the student writes a dissertation proposal, and defends it at a hearing before his or her dissertation committee. He or she is then considered to have advanced to Ph.D. candidacy, and proceeds to write the dissertation itself.

COURSES

The department website offers descriptions of representative courses offered in recent years: http://chss.uchicago.edu/courses/

CONCEPTUAL/HISTORICAL STUDIES OF SCIENCE COURSES

CHSS 32805. Nature/Culture. 100 Units.

Exploring the critical intersection between science studies and political ecology, this course interrogates the contemporary politics of "nature." Focusing on recent ethnographies that complicated our understandings of the environment, the seminar examines how conceptual boundaries (e.g., nature, science, culture, global/ local) are established or transgressed within specific ecological orders). Instructor(s): J. Masco Terms Offered: Winter (Tentative) Equivalent Course(s): ANTH 23805, ANTH 43805, HIPS 26203

CHSS 32900. History of Statistics. 100 Units.

This course covers topics in the history of statistics, from the eleventh century to the middle of the twentieth century. We focus on the period from 1650 to 1950, with an emphasis on the mathematical developments in the theory of probability and how they came to be used in the sciences. Our goals are both to quantify uncertainty in observational data and to develop a conceptual framework for scientific theories. This course includes broad views of the development of the subject and closer looks at specific people and investigations, including reanalyses of historical data. Instructor(s): S. Stigler Terms Offered: Spring

Prerequisite(s): Prior statistics course

Equivalent Course(s): STAT 26700, HIPS 25600, STAT 36700

CHSS 33300. Introduction to the Philosophy of Science. 100 Units.

We will begin by trying to explicate the manner in which science is a rational response to observational facts. This will involve a discussion of inductivism, Popper's deductivism, Lakatos and Kuhn. After this, we will briefly survey some other important topics in the philosophy of science, including underdetermination, theories of evidence, Bayesianism, the problem of induction, explanation, and laws of nature. (B)(II)

Instructor(s): K. Davey Terms Offered: Winter

CHSS 33500. Elementary Logic. 100 Units.

An introduction to the concepts and principles of symbolic logic. We learn the syntax and semantics of truth-functional and first-order quantificational logic, and apply the resultant conceptual framework to the analysis of valid and invalid arguments, the structure of formal languages, and logical relations among sentences of ordinary discourse. Occasionally we will venture into topics in philosophy of language and philosophical logic, but our primary focus is on acquiring a facility with symbolic logic as such.

Instructor(s): K. Davey Terms Offered: Autumn

Note(s): Course not for field credit.

Equivalent Course(s): HIPS 20700, PHIL 30000, PHIL 20100

CHSS 33600. Intermediate Logic. 100 Units.

In this course, we will prove the soundness and completeness of standard deductive systems for both sentential and first-order logic. We will also establish related results in elementary model theory, such as the compactness theorem for first-order logic, the Löwenheim-Skolem theorem, and Lindström's theorem. (B) (II) Instructor(s): A. Vasudevan Terms Offered: Winter Equivalent Course(s): HIPS 20500,PHIL 39600,PHIL 29400

CHSS 34903. Victorian Science. 100 Units.

This course examines how Victorians sought to understand the natural world, and how their scientific work helped develop modern intellectual conventions, social relations, and institutions. We will study a wide range of topics from the 1830s through the beginning of the twentieth century in order to develop a kind of panorama of scientific life and to determine when key features of modern science came into being.

Instructor(s): A. Winter Terms Offered: Winter Equivalent Course(s): HIST 24913,HIST 34913,HIPS 24913

CHSS 34913. Victorian Science. 100 Units.

This course examines how Victorians sought to understand the natural world, and how their scientific work helped develop modern intellectual conventions, social relations, and institutions. We will study a wide range of topics from the 1830s through the beginning of the twentieth century in order to develop a kind of panorama of scientific life and to determine when key features of modern science came into being.

Instructor(s): A. Winter Terms Offered: Winter

CHSS 35110. Philosophy of History: Narrative and Explanation. 100 Units.

This lecture-discussion course will trace different theories of explanation in history from the nineteenth century to the present. We will examine the ideas of Humboldt, Ranke, Dilthey, Collingwood, Braudel, Hempel, Danto, and White. The considerations will encompass such topics as the nature of the past such that one can explain its features, the role of laws in historical explanation, the use of *Verstehen* history as a science, the character of narrative explanation, the structure of historical versus other kinds of explanation, and the function of the footnote. (II) (V) Instructor(s): R. Richards Terms Offered: Winter

Equivalent Course(s): HIST 35110, HIPS 25110, PHIL 20506, PHIL 30506, HIST 25110

CHSS 35208. Motion Pictures in the Human Sciences. 100 Units.

This course will examine the relationship between moving images, particularly motion-picture films, and the human sciences, broadly construed, from the early days of cinema to the advent of functional magnetic resonance imaging (fMRI). It will use primary source documents alongside screenings to allow students to study what the moving image meant to researchers wishing to develop knowledge of mind and behavior, and what they thought film could do that still photography and unmediated human observation could not. The kinds of motion pictures we will study will vary widely, from infant development studies to psychiatric films, from documentaries to research films, and from films made by scientists or clinicians as part of their laboratory or therapeutic work to experimental films made by seasoned filmmakers. We will explore how people used the recordings they made in their own studies, in communications with other scientists, and for didactic and other purposes. We will also discuss how researchers' claims about mental processes — perception, memory, consciousness, and interpersonal influence — drew on their understandings of particular technologies.

Instructor(s): A. Winter Terms Offered: Spring

Equivalent Course(s): HIST 25208, HIST 35208, HIPS 25208, CMST 29002, CMST 39002

CHSS 35415. History of Information. 100 Units.

"Information" in all its forms is perhaps the defining phenomenon of our age. But although we tend to think of it as something distinctively modern, in fact it came into being through a long history of thought, practice, and technology. This course will therefore suggest how to think historically about information. Using examples that range from the Middle Ages to the twenty-first century, we shall explore how different societies have conceptualized the subject, and how they have sought to control it. We shall address how information has been collected, classified, circulated, contested, and destroyed. The aim is to provide a different kind of understanding of information practices—one that can be put to use in other historical inquiries, as well as casting an unfamiliar light on our own everyday lives. Instructor(s): A. Johns Terms Offered: Winter

Equivalent Course(s): HIST 25415, HIST 35415, LLSO 23501

CHSS 37502. Energy and Energy Policy. 100 Units.

This course shows how scientific constraints affect economic and other policy decisions regarding energy, what energy-based issues confront our society, how we may address them through both policy and scientific study, and how the policy and scientific aspects can and should interact. We address specific technologies and the policy questions associated with each, as well as with more overarching aspects of energy policy that may affect several, perhaps many, technologies.

Instructor(s): S. Berry, G. Tolley Terms Offered: Autumn

Prerequisite(s): PQ: Third- or fourth-year standing. For ECON majors who want ECON credit for this course (ECON 26800): PQ is ECON 20100.

Equivalent Course(s): ECON 26800,ENST 29000,PBPL 29000,PPHA 39201,PSMS 39000,BPRO 29000

CHSS 42300. Scientific/Technological Change. 100 Units.

Equivalent Course(s): HIPS 20300

CHSS 43400. The Social Lives of Brains. 100 Units.

This course examines recent historical and anthropological scholarship on neuroscience, psychiatry, and psychology through a focus on these fields' principal material object of inquiry and intervention: the brain. We will address topics such as brains in circulation as research objects; brain imaging; neuro-anatomy and neuropathology; the relationship between mind and brain; and brains in non-human organisms and non-organic systems. Through readings in these and other topics, we will explore modern scholarship in neuroscience and brain research, as well as examine the varied meanings that different groups of people in different times and places have brought to the question of embodied human consciousness. Instructor(s): E. Raikhel, M. Rossi Terms Offered: Winter Prerequisite(s): Graduate students only Note(s): CHDV Distribution, 4*

Equivalent Course(s): ANTH 40340, HIST 57401, CHDV 43400



Department of Economics

Chair

- John List Professors
- Fernando Alvarez
- Stéphane Bonhomme
- David W. Galenson
- Michael Greenstone
- Lars Peter Hansen
- James J. Heckman
- Ali Hortaçsu
- Steven Levitt
- John List
- Casey Mulligan
- Kevin M. Murphy
- Roger B. Myerson
- Derek A. Neal
- Philip J. Reny
- Azeem Shaikh
- Robert Shimer
- Nancy L. Stokey
- Harald Uhlig

Assistant Professor

- Ufuk Akcigit
- Michael Dinerstein
- Manasi Deshpande
- Brent Hickman
- Rafael Lopes de Melo
- Doron Ravid
- Lawrence Schmidt
- Richard Van Weelden
- Alessandra Voena
- E. Glen Weyl

Senior Lecturers

- Victor O. Lima
- Allen R. Sanderson
- Grace Tsiang

Lecturers

- Sebastien Gay
- Melissa Tartari
- Kotaro Yoshida

Emeritus Faculty

- Arnold C. Harberger
- Robert E. Lucas, Jr.
- Hugo F. Sonnenschein
- Lester G. Telser
- George S. Tolley

Chicago is a particularly innovative department of economics. The proportion of new ideas in economics that have emanated from or become associated with Chicago over the last forty years is astonishing. Any definition of the Chicago School would have to find room for the following ideas (in chronological order from the 1940s to the present): the economic theory of socialism, general equilibrium theory, general equilibrium models of foreign trade, simultaneous equation methods in econometrics, consumption as a function of permanent income, the economics of the household, the rationality of peasants in poor countries, the economics of education and other acquired skills (human capital), applied welfare economics, monetarism, sociological economics (entrepreneurship, racial discrimination, crime), the economics of invention and innovation, quantitative economic history, the economics of information, political economy (externalities, property rights, liability, contracts), the monetary approach to international finance, rational expectations in macroeconomics, and mechanism design. The unifying thread in all this is not political or ideological but methodological, the methodological conviction that economics is an incomparably powerful tool for understanding society.

The Department of Economics offers a program of study leading to the Ph.D. degree. A general description of the program is given below. For a more detailed explanation of the program requirements, as well as complete course descriptions and faculty bios, see the information for current students on our website at: http:// economics.uchicago.edu/graduate/.

The Department of Economics has no master's-level courses and does not admit students who intend to do only a master's degree. Ph.D. students may apply for and receive a master's degree after completion of a set of courses and examinations that they have taken as part of the doctoral program.

Admissions and Financial Aid

Prerequisites and Preparation for Graduate Study

Each autumn, the Department of Economics enrolls an entering class of approximately twenty-five graduate students who come from many countries around the world, and have been selected from a large and diverse group of applicants. Admission to graduate study requires a bachelor's degree (or equivalent). This degree need not be in economics, although some background in economics is certainly desirable. There are no formal course requirements for admission, but a strong background in mathematics is important. At the Ph.D. level, the study of economics requires an absolute minimum of one year of college calculus and a quarter (or semester) each of both matrix algebra and mathematical statistics (that is, statistics using calculus, as distinct from introductory statistics for social science). Prospective students who lack this preparation and have remaining free time in their undergraduate schedules are urged to take these courses before beginning graduate study.

Beyond these basic prerequisites, many of our applicants have taken other advanced mathematics courses, such as real analysis, have completed some graduate-level classes in economics or related fields, or have had some other significant exposure to research in economics. Many strong applicants have ranked at or near the top of their graduating class.

ADMISSIONS PROCESS

Given the year long sequence of courses, all new students must begin their study in the Autumn Quarter. The application process for admission and financial aid for Economics and all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at: https://apply-ssd.uchicago.edu/apply/. Most required supplemental material can be uploaded into the application.

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. All correspondence and those materials that cannot be uploaded into the application should be mailed to:

The University of Chicago Division of Social Sciences Admissions Office Foster 105 1130 East 59th Street Chicago, IL 60637

All applicants are required to submit scores from the Graduate Record Examination (GRE) General Test. Foreign applicants whose native language is not English must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). The current University minimum score requirements are provided with the application.

CRITERIA FOR ADMISSIONS

The Committee on Admissions takes account of a wide range of factors to evaluate each applicant: the previous educational record, letters of recommendation, writing sample, previous research experience, the applicant's scores on the GRE (General Test) and the TOEFL or IELTS, the compatibility of the applicant's research interests with the program strengths in the department, and any special factors that the applicant may bring to the committee's attention. The committee evaluates each applicant on the basis of all material available; no arbitrary cut-offs in terms of a student's grade point average or test scores are used. Applications must be complete for the January review, including scores from the GRE and TOEFL or IELTS if appropriate. These exams should be taken no later than November 1. In deciding when to register for the exams, applicants should particularly note our yearly cycle in order to assure that their applications receive full consideration.

Program of Study

The program of study for the Ph.D. degree in Economics includes courses and comprehensive examinations in the three "Core" subjects of Price Theory; the Theory of Income, Employment, and the Price Level; and Quantitative Methods. In addition to the Core, Ph.D. requirements include demonstration of competence in two Specialized Fields of concentration, courses in three elective Fields for the General Distribution requirement, a Research Paper, the approval of a Thesis Proposal, and the completion of the Doctoral Thesis.

The usual load is three courses per quarter for two years; this permits completion of nine courses during the regular academic year of three quarters. The comprehensive examination for the Core subjects is given in the Summer Quarter. An examination in each Specialized Field of concentration is given once a year.

Ph.D. students may request permission to choose electives outside the Department of Economics for Field or General Distribution requirements. Satisfactory grades on course work done at the graduate level at another institution may also be used to satisfy part of the course requirements for General Distribution by petition to the Director of Graduate Studies.

With good preparation, students normally take five years to complete the Ph.D. Students who begin with the intention of obtaining the Ph.D. but who change their plans or fail to satisfy the Ph.D. requirements will in most cases be eligible for a M.A. degree.

The program of a typical Ph.D. student consists of the following sequence: in the first year, courses in price theory, the theory of income, and quantitative methods prepare the student for the Core examinations which are taken in the following summer; in the second year, courses and participation in workshops prepare the student for certification in two Specialized Fields (one by exam and one by GPA or exam) and help the student identify a Research Paper topic; in the third and fourth years, the student completes his/her Research Paper and General Distribution requirements, participates in workshops, formulates a thesis topic, and presents a Thesis Proposal Seminar at which the faculty formally approves the topic and admits the student to candidacy; in the fifth year, the student completes his/her Doctoral Thesis and gives a Public Lecture.

COURSES

The department website offers descriptions of graduate courses scheduled for the current academic year: http://economics.uchicago.edu/graduate/

Joint Ph.D. Program In Financial Economics

The joint Ph.D. program in Financial Economics was established in the 2006-07 academic year and is run jointly by the Department of Economics in the Division of the Social Sciences and by the University of Chicago Booth School of Business (formerly the GSB). The aim of this program is to exploit the strengths of both sponsors in training Ph.D. students interested in financial economics. Core economics training is valuable for students seeking to do research in financial economics, and advances in financial economics have important spillovers to other areas of economics. It has long been a tradition in the Department of Economics to feature core economics training for their Ph.D. students, and the Booth School has a well recognized excellence in finance. Students in the joint program benefit from broad sets of instructors and classmates in both the Economics Department and the Booth School. They also hold an official status and are able to utilize resources in both Economics and the Booth School.

Upon completion of this program, students will be awarded a Doctor of Philosophy degree in Economics and Finance jointly from the Division of the Social Sciences and the Booth School.

Program Elements

Students must satisfy the requirements for the Ph.D. degree in both programs. This is viable because of the considerable overlap in what the two programs expect of their students.

Admissions

Admission to the joint program requires admission to both the doctoral program in the Department of Economics and to the doctoral program in the Booth School, but interested parties need only apply to one or the other program. Students may enter the joint program at the beginning of their doctoral studies. Those seeking admission to the joint program should apply online to either the Ph.D. program in the Department of Economics or the Booth School.

Students enrolled in doctoral studies in either the Economics Department or the Booth School may apply to the joint program at any time within their first two years in residence. Such students will still have to meet all of the requirements of both programs.

Enrollment and financial aid throughout a student's matriculation in the joint program will be administered by either the Division of the Social Sciences or the Booth School, as arranged by the two units. This designation will be for administrative purposes only and will not have programmatic implications. If a student's interests change, the Director of the Ph.D. program in the Booth School and the Dean of Students for the Social Sciences will facilitate transfers out of the joint program and into the doctoral program in Economics or Business.

ECONOMICS COURSES

ECON 30100. PRICE THEORY I. 100 Units.

Theory of consumer choice, including household production, indirect utility, and hedonic indices. Models of the firm. Analysis of factor demand and product supply under competitive and monopolistic conditions. Static and dynamic cost curves, including learning by doing and temporary changes. Uncertainty applied to consumer and producer choices. Property rights and the effects of laws. Investment in human and physical capital.

Instructor(s): Kevin Murphy Terms Offered: Autumn Equivalent Course(s): LAWS 43611

ECON 30200. PRICE THEORY II. 100 Units.

The first five weeks of this course are a continuation of ECON 30100, Price Theory I.

The second half of the course will be devoted to the Walrasian model of general competitive equilibrium as developed by Arrow and Debreu. This will begin with a brief development of the consumer and producer theories, followed by the welfare theorems connecting equilibria and optima and a treatment of the classical existence of equilibrium theorem. The core of an economy, a limit theorem relating the core to the set of competitive equilibria, and models in which agents are small relative to the market will also be considered. Finally we will study general equilibrium under some alternative assumptions; such as, informational asymmetries and rational expectations equilibrium, public goods and Lindahl equilibrium, financial general equilibrium and asset pricing.

Instructor(s): Phil Reny and Roger Myerson Terms Offered: Winter Equivalent Course(s): LAWS 43621

ECON 30300. PRICE THEORY III. 100 Units.

The course begins with expected utility theory, and then introduces the fundamental ideas of game theory: strategic-form games, Nash equilibrium, games with incomplete information, extensive-form games, and sequential equilibrium. Then the course will focus on the effects of informational asymmetries in markets and the problems of moral hazard and adverse selection. Topics include: optimal risk sharing, signaling and screening in competitive markets, principal-agent problems, strategic and informational incentive constraints, incentive efficiency, and mechanism design for auctions and bilateral trading.

Instructor(s): Phil Reny and Balazs Szentes Terms Offered: Spring

ECON 30400. INTRODUCTION TO MATHEMATICAL METHODS IN ECONOMICS. 000 Units.

This optional three-week course for incoming graduate students meets September 4 through September 21 2012 and introduces some basic mathematical concepts used in economic theory: a "briefing" of the math students will encounter in the Core classes. Emphasis is placed on problem-solving, but also on some fairly abstract math you might not see otherwise. Cooperative work is strongly encouraged. Instructor(s): Staff Terms Offered: August 31st - September 18, 2015 Prerequisite(s): Econ PhD students only

ECON 30501. TOPICS IN THEORETICAL ECONOMICS. 100 Units.

Some of the topics covered in this course are: Nash equilibrium existence in discontinuous games, existence of monotone pure strategy equilibria in Bayseian games, defining sequential equilibrium in infinite extensive form games, efficient auction design, correlated information and mechanism design. Instructor(s): Phil Reny Terms Offered: Winter

ECON 30701. EVOLUTIONARY GAME THEORY. 100 Units.

The goal of this course is to give an introduction to Evolutionary Economics with a particular focus on the evolution of preferences. The topics covered in this course include altruism, risk-preferences, discounting, happiness and social norms. Instructor(s): Balazs Szentes Terms Offered: Spring

ECON 31000. EMPIRICAL ANALYSIS I. 100 Units.

This course introduces students to the key tools of econometric analysis. It covers basic OLS regression model, generalized least squares, asymptotic theory and hypothesis testing for maximum likelihood estimation, extremum estimators, instrumental variables, decision theory and Bayesian inference. Instructor(s): Azeem Shaikh Terms Offered: Autumn

ECON 31100. EMPIRICAL ANALYSIS II. 100 Units.

This course develops methods of analyzing Markov specifications of dynamic economic models. Models with stochastic growth are accommodated and their properties analyzed. Methods for identifying macroeconomic shocks and their transmission mechanisms are developed. Related filtering methods for models with hidden states are studied. The properties estimation and inference methods based on maximum likelihood and generalized method of moments are derived. These econometric methods are applied to models from macroeconomics and financial economics.

Instructor(s): Lars Hansen Terms Offered: Winter

ECON 31100. EMPIRICAL ANALYSIS II. 100 Units.

This course develops methods of analyzing Markov specifications of dynamic economic models. Models with stochastic growth are accommodated and their properties analyzed. Methods for identifying macroeconomic shocks and their transmission mechanisms are developed. Related filtering methods for models with hidden states are studied. The properties estimation and inference methods based on maximum likelihood and generalized method of moments are derived. These econometric methods are applied to models from macroeconomics and financial economics.

Instructor(s): Lars Hansen Terms Offered: Winter

ECON 31200. EMPIRICAL ANALYSIS III. 100 Units.

The course will review some of the classical methods you were introduced to in previous quarters and give examples of their use in applied microeconomic research. Our focus will be on exploring and understanding data sets, evaluating predictions of economic models, and identifying and estimating the parameters of economic models. The methods we will build on include regression techniques, maximum likelihood, method of moments estimators, as well as some nonparametric methods. Lectures and homework assignments will seek to build proficiency in the correct application of these methods to economic research questions.

Instructor(s): Stéphane Bonhomme Terms Offered: Spring

ECON 32000. Topics in American Economic History. 100 Units.

Economic analysis is applied to important issues in American economic history. Specific topics vary, but may include the following: the economics of colonization, the transatlantic slave trade, the role of indentured servitude and slavery in the colonial labor market, the record and sources of 19th-century economic growth, economic causes and effects of 19th-century immigration, the expansion of education, the economics of westward migration, determinants of long-run trends in the distribution of income and wealth, the quantitative analysis of economic and social mobility, and the economics of racial discrimination in the twentieth-century South.

Instructor(s): D. Galenson Terms Offered: Winter Equivalent Course(s): ECON 22200

ECON 33000. THE THEORY OF INCOME I. 100 Units.

This course will use dynamic general equilibrium models to study macroeconomic questions. The first half of the quarter will focus on applications of the neoclassical growth model, including variants useful for studying the effects of capital, labor, and consumption taxes; the effects of general and investment specific technical change; the role of human capital accumulation, and the q-model of investment. On the technical side, this part of the course will rely heavily on the tools of optimal control theory (Hamiltonians) and on the First and Second welfare theorems. The second part of the course will focus on applications of stochastic dynamic programming. On the substantive side, particular topics include models of job search and asset pricing; models with idiosyncratic (insurable) and aggregate (uninsurable) risk; and dynamic tax smoothing. On the technical side, this part of the course will rely heavily on Bellman equations and other recursive modeling techniques.

Instructor(s): Fernando Alvarez Terms Offered: Autumn

ECON 33100. THE THEORY OF INCOME II. 100 Units.

This course will explore a variety of macroeconomic models in which the welfare theorems do not necessarily hold, including overlapping generations models, equilibrium models with labor market search and matching frictions, economies with sticky prices and sticky wages, and environments in which money facilitates exchange.We will also explore the role of government policy within these models, including optimal taxation, optimal monetary policy, and the time consistency of these policies. If time permits, we will look at environments with non-convex adjustment costs, such as irreversible investment and fixed costs of changing prices. Instructor(s): Robert Shimer Terms Offered: Winter

ECON 33200. THE THEORY OF INCOME III. 100 Units.

The course shares with the other two Theory of Income courses the objectives of (1) explaining human behavior as evidenced by aggregate variables and (2) predicting the aggregate effects of certain government policies. Economics 33200 considers some of the prevailing business cycle theories, and their application to the recession of 2008-9. Some hypotheses to be considered are the q-theory of housing investment, the neoclassical approach to fiscal policy, and whether government spending has a "multiplier." The course confronts several empirical issues that are also encountered outside the field of macroeconomics such as the construction of aggregate data, choice of data set, and the measurement of expectations. Instructor(s): Casey Mulligan Terms Offered: Spring

ECON 35101. INTERNATIONAL MACROECONOMICS & TRADE. 100 Units.

This course is the first in a three course sequence on international economics. The first part is reserved to international trade and will involve a mix of theory, data, and computation. After studying the workhorse models (including classical models of trade, models with increasing returns and monopolistic competition, and recent models with heterogeneous firms), we will cover their recent quantitative applications. The second part is on international macroeconomics and focuses on international relative prices and exchange rates. In particular, we will cover price-related puzzles, such as PPP puzzle and exchange rate disconnect, study the recent work on incomplete pass-through and pricing-to-market, as well as models of real and nominal exchange rate under flexible and sticky prices. Instructor(s): Ralph Ossa Terms Offered: Autumn

Equivalent Course(s): BUSF 33946

ECON 35301. INTERNATIONAL TRADE AND GROWTH. 100 Units.

This course is the last in a three course sequence on Economic Growth and International Trade. We will focus on recent research related to trade, growth, and technology diffusion. Papers by Eaton and Kortum, Alvarez, Buera, Lucas, Prescott, McGrattan and Jovanovic will be reviewed, as well as work by Sachs and Warner, Stokey, Grossman and Helpman, Rossi-Hansberg, and Klenow and Rodriguez-Clare.

Instructor(s): Robert Lucas Terms Offered: Spring

ECON 36101. ECONOMIC MODELS OF POLITICS. 100 Units.

This course is an introduction to current research in political economics. The emphasis is on game-theoretic models that can be used to study the effects of different constitutional structures on the competitive behavior of politicians and the welfare-relevant performance of government.

Instructor(s): Roger Myerson and Richard van Weelden Terms Offered: Winter

ECON 38900. THEORY OF FINANCIAL DECISIONS I. 100 Units.

This course is concerned with models for portfolio decisions by investors and the pricing of securities in capital markets. The material is covered in a rigorous analytical manner, although formal technical requirements are minimal. The reading list is extensive. The expectation is that the average student spends 15+ hours per week on the course, outside of class. Grades are based on weekly take-home exam questions, about five problem sets, and a term paper. Class participation (I cold call) is also used to determine grades. Cannot be taken pass/fail or audited.

This course is intended for (i) first-year Booth Ph.D. students with no finance and (at best) undergraduate economics and statistics backgrounds, and (ii) second-year MBA students with rather minimal economics and statistics backgrounds. Students with stronger backgrounds in economics and statistics are likely to find the pace of the course, and the exam and problem set requirements, somewhat tedious. Such students are better served by the Booth Ph.D. Asset Pricing courses offered by Cochrane, Constantinides, and Heaton.

Instructor(s): Eugene Fama Terms Offered: Autumn

Prerequisite(s): Written proof of permission from the Instructor to enroll in this class is required at the time of registration. Attendance at the first class is mandatory. Equivalent Course(s): BUSF 35901

ECON 39001. THEORY OF FINANCIAL DECISIONS II. 100 Units.

This course provides a theoretical and empirical treatment of major topics in corporate finance, including: capital structure and financial contracting; investment decisions; bankruptcy; and the market for corporate control. The course is designed for Ph.D. students interested in corporate finance. Grades will be based on problem sets, referee reports, and a final examination.

Instructor(s): Zhiguo He Terms Offered: Winter Prerequisite(s): ECON 38900 / BUSF 35901

Equivalent Course(s): BUSF 35902

ECON 39101. ASSET PRICING. 100 Units.

In this course, we develop the theory of financial markets. Topics: review of meanvariance portfolio theory and the CAPM; arbitrage and state prices; the arbitrage pricing theory (APT); intertemporal consumption-investment decisions; the intertemporal capital asset pricing model (ICAPM) and the intertemporal APT; the econometrics of multifactor models; present value relations; equilibrium asset pricing models and the equity premium puzzle; explanations based on preferences, incomplete markets, imperfect markets, and rare events; introduction to stochastic calculus; option pricing; intertemporal consumption-investment decisions and asset pricing in continuous time; the term structure of interest rates.

Materials required will include: S. Bhattacharya and G. M. Constantinides (editors), *Theory of Valuation* (World Scientific). J. Y. Campbell, A. W. Lo, and A. C. Mackinlay, *The Econometrics of Financial Markets* (Princeton). J. Cochrane, *Asset Pricing* (Princeton). J. E. Ingersoll, *Theory of Financial Decision Making* (Rowman and Littlefield). CoursePack of readings.

Grades will be based on class participation, homework, and a final examination in class. Students are expected to read the assigned materials in advance, participate in the class discussion, and work on extensive problem sets.

Instructor(s): George Constantinides Terms Offered: Autumn

Prerequisite(s): BUSF 35100 and BUSF 35901

Equivalent Course(s): BUSF 35912

ECON 39200. TOPICS IN EMPIRICAL FINANCE. 100 Units.

The central question of empirical finance is "what are the real sources of aggregate risk that determine asset prices?" This course focuses on current topics in empirical finance that address this question. It explores this question by providing a synthesis of asset pricing and macroeconomic theory. The emphasis is on the stochastic discount factor framework for thinking about asset pricing, and the course spends some time exploring this framework and relating it to traditional expected returnbeta statements of asset pricing models. Methods for analyzing the term structure of risk exposures and prices across alternative investment horizons are developed. Econometric challenges are explored. Finally, the effects of investor preferences and individual heterogeneity and frictions in asset markets on equilibrium stochastic discount factors are analyzed.

Instructor(s): TBD Terms Offered: Winter Equivalent Course(s): BUSF 35905

ECON 39400. THEORY OF FINANCIAL DECISIONS III. 100 Units.

We plan to cover three broad topics in this course: (1) theory of the firm; (2) the development of financial markets and its effects on real markets; and (3) financial intermediaries. We will start by trying to understand why firms exist. This will naturally lead on to questions about their organizational and control structures and about the way they are financed. Financial intermediaries play a key role in financing and we will attempt to understand why they are useful. Among the topics we will examine are the effects of financial contracts and intermediaries on incentives, commitment, and the liquidity of markets and the chance of a financial crisis.

This course is intended for Ph.D. students and advanced M.B.A. students who have a substantial understanding of formal economics and some basic game theory. Grades will be based on problem sets, referee reports and a final examination. Instructor(s): Amit Seru and Amir Sufi Terms Offered: Spring Prerequisite(s): ECON 39001 / BUSF 35902. A solid background in advanced microeconomics is highly recommended. Equivalent Course(s): BUSF 35903

ECON 39802. ADVANCED LAW AND ECONOMICS. 100 Units.

This seminar examines theoretical and empirical work in the economic analysis of law. It will cover, among other things, optimal tort rules, models of contract liability and remedies, optimal criminal rules, settlement and plea bargaining, and models of judicial behavior. Familiarity with calculus and either advanced undergraduate microeconomics or graduate microeconomics is expected. Grades will be based on class participation and a series of research paper proposals.

Instructor(s): Anup Malani Terms Offered: Spring

Equivalent Course(s): LAWS 55401

ECON 40101. ADVANCED INDUSTRIAL ORGANIZATION I. 100 Units.

This two-quarter sequence is part of the Industrial Organization Specialized Field taught jointly at the Ph.D. level in the Department of Economics and the Booth School of Business. Topics include modeling consumer demand, production function estimation, static and dynamic models of imperfect competition, pricing strategies, theory of the firm and organizational design. Recent theoretical and empirical approaches are emphasized.

Instructor(s): Chad Syverson Terms Offered: Autumn

Prerequisite(s): PQ: Solid background in first year Ph.D. level microeconomics and econometrics, e.g., ECON 30100, 30200, or 30300 and ECON 31000, 31100, or 31200. Equivalent Course(s): BUSF 33921

ECON 40201. ADVANCED INDUSTRIAL ORGANIZATION II. 100 Units.

This two-quarter sequence is part of the Industrial Organization Specialized Field taught jointly at the Ph.D. level in the Department of Economics and the Booth School of Business. Topics include modeling consumer demand, production function estimation, static and dynamic models of imperfect competition, pricing strategies, theory of the firm and organizational design. Recent theoretical and empirical approaches are emphasized.

Instructor(s): Ali Hortacsu Terms Offered: Winter

Prerequisite(s): . PQ: Solid background in first year Ph.D. level microeconomics and econometrics, e.g., ECON 30100, 30200, or 30300 and ECON 31000, 31100, or 31200. Equivalent Course(s): BUSF 33922

ECON 40301. ADVANCED INDUSTRIAL ORGANIZATION III. 100 Units.

This course will complement the other courses in the Ph.D. sequence for industrial organization and will focus on topics closely related to antitrust economics and regulation. Topics will include optimal price discrimination, bundling, tie in sales, price fixing, two sided markets including credit cards, the theory of optimal regulation, and the empirical facts of regulation. The course is primarily for PhDs in economics and business, but advanced law students interested in antitrust and regulation plus advanced and interested MBAs are welcome. Instructor(s): Dennis Carlton Terms Offered: Spring

Equivalent Course(s): BUSF 33923,LAWS 99304

ECON 40701. TOPICS IN MATCHING AND MARKET DESIGN. 100 Units.

This course is a reading seminar on the theory and practice of market design. The first few weeks will introduce the field and its technology; subsequent weeks will discuss recent papers alongside their classical antecedents. In addition to technical content, class discussion will pay special attention to issues of problem identification and formulation, so as to understand what comprises "interesting" work in market design. Topics may include: spectrum reassembly, cadet-branch matching, affirmative action, large-market matching, kidney exchange chains, real property, and the design of dating websites.

Instructor(s): Scott Kominers Terms Offered: Spring

ECON 40801. INTRODUCTION TO THEORY-BASED EMPIRICAL METHODS WITH APPLICATIONS TO MARKET DESIGN. 100 Units.

This course will concentrate on identification and estimation of static models related to market design, but may also serve as an introduction to structural research in general. As a rough outline, the first segment will cover single-object auction models, the second segment will cover multi-object auction models, and the final segment will cover related settings including contracts, adverse selection models, rank-order contests, and matching markets. Lectures will briefly cover theoretical background of various models so as to facilitate an in-depth discussion of topics such as model identification within different informational environments, unobserved heterogeneity, estimation techniques, and counterfactual experiments. Class assignments will include empirical exercises, a referee report, and in-class presentations on recent research of interest to class members. Instructor(s): Brent Hickman Terms Offered: Autumn

ECON 41100. Experimental Economics. 100 Units.

This course provides the necessary tools to be an avid consumer of the experimental literature and instructs students on how to become a producer of that literature. Topics include a summary of recent experimental findings and details on how to gather and analyze data using experimental methods.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): ECON 20100 Equivalent Course(s): ECON 21800

ECON 42800. Creativity. 100 Units.

This seminar examines recent research on how creative people innovate in a wide range of intellectual activities. The main project for the course is a term paper that analyzes the creative life cycle of one or more innovators of the student's choice, using both quantitative and qualitative evidence. Students present their research in progress for discussion. The seminar is designed to give students all the tools needed to do this research, including choosing a subject, finding and using an appropriate data set, and negotiating the relevant scholarship. Instructor(s): D. Galenson Terms Offered: Winter Prerequisite(s): ECON 19800 or consent of instructor Equivalent Course(s): ECON 22650

ECON 42900. Innovators. 100 Units.

Economists believe that innovation is a primary source of economic growth. Yet although most innovations are made by individuals or small groups, until recently economists have not studied how those exceptional people produce their discoveries. Recent research has shown that there are two very different types of innovators, who have different goals and follow different processes. This course surveys this research, examining the careers and innovations of important practitioners in a range of modern arts, including painters, novelists, sculptors, poets, movie directors, photographers, songwriters, and architects, as well as entrepreneurs and scientists. The material covered in this course adds a new dimension to our understanding of creativity and of how innovators in many different activities produce new forms of art and science. Instructor(s): D. Galenson Terms Offered: Autumn

Prerequisite(s): ECON 20100

Equivalent Course(s): ECON 22600

ECON 49700. The Required Research Seminar I. 100 Units.

The Required Research Seminar/Paper is designed to introduce the Ph.D. student to the demands and excitement of research, promote early contact with the faculty, and introduce the process of selecting a research topic and writing about it. (The thesis itself comes later and may be on a different topic.) Every student is required to write a research paper under faculty supervision by taking the Required Research Seminar.

Instructor(s): Staff Terms Offered: Autumn

ECON 49800. The Required Research Seminar II. 100 Units.

The Required Research Seminar/Paper is designed to introduce the Ph.D. student to the demands and excitement of research, promote early contact with the faculty, and introduce the process of selecting a research topic and writing about it. (The thesis itself comes later and may be on a different topic.) Every student is required to write a research paper under faculty supervision by taking the Required Research Seminar.

Terms Offered: Winter

ECON 49900. Required Research Seminar III. 100 Units.

The Required Research Seminar/Paper is designed to introduce the Ph.D. student to the demands and excitement of research, promote early contact with the faculty, and introduce the process of selecting a research topic and writing about it. (The thesis itself comes later and may be on a different topic.) Every student is required to write a research paper under faculty supervision by taking the Required Research Seminar.

Instructor(s): Faculty Terms Offered: Spring



Committee on Geographical Studies

Professors

- Michael P. Conzen
- Neil Harris, History
- Marvin W. Mikesell
- Associate Faculty
- Virginia Parks, Social Service Administration
- Todd Schuble, Manager of GIS Research/Lecturer

Emeritus Faculty

Gerald Suttles, Sociology

The Committee on Geographical Studies offers course work and research opportunities for graduate students in the University. Students from many degree programs in different divisions work through the committee for specialized training. The committee does not admit students for degree work.

Unique resources for geographical research exist both at the University and in the Chicago area. On campus, the Joseph Regenstein Library contains a geography monograph collection considered one of the four best in the world; a main map collection of over a quarter of a million maps covering all regions of the globe; and over 1,000 geography serial titles from all over the world. Among the holdings in the distinguished John Crerar Science Library are significant materials on the environment in general, agriculture, land use, housing, social welfare, and urban growth in Europe and the United States. Area research centers at the University devoted to the Middle East, East Asia, South Asia, Slavic regions, and Latin America provide further specialist interdisciplinary research opportunities, some including additional library collections.

Among the major libraries and museums in the Chicago area, the Newberry Library has special strength in American local materials and is home to the Hermon Dunlap Smith Center for the History of Cartography with its world class collection of antique and historical maps. Research and policy organizations, such as the Northeastern Illinois Planning Commission and Chicago Area Transportation Study, maintain specialized libraries and data repositories, and from time to time offer internship opportunities.

Students who wish to inquire further about the Committee on Geographical Studies should write or call: Chair, Committee on Geographical Studies, The University of Chicago, 1130 East 59th Street Chicago, IL 60637, telephone: (773) 702-8301.

FIELDS OF STUDY

The principal objectives of the committee are the investigation of the organization of area, exploration of the earth environment and of its interactions with human life,

and inquiry into the geographical dimensions of cultures and societies. The research interests of the committee's faculty include:

URBAN ORGANIZATION AND CHANGE

Urban origins; the evolution of urban networks and systems of cities, ancient and modern, western and non western; the changing spatial structure, social organization, and morphology of urban areas; problems of urban allocation and planning; regionalism in American urban life; emergence of new metropolitan and non metropolitan settlement patterns in advanced societies.

REGIONAL STUDIES

Historical and thematic approaches to regional structure, particularly of North America and the Middle East; theory of the region; the origin and development of regional character; locality and place making; nature and culture in regional settings; comparative study of regions.

CULTURAL FOUNDATIONS OF NATION BUILDING

The ethno religious bases of the nation state; evolving regionalism and culture; the geographical significance of territoriality; national and regional boundary conflicts; minorities and cultural autonomy; linguistic policies of the state; multicultural development strategies; international and transnational management of ethnic conflict; cultural roots of self determination.

LANDSCAPE STUDIES

Landscape as an embodiment and shaper of social values and attitudes towards environment; theories of landscape structure and change; the historical development and regional construction of landscapes; thematic landscapes; the role of institutions in environmental design and management; aesthetic landscape values; landscape and the sense of place; comparative landscape analysis.

COURSES

The following list is representative of courses which have been offered by committee faculty members in recent years. Individualized reading and research courses on topics of faculty expertise may be arranged as well. The committee also maintains information on related courses in other disciplines.

GEOGRAPHICAL STUDIES COURSES

GEOG 30100. Cultural Geography. 100 Units.

This course examines the two main concerns of this field of geography: (1) the logic and pathology revealed in the record of the human use and misuse of the Earth, and (2) the discordant relationship of the world political map with more complicated patterns of linguistic and religious distribution.

Instructor(s): M. Mikesell Terms Offered: Winter

Equivalent Course(s): GEOG 20100, ENST 25900

GEOG 31900. Historical Geography of the United States. 100 Units.

This course examines the spatial dynamics of empire, the frontier, regional development, the social character of settlement patterns, and the evolution of the cultural landscapes of America from pre-European times to 1900. All-day northern Illinois field trip required.

Instructor(s): M. Conzen Terms Offered: Autumn Note(s): This course offered in even years. Equivalent Course(s): GEOG 21900,HIST 28800,HIST 38800

GEOG 32100. Changing America in the Twentieth Century. 100 Units.

This course explores the regional organization of U.S. society and its economy during the pivotal twentieth century, emphasizing the shifting dynamics that explain the spatial distribution of people, resources, economic activity, human settlement patterns, and mobility. We put special focus on the regional restructuring of industry and services, transportation, city growth, and cultural consumption. Two-day weekend field trip to the Mississippi River required.

Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course offered odd years.

Equivalent Course(s): GEOG 22100, HIST 27506, HIST 37506

GEOG 32700. Urban Structure and Process. 100 Units.

This course reviews competing theories of urban development, especially their ability to explain the changing nature of cities under the impact of advanced industrialism. Analysis includes a consideration of emerging metropolitan regions, the microstructure of local neighborhoods, and the limitations of the past American experience as a way of developing urban policy both in this country and elsewhere. NOT Offered 2015/2016

Instructor(s): F. Stuart Terms Offered: Winter. Not Offered 2015-2016 Equivalent Course(s): CRES 20104,GEOG 22700,SOCI 30104,SOSC 25100,SOCI 20104

GEOG 33500. Urban Geography. 100 Units.

This course examines the spatial organization and current restructuring of modern cities in light of the economic, social, cultural, and political forces that shape them. It explores the systematic interactions between social process and physical system. We cover basic concepts of urbanism and urbanization, systems of cities urban growth, migration, centralization and decentralization, land-use dynamics, physical geography, urban morphology, and planning. Field trip in Chicago region required. Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course offered in even years.

Equivalent Course(s): GEOG 23500

GEOG 35300. Urban Geography. 100 Units.

This course examines the spatial organization and current restructuring of modern cities in light of the economic, social, cultural, and political forces that shape them. It explores the systematic interactions between social process and physical system. We cover basic concepts of urbanism and urbanization, systems of cities urban growth, migration, centralization and decentralization, land-use dynamics, physical geography, urban morphology, and planning. Field trip in Chicago region required. Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course offered in even years.

GEOG 35500. Biogeography. 100 Units.

This course examines factors governing the distribution and abundance of animals and plants. Topics include patterns and processes in historical biogeography, island biogeography, geographical ecology, areography, and conservation biology (e.g., design and effectiveness of nature reserves).

Instructor(s): B. Patterson (odd years, lab). L., Heaney (even years, discussion) Terms Offered: Winter

Prerequisite(s): Completion of the general education requirement in the biological sciences and a course in either ecology, evolution, or earth history; or consent of instructor

Equivalent Course(s): BIOS 23406, ENST 25500, EVOL 45500, GEOG 25500

GEOG 36100. Roots of the Modern American City. 100 Units.

This course traces the economic, social, and physical development of the city in North America from pre-European times to the mid-twentieth century. We emphasize evolving regional urban systems, the changing spatial organization of people and land use in urban areas, and the developing distinctiveness of American urban landscapes. All-day Illinois field trip required.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course offered in odd years.

Equivalent Course(s): GEOG 26100, ENST 26100, HIST 28900, HIST 38900

GEOG 36600. Economics of Urban Policies. 100 Units.

This course covers tools needed to analyze urban economics and address urban policy problems. Topics include a basic model of residential location and rents; income, amenities, and neighborhoods; homelessness and urban poverty; decisions on housing purchase versus rental (e.g., housing taxation, housing finance, landlord monitoring); models of commuting mode choice and congestion and transportation pricing and policy; urban growth; and Third World cities.

Instructor(s): G. Tolley, K. Ierulli Terms Offered: Spring

Prerequisite(s): ECON 20100

Equivalent Course(s): ECON 26600, GEOG 26600, LLSO 26202, PBPL 24500

GEOG 36800. Geography Issues in Housing and Community Development. 100 Units.

Difference is inscribed in and shaped by the structure of urban space.

Neighborhoods are assemblages of materials, practices, and meanings that express and characterize their inhabitants—their race, their culture, their language, and their incomes. This seminar explores the dynamics of difference within inner-city neighborhoods in the United States. Emphasis is placed on analyzing approaches to community development from the slum clearance efforts throughout the twentieth century to mixed-income housing and voucher dispersal efforts in more recent years. Students pursue research topics of their own choosing within the general framework. Chicago area field trip in collaboration with the Chicago Housing Authority required.

Instructor(s): C. Barlow Terms Offered: Spring Equivalent Course(s): GEOG 26800

GEOG 38201. Intro to Geographic Information Systems. 100 Units.

This course introduces students to the concepts and applications of geographic information systems (GIS). The course provides a basic foundation of spatial analysis and GIS with laboratory applications in particular techniques and methodology utilizing ESRI's ArcGIS 10. Students will learn to perform spatial analyses and communicate their results through cartography, along with introduction to such concepts as spatial data collection, remote sensing, and database design.

Instructor(s): T. Schuble Terms Offered: Autumn Note(s): Graduate students will be allowed to enroll for section 2 Equivalent Course(s): GEOG 28201

GEOG 38400. Intermediate GIS. 100 Units.

This course covers the development of cartographic and computer-based geographic information system techniques applicable to student research topics. Instructor(s): R. Greene Terms Offered: Winter Prerequisite(s): GEOG 28201, GEOG 38201 Equivalent Course(s): GEOG 28400

GEOG 38800. History of Cartography. 100 Units.

This course offers a grand overview of the key developments in mapmaking throughout history worldwide, from pre-literate cartography to the modern interactive digital environment. It looks at the producers, their audience, the technologies and artistic systems used, and the human and global contexts in which they developed. The course also draws on the extensive map collections of Regenstein Library.

Instructor(s): G. Danzer Terms Offered: Spring Equivalent Course(s): GEOG 28800

GEOG 42400. Urban Landscapes as Social Text. 100 Units.

This seminar explores the meanings found in varieties of urban landscapes, both in the context of individual elements and composite structures. These meanings are examined in relation to three fundamental approaches that can be identified in the analytical literature on landscapes: normative, historical, and communicative modes of conceptualization. Emphasis is placed on analyzing the explicitly visual features of the urban landscape. Students pursue research topics of their own choosing within the general framework.

Instructor(s): M. Conzen Terms Offered: Autumn

Prerequisite(s): Advanced standing and consent of instructor. Equivalent Course(s): SOCI 30303



DEPARTMENT OF HISTORY

Chair

- Emilio Kouri
 Professors
- Leora Auslander
- John W. Boyer
- Mark P. Bradley
- Dipesh Chakrabarty
- Bruce Cumings
- Constantin Fasolt
- Brodwyn Fischer
- Cornell Fleischer, Near Eastern Languages and Civilizations
- Jan Ellen Goldstein
- Ramón Gutiérrez
- Jonathan Hall
- James Hevia, College
- Thomas Holt
- Adrian D.S. Johns
- Walter E. Kaegi
- James Ketelaar
- Emilio H. Kourí
- David Nirenberg, Committee on Social Thought
- Kenneth Pomeranz
- Moishe Postone, College
- Robert J. Richards
- Christine Stansell
- Mauricio Tenorio
- Alison Winter
- John E. Woods
- Tara Zahra

Associate Professors

- Fredrik Albritton Jonsson
- Guy S. Alitto
- Dain Borges
- Matthew Briones
- Susan Burns
- Paul Cheney
- Jane Dailey

- Jacob Eyferth, East Asian Languages and Civilizations
- Rachel Fulton Brown
- Adam Green
- Jonathan Lyon
- Emily Osborn
- Julie Saville
- James Sparrow
- Amy Dru Stanley

Assistant Professors

- Eleanor Gilburd
- Cameron Hawkins
- Faith Hillis
- Amy Lippert
- Ada Palmer
- Johanna Ransmeier
- Michael Rossi

Associate Faculty

- Muzaffar Alam, South Asian Languages and Civilizations
- Michael Allen, Classics
- Clifford Ando, Classics
- Catherine Brekus, Divinity School
- Alain Bresson, Classics
- John Craig, Social Sciences Division
- Fred Donner, Near Eastern Languages and Civilizations
- Robert W. Fogel, Graduate School of Business
- R.H. Helmholz, Law School
- Dennis Hutchinson, Master New Collegiate Division
- Rochona Majumdar, South Asian Languages and Civilizations
- Paul Mendes Flohr, Divinity School
- John F. Padgett, Political Science
- Lucy Pick, Divinity School
- A. Holly Shissler, Near East Languages
- Jacqueline Feke, College
- Corey Tazzara, College

Emeritus Faculty

- Ralph A. Austen
- Kathleen Neils Conzen
- Edward Cook
- Prasenjit Duara

- T. Bentley Duncan
- Sheila Fitzpatrick
- Michael Geyer
- Hanna H. Gray
- Harry Harootunian
- Neil Harris
- Halil Inalcik
- Ronald B. Inden
- Julius Kirshner
- William H. McNeill
- Tetsuo Najita
- William Sewell
- Ronald Suny
- Noel Swedlow
- Bernard Wasserstein

From its 1892 establishment as one of the founding departments of the University of Chicago, the History Department has fostered programs leading to the Ph.D. degree in a broad range of fields. Theoretically sophisticated comparative and interdisciplinary approaches are a hallmark of our program. Along with graduate fields organized by traditional regional, national, and chronological boundaries (African, Ancient Greek and Roman, British, Byzantine, Caribbean Atlantic, Chinese, Early Modern and Modern European, French, Iranian and Central Asian, Islamic and Ottoman, Japanese, Latin American, Medieval, Modern Middle Eastern, Modern Jewish, Russian/Soviet, South Asian, United States), the Department offers a comprehensive range of interdisciplinary, theoretical, and comparative fields of study. Included are such fields as cultural studies in history, intellectual history, legal history, race and ethnicity, gender and sexuality, modern international history, social practices, and the history of science and medicine.

The History Department expects to welcome about twenty to twenty-five new graduate students each year. They are broadly distributed by field and backgrounds. Faculty members work in close concert with students in the small graduate seminars, colloquia, and tutorials that form the core of advanced training at Chicago. It is here, in intense interaction with faculty and fellow students, that individual interests and the professional skills of the historian are honed. As in any history program, a student is expected to learn to read critically, to search out and analyze primary materials with skill, and to write with rigor. At Chicago, we also expect that students will demonstrate through their own creativity a significant advancement in the field itself.

Students are strongly encouraged to take courses outside of History and to compose one of their three oral fields in a comparative or theoretical discipline. There are extensive opportunities to develop ancillary fields with faculty in other social science and humanities programs, and in the University's professional schools of Business, Divinity, Law, Medicine, Public Policy, and Social Service Administration. Through consortia arrangements, students can also supplement their Chicago studies with work at Stanford, Berkeley, or any of the Ivy League or Big Ten Midwestern universities, where they can earn credit for courses while registered at the University of Chicago.

Central to our program are interdisciplinary workshops and special conferences that bring together students and faculty from throughout the University for intellectual exchange. Some recent workshops involving Department members include African Studies, Early Modern, East Asia Gender and Sexuality Studies, History of the Human Sciences, Human Rights, Interdisciplinary Approaches to Modern France, Late Antiquity and Byzantium, Latin American History, Medieval Studies, Middle East History and Theory, Modern European History, Paris Center, Race and Religion, Reproduction of Race and Racial Ideologies, Russian Studies, and Social History. Workshops insure dissertation writing students a supportive intellectual community within which both students and faculty are able to present and comment upon research in progress.

For more detailed information on History Department faculty and the graduate program, please visit the Department's website at http://history.uchicago.edu/.

Admission

Requirements for admission are:

- 1. The degree of Bachelor of Arts or its equivalent
- 2. A distinguished undergraduate record
- 3. High competence in foreign language

Four parts of the application are critically important: the student's academic record, letters of recommendation submitted by persons able to describe the student's achievements and promise, a significant example of the student's work, (bachelor's essay, master's thesis, research or course paper) and, finally, the student's statement of purpose which describes the intellectual issues and historical subjects to be explored at the University of Chicago. Although many graduate students change their focus in the course of their studies, it is helpful to have the clearest possible idea of applicants' interests and any research experience to date.

In addition, applicants are required to submit Graduate Record Examination aptitude scores that are not more than five years old (the History subject test is not required). It is advisable, especially for aid applicants, to take the GRE no later than October so that scores will arrive on time. Applicants whose first language is not English must submit scores from the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: https://applyssd.uchicago.edu/apply/ Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. Most of the documents needed for the application can be uploaded through the online application. Any additional correspondence and materials sent in support of applications should be mailed to:

The University of Chicago Division of the Social Sciences Office of Admissions 1130 East 59th Street, Room 107 Chicago, IL 60637

PROGRAM FOR THE FIRST YEAR

Normal registration the first year is eight graded courses. Among the eight courses taken, the curriculum for the first year prescribes:

- 1. a two quarter seminar
- 2. a Historiography course
- 3. five other courses, including two in an area outside their major field

These courses are taken for letter grades and must be completed by the end of the spring quarter. Students receive the master's degree upon completing the first year curriculum.

Students are also required to take a foreign language reading examination during their first term. Students are required to secure a high pass on one University of Chicago Office of Test Administration foreign language reading examination in their first year. Each field will specify the language(s) to be used and the degree of proficiency required if beyond the minimum results mentioned above. The fields will also determine whether students have met the requisite standards.

Near the end of the spring quarter a faculty committee will decide whether a student is qualified to proceed toward the Ph.D. degree. Evidence for the judgment will be:

- 1. Evaluation of the seminar paper
- 2. Autumn and winter quarter course grades
- 3. A high pass in a foreign language reading examination

AFTER THE FIRST YEAR

Students who are recommended for the Ph.D. continue their formal study and will be expected to complete another year of graded course work including another graded seminar, unless they petition for credit for previous graduate work. The Ph.D. field examination is taken during the third year. Students are examined in three Ph.D. fields in a two hour oral examination. Within two quarters of passing the field examination, the student presents the dissertation proposal at a formal public hearing such as a workshop, and it must be approved by the dissertation committee. The student is then admitted to candidacy for the doctoral degree after the hearing.

PRE-DISSERTATION FELLOWSHIPS

The Freehling, Kunstadter, and Sinkler families and friends have made funds available for summer research fellowships, averaging about \$2,000, to support travel to archival collections. Two Eric Cochrane Traveling Fellowships of \$3,000 each are awarded annually to assist graduate students in western European history in making a summer research trip to Europe. The Arthur Mann Fellowship was created to award an Americanist in summer research. Other fellowships may be available each year. Awards of up to \$300 for travel to present papers at scholarly conferences are available.

WORK ON THE DISSERTATION

Following approval of the dissertation proposal and subsequent admission to candidacy for the Ph.D. degree, students are expected to devote their time to dissertation research. Each year the Division of Social Sciences and the department awards a number of dissertation write up fellowships. Formal defense of the completed dissertation, written with the guidance of a three or four member dissertation committee, concludes the degree requirements. All requirements for the Ph.D. degree including the final defense must be completed within ten calendar years from the date of matriculation, although many students graduate in six to eight years.

TEACHING OPPORTUNITIES

Teaching is required for students in the Ph.D. program. Students serve as assistants and lecturers in introductory History courses, Social Sciences and Humanities core sequences, the College writing program, and various civilizations sequences. The History Department's von Holst Prize Lectureships permit three students to design undergraduate courses centered on their dissertation research. The students who receive the Bessie L. Pierce Prize Preceptorship Award guide third and fourth year History undergraduates in A.B. essay seminars. Students acquire initial teaching experience through an internship program in which they assist faculty with the design, teaching, and grading of courses. Numerous students also gain valuable college teaching experience in other Chicago area institutions.

COURSES

The department website offers descriptions of graduate courses scheduled for the current academic year: http://history.uchicago.edu/page/graduate-courses

HISTORY COURSES

HIST 30303. Archaic Greece. 100 Units.

In order to understand the institutions, ideals, and practices that characterized Greek city-states in the Classical period, it is necessary to look to their genesis and evolution during the preceding Archaic period (ca. 700–480 BC). This course will examine the emergence and early development of the Greek city-states through a consideration of ancient written sources, inscriptions, material artifacts, and artistic representations as well as more recent secondary treatments of the period. General topics to be covered will include periodization, the rise of the polis, religion, warfare, the advent and uses of literacy, tyranny, and the emergence of civic ideology.

Instructor(s): J. Hall Terms Offered: Autumn

Equivalent Course(s): HIST 20303, CLCV 27506, ANCM 27506, CLAS 37506

HIST 30403. Greek Comedy: Aristophanes. 100 Units.

We will read in Greek Aristophanes' *Frogs*, a play widely admired as an early instance of clever literary criticism and creative metatheatricality that brings its audience into the underworld and suggests several fantasies of salvation, a play whose production marks the end of the great century of Greek drama. Reading will include translation as well as secondary readings.

Terms Offered: Will be offered 2017-18

Prerequisite(s): GREK 20300 or equivalent

Equivalent Course(s): GREK 22400, GREK 32400, HIST 20403

HIST 30803. Aristophanes' Athens. 100 Units.

This course will focus on nine of Aristophanes' plays in translation (*Acharnians; Wasps; Clouds; Peace; Birds; Lysistrata; Thesmophoriazousai; Frogs;* and *Ploutos*) in order to determine the value Old Comedy possesses for reconstructing sociohistorical structures, norms, expectations, and concerns. Among the topics to be addressed are the performative, ritual, and political contexts of Attic comedy, the constituency of audiences, the relationship of comedy to satire, the use of dramatic stereotypes, freedom of speech, and the limits of dissent.

Instructor(s): J. Hall Terms Offered: Winter

Equivalent Course(s): ANCM 33900, CLAS 33608, CLCV 23608, FNDL 23608, HIST 20803

HIST 31006. The Present Past in Greece since 1769. 100 Units.

This discussion-based course will explore how conceptions of the ancient past have been mobilized and imagined in the political, social, and cultural discourses of modern Greece from the lead up to the War of Independence through to the present day. Among the themes that will be addressed are ethnicity and nationalism; theories of history; the production of archaeological knowledge; and the politics of display.

Instructor(s): J. Hall Terms Offered: Winter

Equivalent Course(s): HIST 21006, CLCV 21915, ANCM 31915, CLAS 31915

HIST 31305. Early Modern Britain. 100 Units.

This course looks at British history in the "long" seventeenth century, ranging from the accession of James I in 1603 to the end of the Stuart dynasty in 1714. The period was one of upheaval, extraordinary both in itself and in its lasting consequences. The country saw protracted civil conflict, a king put on trial and executed, and (arguably) two revolutions. Its culture was distinguished by figures like Shakespeare, Milton, Newton, Locke, and Purcell; it created the origins of a world empire; and it pursued radical developments in economics, politics, and experimental science. We shall explore aspects of this period, using selected primary and secondary sources to introduce the history and historiography of early modern British culture.

Instructor(s): A. Johns Terms Offered: Winter Equivalent Course(s): HIST 21305

HIST 31703. Byzantine Empire, 1025 to 1453. 100 Units.

Internal and external problems and developments. Internal tensions on the eve of the arrival of the Seljuks. Eleventh-century economic growth. The Crusades. Achievements and deficiencies of Komnenian Byzantium. The Fourth Crusade and Byzantine successor states. Palaeologan political and cultural revival. Religious topics such as relations with the Papacy, Bogomilism, and Hesychasm. Readings will include M. Angold, *The Byzantine Empire 1025–1204*, D. M. Nicol, *Last Centuries of Byzantium*, and the histories of Michael Psellos and Anna Comnena. Course grade will include a final examination and a ten-page paper.

Instructor(s): W. Kaegi Terms Offered: Autumn

Equivalent Course(s): HIST 21703, ANCM 36700, NEHC 20507, NEHC 30507

HIST 32111. Mary and Mariology. 100 Units.

More than a saint but less than God, no figure of Christian devotion other than Jesus Christ has inspired as much piety or excited as much controversy as the Virgin Mother of God. In this course, we will study the development of the Virgin Mary's image and cult from her descriptions in the Gospels through the modern papal definitions of Marian dogma so as to come to some understanding how and why this woman "about whom the Gospels say so little" has become a figure of such popular and theological significance. We will consider both the medieval flowering of her cult and its dismantling, transformation, transmission, and reinvention in the centuries since.

Instructor(s): R. Fulton Brown Terms Offered: Autumn Equivalent Course(s): HIST 22111,RLST 22111,HCHR 32111

HIST 32115. Carolingian Renaissance. 100 Units.

The Carolingian Renaissance flowered thanks to the leadership of a new royal (AD 751) and then (from Christmas 800) imperial dynasty. Expansive political and cultural initiatives reshaped Europe into a distinct space, not least, though paradoxically, through its fragmentation after AD 843. We shall study the actors and trends at play, the important role of Classical models and Latin book culture, and consider the relevant sources in all their physical, textual, and imaginative variety. Instructor(s): M. Allen Terms Offered: Winter

Equivalent Course(s): CLCV 22115, CLAS 32115, HIST 22115, RLST 21610

HIST 32505. Modern Britain, 1688 to 1901. 100 Units.

This upper level survey course considers the vexed question of Britain's modernity. Why and how did this island nation on the periphery of Europe evolve into the first industrial nation and a global empire? Through primary sources and case studies we will track the transformation of British society between the Glorious Revolution and the death of Queen Victoria. Major themes include state building, empire, environment, political economy, industrialization, and class formation. Readings will include texts by Pincus, Brewer, Thompson, and Wrigley. Instructor(s): F. Albritton Johnsson Terms Offered: Spring Equivalent Course(s): HIST 22505

HIST 33302-33305. Europe, 1815 to 1914; Europe, 1660-1815.

HIST 33302. Europe, 1815 to 1914. 100 Units.

This course surveys the history of Europe from the era of its greatest hegemony in the world to the eve of World War I. Themes considered include industrialization; the revolutions of 1848; the formation and consolidation of modern nation-states; the rise and travails of political liberalism and laissez faire; the spread of socialism in its various guises; international rivalries, alliances, and imperialism; and the causes, character, and effects of World War I. Instructor(s): J. Craig Terms Offered: Autumn Prerequisite(s): Open to first-year students. Equivalent Course(s): HIST 23302

HIST 33305. Europe, 1660-1815. 100 Units.

This is the first installment of a three-quarter sequence (HIST 23305, HIST 23302, HIST 23306), which offers a general introduction to the processes and events that constituted the passage to modernity in Europe: monarchical absolutism as a means to state-building on the Continent and its parliamentary alternative in Britain; the intellectual and cultural transformations effected by the Enlightenment, including the creation of a liberal public sphere; the French Revolution and its pan-European implications; the rise of the laissez-faire market and the Industrial Revolution; the emergence of feminism and socialism. The course will be conducted primarily by means of lectures. Readings will include both primary and secondary sources. Instructor(s): J. Goldstein Terms Offered: Autumn Note(s): Only offered at the undergraduate level in 2013/2014 Equivalent Course(s): HIST 23305

HIST 33306. Europe, 1914 to Present. 100 Units.

This lecture course will provide an introductory survey to European history in the twentieth century. It aims to provide a critical overview of political, economic, social, and cultural developments. Topics covered will include the rise of mass politics and the conflict between Bolshevism and fascism; the causes, experiences, and effects of the First and Second World Wars in Western and Eastern Europe; the transformation of Eastern Europe's multinational empires into nationalizing states; interwar democratization and economic crisis; ethnic cleansing and population displacement; decolonization and the Cold War; the challenges of postcolonial migration; transformations in society and economy, including changes in class and gender relations; new social and protest movements in the 1960s and 1970s; mass culture and consumption; the collapse of Communism; and European integration at the end of the twentieth century.

Instructor(s): T. Zahra Terms Offered: Winter Equivalent Course(s): HIST 23306

HIST 33409. After the Revolution: French Politics and Society, 1815–1914. 100 Units.

How does a country negotiate the after-effects of a complete revolutionary rupture? Having experienced such a rupture in the Great Revolution of 1789–99 (or, in some accounts, 1789–1815), France continued to live in its shadow throughout the long nineteenth century. This series of lectures and discussions on France between the fall of Napoleon and the First World War will focus on the problems of political instability (the revolutions of 1830 and 1848; the resurgence of Bonapartism; the Paris Commune; the weakness of the early Third Republic), social change under the impact of industrialization, and repeated attempts to redefine and fulfill the revolutionary promise of national inclusion. Readings will include several of the realist novels of the period, which so brilliantly convey its social and political texture.

Instructor(s): J. Goldstein Terms Offered: Spring Equivalent Course(s): HIST 23409

HIST 33410. Jewish Spaces and Places, Real and Imagined. 100 Units.

What makes a ghetto, a ghetto? What defines a Jewish neighborhood? What determined the architectural form of synagogues? Making extensive use of Jewish law and customary practice, cookbooks, etiquette guides, prints, films, novels, maps, memoirs, architectural drawings and photographs, and tourist guides, this course will analyze how Jews (in all their diversity) and non-Jews defined Jewish spaces and places. The focus will be on Europe in the 19th and 20th centuries, but we will also venture back into the early modern period and across the Mediterranean to Palestine/Israel and North Africa and the Atlantic to the Caribbean and the Americas. We will study both actually existing structures-synagogues, ritual baths, schools, kosher (and kosher-style) butcher shops, bakeries and restaurants, social and political clubs, hospitals, orphanages, old age homes, museums and memorials -but also texts and visual culture in which Jewish places and spaces are imagined or vilified. Parallel to our work with primary sources we will read in the recent, very rich, scholarly literature on this topic. This is not a survey course; we will undertake a series of intensive case-studies through which we will address the larger issues. This is a limited-enrollment, discussion-based course in which both undergraduates and graduate students are welcome. No previous knowledge of Jewish history is expected.

Instructor(s): Leora Auslander Equivalent Course(s): HIST 23410

HIST 33516. Medieval Masculinity. 100 Units.

This course will introduce students to concepts of masculinity in the Middle Ages, especially in the period between approximately 1,000 and 1,500 CE. Special attention will be paid to medieval notions of honor and to the roles that knighthood, chivalry, and monasticism played in promoting (often contradictory) masculine ideals. The course has two main goals. First, to assess and discuss recent scholarly debates and arguments about medieval masculinity. Second, to read closely a variety of medieval sources—including Arthurian literature, chronicles of the Crusades, biographical texts, and monastic histories—in order to develop new perspectives on masculinity during the Middle Ages.

Instructor(s): J. Lyon Terms Offered: Winter

Equivalent Course(s): HIST 23516, GNSE 23516, GNSE 33516

HIST 33706. The Soviet Union. 100 Units.

This lecture course surveys the making and unmaking of the Soviet Union as a society, culture, economy, superpower, and empire from 1917 to 1991. The Soviet Union began as an unprecedented radical experiment in remaking society and economy, ethnic and gender relations, personal identities, even human nature, but in the course of its history, it came to resemble other (capitalist) societies, sharing, in turn, their violence, welfare provisions, and consumerism. The story of this transformation—from being unique and exhilarating to being much like everyone else, only poorer and more drab—will be at the center of our exploration. The main themes of the course include social and cultural revolutions; ideology and the role of Marxism; political violence from the birth of the socialist state to the end of the Stalin terror; origins, practices, aesthetics, legacies, and critiques of Stalinism; law, dissent, and human rights; nationality policies and the role of ethnic minorities; the economy of shortages and the material culture it created; institutions of daily life (communal apartments, courtyards, peasant markets, dachas, and boiler rooms); socialist realism and the Soviet dreamworld.

Instructor(s): E. Gilburd Terms Offered: Spring Equivalent Course(s): HIST 23706,REES 23706,REES 33706

HIST 34112. Early Modern Japanese History. 100 Units.

This course introduces the basic narrative and critical discourses of the history of early modern Japan, roughly from 1500 to 1868. The course examines the emergence of the central power that unified feudal domains and explores processes of social, cultural, and political changes that transformed Japan into a "realm under Heaven." Some scholars consider early modern Japan as the source of an indigenous birth of capitalism, industrialism, and also of Japan's current economic vitality, while others see a bleak age of feudal oppression and isolation. We will explore both sides of the debate and examine the age of many contradictions.

Instructor(s): N. Toyosawa Terms Offered: Spring

Equivalent Course(s): EALC 39900, HIST 24112, EALC 19900

HIST 34206. Medicine and Culture in Modern East Asia. 100 Units.

This course will focus on the cultural history of medicine in China, Japan, and Korea from the mid-nineteenth century to the 1980s. We will be concerned with tracing the circulation of new medical knowledge and understanding its cultural and social implications. Topics to be explored include the introduction of "Western medicine" and its impact for "traditional" medicine; the struggles over public health, gender, medicine, and modernity; consumer culture; and medicine. No knowledge of an East Asian language is required, but those with reading skills will be encouraged to utilize them.

Instructor(s): S. Burns Terms Offered: Autumn

Equivalent Course(s): HIST 24206, EALC 26201, EALC 36201

HIST 34500. Reading Qing Documents. 100 Units.

Reading and discussion of nineteenth- and early twentieth-century historical political documents, including such forms as memorials, decrees, local gazetteers, diplomatic communications, essays, and the like.

Instructor(s): G. Alitto Terms Offered: Winter

Equivalent Course(s): HIST 24500, EALC 24500, EALC 34500

HIST 34608. Frontiers and Expansion in Modern China. 100 Units.

A study of frontier regions, migration, and border policies in Qing (1644–1912) and twentieth-century China, focusing on selected case studies. Cases will include both actual border regions (where Qing/China was adjacent to some other polity it recognized), ethnically diverse internal frontiers, and places where migrants moved into previously uninhabited regions (e.g., high mountains). Topics include the political economy and geopolitics of migration and frontier regions, the formation of ethnic and national identities in frontier contexts, borderland society (e.g., marriage, social stratification, and social mobility), and the environmental effects of migration. Assignments for undergraduates are two short papers, a midterm (which can be waived under certain circumstances), a final, and class participation; requirements for graduate students are negotiable, but will include roughly twenty pages of writing and no in-class exams.

Instructor(s): K. Pomeranz Terms Offered: Spring Equivalent Course(s): EALC 24708,EALC 34708,HIST 24608

HIST 34913. Victorian Science. 100 Units.

This course examines how Victorians sought to understand the natural world, and how their scientific work helped develop modern intellectual conventions, social relations, and institutions. We will study a wide range of topics from the 1830s through the beginning of the twentieth century in order to develop a kind of panorama of scientific life and to determine when key features of modern science came into being.

Instructor(s): A. Winter Terms Offered: Winter Equivalent Course(s): HIST 24913, HIPS 24913, CHSS 34903

HIST 35110. Philosophy of History: Narrative and Explanation. 100 Units.

This lecture-discussion course will trace different theories of explanation in history from the nineteenth century to the present. We will examine the ideas of Humboldt, Ranke, Dilthey, Collingwood, Braudel, Hempel, Danto, and White. The considerations will encompass such topics as the nature of the past such that one can explain its features, the role of laws in historical explanation, the use of *Verstehen* history as a science, the character of narrative explanation, the structure of historical versus other kinds of explanation, and the function of the footnote. (II) (V) Instructor(s): R. Richards Terms Offered: Winter

Equivalent Course(s): HIPS 25110, CHSS 35110, PHIL 20506, PHIL 30506, HIST 25110

HIST 35208. Motion Pictures in the Human Sciences. 100 Units.

This course will examine the relationship between moving images, particularly motion-picture films, and the human sciences, broadly construed, from the early days of cinema to the advent of functional magnetic resonance imaging (fMRI). It will use primary source documents alongside screenings to allow students to study what the moving image meant to researchers wishing to develop knowledge of mind and behavior, and what they thought film could do that still photography and unmediated human observation could not. The kinds of motion pictures we will study will vary widely, from infant development studies to psychiatric films, from documentaries to research films, and from films made by scientists or clinicians as part of their laboratory or therapeutic work to experimental films made by seasoned filmmakers. We will explore how people used the recordings they made in their own studies, in communications with other scientists, and for didactic and other purposes. We will also discuss how researchers' claims about mental processes—perception, memory, consciousness, and interpersonal influence—drew on their understandings of particular technologies.

Instructor(s): A. Winter Terms Offered: Spring

Equivalent Course(s): HIST 25208, HIPS 25208, CHSS 35208, CMST 29002, CMST 39002

HIST 35300. American Revolution, 1763 to 1789. 100 Units.

This lecture and discussion course explores the background of the American Revolution and the problem of organizing a new nation. The first half of the course uses the theory of revolutionary stages to organize a framework for the events of the 1760s and 1770s, and the second half of the course examines the period of constitution-making (1776–1789) for evidence on the ways in which the Revolution was truly revolutionary.

Instructor(s): E. Cook Terms Offered: Winter Equivalent Course(s): HIST 25300,LLSO 20601

HIST 35415. History of Information. 100 Units.

"Information" in all its forms is perhaps the defining phenomenon of our age. But although we tend to think of it as something distinctively modern, in fact it came into being through a long history of thought, practice, and technology. This course will therefore suggest how to think historically about information. Using examples that range from the Middle Ages to the twenty-first century, we shall explore how different societies have conceptualized the subject, and how they have sought to control it. We shall address how information has been collected, classified, circulated, contested, and destroyed. The aim is to provide a different kind of understanding of information practices—one that can be put to use in other historical inquiries, as well as casting an unfamiliar light on our own everyday lives. Instructor(s): A. Johns Terms Offered: Winter

Equivalent Course(s): HIST 25415, CHSS 35415, LLSO 23501

HIST 35416. History of Technology in America. 100 Units.

From the very earliest days of the United States, science and technology have played a fundamental role in how Americans think of themselves and their communities. This course examines the entwined histories of technology and American culture between two especially dramatic periods of techno-scientific transformation: from the industrial push following the end of the Civil War to the "revolution" in genomics and informatics that characterizes our present age. From railroads, telegraphs, and telephones which drew distant towns into tight-knit networks; to electrical marvels which engendered new forms of consumption and socialization; to the wonders and perils of atomic power, space flight, and genetic engineering, different groups of Americans have wrestled with questions of community, identity, ideology and politics through and with products of technological innovation. In the course of investigating these and other topics, students will examine a variety of primary and secondary sources; and will be expected to write weekly response papers and two short research papers.

Instructor(s): M. Rossi Terms Offered: Spring Equivalent Course(s): HIST 25416

HIST 35704-35804-35904. Islamic History and Society I-II; Islamic History and Society-III: The Modern Middle East.

This sequence meets the general education requirement in civilization studies. This sequence surveys the main trends in the political history of the Islamic world, with some attention to economic, social, and intellectual history. Taking these courses in sequence is recommended but not required.

HIST 35704. Islamic History and Society I: The Rise of Islam and the Caliphate. 100 Units.

This course covers the period from ca. 600 to 1100, including the rise and spread of Islam, the Islamic empire under the Umayyad and Abbasid caliphs, and the emergence of regional Islamic states from Afghanistan and eastern Iran to North Africa and Spain.

Instructor(s): F. Donner Terms Offered: Autumn

Note(s): Taking these courses in sequence is recommended but not required. This sequence meets the general eduation requirement in civilization studies. Equivalent Course(s): NEHC 30501,HIST 25704,ISLM 30500,RLST 20501,NEHC 20501

HIST 35804. Islamic History and Society II: The Middle Period. 100 Units.

This course covers the period from ca. 1100 to 1750, including the arrival of the Steppe Peoples (Turks and Mongols), the Mongol successor states, and the Mamluks of Egypt and Syria. We also study the foundation of the great Islamic regional empires of the Ottomans, Safavids, and Moghuls.

Instructor(s): J. Woods Terms Offered: Winter

Prerequisite(s): Not open to first-year students

Equivalent Course(s): NEHC 30502, HIST 25804, ISLM 30600, NEHC 20502

HIST 35904. Islamic History and Society III: The Modern Middle East. 100 Units.

This course covers the period from ca. 1750 to the present, focusing on Western military, economic, and ideological encroachment; the impact of such ideas as nationalism and liberalism; efforts at reform in the Islamic states; the emergence of the "modern" Middle East after World War I; the struggle for liberation from Western colonial and imperial control; the Middle Eastern states in the cold war era; and local and regional conflicts.

Instructor(s): A. Shissler Terms Offered: Spring

Prerequisite(s): Not open to first-year students

Note(s): This course does not apply to the medieval studies major or minor. Equivalent Course(s): NEHC 30503,HIST 25904,ISLM 30700,NEHC 20503

HIST 35804-35904. Islamic History and Society II; Islamic History and Society-III: The Modern Middle East.

HIST 35804. Islamic History and Society II: The Middle Period. 100 Units.

This course covers the period from ca. 1100 to 1750, including the arrival of the Steppe Peoples (Turks and Mongols), the Mongol successor states, and the Mamluks of Egypt and Syria. We also study the foundation of the great Islamic regional empires of the Ottomans, Safavids, and Moghuls.

Instructor(s): J. Woods Terms Offered: Winter

Prerequisite(s): Not open to first-year students

Equivalent Course(s): NEHC 30502, HIST 25804, ISLM 30600, NEHC 20502

HIST 35904. Islamic History and Society III: The Modern Middle East. 100 Units.

This course covers the period from ca. 1750 to the present, focusing on Western military, economic, and ideological encroachment; the impact of such ideas as nationalism and liberalism; efforts at reform in the Islamic states; the emergence of the "modern" Middle East after World War I; the struggle for liberation from Western colonial and imperial control; the Middle Eastern states in the cold war era; and local and regional conflicts.

Instructor(s): A. Shissler Terms Offered: Spring

Prerequisite(s): Not open to first-year students

Note(s): This course does not apply to the medieval studies major or minor. Equivalent Course(s): NEHC 30503,HIST 25904,ISLM 30700,NEHC 20503

HIST 35904. Islamic History and Society III: The Modern Middle East. 100 Units.

This course covers the period from ca. 1750 to the present, focusing on Western military, economic, and ideological encroachment; the impact of such ideas as nationalism and liberalism; efforts at reform in the Islamic states; the emergence of the "modern" Middle East after World War I; the struggle for liberation from Western colonial and imperial control; the Middle Eastern states in the cold war era; and local and regional conflicts.

Instructor(s): A. Shissler Terms Offered: Spring

Prerequisite(s): Not open to first-year students

Note(s): This course does not apply to the medieval studies major or minor. Equivalent Course(s): NEHC 30503,HIST 25904,ISLM 30700,NEHC 20503

HIST 36101. Introduction to Latin American Civilization I. 100 Units.

Autumn Quarter examines the origins of civilizations in Latin America with a focus on the political, social, and cultural features of the major pre-Columbian civilizations of the Maya, Inca, and Aztec. The quarter concludes with an analysis of the Spanish and Portuguese conquest, and the construction of colonial societies in Latin America.

Instructor(s): E. Kourí Terms Offered: Autumn Equivalent Course(s): ANTH 23101,CRES 16101,HIST 16101,LACS 34600,SOSC 26100,LACS 16100

HIST 36102-36103. Introduction to Latin American Civilization II-III.

HIST 36102. Introduction to Latin American Civilization II. 100 Units. Winter Quarter addresses the evolution of colonial societies, the wars of independence, and the emergence of Latin American nation-states in the changing international context of the nineteenth century. Instructor(s): M. Tenorio Terms Offered: Winter Equivalent Course(s): LACS 16200,ANTH 23102,CRES 16102,HIST 16102,LACS 34700.SOSC 26200

HIST 36103. Introduction to Latin American Civilization III. 100 Units. Spring Quarter focuses on the twentieth century, with special emphasis on the challenges of economic, political, and social development in the region. Instructor(s): B. Fischer Terms Offered: Spring

Equivalent Course(s): LACS 16300, ANTH 23103, CRES 16103, HIST 16103, LACS 34800, SOSC 26300

HIST 36103. Introduction to Latin American Civilization III. 100 Units.

Spring Quarter focuses on the twentieth century, with special emphasis on the challenges of economic, political, and social development in the region.

Instructor(s): B. Fischer Terms Offered: Spring

Equivalent Course(s): LACS 16300, ANTH 23103, CRES 16103, HIST 16103, LACS 34800, SOSC 26300

HIST 36217. Public history & the Memory of Slavery in Brazil and the U.S. 100 Units.

This course will address the contemporary discussion about public history and the memory of slavery in Brazil and the United States. Like the United States, Brazil declared its independence without abolishing slavery. Unlike citizens of the US, however, Brazilians constructed their notions of citizenship and nationality in a context in which racial identities were only loosely demarcated. In the nineteenth century, Brazil was the country with the largest number of Africans and the largest number of free Afro-descendents in the Americas. It also underwent an unprecedented period of economic growth, based in the coffee economy and slave labor. This growth did not, however, lead to an industrial transformation comparable to that of the US during the same period. This course will examine the paradoxes on the history of slavery and abolition in Brazil and the United States, exploring the ways in which both countries deal with their past in the present. Built on historical scholarship, movies (documentaries and historical motion pictures), digital projects and museum exhibits, this course aims to discuss the public role of historians and of historical research in new approaches about the public memory of slavery in Brazil and the United States.

Instructor(s): Keila Grinberg, Tinker Visiting Professor in History Terms Offered: Winter

Equivalent Course(s): CRES 35107, CRES 25107, HIST 26217, LACS 35107

HIST 36411. Literature and History in the Ibero and Ibero-American World. 100 Units.

The course will explores the relations between literature writing (novels, short stories, poetry, essays) and history writing in the Ibero and Ibero-American world, from the 1800s to the 1970s. The focus will be on Spain, Portugal, Brazil, Mexico, Rio de la Plata, and Cuba. The course will deal with historical prose in its own language broth and with literature both as form of and evidence for history. Command of Iberian languages (Spanish, Portuguese, Catalan) is desirable but not mandatory. Instructor(s): M. Tenorio Terms Offered: Winter

Equivalent Course(s): LACS 26411, LACS 36411, HIST 26411

HIST 36500. History of Mexico, 1876 to Present. 100 Units.

From the Porfiriato and the Revolution to the present, a survey of Mexican society and politics, with emphasis on the connections between economic developments, social justice, and political organization. Topics include fin de siècle modernization and the agrarian problem; causes and consequences of the Revolution of 1910; the making of the modern Mexican state; relations with the United States; industrialism and land reform; urbanization and migration; ethnicity, culture, and nationalism; economic crises, neoliberalism and social inequality; political reforms and electoral democracy; the zapatista rebellion in Chiapas; and the end of PRI rule. Instructor(s): E. Kourí Terms Offered: Winter

Equivalent Course(s): LACS 26500,LACS 36500,CRES 35500,HIST 26500

HIST 36602. Mughal India: Tradition and Transition. 100 Units.

The focus of this course is on the period of Mughal rule during the late sixteenth, seventeenth, and eighteenth centuries, especially on selected issues that have been at the center of historiographical debate in the past decades.

Instructor(s): M. Alam Terms Offered: Autumn

Prerequisite(s): Advanced standing or consent of instructor. Prior knowledge of appropriate history and secondary literature required.

Equivalent Course(s): SALC 27701, HIST 26602, SALC 37701

HIST 37012. Histories of Violence in the United States. 100 Units.

How does violence change life stories and national narratives? How can a nation remember and retell obscured histories of violence, reconcile past violence, and resist future violence? What does it mean that lynching emerged at the same moment as the Bill of Rights and that certain kinds of violence have been central to American identity? The story of the United States is built on the inclusion or omission of violence: from the genocide of Native Americans to slavery to imperial conquest, from the "private" pain of women to the nationalized pain of soldiers. This course brings violence to the center of US history. Moving from early America to the present, we will discuss these overlapping stories in terms of their visibility and invisibility, addressing questions of representation and the haunting function of traumatic experience. Following an emerging subfield of scholarship in histories of violence, this course examines narrative, archival, and political issues around studying, teaching, and writing such stories. The final project emphasizes public history.

Instructor(s): K. Belew Terms Offered: Autumn

Prerequisite(s): Basic working knowledge of US history or be prepared to do extra reading.

Equivalent Course(s): AMER 27012, AMER 37012, HIST 27012

HIST 37506. Changing America in the Twentieth Century. 100 Units.

This course explores the regional organization of U.S. society and its economy during the pivotal twentieth century, emphasizing the shifting dynamics that explain the spatial distribution of people, resources, economic activity, human settlement patterns, and mobility. We put special focus on the regional restructuring of industry and services, transportation, city growth, and cultural consumption. Two-day weekend field trip to the Mississippi River required.

Instructor(s): M. Conzen Terms Offered: Winter

Note(s): This course offered odd years.

Equivalent Course(s): GEOG 22100, GEOG 32100, HIST 27506

HIST 37605. United States Legal History. 100 Units.

This course focuses on the connections between law and society in modern America. It explores how legal doctrines and constitutional rules have defined individual rights and social relations in both the public and private spheres. It also examines political struggles that have transformed American law. Topics to be addressed include the meaning of rights; the regulation of property, work, race, and sexual relations; civil disobedience; and legal theory as cultural history. Readings include legal cases, judicial rulings, short stories, and legal and historical scholarship. Instructor(s): A. Stanley Terms Offered: Autumn

Equivalent Course(s): AMER 27605,CRES 27605,GNSE 27605,HMRT 27061,LLSO 28010,CRES 37605,GNSE 37605,HMRT 37605,HIST 27605

HIST 37900. Asian Wars of the Twentieth Century. 100 Units.

This course examines the political, economic, social, cultural, racial, and military aspects of the major Asian wars of the twentieth century: the Pacific War, the Korean War, and the Vietnam War. At the beginning of the course we pay particular attention to just war doctrines and then use two to three books for each war (along with several films) to examine alternative approaches to understanding the origins of these wars, their conduct, and their consequences.

Instructor(s): B. Cumings Terms Offered: Spring

Equivalent Course(s): HIST 27900, CRES 27900, EALC 27907, EALC 37907

HIST 38000. United States Latinos: Origins and Histories. 100 Units.

An examination of the diverse social, economic, political, and cultural histories of those who are now commonly identified as Latinos in the United States. Particular emphasis will be placed on the formative historical experiences of Mexican Americans and mainland Puerto Ricans, although some consideration will also be given to the histories of other Latino groups, i.e., Cubans, Central Americans, and Dominicans. Topics include cultural and geographic origins and ties; imperialism and colonization; the economics of migration and employment; legal status; work, women, and the family; racism and other forms of discrimination; the politics of national identity; language and popular culture; and the place of Latinos in US society.

Instructor(s): R. Gutiérrez Terms Offered: Autumn

Equivalent Course(s): HIST 28000,AMER 28001,CRES 28000,GNSE 28202,LACS 28000,LACS 38000

HIST 38406. Nineteenth-Century Segment of the United States History Survey. 100 Units.

The nineteenth-century survey will examine the experiences and the conflicts that made up the history of modern American society, as it unfolded over the course of the 1800s. This is where modern America begins. Before there was a Great Recession or an Occupy Wall Street, there was the nineteenth-century roller coaster of prosperity and panic; the robber barons and newfound workers' unions of the Gilded Age; the passionate public debates over the central bank, monetary policy, and the national currency. Before the Tea Party, the Founders themselves debated the best ways to make their revolution realized, enduring, and meaningful in daily interactions as well as institutions. To understand the implications of Iraq War and its aftermath, we must return to the origins of American imperialism in the 1800s. To appreciate the significance and symbolism of the first African American president, we have to revisit the nation's long history of slavery, racism, and segregation. The immigration policy issues covered ad nauseam on the cable news channels have their roots in the ebbs and flows of global migrations that began over a century and a half ago. The American feminist movement for equal rights and opportunities began in the nineteenth century; yet in 2008, US women still earned only 77 cents on the male dollar, and in 2011, more than 40 percent of households headed by women lived in poverty. Returning to the contentious (and ongoing) history of Anglo-Indian relations is an essential component of contextualizing today's sobering statistics, when some reservations face unemployment rates of up to 80 percent, and one quarter of all Native Americans live in poverty. Course equirements include careful reading, active and thoughtful participation, and written assignments. Instructor(s): A. Lippert Terms Offered: Winter

Equivalent Course(s): HIST 28406, AMER 28406, AMER 38406, CRES 28406, CRES 38406, GNSE 28406, GNSE 38406, LLSO 28406

HIST 38800. Historical Geography of the United States. 100 Units.

This course examines the spatial dynamics of empire, the frontier, regional development, the social character of settlement patterns, and the evolution of the cultural landscapes of America from pre-European times to 1900. All-day northern Illinois field trip required.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course offered in even years.

Equivalent Course(s): GEOG 21900, GEOG 31900, HIST 28800

HIST 38900. Roots of the Modern American City. 100 Units.

This course traces the economic, social, and physical development of the city in North America from pre-European times to the mid-twentieth century. We emphasize evolving regional urban systems, the changing spatial organization of people and land use in urban areas, and the developing distinctiveness of American urban landscapes. All-day Illinois field trip required.

Instructor(s): M. Conzen Terms Offered: Autumn

Note(s): This course offered in odd years.

Equivalent Course(s): GEOG 26100,ENST 26100,GEOG 36100,HIST 28900

HIST 39301. Human Rights I: Philosophical Foundations of Human Rights. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 30100,PHIL 21700,PHIL 31600,HIST 29301,INRE 31600,LAWS 41200,MAPH 40000,LLSO 25100,HMRT 20100

HIST 39302. Human Rights II: History and Theory. 100 Units.

This course is concerned with the theory and the historical evolution of the modern human rights regime. It discusses the emergence of a modern "human rights" culture as a product of the formation and expansion of the system of nation-states and the concurrent rise of value-driven social mobilizations. It proceeds to discuss human rights in two prevailing modalities. First, it explores rights as protection of the body and personhood and the modern, Western notion of individualism. Second, it inquires into rights as they affect groups (e.g., ethnicities and, potentially, transnational corporations) or states.

Instructor(s): To be announced Terms Offered: Winter 2016

Equivalent Course(s): HMRT 20200,CRES 29302,HIST 29302,HMRT 30200,INRE 31700,LAWS 41301,LLSO 27100

HIST 39303. Human Rights III: Contemporary Issues in Human Rights. 100 Units.

This interdisciplinary course presents a practitioner's overview of several major contemporary human rights problems as a means to explore the utility of human rights norms and mechanisms, as well as the advocacy roles of civil society organizations, legal and medical professionals, traditional and new media, and social movements. Topics may include the prohibition against torture, women's rights as human rights, problems of universalism versus cultural relativism, and the human right to health.

Instructor(s): S. Gzesh Terms Offered: Autumn 2015 Equivalent Course(s): HMRT 20300,HMRT 30300,HIST 29303,INRE 31800,LAWS 78201,LLSO 27200

HIST 39408. Human Rights in Mexico. 100 Units.

This course is intended to give the student a foundation in understanding human rights as both concept and reality in contemporary Mexico. Subject matter includes an overview of key periods in Mexican history in which concepts of individual and group rights, the relationship between citizens and the state, and the powers of the Church and the state were subject to change. This historical review will form the foundation for understanding human rights issues in contemporary Mexico. The course will also examine modern social movements which frame their demands as human rights.

Instructor(s): S. Gzesh Terms Offered: Winter 2016

Prerequisite(s): A reading knowledge of Spanish and at least one course on Latin American history or culture are required.

Equivalent Course(s): HMRT 34501,LACS 24501,LACS 34501,HIST 29408,HMRT 24501

HIST 39514. Rise of the Modern Corporation. 100 Units.

This course examines the history of the corporation from the early modern period to the present, focusing upon the United States. Topics include resemblances and relationships between corporations and states; dynamics among for-profit and nonprofit corporations; corporate cultures and corporate workplaces; the legal construction of corporate personhood; workers, managers, entrepreneurs, and financiers in corporate governance; globalization and the emergence of the multinational corporation.

Instructor(s): J. Levy Terms Offered: Spring

Equivalent Course(s): HIST 29514

HIST 39661. History Colloquium: Digital Humanities/Digital History. 100 Units.

This course will be an interdisciplinary introduction to digital humanities broadly writ with an emphasis on literary and historical developments over long periods of time (*longue durée*), and across large textual, cultural, and archival databases. Questions we will address include how do we constitute and navigate these collections? How do we conceive of digital tools in ways that speak to humanists and humanistic social scientists? How do we incorporate these tools and approaches into discursive argumentation and other traditional humanistic and historical modes of inquiry. No technical background is required, but basic computer skills and reading knowledge of French would be welcome. History concentrators may direct their coursework in this class toward the completion of a pre-BA essay for the major using primary sources.

Instructor(s): C. Gladstone, R. Morrissey, J. Sparrow Terms Offered: Winter Prerequisite(s): History majors must take a History colloquium in their third year. Equivalent Course(s): BPRO 29660, FREN 29661, FREN 39661, HIST 29661

HIST 40204. Colloquium: Postcolonial African History. 100 Units.

This seminar will examine postcolonial Africa through an exploration of research by historians, political scientists, anthropologists, and economists, as well as the work of novelists and film makers. We will read broadly from different regions and countries in Africa and investigate a variety of topics including the domestic and international legacies of colonialism and independence movements; neoliberalism and African modernities; disease, health, and healing; transnational and transcontinental migration; the causes and consequences of environmental and ecological change; and the definitions and material expressions of poverty and wealth in urban and rural Africa.

Instructor(s): E. Osborn Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor.

HIST 41005. Colloquium: : Late Antique Mediterranean 1. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. Will continue in winter quarter.

Instructor(s): W. Kaegi Terms Offered: Autumn

Prerequisite(s): Upper-level undergraduates with consent of instructor; meets with HIST 71005.

Equivalent Course(s): HIST 71005, ANCM 31515, CLAS 31515

HIST 41006. Colloquium: Late Antique Mediterranean 2. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. In the winter quarter, we focus on research topics for the colloquium paper.

Instructor(s): W. Kaegi Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor; meets with HIST 71006.

Equivalent Course(s): ANCM 31516, CLAS 31516, NEHC 41005

HIST 43203. Coll: Capitalism & Climate Change–History, Society, Literature. 100 Units.

The concept of the Anthropocene introduces the idea of the human species as a geological agent, capable of altering the life supporting system of the whole planet through anthropogenic climate change. Paradoxically, the bad news of the Anthropocene is also a moment of intellectual exhilaration for the social sciences and humanities. The Anthropocene forces us to rethink some of the most fundamental concepts in scholarship, such as modernity, growth, justice, and scale in light of new pressing problems of carbon emissions, mitigation, and adaptation. We will approach these questions from a variety of perspectives, including ethics, history, science, and literature.

Instructor(s): F. Albritton Jonsson Terms Offered: Spring

Prerequisite(s): Advanced undergraduates with consent of instructor.

Equivalent Course(s): ENGL 43204

HIST 43505. Colloquium: Paris and Berlin in the Long Twentieth Century. 100 Units.

This colloquium will analyze the convergences and divergences, focusing on immigration, urban planning, and culture of two of Europe's great capitals from the turn of the twentieth century to its end. Starting with the massive intraand international immigration into both cities in the 1880s, we will discuss how strangers were received and made their lives. Where did they live, work, eat, shop, play, and worship? How did they participate in the political lives of both cities? How did the experiences of postcolonial subjects and guest-workers vary? This population growth along with economic, technological, environmental, and political change challenged each metropolis's infrastructure. In the interwar period Berlin responded by expansion while Paris refused that strategy. Berlin's demolition during the Second World War was followed by forty years of division while Paris emerged from the war largely unscathed. Europeanification, followed by unification in the one case and massive postcolonial immigration in other, posed very different, but equally dramatic, challenges to both. Finally, both cities have been the centers of vibrant cultural production, including music, theater, the fine arts, film, and literature, with artists often moving between the two, carrying ideas and innovations. Reading knowledge of French or German would be very helpful, but is not required.

Instructor(s): L. Auslander Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): CRES 43505,GNSE 43505

HIST 44001. Colloquium: Ending Communism. 100 Units.

This course focuses on the demise of one of the most enduring, ambitious, appealing, transformative, and destructive political ideologies. We will consider the collapse of communism as a religion, an aesthetic, and a way of life; an economic system and a material culture; a political structure and an international order. We will also discuss communism's afterlives in biographies and memoirs (including those of scholars). Topics include reforms and revolutions, political and cultural dissent, generations and languages, secrecy and publicity, travel and immobility, competing religions and rival ideologies, the Cold War and détentes, privileges and shortages, apartment blocks and palaces of culture, the Gorky Park, the Memento Park, and other Luna Parks. Our readings will range across Europe, focusing primarily on the Soviet Union and Eastern Europe in the last forty years of the twentieth century.

Instructor(s): E. Gilburd Terms Offered: Spring

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): SLAV 44001

HIST 44102. Text and Labor in Chinese Handwork. 100 Units.

An introduction to the Buddhism of premodern China, examined through lenses of philosophy, texts, and art. We will examine important sources for the major currents of Chinese Buddhist thought and practice stretching from the earliest days of the religion in China through around the 13th century (with some attention to modern connections), giving special consideration to major textual and artistic monuments, such as translated scriptures, Chan literature, and the cave-shrines of Dunhuang. Instructor(s): Jacob Eyferth and Donald Harper Terms Offered: Spring Equivalent Course(s): EALC 51001

HIST 47002. Colloquium: Interracial America. 100 Units.

This course will examine the interaction between different racialized and ethnic groups in America (and beyond) from the eighteenth-century to our present moment. Conventional studies rely on a simplistic black-white paradigm of US race relations. This seminar aims to move beyond that dichotomy and searches for broader historical models, which include yellow, brown, red, and ethnic white. For example, how do we interpret recently excavated histories of Afro-Cherokee relations in antebellum America? What are hepcats, pachucos, and yogores? What is a "model minority," and why did Asians inherit the mantle from Jews? What is a "protest minority," and why were Blacks and Jews labeled as such during the civil rights movement? How does race operate differently in an ostensible racial paradise like Hawai'i? How do we understand race, nation, and decolonization in a global context, as evidenced by radical activism in California in the 1960s and '70s? We will critically interrogate the history of contact that exists between and among these diverse "groups." If conflicted, what factors have prevented meaningful alliances? If confluent, what goals have elicited cooperation?

Instructor(s): M. Briones Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): CRES 37002

HIST 47101. Colloquium: Re-imagining the US Civil War and Reconstruction. 100 Units.

This course explores the conflicts and contestations opened by efforts to reestablish new basis of national life in the aftermath of the political dismantling of slavery during the era of the Civil War and Reconstruction. Course readings and discussions explore ways to reconceive of US Reconstruction as a national and indeed even international phenomenon, rather than as an exclusively regional process. Readings and discussions will give particular attention to territorial expansion and annexation in American national and domestic life during the nineteenth century, the politics and economics of national reunification of former Confederate states and new western territories, and changes in the material, moral, and political meanings of freedom during the postwar acceleration of capitalist industrial and agricultural development. What is the role of violence in social change? What new political, economic, and cultural conflicts were opened by slavery's abolition? How did former slaveowners, former slaves, government policymakers, and abolitionists envision the promises and dangers of emancipation? What labor systems replaced slavery? Through consideration of such questions we explore the material and symbolic efforts to define and change the terms of participation in a postemancipation world as they relate to contradictions of modern freedom and to the production of histories about this era.

Instructor(s): J. Saville Terms Offered: Winter

Prerequisite(s): Advanced undergraduates with consent of instructor. Equivalent Course(s): CRES 47101

HIST 47701. Colloquium: US Social History—Catholics as Americans. 100 Units. This colloquium focuses on recent historiography to explore the implications of the presence of Roman Catholics within the American population for the central interpretive narratives of American history. Readings will range in time from the colonial period to the later twentieth century, and address such themes as colonization, westward expansion, immigration and ethnicity, church-state relations, slavery and the Civil War, citizenship and political participation, welfare and reform, gender and sexuality, race relations, transnational ties.

Instructor(s): K. Conzen Terms Offered: Winter

Prerequisite(s): Upper-level undergraduates with consent of instructor Equivalent Course(s): HCHR 37701

HIST 49100. Colloquium: Haitian Revolution and Human Rights, 1790–2004. 100 Units.

This course explores the Haitian revolution as critical to the examination of slave emancipation, colonialism, comparative revolutions, and postcolonial governance and sovereignty. It especially aims to explore interpretive debates that explicitly (or implicitly) link the problems of slave emancipation to the contradictions of modern freedom. Course readings draw on historical, anthropological, and political studies, selected published documents, and historical fiction to think critically about ways of extending how this history and its implications have been explored.

Instructor(s): J. Saville Terms Offered: Autumn

Prerequisite(s): Upper-level undergraduates with consent of instructor. Equivalent Course(s): CRES 49100,HMRT 49100,LACS 49100

HIST 49904. Colloquium: History of the Senses. 100 Units.

Do the senses have a history? Are sight, hearing, touch, smell, and taste attributes of the body, unmodified by culture? Do, in other words, people in different times and places actually experience different tastes or smells? Do hierarchies of the senses vary? Is sight more trusted among some, while others rely on hearing? If so, what determines the boundaries of the groups who share a sensorium, or set of sense perceptions? Is it religious practice or age cohort that matters most? And, how is a sensorium learned or transmitted? Some would argue that these are nonsensical questions; people may have different words or concepts to describe the senses, but their perceptions do not differ. In the domain of the social sciences, these questions have been addressed by intellectual, cultural, and social historians as well as by ethnographers. This graduate colloquium will focus on intensive reading of the key texts in those fields, being particularly attentive to the epistemological and political stakes of these debates. Students from departments other than History would also be most welcome.

Instructor(s): L. Auslander Terms Offered: Spring Prerequisite(s): Ugrads with consent of instructor.

HIST 52903. Colloquium: Nation and Empire – Europe and Beyond. 100 Units. This graduate course will examine the relationship between nation and empire in Europe and beyond from the eighteenth century to the present. Topics may include nationalism and indifference to nationalism; the construction of borders and borderlands; the relationship between language, culture, and nation-building; transimperial and transnational mobility, including the movement of refugees and ethnic cleansing; the transition from multilingual and multinational empires to self-declared nation-states; empire and nation in the context of Total War, the Cold War, and post-Socialist transition; gender, nation, and empire, and the relationship between nation-states and new international and intergovernmental organizations, including the League of Nations, the United Nations, and the European Union. The focus on the course will be on Central and Eastern Europe and the relationship of Central and Eastern Europe to Europe and the rest of the world, but students interested in other parts of the world are welcome to enroll. Instructor(s): T. Zahra and S. Gal Terms Offered: Autumn

HIST 53001. Colloquium: Protestant Reformation. 100 Units.

This colloquium introduces graduate students to the historical interpretation of the Protestant Reformation in Germany. The course focuses on, but is not strictly limited to, the Reformation in Germany. The history of the Reformation continues to be governed by terms that were laid down during the Reformation itself and that are no less effective for operating in a concealed and implicit manner. To make their effects visible and subject to critical analysis, we will take a long view of the historiography, beginning with a survey of classic interpretations offered since the nineteenth century by philosophers, historians, and social scientists (Hegel, Ranke, Engels, Weber, Troeltsch, Febvre, Elias). Then we will turn to more recent debates among professional historians like Heiko Oberman, Bernd Moeller, Thomas Brady, Heinz Schilling and others. Finally, we will read several of Luther's writings in English translation. Our purpose is not to focus on Lutheran teaching, but to seek the ways in which the Reformation broke, or did not break, with preceding patterns of thought and action and possibly pointed the way towards the later development of European thought.

Instructor(s): C. Fasolt Terms Offered: Winter

HIST 53003. Coll: Religion, Society, & Politics in Mod Euro, 1740–Present. 100 Units.

A two-quarter research seminar; the first quarter may be taken separately as a colloquium (register for HIST 53003). The longstanding idea of the progressive secularization of modern society - an idea germinated during the Enlightenment and made more explicit by such nineteenth-century social theorists as Comte, Weber, and Durkheim-no longer commands much assent today, though western Europe seems a better instantiation of it than anywhere else. Starting with an examination of the so-called secularization thesis, this seminar will examine such topics as divergent interpretations of the Enlightenment view of religion; the religious impact of the French Revolution; the shifting patterns of religious practice that evolved during the nineteenth century; the role of religiously based, mass political movements in the crisis of the liberal state in the late nineteenth-century; the nineteenth-century transformation of religion into an object of scientific study (philology, sociology of religion); Marian apparitions and miraculous cures in the nineteenth century (Lourdes, Marpingen); Jewish emancipation; the European encounter with Islam; and the opposition to organized religion and the churches offered by the Left and the Right, as part of the larger debate about the extent to which (private) corporate norms and values should be able to influence civic life in the modern liberal or modern authoritarian state.

Instructor(s): J. Boyer and J. Goldstein Terms Offered: Autumn Prerequisite(s): Meets with HIST 74605; graduate students only; European language not required for colloquium.

HIST 55001. Coll: Christian Politics in Medieval and Early Modern Europe. 100 Units.

Is there such a thing as a Christian politics, or does all politics in this world take place—as Augustine put it—under the sign of Cain? If there is a this-worldly Christian politics, what should it look like? What are its ends? Where are its borders? Who is sovereign within those borders, and what are the limits of that sovereignty? These and similar questions were asked by the earliest Christian communities and continue to be asked today. This course will focus on how they were answered in the five hundred years stretching from the Investiture Controversy and the emergence of "Christendom" in the late eleventh and twelfth centuries, continuing with the reintroduction of Aristotelian political theory in Latin Europe, and concluding with Luther and Calvin's reformation of the Christian polity in the sixteenth century.

Instructor(s): C. Fasolt Terms Offered: Autumn Equivalent Course(s): SCTH 55001,HCHR 46500

HIST 56301. Colloquium: Readings in Modern Chinese History. 100 Units. Reading and discussion of classics of English language historical literature in modern Chinese history from 1965 through to 2015. Emphasis is on historiographical changes during each period and how they are are manifest in each work. The requirements of this course are reading and class discussion of the monograph assigned each week, and writing an informed review essay of it. The final requirement is a twenty-five page term paper in which the student will construct an analytical history of the historical literature of the period. Instructor(s): G. Alitto Terms Offered: Autumn Equivalent Course(s): EALC 56301

HIST 56401. Colloquium: Readings in Modern Chinese Intellectual History. 100 Units.

Reading and discussion of classics of English language historical literature in modern Chinese intellectual history from 1965 through to 2015. Emphasis is on historiographical changes during each period and how they are are manifest in each work. The requirements of this course are reading and class discussion of the monograph assigned each week, and writing an informed review essay of it. The final requirement is a twenty-five page term paper in which the student will construct an analytical history of the historical literature of the period. Instructor(s): G. Alitto Terms Offered: Winter

Equivalent Course(s): EALC 56401

HIST 57401. The Social Lives of Brains. 100 Units.

This course examines recent historical and anthropological scholarship on neuroscience, psychiatry, and psychology through a focus on these fields' principal material object of inquiry and intervention: the brain. We will address topics such as brains in circulation as research objects; brain imaging; neuro-anatomy and neuropathology; the relationship between mind and brain; and brains in non-human organisms and non-organic systems. Through readings in these and other topics, we will explore modern scholarship in neuroscience and brain research, as well as examine the varied meanings that different groups of people in different times and places have brought to the question of embodied human consciousness. Instructor(s): E. Raikhel, M. Rossi Terms Offered: Winter Prerequisite(s): Graduate students only Note(s): CHDV Distribution, 4* Equivalent Course(s): CHSS 43400,ANTH 40340,CHDV 43400

HIST 58301. Advanced Ottoman Historical Texts. 100 Units.

Instructor(s): C. Fleischer Terms Offered: Autumn Prerequisite(s): Consent required Equivalent Course(s): TURK 40589

HIST 58601. Colloquium: Iran and Central Asia. 100 Units.

A colloquium on the sources for and the literature on the political, social, economic, technological, and cultural history of Western and Central Asia from 900 to 1750. Specific topics will vary and focus on the Turks and the Islamic world, the Mongol universal empire, the age of Timur and the Turkmens, and the development of the "Gunpowder Empires."

Instructor(s): J. WoodsMeets with HIST 78601; open to upper-level ugrads with consent of instructor.

HIST 59000. Colloquium: Persian Historical Texts. Units.

This course will focus on the study and utilization of narrative, normative and archival sources in Persian. Texts of the major Iranian historians and biographers will be subjected to close readings and analysis. The scripts, protocols, and formula used by Irano-Isalamic chancelleries will also be introduced and the form and content of published an unpublished archival documents will be transcribed and examined in their institutional context. Knowledge of Persian required. Instructor(s): J. Woods Terms Offered: Spring

Prerequisite(s): Knowledge of Persian required Equivalent Course(s): CMES 30687,NEHC 30687

HIST 60607. Colloquium: Nepotism in European History. 100 Units.

The aim of this colloquium is to immerse students in the longue durée history of family-dominated political and economic structures in Europe. Dynastic politics, nepotistic patronage practices, and family-run businesses are only some of the ways that kinship connections have left their mark across the centuries of European history. Topics will include succession and inheritance among the European landed elites (premodern and modern); family-run businesses from the Middle Ages to the twentieth century; nepotism at the Renaissance papal court and in other institutions; and the theory/practice of modern forms of bureaucratic management. Instructor(s): J. Lyon Terms Offered: Winter

HIST 62304. Multidisciplinary Study of American Culture. 100 Units.

This seminar surveys the study of American culture as it is currently practiced at the University of Chicago. Seminar members read and discuss recent work by faculty specialists from the Humanities, the Social Sciences, the Divinity School, and the Law School at Chicago. Though interested in how different disciplines frame questions and problems, we will be attuned to convergences in themes, approaches, and methods. During the last half of our seminar meetings our authors will join us for a focused discussion of their work. Many of our guests will also deliver public lectures the day before visiting the seminar.

Instructor(s): E. Slauter Terms Offered: Spring

Note(s): This is a Scherer Center Seminar. MAPH students can take this course. Consent required for MA and JD students.

Equivalent Course(s): HCHR 48800, RLIT 48800, AMER 50001, LAWS 93803, ENGL 55405

HIST 62504. Colloquium: History of Capitalism. 100 Units.

This course explores the history of American capitalism, reaching from the colonial era through the New Deal to the contemporary emergence of the Big Box store. It focuses on key transformations: the rise and abolition of slavery, the industrial revolution, the creation of a culture of consumption, the origins of a welfare state, and the transformation of global production and retailing. In studying capitalism transformation, it takes into account problems of political economy, morality, law, and power.

Instructor(s): A. Stanley Terms Offered: Autumn

HIST 62703. Black Lives Matter? Critical and Disciplinary Inquiries. 100 Units.

The intent of this course would be to draw together historical scholarship that represents and analyses African American historical experience with an eye toward enduring contradictions of civil legitimation, social function, and human regard, which have persisted through slavery emancipation and successive generations of modernization and reform. It would start after 1865, although analyses that at least engage slavery as a context might be included. It would remain focused on scholarly works of history, and potentially historicist works drawn from other disciplines. While it would seek to immerse students within leading and largely current works of scholarship, it pursues a core thematic question: how effectively can academic historical scholarship reckon with the persistent problem of the structural and social devaluation of Black life, and how effectively has it?

Instructor(s): A. Green Terms Offered: Winter

Prerequisite(s): Graduate students only

HIST 63004. Colloquium: The American South in the Twentieth Century. 100 Units.

The South and stories told about it have both undergone dramatic change over the past century. The region previously associated with hierarchy, racism, patriarchy, ignorance, superstition, intolerance, violence, and a studied unfamiliarity with legal norms obtaining elsewhere has been transformed, as one historian of the South put it recently, into "a place that nurtured radical political alternatives and offered them up to the rest of the nation." We will explore both the history and the narrative paradigm shift in this seminar, which is intended for graduate students in US history. Our readings will emphasize recent publications driving the new Southern synthesis, and challenges to it.

Instructor(s): J. Dailey Terms Offered: Winter

HIST 63903. Coll: Violence, Women, and Gender in 20th-Century US History. 100 Units.

This course presents an overview of major themes in the historiography of women and gender in twentieth-century US history as read through histories of violence. Keeping violence at the center of our inquiry allows us to place in conversation historical monographs from several subfields, including women's history, gender and sexuality studies, postcolonial studies, environmental history, history of conservatism, and legal history. We will explore the relationship between bureaucracy, surveillance, and vigilantism; ideas about reproduction and intersectionality; and the limitations of discourses of nonviolence, freedom, and equality. This course moves both chronologically and topically to emphasize several questions: how has violence played a role in constructing and shoring up state and systemic power? How has the female body served as the site of this power's articulation, through surveillance, violence, and bureaucracy? What is the intersection between racial and sexual violence? What constructions of gender spring from, and give rise to, violence? What is the relationship between family, nation, and subject?

Instructor(s): K. Belew Terms Offered: Winter Equivalent Course(s): GNSE 63903

HIST 67501. Capitalism Since 1970. 100 Units.

This course examines global capitalist transformations from the 1970s to the present. Topics include the 1970s crisis of industrial capitalism in the West; the breakdown of the Bretton Woods system of fixed exchange rates and the rise of global finance capital; globalization, growth, and inequality; connections between economic change and cultural expression; work, gender, and technology; relations between global North and global South; the great recession. Different approaches to economic history will be considered.

Instructor(s): J. Levy Terms Offered: Winter

HIST 69900. Colloquium: Historiography. 100 Units.

This course is designed as a forum to grasp intellectual issues across the historical discipline and balance the tendency towards specialization in the profession. While the course may be most helpful for graduate students in history early in their career, it is also open to more senior students and those interested in history outside the department. A ten-week course can hardly do justice to debates on the nature of history and the nuances of writing history. Thus this course is selective by necessity. The class is basically structured around discussion of the assigned materials, but each session will be introduced by a short lecture.

Instructor(s): M. Tenorio Terms Offered: Autumn

HIST 71005. Colloquium: : Late Antique Mediterranean 1. 100 Units.

Research problems in eastern, central, and western Mediterranean from the fourth to seventh century CE. Detailed investigation of relevant primary sources in Greek, Latin, and Arabic. Will continue in winter quarter.

Instructor(s): W. Kaegi Terms Offered: Autumn

Prerequisite(s): Upper-level undergraduates with consent of instructor; meets with HIST 71005.

Equivalent Course(s): ANCM 31515, CLAS 31515, HIST 41005

HIST 71006. Seminar: Late Antique Mediterranean 2. 100 Units.

In the winter quarter we focus on research topics for the seminar paper. Instructor(s): W. Kaegi Terms Offered: Winter Prerequisite(s): HIST 71005 (Autumn); meets with HIST 41006 Equivalent Course(s): ANCM 41416,CLAS 41416

HIST 74605. Sem: Religion, Society, and Politics in Mod Euro, 1740–Present. 100 Units.

A two-quarter research seminar; the first quarter may be taken separately as a colloquium (register for HIST 53003). The longstanding idea of the progressive secularization of modern society – an idea germinated during the Enlightenment and made more explicit by such nineteenth-century social theorists as Comte, Weber, and Durkheim – no longer commands much assent today, though western Europe seems a better instantiation of it than anywhere else. Starting with an examination of the so-called secularization thesis, this seminar will examine such topics as divergent interpretations of the Enlightenment view of religion; the religious impact of the French Revolution; the shifting patterns of religious practice that evolved during the nineteenth century; the role of religiously based, mass political movements in the crisis of the liberal state in the late nineteenth-century; the nineteenth-century transformation of religion into an object of scientific study (philology, sociology of religion); Marian apparitions and miraculous cures in the nineteenth century (Lourdes, Marpingen); Jewish emancipation; the European encounter with Islam; and the opposition to organized religion and the churches offered by the Left and the Right, as part of the larger debate about the extent to which (private) corporate norms and values should be able to influence civic life in the modern liberal or modern authoritarian state.

Instructor(s): J. Boyer and J. Goldstein Terms Offered: Autumn Prerequisite(s): Meets with HIST 53003; grad students only; students taking both qtrs must have reading knowledge of at least one mod Euro language.

HIST 74606. Sem: Religion, Society, and Politics in Mod Euro, 1740–Present. 100 Units.

Students write the seminar paper in the winter quarter. Instructor(s): J. Boyer and J. Goldstein Terms Offered: Winter Prerequisite(s): Hist 74605

HIST 75601. Sem: Mod Korean Hist 1. 100 Units.

By modern, we mean Korea since its "opening" in 1876. We read about one book per week in the autumn. Before each session, one student will write a three- to fourpage paper on the reading, with another student commenting on it. In the winter, students present the subject, method, and rationale for a significant research paper. Papers should be about forty pages and based in primary materials; ideally this means Korean materials, but ability to read scholarly materials in Korean, Japanese, or Chinese is not a requirement for taking the seminar. Students may also choose a comparative and theoretical approach, examining some problems in modern Korean history in the light of similar problems elsewhere, or through the vision of a body of theory.

Instructor(s): B. Cumings Terms Offered: Autumn Equivalent Course(s): EALC 42400

HIST 75602. Sem: Mod Korean Hist 2. 100 Units.

Students present the subject, method, and rationale for a significant research paper. Papers should be about forty pages and based in primary materials; ideally this means Korean materials, but ability to read scholarly materials in Korean, Japanese, or Chinese is not a requirement for taking the seminar. Students may also choose a comparative and theoretical approach, examining some problems in modern Korean history in the light of similar problems elsewhere, or through the vision of a body of theory.

Instructor(s): B. Cumings Terms Offered: Winter Prerequisite(s): HIST 75601, part 1 Equivalent Course(s): EALC 42401

HIST 76003. Seminar: Modern Chinese History I. 100 Units.

Instructor(s): Jacob Eyferth Terms Offered: Winter

Prerequisite(s): This two-quarter graduate seminar examines the social and cultural history of twentieth-Century China from the last decades of the Qing to the death of Mao and the early post-Mao reforms. Topics will include the social, political, and economic transformations of the late nineteenth century, the rise of modern mass media and mass politics, urban and rural revolutions, the transformations of everyday life under the Guomindang and Communist regimes, political campaigns under Mao, and the changes taking place after Mao's death. We will pay more attention to changes at the grassroot level of society than to politics at the highest level, even though the latter cannot be entirely ignored. In the first quarter we will read a combination of English-language studies and Chinese documents. We will also discuss what published and unpublished sources are available for different periods; how the Chinese archives are structured; and how to read official documents. The winter quarter will be devoted to the preparation of a research paper.

Equivalent Course(s): EALC 40502

HIST 76004. Seminar: Modern Chinese History 2. 100 Units.

The winter quarter will be devoted to the preparation of a research paper. Instructor(s): J. Eyferth Terms Offered: Winter Prerequisite(s): HIST 76001 Equivalent Course(s): EALC 40503

HIST 76602. Sem: Japanese Hist 2. 100 Units.

In the second quarter, we focus on research topics for student writing the seminar paper.

Instructor(s): J. Ketelaar Terms Offered: Winter Prerequisite(s): HIST 76601, part 1 Equivalent Course(s): EALC 52301

HIST 78201. Seminar: Ottoman World/Suleyman I. 100 Units.

This two-quarter seminar focuses on the transformation of the Muslim Ottoman principality into an imperial entity--after the conquest of Constantinople in 1453-that laid claim to inheritance of Alexandrine, Roman/Byzantine, Mongol/Chinggisid, and Islamic models of Old World Empire at the dawn of the early modern era. Special attention is paid to the transformation of Ottoman imperialism in the reign of Sultan Süleyman the Lawgiver (1520-1566), who appeared to give the Empire its "classical" form. Topics include: the Mongol legacy; the reformulation of the relationship between political and religious institutions; mysticism and the creation of divine kingship; Muslim-Christian competition (with special reference to Spain and Italy) and the formation of early modernity; the articulation of bureaucratized hierarchy; and comparison of Muslim Ottoman, Iranian Safavid, and Christian European imperialisms. The first quarter comprises a chronological overview of major themes in Ottoman history, 1300-1600; the second quarter is divided between the examination of particular themes in comparative perspective (for example, the dissolution and recreation of religious institutions in Islamdom and Christendom) and student presentations of research for the seminar paper. In addition to seminar papers, students will be required to give an oral presentation on a designated primary or secondary source in the course of the seminar.

Instructor(s): C. Fleischer Terms Offered: Autumn

Prerequisite(s): Upper level undergrads with consent only; reading knowledge of at least 1 European Language recommended Equivalent Course(s): NEHC 30852

HIST 78601. Sem: Iran and Central Asia 1. 100 Units.

The first quarter will take the form of a colloquium on the sources for and the literature on the political, social, economic, technological, and cultural history of Western and Central Asia from 900 to 1750. Specific topics will vary and focus on the Turks and the Islamic world, the Mongol universal empire, the age of Timur and the Turkmens, and the development of the "Gunpowder Empires." The second quarter will be devoted to the preparation of a major research paper. Instructor(s): J. Woods Terms Offered: Autumn Prerequisite(s): Meets with HIST 58601

Equivalent Course(s): CMES 40701, NEHC 40701

HIST 78602. Seminar: Iran and Central Asia 2. Units.

The second quarter will be devoted to the preparation of a major research paper. Instructor(s): J. Woods Terms Offered: Winter Prerequisite(s): Hist 78601, part 1 Equivalent Course(s): CMES 40702,NEHC 40702

HIST 79101. Seminar: Topics in Latin American History 1. 100 Units.

This two-quarter research seminar is devoted to the craft of reading and writing Latin American history. Specific topics will shift from year to year, depending on the instructor. For 2015-16, the first quarter of the seminar will be devoted to the issue of inequality in Latin American historiography. Students will gain an understanding of the role that issues of inequality have played in shaping Latin American history; we will also play close attention to the ways in which broader intellectual trends and shifting methodologies have shaped Latin American historical narratives. Issues covered will include colonialism, slavery, citizenship, social movements, and the Latin American manifestations of global inequalities. This seminar can be taken either as a two-quarter seminar sequence, which culminates in a winter-quarto research paper, or as a fall-quarter colloquium.

Instructor(s): B. Fischer Terms Offered: Autumn

Prerequisite(s): Graduate students only.

Equivalent Course(s): CRES 79101, LACS 79101

HIST 79102. Sem: Topics in Lat Amer Hist 2. 100 Units.

The second quarter is mainly for graduate students writing a History seminar paper. Instructor(s): B. Fischer Terms Offered: Winter Prerequisite(s): HIST 79101, part 1 Equivalent Course(s): CRES 79102,LACS 79102

HIST 81303. Sem: Christians, Muslims, and Jews in Medieval Spain 1. 100 Units.

Christianity, Judaism, and Islam in medieval Spain developed in interaction with and thinking about each other. This course will explore how the three religions were "coproduced"—shaping and reshaping themselves through processes of simultaneous identification and dis-identification with their rival "siblings" and neighbors. We will pay special attention to the ways in which Christian communities constituted themselves through their relation to Islam and Judaism, from roughly 1250 to the expulsion of the Jews and the conquest of Muslim Granada in 1492. The emphasis will be on primary sources, and we will draw on pictorial, architectural, archival, and literary materials. Reading knowledge of Spanish is helpful but not required. Students with a relevant language, such as Latin, Catalan, Castilian, Hebrew, or Arabic, will be encouraged to work with documents in that language.

Instructor(s): D. Nirenberg Terms Offered: Autumn

Prerequisite(s): Spanish helpful but not required. Students with reading knowledge of Latin, Catalan, Castilian, Hebrew, or Arabic will be encouraged to use them. Equivalent Course(s): SCTH 45403

HIST 81304. Sem: Christians, Muslims, and Jews in Medieval Spain 2. 100 Units.

Students write the seminar paper in the winter quarter. Terms Offered: Winter Prerequisite(s): HIST 81303 Equivalent Course(s): SCTH 45504

HIST 83803. Seminar: Social Movements in US History 1. 100 Units.

Seminar: Social Movements in US History—Abolition, Women's, Labor, Civil Rights This seminar will explore from comparative and cross-disciplinary perspectives the histories of four major social movements in nineteenth- and twentieth-century US history. We will focus particularly on the political, social, economic, and cultural contexts of each movement to determine its historical conditions of possibility, the means and modes of mobilization, and how it ultimately shaped the American experience. More broadly we will hope to lay the basis for a diverse set of possible seminar paper topics addressing the problem of explaining causation in history studies.

Instructor(s): T. Holt Terms Offered: Autumn

Prerequisite(s): College-level US history survey or its equivalent.

HIST 83804. Seminar: Social Movements in US History 2. 100 Units.

Seminar: Social Movements in US History—Abolition, Women's, Labor, Civil Rights The second quarter will be devoted to the completion of the seminar paper. Instructor(s): T. Holt Terms Offered: Winter

HIST 90000. Reading and Research: History Grad. Units.

Terms Offered: Autumn, Winter, Spring and Summer



Committee on International Relations

Chair

- Mark Phillip Bradley
- Professors
- Ralph A. Austen (Emeritus), History
- John W. Boyer, History
- Dipesh Chakrabarty, South Asian Languages and Civilizations, History
- Terry Clark, Sociology
- Bruce Cumings, History
- Michael E. Geyer, History
- Andreas Glaeser, Sociology
- Susan Gzesh, Law
- Gary B. Herrigel, Political Science
- James Hevia, History
- Charles Lipson, Political Science
- Joseph P. Masco, Anthropology
- John J. Mearsheimer, Political Science
- Robert Pape, Political Science
- Jennifer Pitts, Political Science
- Eric Posner, Law
- Dan Slater, Political Science
- Paul Staniland, Political Science
- Nathan Tarcov, Political Science, Social Thought
- Lisa Wedeen, Political Science
- Dali Yang, Political Science
- Dingxin Zhao, Sociology
- Marvin Zonis, Business
- Instructor
- Matthias Staisch, International Relations Senior Lecturer
- Michael Reese, International Relations

GENERAL INFORMATION

The Committee on International Relations (CIR) offers a one year program of graduate studies leading to the A.M. (Master of Arts) degree; admitted students may apply for a one-year extension during their first year of study to allow for further specialization. CIR makes the resources of a great university available to students seeking a firm grounding in the theory and practice of international

relations. An A.M. from CIR will prepare students for a wide range of careers for which the masters is increasingly the entry level degree, as well as for further academic or professional training in political science, law, and business administration. Students interested in combining a CIR A.M. with an M.B.A. can apply to a joint degree program with the University of Chicago Booth School of Business. A dual A.M/M.A. degree with the Harris School of Public Policy or an A.M. /J.D. with the University of Chicago Law School is also available.

CIR provides students with a vibrant intellectual community and core course training in international relations theory. CIR's interdisciplinary faculty and curriculum encourage students to explore a wide range of topics spanning the economic, political, security and social factors shaping international life. Students will learn to craft critical and creative responses to the challenges of the present, including globalization, terrorism, and human rights. Throughout the academic year, each student works closely with an assigned preceptor on all aspects of the program, from selecting courses to designing and writing the master's paper.

CIR offers dedicated counseling and application support to students pursuing further academic study in doctoral or professional school programs. CIR graduates have received and presently pursue doctorates in Political Science as well as degrees in the various professional schools, including law and business administration, at both the University of Chicago and other major research institutions in the U.S. and abroad. An international network of CIR alumni, in concert with the University's office of Career Counseling and Placement Services, assists current students in identifying career possibilities and applying for positions.

PRECEPTORS

Students work closely with one of the preceptors in the CIR. Preceptors guide students in defining their areas of academic specialization as well as in choosing courses. Preceptors also assist students in selecting faculty sponsors for their A.M. papers and take an active role in guiding and evaluating the research and writing of these papers.

PROGRAMS AND REQUIREMENTS

Students pursuing the Committee on International Relations' Master of Arts degree are expected to complete nine graduate level courses with a minimum GPA of 3.0 and a thirty-five to fifty page master's thesis that must be approved by both a faculty sponsor and a CIR preceptor. In addition, students must successfully complete the introductory seminar Perspectives in International Relations (offered in the Autumn Quarter) and participate in the master's thesis workshop throughout the academic year. Master's workshops are led by CIR preceptors and give students the opportunity to present and discuss their research projects as they develop from proposal to final draft.

Students may apply for a second year of study A.M. with specialization. This second year requires an additional three quarters of residence during which the student takes an additional nine courses. Students apply for the second year with specialization during their first year in residence.

The joint degree program with the Chicago Booth School of Business is administered through the Division of the Social Sciences. Students pursuing a joint degree must fulfill all the requirements of the CIR degree in addition to the requirements of the respective professional degree, though there are some exceptions. Students enrolled in the dual J.D. /A.M. program with the Law School take nine courses in their fourth year of study, three of which are typically lawschool courses and the remaining six from the CIR list of approved courses. Students enrolled in the joint M.B.A/A.M. take a reduced course load of 14 courses in the Booth School of Business and the full nine courses in CIR. Students interested in the dual A.M./M.A. degree program should contact the Harris School of Public Policy for more information.

Admission

Applicants to the Committee on International Relations are expected to meet the graduate admissions requirements of the division. Submission of Graduate Record Examination (GRE) scores is required, except for the joint CIR and Booth School of Business degree program, where the Graduate Management Admission Test (GMAT) is accepted. Applicants from non-English speaking countries must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

CIR is designed to be completed in one academic year (three or four quarters on a full time basis). All financial aid is merit based, and the CIR program offers partial tuition scholarships on a highly competitive basis.

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: https://apply-ssd.uchicago.edu/apply/. Most required supplemental material can be uploaded into the application.

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. All correspondence and material that cannot be uploaded into the application should be mailed to:

The University of Chicago Division of the Social Sciences Admissions Office, Foster 107 1130 East 59th Street Chicago, IL 60637

Applicants interested in the dual J.D./A.M. program must apply separately to both the Law School (1111 East 60th Street, Chicago, IL 60637) and the Committee on International Relations. Applicants interested in the joint M.B.A./A.M. program must submit their application to The University of Chicago Booth School of Business, which then refers the application to CIR. Please contact the Harris School of Public Policy regarding the application procedure for the dual A.M./M.A. degree.

FURTHER INFORMATION

Additional program information may be found at the Committee's website, http:// cir.uchicago.edu/. You can contact the CIR preceptors at (773) 702-8073, and E.G. Enbar, Student Affairs Administrator, at (773) 702-8312 or egenbar@uchicago.edu.

INTERNATIONAL RELATIONS COURSES

INRE 31600. Human Rights I: Philosophical Foundations of Human Rights. 100 Units.

Human rights are claims of justice that hold merely in virtue of our shared humanity. In this course we will explore philosophical theories of this elementary and crucial form of justice. Among topics to be considered are the role that dignity and humanity play in grounding such rights, their relation to political and economic institutions, and the distinction between duties of justice and claims of charity or humanitarian aid. Finally we will consider the application of such theories to concrete, problematic and pressing problems, such as global poverty, torture and genocide. (A) (I)

Instructor(s): B. Laurence Terms Offered: Spring

Equivalent Course(s): HMRT 30100,PHIL 21700,PHIL 31600,HIST 29301,HIST 39301,LAWS 41200,MAPH 40000,LLSO 25100,HMRT 20100

INRE 31700. Human Rights II: History and Theory. 100 Units.

This course is concerned with the theory and the historical evolution of the modern human rights regime. It discusses the emergence of a modern "human rights" culture as a product of the formation and expansion of the system of nation-states and the concurrent rise of value-driven social mobilizations. It proceeds to discuss human rights in two prevailing modalities. First, it explores rights as protection of the body and personhood and the modern, Western notion of individualism. Second, it inquires into rights as they affect groups (e.g., ethnicities and, potentially, transnational corporations) or states.

Instructor(s): To be announced Terms Offered: Winter 2016 Equivalent Course(s): HMRT 20200,CRES 29302,HIST 29302,HIST 39302,HMRT 30200,LAWS 41301,LLSO 27100

INRE 31800. Human Rights III: Contemporary Issues in Human Rights. 100 Units.

This interdisciplinary course presents a practitioner's overview of several major contemporary human rights problems as a means to explore the utility of human rights norms and mechanisms, as well as the advocacy roles of civil society organizations, legal and medical professionals, traditional and new media, and social movements. Topics may include the prohibition against torture, women's rights as human rights, problems of universalism versus cultural relativism, and the human right to health.

Instructor(s): S. Gzesh Terms Offered: Autumn 2015 Equivalent Course(s): HMRT 20300,HMRT 30300,HIST 29303,HIST 39303,LAWS 78201,LLSO 27200

INRE 43000. Core Seminar: International Security. 100 Units. Instructor(s): M. Reese Terms Offered: Autumn, Winter Note(s): Open only to CIR students

INRE 43800. Core Seminar: International Political Economy. 100 Units. Instructor(s): M. Staisch Terms Offered: Autumn, Winter Note(s): Open only to CIR students



DEPARTMENT OF POLITICAL SCIENCE

Chair

- Cathy Cohen
 Professors
- John J. Brehm
- Cathy Cohen
- Michael Dawson
- J. Mark Hansen
- Gary Herrigel
- William Howell, Public Policy
- Charles Lipson
- John McCormick
- John J. Mearsheimer
- J. Eric Oliver
- John F. Padgett
- Robert Pape
- John Patty
- Elizabeth Maggie Penn
- Bernard S. Silberman
- Nathan Tarcov, Social Thought
- Lisa Wedeen
- Dali Yang
- Linda Zerilli

Associate Professors

- Patchen Markell
- Sankar Muthu
- Monika Nalepa
- Jennifer Pitts
- Gerald N. Rosenberg
- Dan Slater

Assistant Professors

- Michael Albertus
- Austin Carson
- Chiara Cordelli
- Robert Gulotty
- Demetra Kasimis

- Matthew Landauer
- Benjamin Lessing
- Stanislav Markus
- Paul Poast
- Paul Staniland
- James Wilson

Emeritus Faculty

- Leonard Binder
- Morton A. Kaplan
- Lloyd Rudolph
- Susanne Rudolph
- William Sewell
- Duncan Snidal
- Ronald Suny

Associate Members

- Elisabeth Clemens
- Thomas Ginsburg
- Roger Myerson
- Martha Nussbaum
- Moishe Postone

The Department of Political Science offers a course of study leading to the Ph.D. degree. A departmental faculty committee makes admission decisions based on an assessment of all the material required in the University application: biographical data, statement of interests and goals in graduate school, transcripts of grades, letters of recommendation, Graduate Record Examination aptitude scores, and a brief writing sample. Committee members want to know what applicants find intellectually exciting and why applicants want to study at the University of Chicago.

The department is committed to training doctoral students in political science broadly conceived. We believe that the best work in political science often crosses subfields and disciplines. Our aim is to help students develop and pursue their intellectual interests while grounding them in the various approaches and methodologies that characterize the discipline. The program requirements mix research papers, coursework, and exams so that students can achieve these goals as they proceed expeditiously towards the Ph.D. degree.

The Graduate Program

For purposes of course distribution and comprehensive exams, the department offers courses and exams in five fields. At present, they are theory, American politics, comparative politics, international relations, and methodology. To meet the course distribution requirement, students must complete three courses in each of three fields. Overall, twelve courses taken for quality grades are required by the end of the sixth quarter.

In the first year students are required to take PLSC 30500 Introduction to Data Analysis and write a research paper as part of the normal writing requirement of a class. The most important project in the first two years is the master's paper, a piece of original research that is modeled on a journal article and addresses an important research question or debate.

Students are required to pass comprehensive exams in two fields. The exams are offered twice a year (with the exception of the comparative politics exam, which is scheduled on an individual basis) and they may be taken at any point but the final deadline by which the exams must be taken is the beginning of the seventh quarter (normally autumn quarter of the third year).

Practical pedagogical experience is a program requirement. To satisfy the requirement, students can serve as teaching assistants in undergraduate lecture courses and in the department's methodology sequence. A few advanced graduate students, selected as Grodzins Prize Lecturers, offer their own undergraduate courses. There are also opportunities to serve as teaching interns and instructors in the College's undergraduate core curriculum and as preceptors who assist the undergraduate majors with the writing of B.A. papers.

After completing courses and exams, students turn to the Ph.D. dissertation. The first step is a dissertation proposal that briefly outlines the research question, significance, argument, and method of the dissertation. PLSC 50000 The Dissertation Proposal Seminar, required in the winter quarter of the third year, is a weekly seminar devoted solely to the presentation and collective discussion of several drafts of each student's dissertation proposal. The proposal must be approved by a committee of three faculty who agree to supervise the dissertation research and present the proposal for departmental approval.

Although advanced graduate research and writing is often a solitary enterprise, students in the department also typically continue to participate in one or more workshops, which are mainly devoted to students' presentation of research in progress for discussion and constructive criticism. Political science students participate in workshops devoted to American Politics, Comparative Politics, East Asia, Political Economy, Political Psychology, Political Theory, International Relations, and International Security Policy to name just a few. There are many other interdisciplinary workshops throughout the University ranging from Law and Economics, to Gender and Sexuality, to Russian Studies, all of which are open to political science students.

Upon receiving final approval of the dissertation by the members of the dissertation committee, the candidate gives a formal presentation based on the dissertation. Following the presentation, which is open to the public, the candidate is questioned by an examining committee of three faculty members.

For more information about current faculty, students, requirements, and courses, consult the department webpage at http://political-science.uchicago.edu/.

INFORMATION ON HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at: https://apply-ssd.uchicago.edu/apply/. Most admissions materials can be uploaded into the admission application.

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. All correspondence and materials that cannot be uploaded should be mailed to:

The University of Chicago Division of the Social Sciences Admissions Office, Foster 105 1130 East 59th Street Chicago, IL 60637

COURSES

For teaching purposes the subject matter of political science has been divided into the following fields of advanced study: political theory, American politics, comparative politics, international relations, and methodology. These fields are thought of not as separate compartments but as broad and flexible areas of specialization. Ph.D. candidates with interest in the governments of particular geographical areas may specialize in those areas by combining work in political science with relevant courses from other departments.

FIELD I. POLITICAL THEORY

The field of political theory deals with the basic problems of politics with respect to both substance and method. It is therefore regarded as the foundation for work in all other areas of political science. It is concerned with three orders of problems: with alternative theories relating to the way people act in political affairs; with alternative standards in terms of which policy may be judged; and with alternative kinds of models and methods for pursuing political research.

FIELD II. AMERICAN POLITICS

The field of American politics deals with the organization, distribution, and orientation of political power in American society. The major items of emphasis are the development of American political thought, the political behavior of individuals, groups, and governmental institutions, elections, and the formation and execution of public policy. Attention is paid both to the present state of the American political system and to its historical roots.

FIELD III. COMPARATIVE POLITICS

The field of comparative politics examines phenomena such as state formation, democracy, nationalism, economic organization, revolution, and social movements across time and space. One approach to these phenomena is to develop expertise in

a particular era or area, and then to interpret the distinctive political processes and outcomes coming from that context. Another approach is to examine a set of cases in the search for valid generalizations about political phenomena that span across regions or historical eras. A third approach is to rely on formal theory to specify universal mechanisms or processes, and then to use data from a variety of sources to give credence to the models. All approaches share an assumption that the systematic study of political experience beyond that of the United States is a key ingredient for a discipline that seeks high levels of generality and abstraction.

FIELD IV. INTERNATIONAL RELATIONS

The field of international relations is concerned with theoretical and empirical examination of international politics, especially international security and international political economy. Methodological approaches represented by the faculty include historical, case study, quantitative, and mathematical analysis. Workshops provide a common forum within the department for interchange between different questions about and approaches to international politics. In addition, there are important connections to other areas of political science including comparative and American politics, methodology, and political theory. International relations further engages other social science disciplines including international economics, political geography, public policy, and diplomatic history. Students are encouraged to take courses in these and other disciplines, although the department assumes responsibility only for those approaches to the study of international relations which develop the assumptions and utilize the methods employed in the fields of political science. For this field of political science, students are expected to acquire fundamental knowledge of international politics, with special emphasis on international relations theory and research approaches.

Field V. Methodology

The field of methodology is concerned with the quantitative and model building skills required for the study of political phenomena. It consists of introductory sequences of courses in both statistical and mathematical analysis, in addition to a variety of more advanced offerings focusing on specific topics. Applications of these methods in particular research areas will be encountered in a number of courses listed under the appropriate substantive fields. The department offers a comprehensive exam in Methodology by petition only; however, students can meet the requirements for course distribution automatically.

The department website offers descriptions of graduate courses scheduled for the current academic year: http://political-science.uchicago.edu/academics/ courses.shtml

POLITICAL SCIENCE COURSES

PLSC 30300. Survey of American Politics. 100 Units.

A survey of some of the main themes, topics and approaches in the study of American politics and government. (B) Instructor(s): E. Oliver Terms Offered: Winter

PLSC 30500. Introduction to Data Analysis. 100 Units.

This course is an introduction to the research methods practiced by quantitative political scientists. The first part lays out the enterprise of empirical research: the structure and content of theories, the formulation of testable hypotheses, the logic of empirical tests, and the consideration of competing hypotheses. The second part considers the implementation of empirical research: the potential barriers to valid inferences, the strengths and limitations of research designs, and empirical representations of theoretical constructs. The final part provides hands-on experience with the two kinds of analyses most frequently performed by quantitative political researchers: contingency tables and regression. (E) Instructor(s): M. Dawson Terms Offered: Autumn Prerequisite(s): Open to Political Science Ph.D. students only.

PLSC 30700. Introduction to Linear Models. 100 Units.

This course will provide an introduction to the linear model, the dominant form of statistical inference in the social sciences. The goals of the course are to teach students the statistical methods needed to pursue independent large-n research projects and to develop the skills necessary to pursue further methods training in the social sciences. Part I of the course reviews the simple linear model (as seen in STAT 22000 or its equivalent) with attention to the theory of statistical inference and the derivation of estimators. Basic calculus and linear algebra will be introduced. Part II extends the linear model to the multivariate case. Emphasis will be placed on model selection and specification. Part III examines the consequences of data that is "poorly behaved" and how to cope with the problem. Depending on time, Part IV will introduce special topics like systems of simultaneous equations, logit and probit models, time-series methods, etc. Little prior knowledge of math or statistics is expected, but students are expected to work hard to develop the tools introduced in class. (E)

Instructor(s): M. Hansen Terms Offered: Spring

PLSC 30901. Game Theory I. 100 Units.

This is a course for graduate students in Political Science. It introduces students to games of complete information through solving problem sets. We will cover the concepts of equilibrium in dominant strategies, weak dominance, iterated elimination of weakly dominated strategies, Nash equilibrium, subgame perfection, backward induction, and imperfect information. The course will be centered around several applications of game theory to politics: electoral competition, agenda control, lobbying, voting in legislatures and coalition games. This class serves as a prerequisite for Game Theory II offered in the Winter Quarter. (E) Instructor(s): M. Nalepa Terms Offered: Autumn

PLSC 31000. Game Theory II. 100 Units.

This is a course for graduate students in Political Science. It introduces students to games of incomplete information through solving problem sets. We will cover the concepts of Bayes Nash equilibrium, perfect Bayesian equilibrium, and quantal response equilibrium. In terms of applications, the course will extend the topics examined in the prerequisite, PLSC 30901. Game Theory I to allow for incomplete information, with a focus on the competing challenges of moral hazard and adverse selection in those settings. (E)

Instructor(s): J. Patty Terms Offered: Winter

Prerequisite(s): PLSC 30901 or equivalent and consent of instructor.

PLSC 31501. Models of Groups and Behavior. 100 Units.

Much of formal modeling in political science examines the role of institutions in determining outcomes. In this class we will survey formal models of behavior — both at the group and individual level. Each week will be dedicated to an in-depth reading of a recent or classic text in this field. Topics include group formation, culture, deliberation, and trust. (E)

Instructor(s): E. Penn Terms Offered: Spring Prerequisite(s): A prior course in game theory

PLSC 32101. Machiavelli's Literary Works. 100 Units.

A reading of Machiavelli's plays, stories, and poems both as literary works and for what light they shed on his political thought. Familiarity with *The Prince* is presumed. (A)

Instructor(s): N. Tarcov Terms Offered: Winter Prerequisite(s): Consent of instructor required. Equivalent Course(s): LLSO 20802,PLSC 20801

PLSC 32401. Great Power Politics in the Nineteenth Century. 100 Units.

This course examines relations among Europe's five Great Powers in the 19th century: Britain, France, Prussia/Germany, Austria, and Russia. Their alliances and antagonisms are the traditional subject matter of international relations theory and history. This course covers the period from the end of the Napoleonic Wars to World War I. The course is divided into three parts. The first covers the Great Powers' cooperation after Napoleon's defeat until its breakdown in the 1850s. The second covers the unification of Germany and Italy, which significantly reshaped international politics. The final section covers imperialism, rising nationalism, and the run-up to the Great War. Since the Great Powers' industrial development is directly relevant to their military capacity and economic interdependence, the course includes some materials on the First and Second Industrial Revolutions in Europe. The focus of this course is international and historical, not IR theory (though theoretical issues will be raised when the historical materials warrant). The course provides a useful background for subsequent study in IR and international history. (D)

Instructor(s): C. Lipson Terms Offered: Winter Equivalent Course(s): PLSC 21401

PLSC 33200. History of International Thought. 100 Units.

The field of International Relations long traced its history through traditions and conceptions (realism, liberalism, anarchy, international society) understood to be derived from a series of founding figures and moments—Grotius, Hobbes, Kant, the 1648 Westphalia treaties, and others. At the same time, the history of international thought was until recently relatively neglected by political theorists and intellectual historians. This course examines some of the most influential "originary" figures and moments for theorists of international relations, alongside recent historical work, in order to reconsider possibilities for international theory and the history of international thought. (A)

Instructor(s): J. Pitts Terms Offered: Autumn Equivalent Course(s): HMRT 33200

PLSC 33915. Plato's Republic. 100 Units.

This course is devoted to reading and discussion of Plato's *Republic* and some secondary work with attention to justice in the city and the soul, war and warriors, psychology, education, theology, poetry, gender, eros, and cities in speech and actually existing cities. (A)

Instructor(s): N. Tarcov Terms Offered: Winter

Prerequisite(s): Consent of instructor required.

Equivalent Course(s): FNDL 23915,LLSO 23915,CLAS 34216,CLCV 24216,PLSC 23915

PLSC 34525. Hannah Arendt: On Revolution. 100 Units.

This seminar will be focused on Hannah Arendt's *On Revolution*, first published in 1963. Alongside a careful reading of the text, we may consider: the place of *On Revolution* in Arendt's *oeuvre*; its significance for recent and contemporary democratic theory; its relation to Marxian theories of revolution; its reception in the 1960s, particularly within the "New Left"; its relation to political and social-scientific discourses about revolution, including particularly anti-colonial revolution, in the context of the Cold War; its relation to the contemporaneous re-emergence of "poverty" as an object of political concern in the United States; and the adequacy, inadequacy, and/or idiosyncracy of Arendt's treatments of historical revolutions such as the American, French, Russian, German, Hungarian, and Cuban. (A) Instructor(s): P. Markell Terms Offered: Autumn

Prerequisite(s): For advanced undergraduate and graduate students. Enrollment will be limited and consent required.

Note(s): Please do not contact the instructor for consent prior to the start of the term; interested students should simply attend the first session.

Equivalent Course(s): FNDL 24525, PLSC 24525

PLSC 34625. On Revolution Continued. 100 Units.

This graduate seminar is a continuation of "Hannah Arendt's On Revolution" (offered in the Autumn) and will offer the opportunity for more intensive study of the bearing of concrete cases of revolutionary politics on Arendt's thought (and vice versa) and the relation (historical and conceptual) of Arendt's work to that of other theorists and scholars of revolution. Prior enrollment in "Hannah Arendt's On Revolution" is strongly recommended, but students who have relevant background may be admitted to the seminar without completion of the first course. (A)

Instructor(s): P. Markell Terms Offered: Winter

PLSC 35500. Public Opinion. 100 Units.

A close examination of techniques employed, categories utilized and assumptions made by contemporary American students of public opinion. Criticism of these approaches from historical, philosophical and comparative perspectives will be encouraged. The course will make little sense to students without at least a background in Data Analysis (PLSC 30500). (B) Instructor(s): E. Oliver Terms Offered: Autumn

PLSC 35600. Japanese Politics. 100 Units.

This course is a survey of the major aspects of Japanese politics: party politics, bureaucracy, the diet, and political behavior in post-World War II Japan. (C) Instructor(s): B. Silberman Terms Offered: Autumn Equivalent Course(s): PLSC 25900

PLSC 35810. Democracy in Indonesia. 100 Units.

Indonesia is both the largest new democracy and the largest majority-Muslim country in the world. This course considers how Indonesia has managed to establish a surprisingly stable democratic regime since the late 1990s after more than forty years of dictatorship. What allowed democracy to take root in Indonesia despite the enormous challenges of a devastating economic crisis, violent outbreaks of ethnic and religious conflict, widespread movements for territorial separation, longstanding disagreements over the proper role for Islam in politics, and an apparent lack of local democratic experience? What were the tradeoffs involved, and how have they affected the quality of democracy in Indonesia today? Beyond surveying the important case of Indonesia itself, this course will also consider how Indonesia's surprising experience might change the way we think about democratization more generally. (C)

Instructor(s): D. Slater Terms Offered: Spring

Equivalent Course(s): PLSC 25810

PLSC 36100. Civil War. 100 Units.

Civil war is the dominant form of political violence in the contemporary world. This graduate seminar will introduce students to cutting edge scholarly work and to the task of carrying out research on internal conflict. We will study the origins, dynamics, and termination of civil wars, as well as international interventions, post-conflict legacies, and policy responses to war. A variety of research approaches will be explored, including qualitative, quantitative, and interpretive methods, microand macro-level levels of analysis, and sub- and cross-national comparative designs. Our emphasis throughout will be on designing rigorous research that persuasively addresses important questions. (D)

Instructor(s): P. Staniland Terms Offered: Winter

PLSC 36305. Elections with(out) Choices? Comparative Approaches. 100 Units.

This course provides a comprehensive overview of the main theories, concepts and methods of Electoral Sociology, by situating the act of voting in diverse sociohistorical contexts. It discusses paradigmatic contributions to understand the most important approaches of electoral behavior, and connects them to current research and ongoing debates. This supplies a solid base to develop multi-dimensional analysis of voting, using examples of different US, Mexican and Central American elections. Finally, the classes provide materials and assistance for the elaboration of an exploratory research paper, taking into account each student's particular interests. (C)

Instructor(s): W. Sonnleitner Terms Offered: Autumn Equivalent Course(s): LACS 26306,LACS 36306,PLSC 26305

PLSC 37000. Law and Politics: U.S. Courts as Political Institutions. 100 Units. An examination of the ways in which United States courts affect public policy. Questions include: How do the procedures, structures, and organization of the courts affect judicial outcomes? Are there interests that courts are particularly prone to support? What effect does congressional or executive impact, including judicial selection, have on court decisions? What are the difficulties with implementation of judicial decisions? (B)

Instructor(s): G. Rosenberg Terms Offered: Winter

Prerequisite(s): Mandatory preliminary meeting and consent of instructor. Equivalent Course(s): LAWS 51302

PLSC 37500. Organizational Decision Making. 100 Units.

This course examines the process of decision making in modern, complex organizations (e.g., universities, schools, hospitals, business firms, public bureaucracies). We also consider the impact of information, power, resources, organizational structure, and the environment, as well as alternative models of choice. (B)

Instructor(s): J. Padgett Terms Offered: Winter Equivalent Course(s): PLSC 27500,SOCI 30301

PLSC 37600. War and the Nation State. 100 Units.

The aim of this course is to examine the phenomenon of war in its broader socioeconomic context during the years between the emergence of the modern nationstate in the late eighteenth century and the end of World War II. (D) Instructor(s): J. Mearsheimer Terms Offered: Winter Equivalent Course(s): PLSC 27600

PLSC 37702. Political Leadership: Historical and Contemporary Perspectives. 100 Units.

This course will examine both classical and contemporary analyses of leadership, with a particular focus on the relationship between executive authority and democratic politics. We will read traditional authors such as Cicero, Livy, Plutarch, and Machiavelli, as well as contemporary analyses of modern political leadership, especially of the American presidency. (A)

Instructor(s): W. Howell, J. Patty Terms Offered: Autumn

Note(s): Limited enrollment.

Equivalent Course(s): LLSO 27704, PLSC 27702

PLSC 37725. Machiavelli's Florentine Histories. 100 Units.

This course is devoted to a close reading of what is perhaps Niccolò Machiavelli's most difficult work, the *Florentine Histories*. We will explore the extent to which the lessons of Machiavelli's history of his native city conform with those that he earlier set forth in more famous works like *The Prince* and the *Discourses*. We will also examine the interpretive debates over the *Histories* that pervade the scholarly literature. Themes pertaining to the Florentine Republic to be considered include: liberty, patriotism, civic foundings, social conflict, partisan strife, religion and politics, tyranny, revolution, and corruption. (A)

Instructor(s): J. McCormick Terms Offered: Winter

Prerequisite(s): Advanced consent of instructor required.

Equivalent Course(s): LLSO 27725, FNDL 27725, PLSC 27725

PLSC 39501. International Political Economy. 100 Units.

This graduate seminar focuses on the prevailing theoretical and empirical research programs in international political economy (IPE). The course will introduce a variety of frontier research problems that animate current work in the field as well as provide experience evaluating empirical research. We will discuss relations between international markets and politics: mass politics, domestic political institutions, and international politics. A central goal of the course is to generate ideas for student research, including papers and dissertation topics. (D) Instructor(s): R. Gulotty Terms Offered: Spring

PLSC 39800. Introduction to International Relations. 100 Units.

This course introduces the main themes in international relations, including the problems of war and peace, conflict and cooperation, national security, and the politics of international economic relations. The course begins by considering some basic theoretical tools used to study international politics. It then focuses on several prominent security issues in modern international relations, such as the Cold War and post–Cold War world, nuclear weapons, terrorism, and global order (and disorder). The last part of the course deals with economic aspects of international relations. It concentrates on issues where politics and economics are closely intertwined: world trade, international investment, environmental pollution, and European unification. (D)

Instructor(s): C. Lipson Terms Offered: Autumn Equivalent Course(s): PLSC 29000

PLSC 39900. Strategy. 100 Units.

This course covers American national security policy in the post–cold war world, especially the principal issues of military strategy that are likely to face the United States in the next decade. This course is structured in five parts: (1) examining the key changes in strategic environment since 1990, (2) looking at the effects of multipolarity on American grand strategy and basic national goals, (3) focusing on nuclear strategy, (4) examining conventional strategy, and (5) discussing the future of war and peace in the Pacific Rim. (D)

Instructor(s): R. Pape Terms Offered: Spring

Equivalent Course(s): PLSC 28900

PLSC 40600. Seminar on IR Theory. 100 Units.

The end of the Cold War ushered in a new set of debates about how to study international politics. This course is an introduction to some of those important theoretical approaches and is organized around debate among realism, liberalism, and constructivism and their variants. Seminar discussion will identify and criticize the central arguments advanced by different scholars in order to assess the relative merits of different theoretical perspectives. (D) Instructor(s): R. Pape Terms Offered: Autumn

PLSC 40605. Recent Debates in International Relations. 100 Units.

This course builds beyond the canonical works in International Relations (IR) theory covered in PLSC 40600 Seminar on IR Theory, leading students through ten recent substantive/methodological trends in IR research. There is an intentional absence of thematic unity among the topics. Some units look more closely at recent debates within the classic paradigms (e.g. "the practice turn in constructivist research"; "new views about power across the paradigms"; "a second look at norms in IR"). Other units are organized around recently popular methodological innovations (e.g. "the experimental turn"; "causal inference without experimental control"). Finally, some units feature debates that are not easily defined paradigmatically or methodologically but seem to be especially popular in top journals of late (e.g. "emotions"; "the audience cost controversy"; "new research on gender in IR"; "taking inferences / signal reception / perceptions seriously"). Participants will demonstrate fluency in these debates and develop opinions about their significance and staying power. A secondary goal is for students to expand their own research interests and draw lessons about how debates and fads evolve in IR to maximize the impact of their own work. (D)

Instructor(s): A. Carson Terms Offered: Spring

PLSC 40610. Seminar on International Security Affairs. 100 Units.

This course introduces students to a selection of the principal literature that forms the foundation of contemporary international security affairs. It is organized around four general subject areas: The international system and war, crises and war, the conduct of war, and the outcome of war. Each week, our purpose will be to critically assess the strengths and limits of the central arguments of the readings, on their own terms. Students preparing masters and PhD theses and for PhD preliminary exams will find this approach particularly useful. Specific weeks will include: Preventive War, Reputation and Deterrence, Targeting Civilians, Violence in Civil Wars, Relative Decline and War, and Why Armies Fight, among others. (D) Instructor(s): R. Pape Terms Offered: Spring

PLSC 40801. Social Choice Theory. 100 Units.

This course will provide you with an introduction to the field of social choice theory, the study of aggregating the preferences of individuals into a "collective preference." It will focus primarily on classic theorems and proof techniques, with the aim of examining the properties of different collective choice procedures and characterizing procedures that yield desirable outcomes. The classic social choice results speak not only to the difficulties in aggregating the preferences of individuals, but also to the difficulties in aggregating any set of diverse criteria that we deem important to making a choice or generating a ranking. Specific topics we will cover include preference aggregation, rationalizable choice, tournaments, sophisticated voting, domain restrictions, and the implicit trade-offs made by game theoretic versus social choice theoretic approaches to modeling. (E) Instructor(s): E. Penn Terms Offered: Spring

PLSC 41501. Foundations of Realism. 100 Units.

The aim of this course is to explore some of the core concepts and theoretical ideas that underpin realist thinking. Given the richness of the realist tradition and the limits of the quarter system, many important issues cannot be addressed in any detail. (D)

Instructor(s): J. Mearsheimer Terms Offered: Winter

PLSC 41600. Liberalism and American Foreign Policy. 100 Units.

This course examines how America's liberal tradition affects its foreign policy. (D) Instructor(s): J. Mearsheimer Terms Offered: Spring

PLSC 41700. Social Movements. 100 Units.

This course is an introduction to theoretical and empirical research on social movements. In this course we will take social movements to mean national-level collective mobilizations organized for political change. During the quarter we will examine and debate what a range of scholars across disciplines have written about some of the fundamental questions regarding the emergence, evolution and political impact of social movements. For example, what types of collective action qualify as social movements? What factors lead to or shape the development of social movements? What role do social movements play in the working of American democracy? Finally, why have political scientists largely ignored social movements as a topic for extensive and careful study? (B)

Instructor(s): C. Cohen Terms Offered: Spring

PLSC 42015. Agamben's Political Theory. 100 Units.

This seminar will be devoted to the critical scrutiny of the work of the Italian philosopher and political theorist Giorgio Agamben. Some attention will be paid to historical context, and to Agamben's interlocutors, including Arendt, Foucault, and Schmitt, but most of the seminar will consist of close study of Agamben's own work. All readings will be in English translation. (A)

Instructor(s): P. Markell Terms Offered: Spring

Prerequisite(s): Consent of instructor required.

PLSC 42101. Rawls' Theory of Justice. 100 Units.

This course involves a sustained critical examination of John Rawls' theory of "justice as fairness," as an avenue for wider exploration of questions about the nature and role of the concept of justice; the value of liberty and equality, and their relationship; distributive justice; the justification of democracy; and the enterprise of political philosophy itself. We will focus on Rawls' *A Theory of Justice*, and read many critics of Rawls, including Robert Nozick, G.A. Cohen, Susan Moller Okin, Charles Mills, and others. (A)

Instructor(s): C. Cordelli, J. Wilson Terms Offered: Winter

PLSC 42201. Democracy and Equality. 100 Units.

Democracy has often been celebrated (and often criticized) for expressing some kind of equality among citizens. This course will investigate a series of questions prompted by this supposed relationship between democracy and equality. Is democracy an important part of a just society? What institutions and practices does democracy require? Is equality a meaningful or important political ideal? If so, what kind of equality? Does democracy require some kind of equality, or vice-versa? The course will conclude with some treatment of current democratic controversies, potentially including issues of race and representation; the fair design of elections; the role of wealth in political processes; and the role of judicial review. (A) Instructor(s): J. Wilson Terms Offered: Spring

PLSC 42501. Athenian Democracy and its Critics. 100 Units.

This course explores the ancient Athenian experience of democracy through the writings of some of its staunchest partisans and fiercest critics. The course introduces students to the ideology and institutions of Athenian democracy. We investigate topics such as the role of popular institutions in politics, including the Assembly and the Popular Courts; Athens' extensive system of political accountability; and the democratic values that the Athenians took as justification for their politics and way of life. The course also analyzes some of the critical responses Athenian democracy provoked. Topics covered include the relationship between democracy and tyranny; Athenian democracy and imperialism; and the role of rhetoric in democratic decision-making. Readings include works by ancient historians, philosophers, dramatists, and rhetoricians, as well as modern scholars. (A)

Instructor(s): M. Landauer Terms Offered: Spring Equivalent Course(s): CLAS 32515

PLSC 42502. Knowledge and Politics. 100 Units.

What is the relationship between knowledge and power, and between science and democracy? What kinds of knowledge are needed in politics, and who needs to know what? In this course we read a number of philosophers, theorists, and social scientists interested in the relationship between knowledge and politics. Topics covered may include: the epistemic properties of political institutions and markets; the role of expertise in politics; values in science and public policy; and theories of epistemic democracy and epistemic injustice. (A) Instructor(s): M. Landauer Terms Offered: Spring

PLSC 42515. The Political Nature of the American Judicial System. 100 Units.

This course aims to introduce students to the political nature of the American legal system. In examining foundational parts of the political science literature on courts conceived of as political institutions, the course will focus on the relationship between the courts and other political institutions. The sorts of questions to be asked include: Are there interests that courts are particularly prone to support? What effect does congressional or executive action have on court decisions? What impact do court decisions have? While the answers will not always be clear, students should complete the course with an awareness of and sensitivity to the political nature of the American legal system. (B)

Instructor(s): G. Rosenberg Terms Offered: Winter Equivalent Course(s): PLSC 22515,LLSO 24011

PLSC 42610. The Philosophy of Social Science: A Wittgensteinean Critique. 100 Units.

Instructor(s): L. Zerilli Terms Offered: Spring

PLSC 42701. Seminar in Chinese Politics. 100 Units.

This is a research-oriented seminar for graduate students interested in exploring current research on China and in conducting their own research. Our emphasis will be on the changing nature of the Chinese Party-state, and the relations between state and economy and between state and society as the Chinese society, economy and the level of technology have undergone dramatic changes in recent decades. Throughout the course we'll also pay attention to the course, dynamics, and challenges of making reform. Though the readings are on China, we are to consider China's development comparatively and in view of recent developments in political science. (C)

Instructor(s): D. Yang Terms Offered: Winter

Note(s): Undergraduates by consent of instructor.

PLSC 43100. Maximum Likelihood. 100 Units.

The purpose of this course is to familiarize students with the estimation and interpretation of maximum likelihood, a statistical method which permits a close linkage of deductive theory and empirical estimation. Among the problems considered in this course include: models of dichotomous choice, such as turnout and vote choice; models of limited categorical data, such as those for multi-party elections and survey responses; models for counts of uncorrelated events, such as executive orders and bookburnings; models for duration, such as the length of parliamentary coalitions or the tenure of bureaucracies; models for compositional data, such as allocation of time by bureaucrats to task and district vote shares; and models for latent variables, such as for predispositions. The emphasis in this course will be on the extraction of information about political and social phenomena, not upon properties of estimators. (E)

Instructor(s): J. Brehm Terms Offered: Autumn

PLSC 43200. Maximum Likelihood-2. 100 Units.

This course furthers and expands upon the methods covered in the first Maximum Likelihood course (PLSC 43100). The format of the course will be a special topics course, focused around detailed discussion about the implementation and interpretation of applications of ML methods in the social sciences. In particular, we are likely to cover multiple equation models, event history, treatment of censored/ unmeasured observations, and item response theory. The course will incorporate alternative methods of computation of results beyond strict optimization of likelihoods. PLSC 43100 is a mandatory prerequisite, no exceptions. (E) Instructor(s): J. Brehm Terms Offered: Spring Prerequisite(s): PLSC 43100.

PLSC 43701. Methods of Comparative Historical Analysis. 100 Units.

This graduate seminar critically considers the theoretical impact and methodological rigor of Comparative Historical Analysis (CHA) in political science and sociology. Studies in this tradition employ a variety of research approaches, address a wide array of topics, and explore every imaginable region of the world. Yet its practitioners are "united by a commitment to offering historically grounded explanations of large-scale and substantively important outcomes." In the seminar's opening week, we situate CHA in wider methodological and disciplinary contexts, and consider whether and how historically specific arguments might advance the quest for causal generalization in the social sciences. In most subsequent weeks, we pair up readings on specific methodological themes and dilemmas with substantive CHA works on what we might broadly term "political development." (E) Instructor(s): D. Slater Terms Offered: Winter Equivalent Course(s): SOCI 50098

PLSC 43715. Readings in Comparative Historical Analysis. 100 Units.

This graduate seminar builds directly upon Methods of Comparative Historical Analysis (POLSC 43701), which is highly recommended as a precursor but is not a prerequisite. Each week will be dedicated to a deep reading of a single major book in the expansive Comparative Historical Analysis canon, either classic or recent. Although the specific works will vary from year to year, they will always center on the primary topics that have long defined CHA as a mode of scholarly inquiry in both political science and sociology: e.g. state formation and strength, authoritarianism and democratization, nation-building and identity politics, social movements and conflicts, and economic development and reforms. (C) Instructor(s): D. Slater Terms Offered: Spring Equivalent Course(s): SOCI 50099

PLSC 43801. Plato's Legacies. 100 Units.

Some of the most significant efforts to question political theory's core concepts, unsettle its approaches, and expose its dangerous ideals have depended on major reinterpretations of Plato's thought. This course investigates the broad critical impulse to treat Plato as the originator of political positions and interpretive assumptions that late modernity frequently seeks to critique and less often to celebrate. We consider the charges of essentialism, authoritarianism, and foundationalism, among others, and ask to what (if any) extent considerations of the texts' historical contexts and dramaturgical conditions have factored into these assessments. Readings will include works by Popper, Strauss, Arendt, Derrida, Castoriadis, Wolin, Irigaray, Cavarero, Butler, and Rancière alongside Plato's dialogues. Students are expected to be familiar with Plato's thought upon enrolling. (A) Instructor(s): D. Kasimis Terms Offered: Winter Equivalent Course(s): CLAS 33815

PLSC 43820. Plato's REPUBLIC. 100 Units.

This course is devoted to reading and discussion of Plato's *Republic* and some secondary work with attention to justice in the city and the soul, war and warriors, education, theology, poetry, gender, eros, and actually existing cities. Instructor(s): Nathan Tarcov Terms Offered: Winter 2013 Prerequisite(s): Undergrad course by consent Equivalent Course(s): FNDL 29503,SCTH 31770

PLSC 43901. Representation and Governance. 100 Units.

This course will examine the operations of, and interactions between, Congress and the Federal bureaucracy. The course will explore several theoretical frameworks for each of the two branches, culminating in considering how one might unify these relatively disparate traditions within a modern conceptual framework more closely linked with representation of citizens' policy concerns than existing, institutionspecific theories. (B)

Instructor(s): J. Patty Terms Offered: Winter

PLSC 45901. Contemporary Egalitarianism. 100 Units.

This seminar will examine different understandings of the idea of equality (moral, social and political) in contemporary analytical political thought. It will explore a series of questions that have been at the center of recent debates between egalitarians, including: what the foundation of equal moral status between persons is; whether the main reasons for objecting to social inequalities are intrinsically egalitarian or rather derive from non-egalitarian values; what (if anything) should be equalized; how justice and equality relate to each other; whether the ideal of social equality should ultimately be understood as a relationship between persons or as a distributive ideal; whether the ideal of social equality makes sense only within bounded political societies, or is instead broader in scope. We will read the work of, among others, Elizabeth Anderson, Richard Arneson, Charles Beitz, Simon Caney, G.A. Cohen, Ronald Dworkin, Thomas Nagel, Derek Parfit, John Rawls, Thomas Scanlon, Samuel Scheffler, Amartya Sen and Larry Temkin. (A) Instructor(s): C. Cordelli Terms Offered: Spring

PLSC 46013. Two Faces of Security. 100 Units.

This course develops a new IR theory, one that departs significantly from standard approaches by reframing the central actor as "states controlled by domestic regimes." It challenges the assumption that states are best theorized as "black boxes" pursuing similar agendas, albeit with different material resources. Instead, I assume each state is controlled by a domestic regime and that these regimes vary significantly. They have a different ideologies, social bases, policy preferences, and international strategies. Most importantly, they are not all equally stable and may face serious domestic threats. That means regimes face two security problems, not one. Besides ever-present external threats, they often face internal rivals who seek to overthrow the regime and capture state power. These two faces of security – external and internal – are often intertwined, which means it is important to analyze them jointly, rather than in isolation. (D)

Instructor(s): C. Lipson Terms Offered: Winter

Prerequisite(s): This course is limited to graduate who already have strong familiarity with IR theory.

Note(s): The course assumes students have read Waltz, Mearsheimer, Wendt, Keohane, and others, and know the field's main theoretical perspectives. We will assume that knowledge and build on it, rather than covering that ground again. One prior graduate course in IR theory should be sufficient. Students who are unsure if they have the appropriate background should consult Prof. Lipson before enrolling.

PLSC 46411. The Emergence of Organizations and Markets. 100 Units.

This course will focus on the emergence of alternative forms of organization control (e.g., centralized bureaucracy, multiple hierarchies, elite networks, and clientage) in different social structural contexts (e.g., the interaction of kinship, class, nation states, markets and heterodox mobilization). Themes will be illustrated in numerous cross-cultural contexts. (C)

Instructor(s): J. Padgett Terms Offered: Autumn Equivalent Course(s): SOCI 40194

PLSC 47601. Transnational Regulation. 100 Units.

There has been an explosion of research in regulation in recent years. In particular, a tremendous amount of work has been done on transnational governance and the public-private regulation of environmental, labor, and health and safety conditions in global industries and markets. This course will survey the main trends in new "post command & control/post principle-agent-based" regulation research (including new public administration, meta-regulation, private regulation, experimentalism). The first part of the course will focus on theory and approaches, the second on cases: environment, fair trade, labor standards, agricultural quality, industrial health and safety. (C)

Instructor(s): G. Herrigel Terms Offered: Winter

Equivalent Course(s): SOCI 40205

PLSC 47602. Dewey and Hayek on Markets and Democracy. 100 Units.

Dewey and Hayek are an interesting pairing in the context of discussions of neoliberalism. Both share a commitment to the open ended development of both individuality and society, both emphasize bottom up pressures for change, and both are committed to fundamentally processual and non-aggregative conceptions of sociability and social explanation. Yet, the two argue in diametrically opposing ways regarding how such processes should be governed. For Hayek, the market was the "natural" terrain for these sorts of processes to most fruitfully expand, while public deliberation and democracy were viewed as threats to processes of open social unfolding--and even to freedom. Dewey argued in precisely the opposite direction, championing democracy as the optimal open-ended and self revising terrain for development. This course will examine the similarities and differences between the two thinkers on markets, economic and social action and democracy. An effort will be made to consider the views of both thinkers in light of contemporary critiques and defenses of neoliberalism. (A)

Instructor(s): G. Herrigel Terms Offered: Spring Equivalent Course(s): SOCI 40206

PLSC 47701. Political Economy of International Security. 100 Units.

How do money and markets influence states' security policies? This course uses classic and current work in the field to directly explore the role of economics in creating state military power. Topics include the instruments of war finance, the economic incentives to intervene in conflict, the ability of economic interdependence to prevent conflict, how alliance policies influence the arming and trading policies of states, and labor mobility as a cause of border instability. A central goal of the course is to generate ideas for your own research, including papers and dissertation topics. (D)

Instructor(s): P. Poast Terms Offered: Spring

PLSC 48300. Plato's Laws. 100 Units.

An introductory reading of Plato's *Laws* with attention to such themes as the following: war and peace; courage and moderation; rule of law; music, poetry, drinking, and education; sex, marriage, and gender; property and class structure; crime and punishment; religion and theology; and philosophy. (A) Instructor(s): N. Tarcov Terms Offered: Winter

Note(s): Enrollment limited. Open to undergraduates with consent of instructor. Equivalent Course(s): FNDL 23400,LLSO 28500,SCTH 30300

PLSC 48700. Crime, Conflict and the State. 100 Units.

Scholars of civil war emphasize the importance, and perhaps primacy, of criminal profits for insurgencies, especially in the post-cold war era. But theories of civil war generally rest on an assumption that insurgents aim to replace state power. This seminar approaches the issue from the other end of the spectrum: armed conflict between states and "purely" criminal groups--particularly drug cartels. Cartel-state conflict poses a fundamental puzzle: Why attack the state if you seek neither to topple nor secede from it? After a brief survey of the literature on civil war and organized crime, we will study recent work on criminal conflict, particularly in Latin America. We also consider the related topics of prison-based criminal networks and paramilitaries, and explore how crime and political insurgency interact in places like West Africa and Afghanistan. Throughout, we evaluate the concepts, questions and designs underpinning current research. (C) Instructor(s): B. Lessing Terms Offered: Autumn

PLSC 49301. Emotion, Reason, and Law. 100 Units.

Emotions figure in many areas of the law, and many legal doctrines (from reasonable provocation in homicide to mercy in criminal sentencing) invite us to think about emotions and their relationship to reason. In addition, some prominent theories of the limits of law make reference to emotions: thus Lord Devlin and, more recently, Leon Kass have argued that the disgust of the average member of society is a sufficient reason for rendering a practice illegal, even though it does no harm to others. Emotions, however, are all too rarely studied closely, with the result that both theory and doctrine are often confused. The first part of this course will study major theories of emotion, asking about the relationship between emotion and cognition, focusing on philosophical accounts, but also learning from anthropology and psychology. We will ask how far emotions embody cognitions, and of what type, and then we will ask whether there is reason to consider some or all emotions "irrational" in a normative sense. We then turn to the criminal law, asking how specific emotions figure in doctrine and theory: anger, fear, compassion, disgust, guilt, and shame. Legal areas considered will include selfdefense, reasonable provocation, mercy, victim impact statements, sodomy laws, sexual harassment, shame-based punishments. Next, we turn to the role played by emotions in constitutional law and in thought about just institutions – a topic that seems initially unpromising, but one that will turn (A

Instructor(s): M. Nussbaum Terms Offered: Spring

Prerequisite(s): Undergraduates may enroll only with the permission of the instructor

Note(s): Undergraduates may enroll only with the permission of the instructor. Equivalent Course(s): LAWS 99301,RETH 32900,GNSE 28210,GNSE 38300,PHIL 25209

PLSC 49401. Nationalism, Sentimentality, and Judgment. 100 Units.

This course examines some canonical texts on nationalism, considers the specificities of nationalist solidarity in comparison to other visions of collectivity, and, drawing on contemporary theories of affect and political judgment, seeks to understand the enduring appeal of the nation form. Focusing not only on conventional accounts of citizen fear, longing, and suffering but also on contemporary challenges to nation-state configurations, the seminar takes theoretical insights from anthropology and political science, as well as history, sociology, and cultural studies. Among the authors we shall read are Anderson, Arendt, Asad, Balibar, Berlant, Brubaker, Chakrabarty, Gellner, Habermas, and Massumi. (C) Instructor(s): L. Wedeen Terms Offered: Autumn Equivalent Course(s): ANTH 54510

PLSC 50000. Dissertation Proposal Seminar. 100 Units.

Instructor(s): Staff Terms Offered: Winter

PLSC 50315. Amartya Sen's Philosophical Work. 100 Units.

Amartya Sen is, of course, a distinguished economist, winner of the 1998 Nobel Prize. But he is also a philosopher whose philosophical thought informs his economic writings and who has long defended the importance of philosophy for economic thought. This course will study the philosophical aspects of his thought, not attempting to separate them from his economic contributions, which would be wrong, but attempting to focus on the specific contributions Sen has been able to make to economics in virtue of being a philosopher. We will begin by studying two distinct though related strands of his thought: work on choice, welfare, and measurement, and work on development. We continue with his influential critique of Utilitarianism on the nature of preference and value, and the importance of equality. We will then devote substantial time to The Idea of Justice, a major contribution to political philosophy. Finally, we will examine more recent writings on Indian rationalist philosophy and on religious identity.

Instructor(s): M. Nussbaum Terms Offered: Autumn

Prerequisite(s): Admission by permission of the instructor. Permission must be sought in writing by September 15. Prerequisite: An undergraduate major in philosophy or some equivalent solid philosophy preparation. Ph.D. students in Philosophy and Political Theory may enroll without permission. I am eager to have some Economics graduate students in the class, and will discuss the philosophy prerequisite in a flexible way with such students.

Equivalent Course(s): LAWS 78604, RETH 53015, PHIL 50315

PLSC 50325. Public Morality and Legal Conservatism. 100 Units.

This seminar will study the philosophical background of contemporary legal arguments alluding to the idea of "public morality," in thinkers including Edmund Burke, James Fitzjames Stephen, and Patrick Devlin, and the criticisms of such arguments in thinkers including Jeremy Bentham, John Stuart Mill, and Herbert Hart. We will then study legal arguments on a range of topics, including drugs and alcohol, gambling, nudity, pornography and obscenity, non-standard sex, and marriage.

Instructor(s): M. Nussbaum, W. Baude. Terms Offered: Winter

Prerequisite(s): Non-law students are welcome but need permission of the instructors, since space is limited. We are aiming for a total enrollment of 30, of which up to 10 can be non-law students (no undergraduates), and the rest will be law students, selected by lottery. Non-law students should apply to both professors by December 1, 2015, describing relevant background, especially in philosophy. Equivalent Course(s): LAWS 78605,RETH 50325,GNSE 50325,PHIL 50325

PLSC 50801. Research Seminar in Political Violence. 100 Units.

The goal of this course is to help graduate students transition from being consumers to producers of research on political violence. The course will begin with an overview of recent work on civil war, electoral violence, and armed state building to make students aware of the scholarly cutting edge and emerging new questions. The rest of the course will involve graduate students workshopping their MA theses, dissertation prospectuses, and draft doctoral thesis chapters. All participants must have an ongoing research project to circulate and present. (D)

Instructor(s): P. Staniland Terms Offered: Spring

Note(s): Past enrollment in PLSC 36100 and/or PLSC 48700 is strongly recommended.

PLSC 52316. Machiavelli's Political Thought. 100 Units.

This 7 week (4.5 hours per week) course is devoted to the political writings of Niccolò Machiavelli (1469-1527). Among the themes we will explore are: the distinction between principality and tyranny; the status of "founders" in republics; the inter-relationships among individual leaders, the elite and the common people; the (in)compatibility of moral and political virtue; the utility of class conflict; the advantages of mixed institutions; the principles of self-government, deliberation, and participation; the question of military conquest; and the meaning of "liberty." Instructor(s): J. McCormick Terms Offered: Autumn Equivalent Course(s): LLSO 28200,FNDL 28102,PLSC 27216

PLSC 57200. Network Analysis. 100 Units.

This seminar explores the sociological utility of the network as a unit of analysis. How do the patterns of social ties in which individuals are embedded differentially affect their ability to cope with crises, their decisions to move or change jobs, their eagerness to adopt new attitudes and behaviors? The seminar group will consider (a) how the network differs from other units of analysis, (b) structural properties of networks, consequences of flows (or content) in network ties, and (c) dynamics of those ties. (E)

Instructor(s): J. Padgett Terms Offered: Winter Equivalent Course(s): SOCI 50096



Department of Psychology

Chair

- Susan Cohen Levine Professors
- Edward Awh
- Sian Beilock
- John T. Cacioppo
- Jean Decety
- Susan Goldin-Meadow
- Leslie M. Kay
- Boaz Keysar
- Susan Cohen Levine
- John A. Lucy, Comparative Human Development
- Daniel Margoliash, Organismal Biology and Anatomy
- Martha K. McClintock
- Howard C. Nusbaum
- Brian Prendergast
- Steven K. Shevell
- Richard Shweder, Human Development
- Michael Silverstein, Anthropology
- Edward Vogel
- Amanda Woodward

Associate Professors

- David Gallo
- William Goldstein

Assistant Professors

- Marc Berman
- Daniel Casasanto
- Jasmin Cloutier
- Jennifer Kubota
- Sarah London
- Gregory Norman
- Alex Shaw

Emeritus Faculty

- R. Darrell Bock
- Abraham Bookstein, Humanities Division
- Norman M. Bradburn
- Robert A. Butler, Surgery

- Mihaly Csikszentmihalyi
- Eugene T. Gendlin
- Sebastian P. Grossman
- Eric P. Hamp, Linguistics
- Janellen Huttenlocher
- Philip W. Jackson, Education
- Jerre Levy
- Frederick F. Lighthall, Education
- David McNeill
- Joel M. Pokorny, Ophthalmology and Visual Science
- Allan Rechtschaffen, Psychiatry
- Milton J. Rosenberg
- Vivianne Smith, Ophthalmology and Visual Science
- Nancy Lou Stein
- Benjamin D. Wright

Department website: http://psychology.uchicago.edu

The primary focus of the study of psychology is on the individual. Thus, its scope includes the biological processes of brain growth, development and functioning; the perceptual and cognitive processes by which information is acquired, stored, used and communicated; the comprehension, production, and use of language from a psychological viewpoint; the social, cultural, and emotional processes by which experience is interpreted and organized; and the developmental processes that underlie change from infancy through adulthood. Training emphasizes the conceptual theories that describe and explain these processes, and the variety of methods that are used to study them.

Originally founded as the Laboratory of Psychology in 1893, the Department of Psychology has been for a century a leading center of scholarship, research and teaching in psychology and related fields. Among its distinguished faculty and students have been James Rowland Angell, John Dewey, George Herbert Mead, John B. Watson, the founder of behaviorism, L. L. Thurstone, a pioneer in psychological measurement, Karl Lashley, Klüver and Bucy, Kleitman, discoverer of REM sleep, Frank Beach, founder of behavioral endocrinology, W. C. Allee who viewed biology as a social phenomenon, and Roger Sperry, Nobel Prize winner for his work in cerebral lateralization. The present Department of Psychology is conscious of its distinguished intellectual forebears and continues to reflect its heritage in its commitment to research, the scope of its inquiry, and the diversity of its programs of graduate study.

Moreover, consistent with the interdisciplinary traditions of the University of Chicago, the Department of Psychology maintains close connections with other departments in the University. The department's faculty and students actively participate in courses, colloquia, workshops and joint research ventures with scholars in related departments, including, but not confined to, anthropology, biology, computer science, computational neuroscience, linguistics, neurobiology, and philosophy, and in the University's professional schools of business, public policy, law, medicine, and social service administration.

The Department of Psychology is organized into specialized training and research programs that reflect the contemporary state of the discipline as well as wide ranging interests of its own faculty. They are currently the Cognition Program, the Developmental Psychology Program, the Integrative Neuroscience Program, the Perception Program, and the Social Psychology Program. The interdisciplinary character of the University and the Department of Psychology is reflected in the fact that many faculty members serve on more than one of the department's programs.

DEGREES

The course of study offered by the Department of Psychology is designed primarily to prepare students for careers in research and teaching and for whatever professional work is necessary as an adjunct to these career objectives. Programs of graduate study offered by the department lead to the PhD degree in the Division of the Social Sciences. In order to qualify for the PhD degree, students must satisfy:

- 1. The University's residency requirements
- 2. The requirements of the Division of the Social Sciences
- 3. The requirements of the particular program of the Department of Psychology

The Department of Psychology does not offer courses of study leading to the degree of Master of Arts. However, students admitted to doctoral study may take the Master of Arts degree as an optional step in the doctoral program. Similarly, a student admitted who must leave the program, for whatever reason, may apply for a terminal Masters of Arts degree, providing the student has met the University's residency requirements, the requirements of the Division of the Social Sciences, and the program requirements of the particular program of the Department of Psychology.

Psychology Linguistics Joint PhD Program

A joint PhD degree program in psychology and linguistics exists for those students who are interested in completing degree requirements in both fields. Psychology students in the Language area of the Cognition Program may apply to the joint degree program in the second year and beyond, but are not required to do so.

PSYCHOLOGY-BUSINESS JOINT PHD PROGRAM

A joint PhD degree program in psychology and business exists for those students who are interested in completing degree requirements in both fields. This program is overseen jointly by the Department of Psychology and by the Managerial and Organizational Behavior Area in the Booth School of Business. Admission to this program requires admission to both the PhD program in psychology and at Booth School of Business. Faculty in both programs will determine, based in a student's primary research interests and/or explicit preferences for a primary research advisor, which program will be the student's primary affiliation.

Admission

Students are admitted by application to the Department of Psychology to pursue courses of study in doctoral programs that are formulated by the individual programs. Applicants must specify the program to which they are applying. Applicants will be considered for admission only if they have earned a bachelor's degree or its equivalent. Admission depends upon the strength of the general undergraduate record, scores on the Graduate Record Examination, letters of recommendation, personal statement and interests, and relevant laboratory or field research experience. Please refer to the Office of International Affairs web site: https://internationalaffairs.uchicago.edu/students/prospective/toefl.shtml. Foreign language students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Testing System (IELTS). Candidates for admission are expected to have some background in psychology as well as mathematics and statistics. Candidates with backgrounds in anthropology, history or sociology are encouraged to apply to Psychology, (the Social Psychology Program); those with strong biological training and interests are encouraged to apply to Psychology, (the Integrative Neuroscience Program or the Social Program).

Students are admitted through the Division of the Social Sciences. Students already enrolled in the Department of Linguistics of the Division of the Humanities who wish to work toward the joint Ph.D. In Psychology, (the Language area of the Cognition Program) and in Linguistics must be admitted as well to the Department of Psychology through the Division of the Social Sciences.

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: <u>http://apply-ssd.uchicago.edu/apply/</u>. Most of the required supplemental material can be uploaded into the application.

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. All correspondence and materials that cannot be uploaded should be mailed to:

The University of Chicago Division of the Social Sciences Admissions Office, Foster 107 1130 East 59th Street Chicago, IL 60637

For additional information about the Psychology program, please see: http://psychology.uchicago.edu/ or call 773-702-8861.

General Requirements for Doctoral Students

All doctoral students in the Department of Psychology must complete the common graduate curriculum. In addition, each student must complete the course

requirements specified by one of the department's specialized training and research programs. In exceptional cases, a student may design an individual sequence of courses. This sequence must be approved by the curriculum and student affairs committee before the student undertakes it. Completion of these course requirements is a prerequisite for Ph.D. candidacy.

COMMON GRADUATE CURRICULUM

The common curriculum consists of a maximum of 8 courses. Other requirements for graduate students will be set by the areas of specialization.

Proseminar: One-quarter course in which faculty members whose primary affiliation is the Department of Psychology give a summary of their ongoing research and students write a research proposal, to be submitted for an NSF graduate fellowship if the student is eligible for this funding. Professional development topics are also covered.

Statistics requirement, passed with a grade of B or better:

STAT 22000	Statistical Methods and Applications (or BUSF 41000 or equivalent approved by the Graduate Curriculum Committee. More advanced courses, for which these courses are prerequisites, also fulfill this requirement.)	100
PSYC 37300	Experimental Design I	100
PSYC 37900	Experimental Design II	100

TRIAL RESEARCH SEMINAR

All graduate students are required to take the trial research seminar in the spring of the first year. The purpose of this seminar is to help students formulate and complete their trial research projects.

Breadth Requirement

Students are required to take a minimum of three doctoral level courses in Psychology, extending across different areas of psychological science. These courses should be chosen in consultation with the student's advisor and program area. These courses must be passed with a grade of B or better.

Department of Psychology Research Requirements

Trial Research Project

- 1. Each student will complete a trial research project under the guidance of a faculty advisor or advisors by the end of the 7th week of the spring quarter of the second year.
- 2. At the start of the project, each student must form a trial research committee, composed of three faculty members. Typically, the chair of the committee is the student's primary research advisor. The chair of the committee must be a faculty or emeritus faculty member in the Psychology Department. At least one other member of the committee must be a faculty, emeritus faculty or

affiliated faculty member in the Psychology Department. The third member of the committee may be from outside of the Psychology Department, provided that the chair of the trial research committee gives his or her approval.

- 3. The student must submit a proposal for the trial research project to his or her committee for approval by the second week of autumn quarter of the second year. Essential to this approval is the committee's decision that the project can feasibly be completed by the end of the second year.
- 4. On Friday of the seventh week of the spring quarter of the student's second year a written report of the trial research project is due.
- 5. The student will submit the trial research paper prior to the end of the spring quarter of the second year and defend the trial research paper at a hearing with his or her committee prior to the end of the Spring Quarter of the second year. At the hearing, the committee will also assess the student's breadth and depth of knowledge of his or her research problem.
- 6. The student's committee will have evaluated the report, and will have submitted a written evaluation to the Student Affairs Committee by the end of the spring quarter.
- 7. Successful completion of the trial research project is a prerequisite for PhD candidacy.

DISSERTATION

- 1. To begin the dissertation process, a student must form a three-member dissertation committee consisting of a chairperson and two other faculty members. Typically, the chair is the student's primary research advisor. The chair of the dissertation committee must be a faculty or emeritus faculty member in the Psychology Department. At least one other member of the committee must be a faculty, emeritus faculty or affiliated faculty member in the Psychology Department. The third member of the committee must be from the university of Chicago, but may be from outside of the Psychology Department, provided that the chair of the dissertation committee gives his or her approval.
- 2. Once a dissertation committee exists, the student must formulate an independent research project to be carried out under the committee's guidance. The student will then prepare a written dissertation proposal and submit it to his or her committee. When the student's advisor agrees, the student may schedule an oral defense of the proposal.
- 3. To be admitted to PhD candidacy, a student must have successfully completed: (a) the Common Graduate Curriculum (including the statistics, and breadth requirement); (b) the course requirements specified by a program or an individual course of study approved by the Curriculum Committee; (c) a trial research project; (d) approval of the dissertation proposal by all members of the student's dissertation committee following the oral defense.
- 4. The completed thesis must be submitted to all three committee members. When the student's advisor agrees, the student may schedule an oral defense of the dissertation. The oral exam is administered by four members of the University community: the three members of the dissertation committee

and an outside reader. The outside reader may be a faculty member at the University of Chicago, or a scientist at another institution. The outside reader must be approved by the thesis advisor. If, after the oral defense, all committee members approve the thesis, the student has met the Psychology Department's requirements for the PhD degree.

Cognition Program

Research on cognition lies at the core of the study of many basic psychological mechanisms (e.g., recognition, attention, categorization, memory, inference) and in recent years, neuroimaging methods have been used to make enormous strides grounding these mechanisms in the brain. Work on cognitive mechanisms has been important in a number of other areas of psychology (e.g., Social Psychology and Developmental Psychology) and provides an important theoretical foundation for understanding higher order cognition including language use, reasoning, and problem solving.

Curriculum

There are three elements in the graduate curriculum of the Cognition Program.

1. Departmental curriculum. Students must complete the departmental core graduate curriculum.

2. Basic courses. Three basic courses. The following list includes possible courses, including those that are not offered every year. The purpose of this requirement is to develop a deeper understanding of the theories and methods used to scientifically study cognition, and how these approaches are central to many areas of psychological inquiry. Pre-approved courses are:

PSYC 31200 Systems Neuroscience

PSYC 32414: Cognitive Neuroscience

PSYC 35700: Psychology of Spoken Language

PSYC 37400 Human Memory

PSYC 38655: Environmental Neuroscience

PSYC 40107 Behavioral Neuroscience

PSYC 41000: Advanced Topics in Color Vision

PSYC 41400: Evolutionary Cognitive Psychology

PSYC 38300 Attention

PSYC 43200 Seminar in Language Development

PSYC 43600 Processes of Judgement and Decision Making

PSYC 43650: The Development of Social Cognition

Students may also propose other courses, based on course offerings in a given year. Such student-proposed courses should be approved by the cognition area chair prior to taking them.

3. Advanced courses and seminars. Students are strongly encouraged to participate in advanced courses and seminars, particularly in their area of interest.

The Developmental Psychology Program

There is a strong history of work in developmental psychology at the University of Chicago. The goal of this program is to foster the continuing development of this area by providing a program of study for graduate students and a community of researchers who share an interest in how development occurs. The Developmental Psychology program offers graduate study which investigates child psychology from a variety of perspectives. Four major research areas make up the program: cognitive development, social and emotional development, language and communicative development, and biological development. Specific topics of research specialization include: vocabulary acquisition, the development of gesture and other forms of nonverbal communication, the development of discourse abilities, mathematical and number knowledge in infants and children, the effects of early brain damage on development, social cognitive development in infancy and early childhood, early emotional understanding, the development of autobiographical memory, parent child interaction, language socialization, cultural influences on development, and environmental effects on language development and school achievement. The emphasis is on the use of experimental and observational methods for the study of development.

Curriculum

In their third and fourth year students write a theoretical review relevant to their dissertation. Ideally, this review could be a publishable article, suitable for a journal such as a Psychological Bulletin or Developmental Review and will help in formulating the dissertation.

- 1. General course: PSYC 40500 Advanced Seminar in Developmental Psychology is required of all students in the program. A prerequisite for this course is that the student has already taken a survey course in developmental psychology. This course will also fulfill a core course requirement for the common graduate curriculum.
- 2. An advanced course in three of four areas of Developmental Psychology. Certain seminars may also fulfill these requirements. Below are a few examples of courses that will fulfill these requirements. This is not a comprehensive list as course offerings change from year to year. Students may petition the developmental area chair to count courses not included on this list. Topics in Developmental Psychology along with an additional paper may, under special circumstances, be used towards one course satisfying this requirement, with permission of the developmental area chair.
 - Cognitive/Intellectual Development: PSYC 42550 Topics in Cognitive Development; PSYC 33600 Development in Infancy; PSYC 42040 Seminar: Mathematical Development
 - Biological Development: PSYC 31700 Developmental Biopsychology; Psyc 34900: Biopsychology of Attachment (D. Maestripieri); PSYC 36100 Developmental Cognitive Neuroscience; PSYC 36660 Genes and Behavior; PSYC 44450 Developmental Social Neuroscience.

- c. Language/Communicative Development: PSYC 43200 Seminar in Language Development; Psyc 35500: Language Socialization (J. Lucy).
- d. Social/Emotional Development: PSYC 43650 The Development of Social Cognition; PSYC 34500 Developmental and Neuroscience Perspectives on Social Cognition.

Students are expected to take advanced courses and seminars, particularly in their area of interest, and to attend the weekly meeting of Topics in Developmental Psychology.

INTEGRATIVE NEUROSCIENCE

The notion that 100 billion neurons give rise to human behavior proved daunting up through the 20th Century because neuroscientists were limited by existing technologies to studying the properties of single neurons or small groups of neurons. Characterizing simple neural circuits has led to an understanding of a variety of sensory processes, such as the initial steps in vision, and motor processes, such as the generation of locomotion patterns. However, unraveling the neural substrates of more complex behaviors, such as the ability to pay attention to relevant events in its surroundings or the ability to understand the likely events going through the mind of another, remains one of the major challenges for the neurosciences in the twenty-first century. In contrast to simple behaviors, these complex behaviors depend on interactions within a network of different brain structures. Studying the neural bases of complex behaviors, thus, requires an integrative neuroscience approach.

The Integrative Neuroscience graduate program at the University of Chicago is designed to provide the training and research opportunities for the next generation of behavioral, cognitive, and social neuroscientists. Behavioral, cognitive, and social neuroscience represent three complementary and partially overlapping aspects of this integrative neuroscience of mind and behavior. Behavioral neuroscience places an emphasis on the biological mechanisms underlying basic behavioral processes; cognitive neuroscience places an emphasis on the biological mechanisms underlying cognition, with a specific focus on the neural substrates of mental processes and their behavioral manifestations; and social neuroscience places an emphasis on the biological mechanisms underlying social processes and behavior, including the ability to perceive and communicate mental states including the beliefs and desires of others and to form and maintain interpersonal and group relationships. The University of Chicago is optimally positioned to meet this challenge because its unique academic structure facilitates interactions across disciplinary perspectives.

Curriculum

Students must complete the departmental core graduate curriculum. As part of this curriculum and with one additional course, IN students complete:

 Psychology Department Breadth Courses (2* courses) *IN students will take two advanced courses within the Department of Psychology 2. Two of Four Core Neuroscience Courses (Cellular, Behavioral, Systems, Molecular) It is suggested that most students take at least Cellular and Behavioral, but we understand that needs depend on research focus.

IN students are encouraged to take additional advanced courses. The program offers the following advanced courses. All of these courses will not be offered every year.

- PSYC 33960 Biological Rhythms and Behavior
- PSYC 38300 Attention
- Advanced Cognitive Neuroscience (Psyc 38760)
- Neural Oscillations (Psyc 37150)
- PSYC 36100 Developmental Cognitive Neuroscience
- Neuropsychopharmacology (Psyc 36901)
- PSYC 32000 Color Vision
- PSYC 37400 Human Memory or LM&C
- PSYC 33700 Perception and Action
- PSYC 33750 Seminar: Skill Acquisition and Sensorimotor Learning
- PSYC 35750 Spoken Language Processing
- PSYC 33300 The Social Brain and Empathy
- Attitudes & Persuasion (Psyc 46100)
- PSYC 35950 Stereotyping and Prejudice
- PSYC 34700 Social Cognition
- PSYC 35000 Physiology of Vision
- PSYC 39000 Vision
- PSYC 32600 Speech Perception

Trial Research Project

Each student completes a Trial Research Project under the guidance of a faculty advisor. This is a significant piece of research carried out over a 12-month period. Both written and oral presentations of the research are required. The student will submit the trial research paper prior to the end of the Spring Quarter of the second year and defend the trial research paper at a hearing with his or her committee prior to the end of Spring Quarter of the second year. The oral examination will also probe the students' breadth and depth of knowledge associated with the completed coursework.

Doctoral Dissertation

The Doctoral Dissertation is an independent research project carried out under the guidance of a faculty Dissertation Committee with at least four members. At least two members of the committee, including the chair, must be in the Integrative Neuroscience program; a third member must be in the Department of Psychology. The chair of the committee typically is the primary research advisor. A written dissertation proposal is presented to the committee in advance of an oral Proposal Hearing. A student is admitted to PhD Candidacy after successfully completing (i) all course requirements, (ii) written and oral presentations of the Trial Research Project, and (iii) an approved dissertation proposal (including oral defense).

The doctoral dissertation is submitted to the dissertation committee prior to a final oral defense (the "final oral examination"). The dissertation committee plus an outside reader, who may be a faculty member at the University of Chicago or a scientist at another institution, administer the final oral exam. The committee members and reader evaluate the dissertation in private after the oral exam. At most one abstention or vote to disapprove is allowed among the committee members and reader; all others must approve the dissertation to satisfy the requirements for the PhD degree.

The Social Psychology Program

The general philosophy of the curriculum is to provide students with the requisite knowledge and skills to excel in mainstream, academic social psychology. In addition to Departmental requirements, graduate students in the University of Chicago Social Psychology Program must fulfill the following course requirements:

- 1. General Courses:
 - a. PSYC 40600 Advanced Seminar in Social Psychology: Introductory course in experimental social psychology. This course will also fulfill part of the core course requirements of the common graduate curriculum.
- 2. Topics in Experimental Social Psychology: An ongoing seminar taught collectively by the Core Faculty each quarter. Required of Social Area Students in Years 1-3. Please note: This course is neither required of Joint students nor is it available to them.
- 3. An advanced course or seminar in at least two of the following Areas of Emphasis:
 - Self
 - Social Cognition
 - Social and Cognitive Neuroscience
 - Decision Making
 - Attitudes and Affect
 - Stereotyping and Prejudice
 - Communication and Language Processes
 - Interpersonal Relations and Group Processes
 - Political Psychology
 - Cultural Psychology
- 4. PSYC 45200 Advanced Methods in Experimental Social Psychology plus two additional courses in advanced methods and statistics.
- 5. Finally, students are expected to take advanced courses and seminars in their area of interest.

PSYCHOLOGY COURSES

PSYC 31200. Systems Neuroscience. 100 Units.

This course meets one of the requirements of the neuroscience specialization. This course introduces vertebrate and invertebrate systems neuroscience with a focus on the anatomy, physiology, and development of sensory and motor control systems. The neural bases of form and motion perception, locomotion, memory, and other forms of neural plasticity are examined in detail. We also discuss clinical aspects of neurological disorders.

Instructor(s): M. Hale, D. Freedman Terms Offered: Spring Prerequisite(s): BIOS 24204 or consent of instructor Equivalent Course(s): BIOS 24205,PSYC 24000

PSYC 31600. Biopsychology of Sex Differences. 100 Units.

This course will explore the biological basis of mammalian sex differences and reproductive behaviors. We will consider a variety of species, including humans. We will address the physiological, hormonal, ecological and social basis of sex differences. To get the most from this course, students should have some background in biology, preferably from taking an introductory course in biology or biological psychology.

Instructor(s): J. Mateo Terms Offered: Autumn. Not offered 2015-2016 Equivalent Course(s): EVOL 36900,GNSE 30901,CHDV 30901

PSYC 31900. Language, Culture, and Thought. 100 Units.

Survey of research on the interrelation of language, culture, and thought from the evolutionary, developmental, historical, and culture-comparative perspectives with special emphasis on the mediating methodological implications for the social sciences.

Instructor(s): J. Lucy Terms Offered: Spring

Prerequisite(s): Grad status, Undergrads in 3rd or 4th year, or permission of instructor.

Note(s): CHDV Distribution, B*, C*; 2*, 3*, 5*

Equivalent Course(s): ANTH 27605, ANTH 37605, CHDV 31901, PSYC 21950, LING 27700, LING 37700, CHDV 21901

PSYC 32411. Mediation, Moderation, and Spillover Effects. 100 Units.

This course is designed for graduate students and advanced undergraduate students from social sciences, statistics, public health science, public policy, and social services administration who will be or are currently involved in quantitative research. Questions about why a treatment works, for whom, under what conditions, and whether one individual's treatment could affect other individuals' outcomes are often key to the advancement of scientific knowledge. We will clarify the theoretical concepts of mediated effects, moderated effects, and spillover effects under the potential outcomes framework. The course introduces cuttingedge methodological approaches and contrasts them with conventional strategies including multiple regression, path analysis, and structural equation modeling. The course content is organized around application examples. The textbook "Causality in a Social World: Moderation, Mediation, and Spill-Over" (Hong, 2015) will be supplemented with other readings reflecting latest developments and controversies. Weekly labs will provide tutorials and hands-on experiences. All students are expected to contribute to the knowledge building in class through participation in presentations and discussions. Students are encouraged to form study groups, while the written assignments are to be finished and graded on an individual basis. Intermediate Statistics, Introduction to Causal Inference, and their equivalent are prerequisites.

Instructor(s): G. Hong Terms Offered: Spring

Prerequisite(s): Intermediate Statistics, Introduction to Causal Inference, and their equivalent

Note(s): CHDV Distribution, M*; M*

Equivalent Course(s): PBPL 29411,STAT 33211,CCTS 32411,CHDV 32411

PSYC 33000. Cultural Psychology. 100 Units.

There is a substantial portion of the psychological nature of human beings that is neither homogeneous nor fixed across time and space. At the heart of the discipline of cultural psychology is the tenet of psychological pluralism, which states that the study of "normal" psychology is the study of multiple psychologies and not just the study of a single or uniform fundamental psychology for all peoples of the world. Research findings in cultural psychology thus raise provocative questions about the integrity and value of alternative forms of subjectivity across cultural groups. In this course we analyze the concept of "culture" and examine ethnic and cross-cultural variations in mental functioning with special attention to the cultural psychology of emotions, self, moral judgment, categorization, and reasoning.

Instructor(s): R. Shweder Terms Offered: Autumn

Prerequisite(s): Third- or fourth-year standing. Instructor consent required.

Note(s): CHDV Distribution, B, C; 2*, 3*

Equivalent Course(s): AMER 33000, ANTH 24320, ANTH 35110, CHDV 31000, GNSE 21001, GNSE 31000, PSYC 23000, CHDV 21000

PSYC 34400. Computational Neuroscience III: Cognitive Neuroscience. 100 Units. This course is concerned with the relationship of the nervous system to higher order behaviors (e.g., perception, action, attention, learning, memory). Psychophysical, functional imaging, and electrophysiological methods are introduced. Mathematical and statistical methods (e.g., neural networks, information theory, pattern recognition for studying neural encoding in individual neurons and populations of neurons) are discussed. Weekly lab sections allow students to program cognitive neuroscientific experiments and simulations.

Instructor(s): N. Hatsopoulos Terms Offered: Spring

PSYC 34410. Computational Approaches for Cognitive Neuroscience. 100 Units. This course is concerned with the relationship of the nervous system to higher order behaviors such as perception and encoding, action, attention, and learning and memory. Modern methods of imaging neural activity are introduced, and information theoretic methods for studying neural coding in individual neurons and populations of neurons are discussed.

Instructor(s): N. Hatsopoulos Terms Offered: Spring Prerequisite(s): BIOS 24222 or CPNS 33100 Equivalent Course(s): ORGB 34650,CPNS 33200

PSYC 36210-36211. Mathematical Methods for Biological Sciences I-II.

PSYC 36210. Mathematical Methods for Biological Sciences I. 100 Units. This course builds on the introduction to modeling course biology students take in the first year (BIOS 20151 or 152). It begins with a review of one-variable ordinary differential equations as models for biological processes changing with time, and proceeds to develop basic dynamical systems theory. Analytic skills include stability analysis, phase portraits, limit cycles, and bifurcations. Linear algebra concepts are introduced and developed, and Fourier methods are applied to data analysis. The methods are applied to diverse areas of biology, such as ecology, neuroscience, regulatory networks, and molecular structure. The students learn computations methods to implement the models in MATLAB.

Instructor(s): D. Kondrashov Terms Offered: Autumn. L

Prerequisite(s): BIOS 20151 or BIOS 20152 or consent of the instructor Equivalent Course(s): BIOS 26210,CPNS 31000

PSYC 36211. Mathematical Methods for Biological Sciences II. 100 Units.

This course is a continuation of BIOS 26210. The topics start with optimization problems, such as nonlinear least squares fitting, principal component analysis and sequence alignment. Stochastic models are introduced, such as Markov chains, birth-death processes, and diffusion processes, with applications including hidden Markov models, tumor population modeling, and networks of chemical reactions. In computer labs, students learn optimization methods and stochastic algorithms, e.g., Markov Chain, Monte Carlo, and Gillespie algorithm. Students complete an independent project on a topic of their interest. Instructor(s): D. Kondrashov Terms Offered: Winter. L. Prerequisite(s): BIOS 26210

Equivalent

Equivalent Course(s): BIOS 26211, CPNS 31100

PSYC 36211. Mathematical Methods for Biological Sciences II. 100 Units.

This course is a continuation of BIOS 26210. The topics start with optimization problems, such as nonlinear least squares fitting, principal component analysis and sequence alignment. Stochastic models are introduced, such as Markov chains, birth-death processes, and diffusion processes, with applications including hidden Markov models, tumor population modeling, and networks of chemical reactions. In computer labs, students learn optimization methods and stochastic algorithms, e.g., Markov Chain, Monte Carlo, and Gillespie algorithm. Students complete an independent project on a topic of their interest.

Instructor(s): D. Kondrashov Terms Offered: Winter. L. Prerequisite(s): BIOS 26210 Equivalent

Equivalent Course(s): BIOS 26211, CPNS 31100

PSYC 37300-37900. Experimental Design I-II.

Experimental Design I-II

PSYC 37300. Experimental Design I. 100 Units.

This course covers topics in research design and analysis. They include multifactor, completely randomized procedures and techniques for analyzing data sets with unequal cell frequencies. Emphasis is on principles, not algorithms, for experimental design and analysis. Instructor(s): S. Shevell Terms Offered: Winter

PSYC 37900. Experimental Design II. 100 Units.

Experimental Design II covers more complex ANOVA models than in the previous course, including split-plot (repeated-measures) designs and unbalanced designs. It also covers analysis of qualitative data, including logistic regression, multinomial logit models, and log linear models. An introduction to certain advanced techniques useful in the analysis of longitudinal data, such as hierarchical linear models (HLM), also is provided. For course description contact Psychology.

Instructor(s): S. Shevell Terms Offered: Spring

PSYC 37400. Human Memory. 100 Units.

This course surveys the scientific study of human memory, emphasizing both theory and applications. Lectures will cover current research and methods in cognitive psychology and cognitive neuroscience, as well as historical precursors and classic studies. Topics include consciousness and nonconscious processes, corresponding neural systems, and various phenomena such as amnesia, memory distortion, mnemonics, and metacognition.

Instructor(s): D. Gallo Terms Offered: Winter

PSYC 37900. Experimental Design II. 100 Units.

Experimental Design II covers more complex ANOVA models than in the previous course, including split-plot (repeated-measures) designs and unbalanced designs. It also covers analysis of qualitative data, including logistic regression, multinomial logit models, and log linear models. An introduction to certain advanced techniques useful in the analysis of longitudinal data, such as hierarchical linear models (HLM), also is provided. For course description contact Psychology. Instructor(s): S. Shevell Terms Offered: Spring

PSYC 37950. Evolution and Economics of Human Behavior. 100 Units.

This course explores how evolutionary biology and behavioral economics explain many different aspects of human behavior. Specific topics include evolutionary theory, natural and sexual selection, game theory, cost-benefit analyses of behavior from an evolutionary and a behavioral economics perspective, aggression, power and dominance, cooperation and competition, biological markets, parental investment, life history and risk-taking, love and mating, physical attractiveness and the market, emotion and motivation, sex and consumer behavior, cognitive biases in decision-making, and personality and psychopathology.

Instructor(s): D. Maestripieri Terms Offered: Autumn

Note(s): CHDV Distribution, A; 1*

Equivalent Course(s): CHDV 37950, PSYC 27950, BIOS 29265, CHDV 27950

PSYC 38655. Environmental Neuroscience. 100 Units.

In this course we will be examining how the physical and social environment affects brain and behavior. This course will span biological psychology with non-human animals to large Epidemiological studies examining how environments affect brain and Behavior.

Instructor(s): M. Berman, S. London Terms Offered: Spring

PSYC 40107. Behavioral Neuroscience. 100 Units.

This course is concerned with the structure and function of systems of neurons, and how these are related to behavior. Common patterns of organization are described from the anatomical, physiological, and behavioral perspectives of analysis. The comparative approach is emphasized throughout. Laboratories include exposure to instrumentation and electronics, and involve work with live animals. A central goal of the laboratory is to expose students to in vivo extracellular electrophysiology in vertebrate preparations. Laboratories will be attended only on one day a week but may run well beyond the canonical period.

Instructor(s): D. Margoliash Terms Offered: Winter Equivalent Course(s): NURB 30107,CPNS 30107

PSYC 40300. Advanced Topics in Biological Psychology. 100 Units.

What are the relations between mind and brain? How do brains regulate mental, behavioral, and hormonal processes; and how do these influence brain organization and activity? This course provides an introduction to the anatomy, physiology, and chemistry of the brain; their changes in response to the experiential and sociocultural environment; and their relation to perception, attention, behavior, action, motivation, and emotion.

Instructor(s): G. Norman Terms Offered: Autumn

PSYC 40400. Cognitive Psychology. 100 Units.

Viewing the brain globally as an information processing or computational system has revolutionized the study and understanding of intelligence. This course introduces the theory, methods, and empirical results that underlie this approach to psychology. Topics include categorization, attention, memory, knowledge, language, and thought.

Instructor(s): D. Gallo Terms Offered: Spring

PSYC 40450-40451-40452. Topics in Cognition I-II-III.

Broadly speaking, this workshop will address fundamental topics in cognitive psychology such as attention, memory, learning, problem solving, and language. One unique aspect of this workshop is that we will not only explore topics central to the study of cognition, but we will also explore how the study of cognitive psychology can be used to enhance human potential and performance in a variety of contexts. These contexts range from an exploration of optimal teaching practices to enhance the acquisition of mathematical knowledge in the classroom, to issues regarding how individuals communicate best to foster the optimal exchange of information in, for instance, medical settings, to the optimal strategies older adults can use to help stave off the deleterious effects of aging on cognitive functioning and the performance of everyday activities.

PSYC 40450. Topics in Cognition I. 100 Units. Instructor(s): M. Berman

PSYC 40451. Topics in Cognition II. 100 Units. Instructor(s): M. Berman

PSYC 40452. Topics in Cognition III. 100 Units. Instructor(s): M. Berman

PSYC 40451. Topics in Cognition II. 100 Units. Instructor(s): M. Berman

PSYC 40452. Topics in Cognition III. 100 Units. Instructor(s): M. Berman

PSYC 40500. Advanced Seminar in Developmental Psychology. 100 Units.

This is an introductory course for graduate students in developmental psychology. Topics in biological, perceptual, cognitive, social, and language development will be covered. This course will satisfy one of Psychology graduate students' core course requirements.

Instructor(s): A. Shaw, A. Woodward Terms Offered: Winter

PSYC 40600. Advanced Seminar in Social Psychology. 100 Units.

This seminar course examines social psychological theory and research based on both classic and contemporary contributions. Among the major topics examined are conformity and deviance, the attitude-change process, social role and personality, social cognition, and political psychology.

Instructor(s): J. Cloutier Terms Offered: Autumn

PSYC 40851-40852-40853. Topics in Developmental Psychology I-II-III. Brown-bag discussion of current research in psychology.

PSYC 40851. Topics in Developmental Psychology I. 100 Units. Terms Offered: Autumn

PSYC 40852. Topics in Developmental Psychology II. 100 Units. Terms Offered: Winter

PSYC 40853. Topics in Developmental Psychology III. 100 Units.

PSYC 40852. Topics in Developmental Psychology II. 100 Units. Terms Offered: Winter

PSYC 40853. Topics in Developmental Psychology III. 100 Units.

PSYC 42040. Seminar: Mathematical Development. 100 Units.

We will review research on young children's early quantitative development, beginning with infants, and ending with young elementary grade school aged children. We will cover both numerical and spatial aspects of mathematics, and will consider the effects of input variations on individual differences. Instructor(s): S. Levine Terms Offered: Spring

PSYC 42100. Trial Research Seminar. 100 Units.

PSYC 42100 is required of first-year Psychology graduate students The purpose of this seminar is to assist students in formulating their trial research project. Instructor(s): D. Casasanto Terms Offered: Spring

PSYC 42400. Teaching Psychology. 100 Units.

Instructor(s): J. Cacioppo Terms Offered: Autumn Prerequisite(s): Psychology graduate students who TA for PSYC 20000.

PSYC 42735. Introduction to Magnetic Resonance Imaging. 100 Units.

This course will provide an introductory foundation to functional magnetic resonance imaging data collection and analysis. Instructor(s): J. Cloutier, J. Kubota Terms Offered: Winter

PSYC 43600. Processes of Judgement and Decision Making. 100 Units.

This course offers a survey of research on judgment and decision making, with emphasis placed on uncertainty and (intrapersonal) conflict. An historical approach is taken in which the roots of current research issues and practices are traced. Topics are drawn from the following areas: evaluation and choice when goals are in conflict and must be traded off, decision making when consequences of the decision are uncertain, predictive and evaluative judgments under conditions of uncertain, incomplete, conflicting, or otherwise fallible information.

Instructor(s): W. Goldstein Terms Offered: Winter

Equivalent Course(s): CHDV 43600

PSYC 44700. Seminar: Topics in Judgement and Decision Making. 100 Units.

This course offers a survey of research on judgment and decision making, with emphasis placed on uncertainty and (intrapersonal) conflict. An historical approach is taken in which the roots of current research issues and practices are traced. Topics are drawn from the following areas: evaluation and choice when goals are in conflict and must be traded off, decision making when consequences of the decision are uncertain, predictive and evaluative judgments under conditions of uncertain, incomplete, conflicting, or otherwise fallible information. Instructor(s): W. Goldstein Terms Offered: Spring

Equivalent Course(s): CHDV 44700

PSYC 45300. When Cultures Collide: The Multicultural Challenge in Liberal Democracy. 100 Units.

Coming to terms with diversity in an increasingly multicultural world has become one of the most pressing public policy projects for liberal democracies in the early 21st century. One way to come to terms with diversity is to try to understand the scope and limits of toleration for variety at different national sites where immigration from foreign lands has complicated the cultural landscape. This seminar examines a series of legal and moral questions about the proper response to norm conflict between mainstream populations and cultural minority groups (including old and new immigrants), with special reference to court cases that have arisen in the recent history of the United States.

Instructor(s): R. Shweder Terms Offered: Winter

Note(s): CHDV Distribution, C; 3*

Equivalent Course(s): ANTH 45600, HMRT 35600, GNDR 45600, CHDV 45600

PSYC 45460. Minds, Brains, and Concepts. 100 Units.

What is a concept? Almost everyone in the cognitive sciences agrees that concepts are at the core of human thinking, but almost no one agrees about what concepts are, or about how they are learned, used, and changed. In this seminar, we'll briefly survey efforts to understand human concepts from antiquity through the turn of the 21st century, and then focus on the question: what should concepts be? What work does the concept of "concept" do in our theorizing about minds and brains, and how should this construct change in order to support the the most fruitful theories of thinking, learning, and acting?

Instructor(s): D. Casasanto Terms Offered: Autumn

PSYC 45950. Stereotyping and Prejudice. 100 Units.

This seminar provides an overview of the literature on stereotyping, prejudice, and discrimination. Topics will Include: the formation of stereotypes and prejudice; the processes that underlie stereotyping and prejudice; stereotyping and prejudice from the target's perspective; and prejudice and stereotype reduction. Instructor(s): J. Kubota Terms Offered: Winter

PSYC 47001-47002. Language in Culture I-II.

This two-quarter course presents the major issues in linguistics of anthropological interest. These courses must be taken in sequence.

PSYC 47001. Language in Culture I. 100 Units.

Among topics discussed in the first half of the sequence are the formal structure of semiotic systems, the ethnographically crucial incorporation of linguistic forms into cultural systems, and the methods for empirical investigation of "functional" semiotic structure and history. Instructor(s): M. Silverstein Terms Offered: Autumn Prerequisite(s): Consent of instructor Equivalent Course(s): ANTH 37201,CHDV 37201,LING 31100

PSYC 47002. Language in Culture II. 100 Units.

The second half of the sequence takes up basic concepts in sociolinguistics and their critique.

Instructor(s): Susan Gal Terms Offered: Winter Prerequisite(s): Consent of instructor Equivalent Course(s): LING 31200,ANTH 37202

PSYC 47002. Language in Culture II. 100 Units.

The second half of the sequence takes up basic concepts in sociolinguistics and their critique.

Instructor(s): Susan Gal Terms Offered: Winter Prerequisite(s): Consent of instructor Equivalent Course(s): LING 31200,ANTH 37202

PSYC 48000. Proseminar in Psychology. 100 Units.

Required of first-year Department of Psychology graduate students. Department of Psychology faculty members present and discuss their research. This introduces new students to the range of research areas in the department. Instructor(s): M. Berman

PSYC 48001-48002-48003. Mind and Biology Proseminar I-II-III.

Seminar series at the Institute for Mind and Biology meets three to four times per quarter. Sign up for three quarters; receive credit at the end of Spring Quarter.

PSYC 48001. Mind and Biology Proseminar I. 000 Units. Instructor(s): S. London Terms Offered: Autumn

PSYC 48002. Mind and Biology Proseminar II. 000 Units. Instructor(s): TBD

PSYC 48003. Mind and Biology Proseminar III. 100 Units. Instructor(s): TBD

PSYC 48002. Mind and Biology Proseminar II. 000 Units. Instructor(s): TBD

PSYC 48003. Mind and Biology Proseminar III. 100 Units. Instructor(s): TBD

PSYC 48150. Graduate Seminar. 100 Units. Instructor(s): B. Keysar Terms Offered: Winter

PSYC 48412. Publications, Grants, and the Academic Job Market. 100 Units.

In this graduate seminar we will discuss how to write and publish scientific articles, prepare grant applications, write CVs and job applications, and give job talks and interviews. In other words, everything students always wanted to know about being successful in academia but were afraid to ask.

Instructor(s): D. Maestripieri Terms Offered: Winter Equivalent Course(s): CHDV 48412



The John U. Nef Committee on Social Thought

Chair

- Robert Pippin
 Professors
- Lorraine Daston
- Vincent Descombes
- Wendy Doniger
- Hans Joas
- Irad Kimhi
- Gabriel Lear
- Jonathan Lear
- Jean Luc Marion
- Heinrich Meier
- Glenn W. Most
- David Nirenberg
- Thomas Pavel
- Mark Payne
- Robert B. Pippin
- Andrei Pop
- James M. Redfield
- Haun Saussy
- Laura Slatkin
- Nathan Tarcov
- Rosanna Warren
- David Wellbery
- Adam Zagajewski

Emeriti

- Paul Friedrich
- Leon Kass
- Joel Kraemer
- Ralph Lerner
- David Tracy

The John U. Nef Committee on Social Thought was established as a degree granting body in 1941 by the historian John U. Nef (1899-1988), with the assistance of the economist Frank Knight, the anthropologist Robert Redfield, and Robert M. Hutchins, then President of the University. The Committee is a group of diverse scholars sharing a common concern for the unity of the human sciences. Their

premises were that the serious study of any academic topic, or of any philosophical or literary work, is best prepared for by a wide and deep acquaintance with the fundamental issues presupposed in all such studies, that students should learn about these issues by acquainting themselves with a select number of classic ancient and modern texts in an inter-disciplinary atmosphere, and should only then concentrate on a specific dissertation topic. It accepts qualified graduate students seeking to pursue their particular studies within this broader context, and aims both to teach precision of scholarship and to foster awareness of the permanent questions at the origin of all learned inquiry.

The primary themes of the Committee's intellectual life have continued to be literature, religion, philosophy, politics, history, art and society. The Committee differs from the normal department in that it has no specific subject matter and is organized neither in terms of a single intellectual discipline nor around any specific interdisciplinary focus. It exists to bring together scholars in a variety of fields sharing a concern with basic and trans-disciplinary issues, and to enable them to work in close intellectual association with other like-minded graduate students seeking to pursue their particular studies in this broader context. Inevitably, the faculty of the Committee does not encompass within itself the full range of intellectual disciplines necessary for these studies, and the fields represented by the faculty have changed substantially during the Committee's history. Students apply to work with the faculty who are here at any particular time and, where appropriate, with other faculty at the University of Chicago. Although it offers a variety of courses, seminars, and tutorials, it does not require specific courses. Rather, students, with the advice of Committee faculty, discover the points at which study in established disciplines can shape and strengthen their research, and they often work closely with members of other departments. Through its several lecture and seminar series, the Committee also seeks to draw on the intellectual world beyond the University.

Students admitted to the Committee work toward the Ph.D. There are three principal requirements for this degree: the fundamentals examination, the foreign language examination and the dissertation. Study for the fundamental exam centers on twelve to fifteen books, selected by the student in consultation with the faculty. Each student is free to draw from the widest range of works of imaginative literature, religious thought, philosophy, history, political thought, and social theory and ranging in date from classical times to the twentieth century. Non-Western books may also be included. Study of these fundamental works is intended to help students relate their specialized concerns to the broad themes of the Committee's intellectual life. Some of the student's books will be studied first in formal courses offered by faculty, though books may also be prepared through reading courses, tutorials, or independent study.

Preparation for the fundamentals examination generally occupies the first two or three years of a student's program, together with appropriate philological, statistical, and other disciplinary training.

After successful completion of the fundamentals examination, the student writes a dissertation under faculty supervision on an important topic using appropriately specialized skills. A Committee on Social Thought dissertation is expected to combine exact scholarship with broad cultural understanding and literary merit. In lieu of an oral defense, a public lecture on an aspect of their research of general interest to the scholarly community is to be given.

As a partial guide, and to suggest the variety of possible programs, there follows a list of titles of some of the dissertations accepted by the Committee since 1994:

- Heidegger's Polemos: From Being to Politics
- Nature's Artistry: Goethe's Science and Die Wahlverwandtschaften
- Nietzsche's Schopenhauer: The Peak of Modernity and the Problem of Affirmation
- Feminism and Liberalism: The Problem of Equality
- A Hesitant Dionysos: Nietzsche and the Revelry of Intuition
- Conrad's Case Against Thinking
- Reading the Republic as Plato's Own Apology
- Cartesian Theodicy: Descartes Quest for Certitude
- Plato's Gorgias and the Power of Speech and Reason in Politics
- World Government and the Tension between Reason and Faith in
- Dante Alighieri's Monarchia
- A House Divided: The Tragedy of Agamemnon
- Eros and Ambition in Greek Political Thought
- Natural Ends and the Savage Pattern: The Unity of Rousseau's Thought
- Revisited
- A Sense of Place. Reading Rousseau: The Idea of Natural Freedom
- Churchill's Military Histories: A Rhetorical Study
- A Nation of Agents: The Making of the American Social Character
- The Problem of Religion in Spinoza's Tractatus Theologico Politicus
- A Great Arrangement of Mankind: Edmund Burke's Principles and Practice of Statesmanship
- The Dance of the Muses
- Tocqueville Unveiled: A Historian and his Sources in *L Ancien Régime et la Révolution*
- The Search for Biological Causes of Mental Illness
- War, Politics, and Writing in Machiavelli's Art of War
- Plato's Laws on the Roots and Foundation of the Family
- The Philosophy of Friendship: Aristotle and the Classical Tradition on Friendship and Self Love
- Regions of Sorrow: Spaces of Anxiety and Messianic Tome in Hannah Arendt and W.H. Auden
- Converting the Saints: An Investigation of Religious Conflict using a Study of Protestant Missionary Methods in an Early 20th Century Engagement with Mormonism

- The Significance of Art in Kant's Critique of Judgment
- Historicism and the Theory of the Avant Garde
- Human Freedom in the Philosophy of Pierre Gassendi
- Taking Her Seriously: Penelope and the Plot of Homer's Odyssey
- Karna in the Mahabharata
- Hegel on Mind, Action, and Social Life: The Theory of Geist as a Theory of Explanation. Liberalism in the Shadow of Totalitarianism: The Problem of Authority and Values Since World War Two
- Nietzsche's Problem of Socrates and Plato's Political Psychology
- Tocqueville's *New Political Science*: A Critical Assessment of Montesquieu's Vision of a Liberal Modernity
- Magnanimity and Modernity: Self Love in the Scottish Enlightenment
- Hegel's Conscience: Radical Subjectivity and Rational Institutions
- Religious Zeal, Political Faction and the Corruption of Morals: Adam Smith and the Limits of Enlightenment
- This Distracted Globe: Hamlet and the Misgivings of Early Modern Memory
- Teaching the Contemplative Life: The Psychagogical Role of the Language of Theoria in Plato and Aristotle
- The Allegory of the Island: Solitude, Isolation, and Individualism in the Writings of Jean Jacques Rousseau
- The Convergence of Homer's Odyssey and Joyce's Ulysses
- The Curiosity of the Idle Reader: Self Consciousness in Renaissance Epic
- Bacon on Virtue: The Moral Philosophy of Nature's Conqueror
- Picturing the Path: The Visual Rhetoric of Barabudur
- Collecting Objects/Excluding People: Chinese Subjects and the American Art Discourse 1870-1900
- From Religionskrieg to Religionsgesprach: The Theological Path of Boden's Colloquium Heptaplomeres
- The Problem of Autonomy in the Thought of Montaigne
- The Virtue of the Soul and the Limits of Human Wisdom: The Search for *SÔPHROSUNÊ* in Plato's *Charmides*
- Nietzsche's "Fantastic Commentary": On the Problem of Self-Knowledge
- Erotic Uncertainty: Towards a Poetic Psychology of Literary Creativity
- Cruelty: On the Limits of Humanity
- Hamletian Romanticism: Social Critique and Literary Performance from Wordsworth to Trollope
- Hamlet's Arab Journey: Adventures in Political Culture and Drama 1952-2002
- Acquiring "Feelings that do not Err": Moral Deliberation and the Sympathetic Point of View in the Ethics of Dai Zhen
- The Contest of Regimes and the Problem of Justice: Political Lessons from Aristotle's *Politics*

- Socrates and the Second Person: The Craft of Platonic Dialogue
- In the Grip of the Future: The Tragic Experience of Time
- Thucydides on the Political Soul: Pericles, Love of Glory, and Freedom
- Connecting Agency and Morality in Kant's Moral Theory
- Tocqueville and the Question of the Nation
- Pierre Bayle's "Machiavellianism"
- The Burial of Hektor: The Emergence of the Spiritual World of the Polis in the *liad*
- Hegel's Defense of Moral Responsibility
- Dostoevsky, Madness, and Religious Fervor: Reason and its Adversaries
- The Uses of Boredom
- Two Loves, Two Cities: Intellectus and Voluntas in Augustine's Political Thought
- Power and Goodness: Leibniz, Locke and Modern Philosophy
- Soren Kierkegaard and the Very Idea of Advance Beyond Socrates
- Between City and Empire: Political Ambition and Political Form in Plutarch's *Parallel Lives*
- Gluttony and Philosophical Moderation in Plato's Republic
- Plato's Immoralists and their Attachment to Justice: A Look at Thrasymachus and Callicles
- The Great Law of Change: Edmund Burke, Thomas Paine, and the Meaning of the Past in a Democratic Age
- Devil's Advocate: Politics and Morality in the Work of Carl Schmitt
- Relation without Relation: Emily Dickinson Maurice Blanchot
- Perfecting Adam: The Perils of Innocence in the Modern Novel
- Stubborn Against the Fact: Literary Ideals, Philosophy and Criticism
- One Man Show: Poiesis and Genesis in the Iliad and Odyssey
- Political Theology in Eric Voegelin's Philosophy of History
- The Ancient Quarrel Unsettled: Plato and the Erotics of Tragic Poetry
- Heroic Action and Erotic Desire in Sidney, Spenser, and Shakespeare
- Dostoevsky and Suicide: A Study of the Major Characters
- The Aesthetics of Ambivalence Pirandello, Schopenhauer, and the Transformation of the European Social Imaginary
- Desire and Democracy Spinoza and the Politics of Affect
- The Multiplicity of Scripture The Confluence of Textual Traditions in the Making of the Antwerp Polyglot Bible (1568-1573)
- Intelligence Incarnate: The Logic of Recognition in Hegel's Phenomenology of Spirit
- King Lear and its Folktale Analogues
- Can There be Philosopher-Kings in a Liberal Polity? A Reinterpretation and Reappropriation of the Ideal Theory in Plato's Republic

- Intelligence Incarnate: The Logic of Recognition in Hegel's Phenomenology of Spirit
- King Lear and its Folktale Analogues
- Can There be Philosopher-Kings in a Liberal Polity? A Reinterpretation and Reappropriation of the Ideal Theory in Plato's Republic
- Towards an Ethical Literature: Character Narration and Extended Subjectivity in the work of Robert Musil
- Modes of Valuation in Early Greek Poetry
- God in the Years of Fury: Theodicy and Anti-Theodicy in the Holocaust Writings of Rabbi Kalonymus Kalman Shapira
- Rousseau's Natural Man: Emile and Politics
- Existence and Temporality in Spinoza
- Explorations in Elegiac Space: Schiller, Nietzsche, Rilke
- Language, Necessity, and Human Nature in Thucydides' History
- Speculation and Civilization in the Social Philosophy of Alfred North Whitehead
- Caught between City, Empire, and Religion: Alfarabi's Concept of the Umma
- Elizabeth Anscombe's Wittgensteinian Third Way in Philosophy of Mind: A Thomist Critique

AREAS OF STUDY

Work with the Committee is not limited as to subject matter. Any serious program of study, based on the Fundamentals Examination, culminating in a scholarly doctoral dissertation, and requiring a framework wider than that of a specialized department, may be appropriate. In practice, however, the Committee is unwilling to accept a student for whom it is unable to provide competent guidance in some special field of interest, either from its own ranks or with the help of other members of the University.

ADMISSION

Students in the Committee have unusual scope for independent study, which means that successful work in Social Thought requires mature judgment and considerable individual initiative. Naturally, the Committee wishes to be reasonably confident of an entering student's ability to make the most of the opportunities the Committee offers and to complete the program of study. Hence, we request that the personal statement required by the University application should take the form of a letter to the Committee which addresses the following questions: What intellectual interests, concerns, and aspirations lead you to undertake further study and why do you want to pursue them with the Committee? What kind of work do you propose to do here? (If you can, include your intentions for the Fundamentals requirement, further language study, and dissertation research.) How has your education to date prepared you? In addition, you should include a sample of your best written work, preferably relevant to the kind of work you propose to do at the Committee, though you may also include a short sample of fiction or poetry in addition. Should we

consider the evidence submitted to be insufficient, we may ask you to add to it. Applicants are also required to take the Graduate Record Examination.

HOW TO APPLY

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines and department specific information is available online at: https://apply-ssd.uchicago.edu/apply/.

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. Most material for the application can be uploaded into the application system. Additional correspondence and materials sent in support of applications should be mailed to:

The University of Chicago Division of the Social Sciences Admissions Office, Foster 107 1130 East 59th Street Chicago, IL 60637

Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS).

For additional information about the Social Thought program, please call 773-702-8410.

COURSES

The department website offers descriptions of graduate courses scheduled for the current academic year: http://socialthought.uchicago.edu/page/socialthought-courses-descriptions. Or you may email the Committee directly com-soctht@uchicago.edu and request a copy of the current course schedule.

Social Thought Courses

SCTH 30002. Performance as Subversion under Totalitarian Censorship. 100 Units.

This course explores theater, music, and film as forms of subversion during periods of militaristic and totalitarian dictatorships where strict censorship was applied to public performance. Students choose topics and submit a final paper after a class presentation.

Instructor(s): D. Buch Terms Offered: Winter Equivalent Course(s): TAPS 29104

SCTH 30104. Heidegger's The Basic Problem of Phenomenology. 100 Units. Instructor(s): Irad Kimhi Terms Offered: Autumn

SCTH 30300. Plato's Laws. 100 Units.

An introductory reading of Plato's *Laws* with attention to such themes as the following: war and peace; courage and moderation; rule of law; music, poetry, drinking, and education; sex, marriage, and gender; property and class structure; crime and punishment; religion and theology; and philosophy. (A)

Instructor(s): N. Tarcov Terms Offered: Winter

Note(s): Enrollment limited. Open to undergraduates with consent of instructor. Equivalent Course(s): PLSC 48300,FNDL 23400,LLSO 28500

SCTH 31770. Plato's REPUBLIC. 100 Units.

This course is devoted to reading and discussion of Plato's *Republic* and some secondary work with attention to justice in the city and the soul, war and warriors, education, theology, poetry, gender, eros, and actually existing cities. Instructor(s): Nathan Tarcov Terms Offered: Winter 2013 Prerequisite(s): Undergrad course by consent Equivalent Course(s): PLSC 43820,FNDL 29503

SCTH 35001. theatricality in Modern Art from 1700 to Present. 100 Units.

We examine the dramatic dimension of art in the modern era broadly speaking, paying attention to recurring themes like the Aristotelian theory of acton, the Diderotian theory of acting, and the linguistic theory of speech acts, as well as to momentous historical events like the French Revolution, the rediscovery of antiquity, and the advent of photography and motion pictures. Paradigms that have been influential in one or another discipline like Michael Fried's theory of theatricality (in art history), Heinrich Kleist's theory of puppets (In German literature and theatre theory) and Friedrich Nietzsche's theory of tragedy (in music and philosophy) and will also be scrutinized.

Instructor(s): Andrei Pop Terms Offered: Autumn

SCTH 35901. Sophocles, Oedipus at Colonus. 100 Units.

A close literary and philological analysis of one of the most extraordinary of all Greek tragedies. While this play, in its many dimensions, will offer more than adequate material for classroom analysis and discussion, some attention will also be directed to its reception.

Instructor(s): G. Most Terms Offered: Winter 2013 Prerequisite(s): Greek or consent of instructor Equivalent Course(s): GREK 40112,CMLT 35903

SCTH 38250. Don Quixote. 100 Units.

The course will provide a close reading of Cervantes' Don Quixote and discuss its links with Renaissance art and Early Modern narrative genres. On the one hand, Don Quixote can be viewed in terms of prose fiction, from the ancient Greek romances to the medieval books of knights errant and the Renaissance pastoral novels. On the other hand, Don Quixote exhibits a desire for Italy through the utilization of Renaissance art. Beneath the dusty roads of La Mancha and within Don Quixote's chivalric fantasies, the careful reader will come to appreciate glimpses of images with Italian designs. Taught in English. Spanish majors will read the text in the original and use Spanish for the course assignments. The course format would be alternating lectures by the two faculty members on Mondays and Wednesdays. Fridays are devoted to discussion of the materials presented on Mondays and Wednesdays.

Instructor(s): F. de Armas, T. Pavel Terms Offered: Spring Prerequisite(s): SPAN 21703 for students seeking Spanish credit

SCTH 38816. Literature as Trial. 100 Units.

The affinities between literary and judicial practice seem as old as literature itself. Countless literary works take the form of a trial, revolve around a case or trial scene, or negotiate competing ways of seeing and talking. What is the relationship between judgment and poetic form? Can "trial" be understood as a distinct form of discourse? What role can the literary play in the legal process? Is there a privileged relationship between the trial and the dramatic genre? Can literature be a training for judgment? Are there specifically poetic forms of justice? Readings include Sophocles, Dante, Shakespeare, Kleist, Kafka, Arendt, Weiss, Derrida, Coetzee.

Instructor(s): F. Klinger Terms Offered: Autumn

Equivalent Course(s): GRMN 38815, CMLT 28815, CMLT 38815, GRMN 28815

SCTH 39126. Empire and Enlightenment. 100 Units.

The European Enlightenment was a formative period in the development of modern historiography. It was also an age in which the expansionist impulse of European monarchies came under intense philosophical scrutiny on moral, religious, cultural, and economic grounds. We chart a course through these debates by focusing in the first instance on histories of Rome by William Robertson and Edward Gibbon, as well as writing on law and historical method by Giambattista Vico. Instructor(s): Ralph Lerner and Clifford Ando Terms Offered: Winter 2013 Equivalent Course(s): CLCV 25107,CLAS 35107,HIST 30502,HIST 20502

SCTH 39127. The Political Thought of James Madison. 100 Units.

A close examination of the philosophic underpinnings of Madison's political thought.

Instructor(s): Ralph Lerner Terms Offered: Autumn

SCTH 40701. Many Ramayanas. 100 Units.

This course is a close reading of the great Hindu Epic, the story of Rama's recovery of his wife, Sita, from the demon Ravana on the island of Lanka, with special attention to the changes in the telling of the story throughout Indian history. Readings are in Paula Richman, Many Ramayanas and Questioning Ramayanas; the Ramayanas of Valmiki (in translation by Goldman, Sattar, Shastri, and R. K. Narayan), Kampan, and Tulsi; the Yogavasistha-Maharamayana; and contemporary comic books and films.

Instructor(s): W. Doniger Terms Offered: Winter

Prerequisite(s): Consent of instructor

Equivalent Course(s): HREL 42501, FNDL 22901, RLST 26801, SALC 42501

SCTH 45403. Sem: Christians, Muslims, and Jews in Medieval Spain 1. 100 Units.

Christianity, Judaism, and Islam in medieval Spain developed in interaction with and thinking about each other. This course will explore how the three religions were "coproduced"—shaping and reshaping themselves through processes of simultaneous identification and dis-identification with their rival "siblings" and neighbors. We will pay special attention to the ways in which Christian communities constituted themselves through their relation to Islam and Judaism, from roughly 1250 to the expulsion of the Jews and the conquest of Muslim Granada in 1492. The emphasis will be on primary sources, and we will draw on pictorial, architectural, archival, and literary materials. Reading knowledge of Spanish is helpful but not required. Students with a relevant language, such as Latin, Catalan, Castilian, Hebrew, or Arabic, will be encouraged to work with documents in that language.

Instructor(s): D. Nirenberg Terms Offered: Autumn

Prerequisite(s): Spanish helpful but not required. Students with reading knowledge of Latin, Catalan, Castilian, Hebrew, or Arabic will be encouraged to use them. Equivalent Course(s): HIST 81303

SCTH 45504. Sem: Christians, Muslims, and Jews in Medieval Spain 2. 100 Units.

Students write the seminar paper in the winter quarter. Terms Offered: Winter Prerequisite(s): HIST 81303 Equivalent Course(s): HIST 81304

SCTH 50400. Logic, Truth, and Pictures. 100 Units.

The course aims at the logic of pictures, but because it is controversial whether such a topic exists, or should exist at all (some arguing that pictures are alogical, others that they require a logic sui generis), the course will be less a primer in "visual logic" or "logic of artifacts" than a preliminary investigation of what sets pictures apart from and how they are like other modes of thinking. Resemblance, reference, and fiction will be recurring topics; we begin with questions about the nature and peculiarity of pictures and move on to the prospects of arguing about and through pictures, concluding with the questions of their relation to truth. We will actually look at pictures besides talking about them. We will also ask what kind of objects beside conventional two-dimensional images and sculptures might usefully be called pictures. Reading will include classics (Plato, Gombrich), as well as some of the instructor's own work in progress, based on the ideas of Gottlob Frege. Instructor(s): Andrei Pop Terms Offered: Autumn

SCTH 55001. Coll: Christian Politics in Medieval and Early Modern Europe. 100 Units.

Is there such a thing as a Christian politics, or does all politics in this world take place—as Augustine put it—under the sign of Cain? If there is a this-worldly Christian politics, what should it look like? What are its ends? Where are its borders? Who is sovereign within those borders, and what are the limits of that sovereignty? These and similar questions were asked by the earliest Christian communities and continue to be asked today. This course will focus on how they were answered in the five hundred years stretching from the Investiture Controversy and the emergence of "Christendom" in the late eleventh and twelfth centuries, continuing with the reintroduction of Aristotelian political theory in Latin Europe, and concluding with Luther and Calvin's reformation of the Christian polity in the sixteenth century.

Instructor(s): C. Fasolt Terms Offered: Autumn Equivalent Course(s): HCHR 46500, HIST 55001

SCTH 55507. Kierkegaard's The Sickness unto Death. 100 Units.

This seminar will be a close reading of Kierkegaard's classic text, written under the pseudonym of "Anti-Climacus". among the topics to be discussed are the nature and forms of despair, hopelessness and hopefulness, faith, sickness, guilt and sin. Instructor(s): Jonathan Lear Terms Offered: Autumn



DEPARTMENT OF SOCIOLOGY

Chair

- Elisabeth S. Clemens Professors
- Andrew Abbott
- Terry N. Clark
- Elisabeth S. Clemens
- Andreas Glaeser
- Karin Knorr Cetina, Anthropology
- Edward O. Laumann
- John Levi Martin
- Stephen W. Raudenbush
- Ross M. Stolzenberg
- Linda Waite
- Kazuo Yamaguchi
- Dingxin Zhao

Associate Professors

- Kathleen A. Cagney, Health Studies
- James A. Evans
- Cheol-Sung Lee
- Omar M. McRoberts
- Kristen Schilt
- Jenny Trinitapoli

Assistant Professors

- Marco Garrido
- Kimberly Hoang
- Ellis Monk
- Xi Song
- Forrest Stuart

Visiting Professor

- James Davis
- Hans Joas, Social Thought Emeritus Faculty
- Charles E. Bidwell
- William L. Parish
- Gerald D. Suttles Associated Faculty

- Ronald S. Burt, Business
- Sharon Hicks-Bartlett
- Susan E. Mayer, Public Policy
- John Padgett, Political Science
- Dan Slater, Political Science

The Department of Sociology, established in 1893 by Albion Small and Charles A. Henderson, has been centrally involved in the history and development of the discipline in the United States. The traditions of the Chicago School were built by pioneers such as W. I. Thomas, Robert E. Park, Ernest W. Burgess, and William F.Ogburn. It is a tradition based on the interaction of sociological theory with systematic observation and the analysis of empirical data; it is interdisciplinary, drawing on theory and research from other fields in the social sciences and the humanities; it is a tradition which seeks to fuse together concern with the persistent issues of social theory and attention to the pressing social and policy problems of modern society.

Continuous developments in social research have marked the department's work in recent years. The department has pursued a balance in effort between individual scholarship and the development of group research approaches. Faculty members have been engaged in the development of systematic techniques of data collection and in the statistical and mathematical analysis of social data. Field studies and participant observation have been refined and extended. There has been an increased attention to macrosociology, to historical sociology, and to comparative studies. The staff is engaged in individual and large scale group projects which permit graduate students to engage in research almost from the beginning of their graduate careers. The student develops an apprenticeship relation with faculty members in which the student assumes increasing amounts of independence as he or she matures.

Research

The study of sociology at the University of Chicago is greatly enhanced by the presence of numerous research enterprises engaged in specialized research. Students often work in these centers pursuing collection and study of data with faculty and other center researchers. Students have the opportunity for experience in the following research enterprises: the Ogburn-Stouffer Center for the Study of Social Organizations; the Population Research Center; the Committee on Demographic Training; NORC Research Centers; the Center for the Study of Gender and Sexuality; the Center for the Study of Race, Culture, and Politics; the Chicago Center for Contemporary Theory; the University of Chicago Urban Network; the Center for Health Administration Studies; the Rational Choice Program; and the Center on Demography and Economics of Aging. These provide an opportunity either for field work by which the student brings new primary data into existence or for the treatment of existing statistical and other data. The city of Chicago provides opportunities for a variety of field investigations, and the department also encourages cross national and foreign studies. The Social Sciences has a strong tradition of comparative and international research, with area studies centers focused on East Asia, South Asia, the Middle East, Latin America, and Eastern Europe and Russia. In addition, graduate students may benefit from activities at the University of Chicago centers in Paris and Beijing as well as the deep roster of language training opportunities available on campus. There are equally diverse training opportunities and infrastructure to support quantitative research including the Survey Laboratory, the training program in Demography, course offerings in Statistics and a number of professional schools as well as a growing interdisciplinary community in computational research methods.

ADMISSION

The Department of Sociology offers a program of studies leading to the Ph.D. degree. It does not have a master's degree program (students interested in a oneyear master's program should consider the Divisional Master of Arts Program in the Social Sciences or MAPSS). Students ordinarily earn a master's degree as part of the Ph.D. program upon successful completion of the first year of coursework and the preliminary examination. The department welcomes students who have done their undergraduate work in other social sciences and in fields such as mathematics, biological sciences, and the humanities. The department also encourages students who have had work experience, governmental or military service, or community and business experience to apply.

All applicants for admission are required to submit Graduate Record Examination (GRE) General Test scores. Foreign students must provide evidence of English proficiency by submitting scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS). A writing sample is required for all applications.

The application process for admission and financial aid for all Social Sciences graduate programs is administered through the divisional Office of the Dean of Students. The Application for Admission and Financial Aid, with instructions, deadlines, and department specific information is available online at https://apply-ssd.uchicago.edu/apply/.

Questions pertaining to admissions and aid should be directed to admissions@ssd.uchicago.edu or (773) 702-8415. Most materials in support of the application can be uploaded through the application. Other correspondence and materials sent in support of applications should be mailed to:

The University of Chicago Division of the Social Sciences Admission Office, Foster 107 1130 East 59th Street Chicago IL 60637

For additional information about the Sociology program, please see http:// sociology.uchicago.edu/ or call (773) 702-8677.

THE DEGREE OF DOCTOR OF PHILOSOPHY

The doctoral program is designed to be completed in five to seven years of study by a student entering with a bachelor's degree. Satisfactory completion of the first phase of the Ph.D. program also fulfills the program requirements for the M.A. degree.

COMMON CORE COURSE REQUIREMENTS

To complete the requirements for the M.A. And Ph.D. degrees, students are required to complete a set of required courses for credit in the first phase of the program. These include SOCI 30002 Principles of Sociological Research, and SOCI 30003 History of Social Theory. First-year students are required to register for SOCI 60020 1st-Year Proseminar: Research Questions and Design, a non-credit colloquium, in Autumn, Winter, and Spring. Also required beginning in 2014-15 is SOCI 30006 Second/Third Year Writing Seminar-1 and SOCI 30007 Second/Third Year Writing Seminar-2 in Winter and Spring.

METHODOLOGY AND STATISTICS REQUIREMENT

For the Ph.D. degree, also during the first year, students are required to complete for credit SOCI 30004 Statistical Methods of Research and SOCI 30005 Statistical Methods of Research-2. For students entering with a strong quantitative background, the department may approve alternative sequences.

Preliminary examination

This is an M.A. final/Ph.D. qualifying written examination designed to demonstrate competence in several major subdisciplines of sociology. The examination is based on the first-year common core courses, Sociological Inquiry 1 and History of Social Theory, and a special supplementary bibliography. The preliminary examination is normally taken at the beginning of the second year of residence. On the basis of the student's performance on this examination and in course work during the first year, the department determines whether the student is allowed to continue for the Ph.D.

The qualifying paper

This paper should represent an original piece of scholarship or theoretical analysis and must be written in a format appropriate for submission to a professional publication. Note that the requirement is "publishable," not "published." The paper is to be prepared under the direct supervision and approval of a faculty member and may be written or revised in connection with one or more regular courses. Students entering with M.A. papers may submit an appropriate revision to meet the qualifying paper requirement. Students should formulate a proposal for the paper early in their second year. The qualifying paper should be completed by the first quarter of the third year of study.

Special field examinations

Ph.D. students are required to demonstrate competence in two special fields. The Special Field Requirement is generally met during the second, third, and fourth

years of graduate study. Students must pass the Preliminary Examination at the Ph.D. level before meeting the Special Field Requirement. An examination or review essay is prepared on an individual basis in a field of sociology in which the student wishes to develop research competence. One special field is ordinarily closely related to the subject matter of the subsequent dissertation. The examination will cover both theoretical and substantive materials and the methods required for effective research in those fields. Preparation takes the form of specialized courses and seminars, supplemented by independent study and reading. The fields most commonly taken are community structure; demography; economics and work institutions; culture; educational institutions; family and socialization; formal organization; mathematical sociology; methodology; modernization; political organization; and urban sociology. One of the two Special Field requirements may be met with an approved sequence of methodology courses.

DISSERTATION

The student prepares a research plan under the guidance of a designated faculty committee. The plan is subject to review by the faculty committee organized by each student to determine whether the project is feasible and to assist in the development of research. Upon approval of the dissertation proposal (by the first quarter of the fifth year of study) and completion of the other requirements listed above, the department recommends that the Division of the Social Sciences formally admit the student to candidacy for the Ph.D. degree. When the dissertation is completed, an oral examination is held on the dissertation and the field to which it is related. The Ph.D. dissertation is judged by its contribution to sociological knowledge and the evidence it shows of ability to carry out independent research.

Teaching Opportunities

The Department of Sociology offers opportunities for campus teaching which give graduate students increasing responsibility for classroom instruction. After completing the second year of study, students may apply to the department to become course assistants with the opportunity to discuss course design, teach under supervision of a faculty member, and review student work. There are also many opportunities to teach in the social science courses included in the College Core Curriculum. Typically, students apply for positions as teaching interns in their 3rd or 4th year. Upon successful completion of an internship, graduate students are eligible for consideration as independent instructors of College level courses. Please note that many offers of admission and fellowship include a teaching requirement and that completion of a specified number of teaching appointments is a divisional requirement for the doctorate.

GRADUATE WORKSHOPS

Students in sociology are invited to participate in the program of Graduate Workshops in the Humanities and Social Sciences, a series of interdepartmental discussion groups that bring faculty and advanced graduate students together to discuss their current work. At the workshops, Chicago faculty and students or invited guests present portions of books or other projects in which they are currently engaged. Workshops in which students and faculty in the department participate include those addressed to the following topics: City, Society, and Space; Computational Social Science; Demography; East Asia: Politics, Economy, and Society; Education, Gender and Sexuality; History, Philosophy, and Sociology of Science; Money, Markets, and Consumption; Reproduction of Race and Racial Ideology; Semiotics: Culture in Context; and Social Theory and Evidence.

SOCIOLOGY COURSES

SOCI 30002. Principles of Sociological Research. 100 Units.

Explores how theoretical questions and different types of evidence inform decisions about methodological approach and research design. This course is required for first year Sociology PhD students.

Instructor(s): E. Monk Terms Offered: Winter

Prerequisite(s): Open only to 1st- and 2nd-year Sociology PhD students

SOCI 30003. History of Social Theory. 100 Units.

This course is a basic introduction to classical social theory. It considers Marx, Weber, Durkheim, and Simmel. Other authors are read as well. Instructor(s): J. Martin Terms Offered: Autumn Note(s): Open only to 1st-year Sociology PhD students

SOCI 30004. Statistical Methods of Research. 100 Units.

This course provides a comprehensive introduction to widely used quantitative methods in sociology and related social sciences. Topics include analysis of variance and multiple regression, considered as they are used by practicing social scientists. Instructor(s): S. Raudenbush Terms Offered: Winter

Note(s): Students are expected to attend two lectures and one lab per week. UG Sociology majors and Sociology PhD students only. Others by consent of instructor Equivalent Course(s): SOCI 20004

SOCI 30005. Statistical Methods of Research-2. 100 Units.

The course covers logistic regression, time series analysis, and network analysis. Instructor(s): Song, Xi Terms Offered: Spring Prerequisite(s): SOCI 30004

SOCI 30006. Second/Third Year Writing Seminar-1. 050 Units.

A required seminar that will meet over two quarters. Doctoral students in Sociology are required to take this seminar in both their second and third years. Second-year students will focus on developing a project for their Qualifying Paper. Third-year students will start from a completed Qualifying Paper and revise it for presentation at professional meetings and possible publication. Some students may move on to developing grant proposals or a first draft of a dissertation proposal. Instructor(s): J. Evans, K. Schilt Terms Offered: Winter

Prerequisite(s): Sociology PhD students only

SOCI 30007. Second/Third Year Writing Seminar-2. 050 Units.

A required seminar that will meet over two quarters. Doctoral students in Sociology are required to take this seminar in both their second and third years. Second-year students will focus on developing a project for their Qualifying Paper. Third-year students will start from a completed Qualifying Paper and revise it for presentation at professional meetings and possible publication. Some students may move on to developing grant proposals or a first draft of a dissertation proposal. Instructor(s): J. Evans, K. Schilt Terms Offered: Spring Prerequisite(s): Sociology PhD students only

SOCI 30101. Organizational Analysis. 100 Units.

This course is a systematic introduction to theoretical and empirical work on organizations broadly conceived (e.g., public and private economic organizations, governmental organizations, prisons, professional and voluntary associations, health-care organizations). Topics include intraorganizational questions about organizational goals and effectiveness, communication, authority, and decision making. Using recent developments in market, political economy, and neoinstitutional theories, we explore organizational change and interorganizational relationships for their implications in understanding social change in modern societies.

Instructor(s): E. Laumann Terms Offered: Autumn Equivalent Course(s): SOCI 20101,PBPL 23000

SOCI 30102. Social Change. 100 Units.

This course presents a general overview of causal processes of macro-institutional level social changes. It considers a variety of types of cross-national, over-time changes such as economic growth, bureaucratization, revolutions, democratization, spread of cultural and institutional norms, deindustrialization, globalization and development of welfare states. It also covers various forms of planned changes in oppositional social movements (civil rights, environmental, women's, and labor movements).

Instructor(s): C. Lee, D. Zhao Terms Offered: Autumn Equivalent Course(s): SOCI 20102

SOCI 30103. Social Stratification. 100 Units.

Social stratification is the unequal distribution of the goods that members of a society value (e.g., earnings, income, authority, political power, status, prestige). This course introduces various sociological perspectives about stratification. We look at major patterns of inequality throughout human history, how they vary across countries, how they are formed and maintained, how they come to be seen as legitimate and desirable, and how they affect the lives of individuals within a society. The readings incorporate classical theoretical statements, contemporary debates, and recent empirical evidence.

Instructor(s): R. Stolzenberg Terms Offered: Winter Equivalent Course(s): SOCI 20103

SOCI 30104. Urban Structure and Process. 100 Units.

This course reviews competing theories of urban development, especially their ability to explain the changing nature of cities under the impact of advanced industrialism. Analysis includes a consideration of emerging metropolitan regions, the microstructure of local neighborhoods, and the limitations of the past American experience as a way of developing urban policy both in this country and elsewhere. NOT Offered 2015/2016

Instructor(s): F. Stuart Terms Offered: Winter. Not Offered 2015-2016 Equivalent Course(s): CRES 20104,GEOG 22700,GEOG 32700,SOSC 25100,SOCI 20104

SOCI 30106. Political Sociology. 100 Units.

This course provides analytical perspectives on citizen preference theory, public choice, group theory, bureaucrats and state-centered theory, coalition theory, elite theories, and political culture. These competing analytical perspectives are assessed in considering middle-range theories and empirical studies on central themes of political sociology. Local, national, and cross-national analyses are explored. The course covers readings for the Sociology Ph.D Prelim exam in political sociology. Instructor(s): T. Clark Terms Offered: Spring

Prerequisite(s): Completion of the general education requirement in social sciences Equivalent Course(s): SOCI 20106,ENST 23500,PBPL 23600

SOCI 30107. Sociology of Human Sexuality. 100 Units.

After briefly reviewing several biological and psychological approaches to human sexuality as points of comparison, this course explores the sociological perspective on sexual conduct and its associated beliefs and consequences for individuals and society. Substantive topics include gender relations; life-course perspectives on sexual conduct in youth, adolescence, and adulthood; social epidemiology of sexually transmitted infections (e.g., AIDS); sexual partner choice and turnover; and the incidence/prevalence of selected sexual practices.

Instructor(s): E. Laumann Terms Offered: Spring

Prerequisite(s): Introductory social sciences course

Equivalent Course(s): SOCI 20107, GNSE 27100

SOCI 30112. Applications of Hierarchical Linear Models. 100 Units.

A number of diverse methodological problems such as correlates of change, analysis of multi-level data, and certain aspects of meta-analysis share a common feature — a hierarchical structure. The hierarchical linear model offers a promising approach to analyzing data in these situations. This course will survey the methodological literature in this area, and demonstrate how the hierarchical linear model can be applied to a range of problems.

Instructor(s): S. Raudenbush Terms Offered: Spring

Prerequisite(s): Applied statistics at a level of multiple regression Equivalent Course(s): SOCI 20112

SOCI 30116. Global-Local Politics. 100 Units.

Globalizing and local forces are generating a new politics in the United States and around the world. This course explores this new politics by mapping its emerging elements: the rise of social issues, ethno-religious and regional attachments, environmentalism, gender and life-style identity issues, new social movements, transformed political parties and organized groups, and new efforts to mobilize individual citizens.

Instructor(s): T. Clark Terms Offered: Winter Equivalent Course(s): SOCI 20116,HMRT 20116,HMRT 30116,PBPL 27900

SOCI 30118. Survey Research Overview. 100 Units.

The course provides an overview of interview-based data collection methods. Each student must develop a research question to guide their research design. Students get an overview of different interview-based data collection methods (focus groups, key-informant interviews, large-N sample surveys), how to sample and design a questionnaire or interview guide for their project, and the nuts and bolts of actual recruitment, receipt control and survey administration. The instructor provides feedback for proposed elements of each student's research plan through weekly assignments. The final paper is a research proposal that outlines a plan for research to address the student's research question.

Instructor(s): M. Van Haitsma Terms Offered: Autumn and tentativley Winter Equivalent Course(s): SOCI 20118, MAPS 30900, SOSC 20200, SOSC 30900, SSAD 53200

SOCI 30120. Urban Policy Analysis. 100 Units.

This course addresses the explanations available for varying patterns of policies that cities provide in terms of expenditures and service delivery. Topics include theoretical approaches and policy options, migration as a policy option, group theory, citizen preference theory, incrementalism, economic base influences, and an integrated model. Also examined are the New York fiscal crisis and taxpayer revolts, measuring citizen preferences, service delivery, and productivity.

Instructor(s): T. Clark Terms Offered: Autumn

Equivalent Course(s): PBPL 24800,SOCI 20120

SOCI 30122. Introduction to Population. 100 Units.

This course provides an introduction to the field of demography, which examines the growth and characteristics of human populations. It also provides an overview of our knowledge of three fundamental population processes: fertility, mortality, and migration. We cover marriage, cohabitation, marital disruption, aging, and population and environment. In each case we examine historical trends. We also discuss causes and consequences of recent trends in population growth, and the current demographic situation in developing and developed countries. Instructor(s): L. Waite Terms Offered: Spring

Equivalent Course(s): ENST 20500, GNDR 20120, GNDR 30120, SOCI 20122

SOCI 30125. Rational Foundations of Social Theory. 100 Units.

This course introduces conceptual and analytical tools for the micro foundations of macro and intermediate-level social theories, taking as a basis the assumption of rational action. Those tools are then used to construct theories of power, social exchange, collective behavior, socialization, trust, norm, social decision making and justice, business organization, and family organization.

Instructor(s): K. Yamaguchi Terms Offered: Spring Equivalent Course(s): SOCI 20125

SOCI 30126. Japanese Society: Functional/Cultural Explanations. 100 Units.

The objective of this course is to provide an overview of social structural characteristics, and the functioning of contemporary Japanese society by a juxtaposition of universalistic functional (or rational) explanations and particularistic cultural (and historical) explanations. As will become clear as complementary to each other. Substantively, the course primarily focuses on 1) the forms of social interaction and structure, 2) work organization and family, and 3) education, social inequality and opportunity. The course also presents discussions of the extent to which Japan is "unique" among industrial societies. In covering a broad range of English-language literature on Japanese Society, the course not only presents reviews and discussions of various alternative theoretical explanations of the characteristics of Japanese society, but also a profound opportunity to critically review and study selected sociological theories.

Instructor(s): K. Yamaguchi Terms Offered: Winter Equivalent Course(s): SOCI 20126

SOCI 30179. Labor Force and Employment. 100 Units.

This course introduces key concepts, methods, and sources of information for understanding the structure of work and the organization of workers in the United States and other industrialized nations. We survey social science approaches to answering key questions about work and employment, including: What is the labor force? What determines the supply of workers? How is work organized into jobs, occupations, careers, and industries? What, if anything, happened to unions? How much money do workers earn and why? What is the effect of work on health? How do workers and employers find each other? Who is unemployed? What are the employment effects of race, gender, ethnicity, and religion? Instructor(s): R. Stolzenberg Terms Offered: Winter Equivalent Course(s): SOCI 20179

SOCI 30191. Social Change in the United States. 100 Units.

This course provides students with concepts, facts, and methods for understanding the social structure of the contemporary United States, recent changes in the U.S. social structure, survey data for measuring social structure and social change in contemporary industrial societies, and data analysis methods for distinguishing different types of change. This course is taught by traditional and nontraditional methods: traditional by a combination of readings, lectures, and discussions; and nontraditional by in-class, "live" statistical analysis of the cumulative file (1972–2004) of the NORC General Social Surveys (GSS).

Instructor(s): R. Stolzenberg Terms Offered: Spring

Prerequisite(s): Two prior sociology courses or consent of instructor Equivalent Course(s): SOCI 20191

SOCI 30192. The Effects of Schooling. 100 Units.

From at least the Renaissance until some time around the middle of the twentieth century, social class was the pre-eminent, generalized determinant of life chances in European and, eventually, American societies. Social class had great effect on one's social standing; economic well-being; political power; access to knowledge; and even longevity, health, and height. In that time, there was hardly an aspect of life that was not profoundly influenced by social class. In the ensuing period, the effects of social class have receded greatly, and perhaps have even vanished. In their place formal schooling has become the great generalized influence over who gets access to the desiderata of social life, including food, shelter, political power, and medical care. So it is that schooling is sociologically interesting for reasons that go well beyond education. The purpose of this course is to review what is known about the long-term effects of schooling.

Instructor(s): R. Stolzenberg Terms Offered: Spring Equivalent Course(s): SOCI 20192

SOCI 30207. Social and Cultural Organization of Non-Human Animals. 100 Units.

In the past few decades, there has been an explosion of rigorous work in ethology regarding social organization, cultural patterns, and cognition in non-human animals. The results have fundamentally overturned previous assumptions about animals; they also challenge and inspire sociological theory to encompass formations observed in non-humans. This course builds on classic theoretical approaches (of Chicago sociology and philosophy, of evolutionary theorists) and the examines the current state of knowledge about animal social organization, communication, and culture. Although there is a fair amount on primates, we will be examining work on a number of social species from ants to whales. Students will write a paper pursuing one theme of the course (e.g., social organization, learning) in one species (e.g., Ethiopian wolf, Octopus vulgaris). Instructor(s): J. Martin Terms Offered: Winter

Equivalent Course(s): SOCI 20207

SOCI 30224. Topics in Sociology of Culture. 100 Units.

This class surveys the historical bases and current extension of core readings in the sociology of culture. These works will be investigated not only in their own terms, but their position in central issues revolving around the independence (or lack of same) of cultural production communities; the omnivore/unibrow question; the role of culture in larger (and smaller) political and social environments; the use of hierarchical as opposed to non-hierarchical models of social structure; and the location of meaning.

Instructor(s): T. Clark, J. Martin Terms Offered: Spring

SOCI 30233. Race in Contemporary American Society. 100 Units.

This survey course in the sociology of race offers a socio-historical investigation of race in American society. We will examine issues of race, ethnic and immigrant settlement in the United States. Also, we shall explore the classic and contemporary literature on race and inter-group dynamics. Our investigative tools will include an analysis of primary and secondary sources, multimedia materials, photographic images, and journaling. While our survey will be broad, we will treat Chicago and its environs as a case study to comprehend the racial, ethnic, and political challenges in the growth and development of a city.

Instructor(s): S. Hicks-Bartlett Terms Offered: Winter Equivalent Course(s): SOCI 20233

SOCI 30236. The Sociology of Development. 100 Units.

The sociology of development is primarily concerned with the developing world's transition to "modern" (impersonal) instructions. In this course, we examine the notion, nature, and consequences of this transition. Mainly, we try to understand why developing countries have such a hard time achieving it. We also draw upon case studies to revise the core categories of political sociology in light of developing world practices. Specifically, we consider the institutional "underdevelopment" of the state, social class, and citizenship in the developing world. We examine why rules governing institutions are often found to be weak, unevenly observed, and conflicted. Finally, we consider the consequences of this underdevelopment for democracy.

Instructor(s): M. Garrido Terms Offered: Spring Equivalent Course(s): SOCI 20236

SOCI 30243. Political Theory I. 100 Units.

References to transcendent absolutes as a constitutive element of political communities have a long tradition in the western world. This course surveys and analyzes classical readings both aiming to institute such a link as well as critiques and analysis of it. Readings include selections from Carl Schmitt, Emile Durkheim, the Bible, Jan Assmann, Michael Walzer, Plato, Augustine, Thomas Aquinas, Ernst Kantorowicz, Jean Bodin, Thomas Hobbes, Baruch Spinoza, Johann Gottlob Fichte, Robert Bellah, Victoria Kahn, Stanley Tambiah, and Clifford Geetz. This is a two-quarter sequence.

Instructor(s): A. Glaeser Terms Offered: Winter

Prerequisite(s): Completed social science core sequence and further work in social or political theory

Equivalent Course(s): SOCI 20243

SOCI 30244. Political Theory II. 100 Units.

References to transcendent absolutes as a constitutive element of political communities have a long tradition in the western world. This course surveys and analyzes classical readings both aiming to institute such a link as well as critiques and analysis of it. Readings include selections from Carl Schmitt, Emile Durkheim, the Bible, Jan Assmann, Michael Walzer, Plato, Augustine, Thomas Aquinas, Ernst Kantorowicz, Jean Bodin, Thomas Hobbes, Baruch Spinoza, Johann Gottlob Fichte, Robert Bellah, Victoria Kahn, Stanley Tambiah, and Clifford Geertz. This is a two Instructor(s): A. Glaeser Terms Offered: Spring

Prerequisite(s): Completed social science core sequence and further work in social or political theory

Equivalent Course(s): SOCI 20244

SOCI 30245. Global Health and Inequality. 100 Units.

This course introduces the principal health problems of the world's populations, focusing on the health situation in the developing world. This course draws upon literature from sociology, demography, economics, public health, epidemiology, and medical anthropology. At the end of the course students will have developed a working knowledge of the key health patterns, their causes, and the main obstacles to improving health indicators in the developing world. We focus on the social conditions associated with health, disease, and mortality, and on their distribution on a global scale. Beyond engaging the major theoretical debates and the empirical approaches used to address them, students are expected to identify and evaluate scientific evidence on global health issues and advance their own research in this area.

Instructor(s): J. Trinitapoli Terms Offered: Autumn Equivalent Course(s): SOCI 20245

SOCI 30301. Organizational Decision Making. 100 Units.

This course examines the process of decision making in modern, complex organizations (e.g., universities, schools, hospitals, business firms, public bureaucracies). We also consider the impact of information, power, resources, organizational structure, and the environment, as well as alternative models of choice. (B)

Instructor(s): J. Padgett Terms Offered: Winter Equivalent Course(s): PLSC 27500,PLSC 37500

SOCI 30303. Urban Landscapes as Social Text. 100 Units.

This seminar explores the meanings found in varieties of urban landscapes, both in the context of individual elements and composite structures. These meanings are examined in relation to three fundamental approaches that can be identified in the analytical literature on landscapes: normative, historical, and communicative modes of conceptualization. Emphasis is placed on analyzing the explicitly visual features of the urban landscape. Students pursue research topics of their own choosing within the general framework.

Instructor(s): M. Conzen Terms Offered: Autumn

Prerequisite(s): Advanced standing and consent of instructor.

Equivalent Course(s): GEOG 42400

SOCI 30318. Introduction to Causal Inference. 100 Units.

This course is designed for graduate students and advanced undergraduate students from the social sciences, education, public health science, public policy, social service administration, and statistics who are involved in quantitative research and are interested in studying causality. The goal of this course is to provide students a basic knowledge of causal inference. Topics for the course include the potential outcomes framework for causal inference; experimental and observational studies; identification assumptions for causal parameters; potential pitfalls of using ANCOVA to estimate a causal effect; propensity score based methods including matching, stratification, inverse-probability-of-treatment-weighting (IPTW), marginal mean weighting through stratification (MMWS), and doubly robust estimation; the instrumental variable (IV) method; regression discontinuity design (RDD) including sharp RDD and fuzzy RDD; difference in difference (DID) estimation method for cross-section and panel data, and fixed effects model.

Instructor(s): K. Yamaguchi, G. Hong and F. Yang Terms Offered: Winter

SOCI 40109. Loglinear Analysis. 100 Units.

This course covers loglinear and related methods and models, including (1) logit and multinomial logit models, ordered logit models, and nested logit models for regression analysis, (2) loglinear association models for cross-classified fequencey data, (3) latent-class models for the classification of response patterns, (4) latentclass regression models, (5) mover-stayer regression models for panel data, and (6) loglinear models for social-network data.

Instructor(s): K. Yamaguchi Terms Offered: Spring

SOCI 40112. Ethnographic Methods. 100 Units.

This course explores the epistemological and practical questions raised by ethnography as a method -- focusing on the relationships between theory and data, and between researcher and researched. Discussions are based on close readings of ethnographic texts, supplemented by occasional theoretical essays on ethnographic practices. Students also conduct original field research., share and critique each other's field notes on a weekly basis, and produce analytical papers based on their ethnographies.

Instructor(s): O. McRoberts Terms Offered: Winter Note(s): Graduate students only

SOCI 40133. Content Analysis. 100 Units.

Introduction to the analysis of textual content for social insight. Students in course will: 1) survey recent advances in natural language processing, information extraction and computational linguistics that can be leveraged to analyze textual content; 2) develop a computational toolkit that implements some of these advances; and 3) design and execute projects that analyze textual data for social inference. Specific topics include text clustering, classification, relevance ranking, and latent semantic indexing.

Instructor(s): J. Evans Terms Offered: Spring Note(s): Advanced UGs by consent

SOCI 40142. Library Methods for Social Sciences. 100 Units.

This course is a graduate introduction to the methods involved with "research with records"--that is, material like manuscripts, books, journals, newspapers, ephemera, and government and institutional documents. (Such material has been typically printed but may now be stored electronically as well as physically.) The course covers the essentials of project design, bibliography, location, access, critical reading, source evaluation and provenance, knowledge categorization and assembly, and records maintenance. The course is a methodological practicum and will involve both small-scale exercises and a larger project. Major texts include Thomas Mann's Oxford Guide to Library Research and Andrew Abbott's Digital paper. Instructor(s): A. Abbott Terms Offered: Autumn Note(s): Advanced undergrads by consent

SOCI 40156. Hermeneutic Sociology. 100 Units.

This class introduces students to the central ideas of hermeneutic social scholarship with its emphasis on analyzing the cultural and historical diversity and the dynamics of societies in terms of the ways in which people interpret the world. The issue which thus centers this class' is the historicity of interpretation as practice and its connection to actions and institutions. This course also offers a hands-on introduction to key hermeneutic analytics such as narrative, rhetoric, performance, iconology, voice, implied reader etc. Readings include selections from Vico, Herder, Dilthey, Panofsky, Wittgenstein, Burke, Goffman, Ricoeur, Derrida, Eco, Searle. Instructor(s): A. Glaeser Terms Offered: Winter

SOCI 40157. Hermeneutic Sociology II. 100 Units.

The second part of the course dedicated to developing your research projects and papers. We will schedule sessions dedicated to analyzing your data, intersperse some additional reading on the role of mass media and the organization of interpretative sociations while dedicating the tail end of the course to intense peer review of your writing.

Instructor(s): A. Gleaser Terms Offered: Spring

SOCI 40164. Involved Interviewing: Strategies for Interviewing Hard to Penetrate Communities and Populations. 100 Units.

Imagine that you must interview someone who hails from a background unlike your own; perhaps you need to interview an incarcerated youth, or gather a life history from an ill person. Maybe your task is to conduct fieldwork inside a community that challenges your comfort level. How do we get others to talk to us? How do we get out of our own way and limited training to become fully and comfortably engaged in people and the communities in which they reside? This in-depth investigation into interviewing begins with an assumption that the researcher as interviewer is an integral part of the research process. We turn a critical eye on the interviewer's role in getting others to talk and learn strategies that encourage fertile interviews regardless of the situational context. Weekly reading assignments facilitate students' exploration of what the interview literature can teach us about involved interviewing. Additionally, we critically assess our role as interviewer and what that requires from us. Students participate in evaluating interview scenarios that are designed to explore our assumptions, sharpen our interviewing skills and troubleshoot sticky situations. We investigate a diversity of settings and populations as training ground for leading effective interviews. The final project includes: 1) a plan that demonstrates knowledge of how to design an effective interviewing strategy for unique field settings; 2) instructor's feedback on students' personal journals on the role of the interviewer.

Instructor(s): S. Hicks-Bartlett Terms Offered: Autumn, Winter Prerequisite(s): Graduate students only

SOCI 40168. Welfare States, Poverty, and Inequality. 100 Units.

This course gives an overview of the political economy of social policy in advanced industrial democracies. The course explores how organized social forces, partisan politics, business interests, international pressures, and demographic changes have shaped and transformed the welfare state regimes and how such processes have affected distributional outcomes in rich democracies and developing countries. Topics include: Theories of the Welfare State, Welfare State Regime Typology, Bargaining Regimes and Welfare Regimes, Development of American Welfare State, Post-industrial Economy and Welfare States, Globalization/Financial Crisis and Welfare States, Social Movements and Welfare States, Welfare States and Poverty, Welfare States and Income Inequality, Welfare States and Gender Inequality. Instructor(s): C.S. Lee Terms Offered: Winter

Prerequisite(s): Graduate students only

SOCI 40172. Maverick Markets: Cultural Economy and Cultural Finance. 100 Units.

What are the cultural dimensions of economic and financial institutions and financial action? What social variables influence and shape 'real' markets and market activities? 'If you are so smart, why aren't you rich?' is a question economists have been asked in the past. Why isn't it easy to make money in financial areas even if one knows what economists know about markets, finance and the economy? And why, on the other hand, is it so easy to get rich for some participants? Perhaps the answer is that real markets are complex social and cultural institutions which are quite different from organizations, administrations and the production side of the economy. The course addresses these differences and core dimensions of economic sociology. This course provides an overview over social and cultural variables and patterns that play a role in economic behaviour and specifically in financial markets. We draw on the 'New Economic Sociology' which emerged in the late 70's and early 80's from the work of Harrison White, Marc Granovetter, Viviana Zelizer, Wayne Baker and others. We also draw on recent analysis of the relationship between knowledge, technology and economic and financial institutions and behaviour, and include an emerging body of literature on the financial crisis of 2008-09. The readings examine the historical and structural embeddedness of economic action and institutions, the different constructions and interpretations of money, prices and other dimensions of a market economy, and how a financial economy affects organizations, the art world and other areas. Instructor(s): K. Knorr Cetina Terms Offered: Spring

Note(s): Open to advanced undergraduates

Equivalent Course(s): ANTH 45405

SOCI 40174. Researching Gender and Sexuality. 100 Units.

This course is an introduction to qualitative methods for researching gender & sexuality as well as a research practicum for students. The course is designed to aid graduate students and advanced undergraduates in developing a solid, executable research study focused on gender and sexuality. Over the ten-week course, students read exemplary articles and books showcasing a variety of qualitative research methodologies. Additionally, they read methodology articles that highlight the benefits and limitations of various methodologies and study designs. Students are required to identify a research question at the beginning of the course. They analyze existing research on this topic, and conduct a limited amount of their own primary research on the topic. The course assignments build toward the formation of a final project: a research proposal complete with a literature review, methods section, preliminary data section, and a research hypotheses section. At the end of the course, students will not only have a deeper understanding of methodological approaches to gender and sexuality research, but also will have gained experience in collecting data and designing a viable research proposal.

Instructor(s): K. Schilt Terms Offered: Autumn

Prerequisite(s): Consent of instructor

Equivalent Course(s): GNDR 40170

SOCI 40177. Coding and Analyzing Qualitative Data: Using Open-Source Computer. 100 Units.

This is a graduate-level course in coding and analyzing qualitative data (e.g., interview transcripts, oral histories, focus groups, letters, and diaries, etc). In this hands-on-course students learn how to organize and manage text-based data in preparation for analysis and final report writing of small scale research projects. Students use their own laptop computers to access one of two free, open-source software programs available for Windows, Mac, and Linux operating systems. While students with extant interview data can use it for this course, those without existing data will be provided text to code and analyze. This course does not cover commercial CAQDAS, such as AtlasTi, NVivo, The Ethnograph or Hypertext. Instructor(s): S. Hicks-Bartlett Terms Offered: Autumn,Spring Prerequisite(s): Graduate students only

SOCI 40187. Contemporary Social Theory. 100 Units.

This course is about how contemporary theorists and those interested in a theoretical sociology, anthropology or related fields think about societies, how they rearranges themselves, and how social and cultural forms and relations can be analyzed. It addresses connections that transcend national borders and connections that require us to dig deeper than the person and look at the brain. We address different theoretical traditions, including those attempting a diagnosis of our times, and mechanism theories. The overall focus is on defining and agenda setting paradigms in the second half of the 20th century and some new 21st century theorizing.

Instructor(s): K. Knorr Cetina Terms Offered: Spring

SOCI 40188. Advanced Methods in Survey Research. 100 Units.

This course focuses on the fundamentals of social survey design and implementation. The course begins with theory underlying instrument construction, then addresses internal and external validity, measurement validity, questionnaire construction, scaling and scoring, sampling methodology, and survey implementation. Throughout the course students learn about current data collection efforts at the University of Chicago.

Instructor(s): K. Cagney Terms Offered: Spring

SOCI 40192. Seminar: The Family. 100 Units.

This seminar will focus on classic and current readings on the family, including the family as an institution, changes in family structure and function, new family forms, cohabitation, marriage, union dissolution, fertility, sexuality, working families, intergenerational relations, and family policy. We will discuss the readings for the week, with a focus on evaluating both the research and the ideas. Students will develop a research project on the family and prepare a paper outlining the project, providing a theoretical framework, background, hypotheses and approach. This might serve as the basis for a qualifying paper.

Instructor(s): L. Waite Terms Offered: Autumn

Prerequisite(s): Advanced Undergrads Consent of Instructor

SOCI 40194. The Emergence of Organizations and Markets. 100 Units.

This course will focus on the emergence of alternative forms of organization control (e.g., centralized bureaucracy, multiple hierarchies, elite networks, and clientage) in different social structural contexts (e.g., the interaction of kinship, class, nation states, markets and heterodox mobilization). Themes will be illustrated in numerous cross-cultural contexts. (C)

Instructor(s): J. Padgett Terms Offered: Autumn Equivalent Course(s): PLSC 46411

SOCI 40196. Cultural Evolution. 100 Units.

This course explores the nature of process of cultural evolution. After establishing a background on the characteristics of biological evolution, we consider topics in cultural evolution that explore similarities and differences between processes of biological and cultural evolution, and theoretical and conceptual innovations necessary to deal with the latter, using a variety of approaches and methodologies, including agent-based modeling, "big data" approaches, and case studies. These will include topics like: the nature of inheritance, the limits of 'memes', the role of cognitive development, the coevolution of cognition and lithic technology, the scaffolding and evolution of social support, institutions, organizations and firms, the structure of scientific communities, entrenchment and the emergence of conventions and standards, the role of technology, horizontal vs. vertical transmission, multichannel inheritance, economic markets, the nature of innovation, and the role of history.

Instructor(s): J. Evans, W. Wimsatt Terms Offered: Autumn Equivalent Course(s): PHIL 52805

SOCI 40197. Issues and Topics in Studying Religions in Modern China. 100 Units. In this seminar, we will explore some of the theoretical and methodological issues that have emerged in recent years in studying religions in modern china, which also inform the challenges and opportunities in the sociological studies of religions in general. They will include but will not be limited to: the modern metamorphosis of traditional religious ecology; religions' relationship with the state and market, securlarization and religious resurgence; the applicability of Rational Choice theory of Religion in the Chinese context, measuring religiosities of non-Abrahamic religions; as well as the transnational dimension of religious development. Instructor(s): X. Sun Terms Offered: Autumn

SOCI 40198. Economy and Ethnography. 100 Units.

This seminar is a practicum in theoretically grounded and critically reflexive qualitative methods of research. The first objective of this course is to provide an overview of the key issues in the epistemology, practice, ethnics and the politics of participant observations of the state and economy. We will read ethnographic fieldwork and interview based research projects involved a variety of different strategies and approaches to "studying-up". We will cover various traditions and modalities of qualitative research. Students will evaluate their goals, epistemological questions, field techniques, relational dynamics with research subjects, analytical strategies, representational devices, and ethical quandaries. Practically, this class will provide the tools for the study of economic environments in global cities, urban environments and rural areas; large organizations and small micro-enterprises; as well as informal economies and hidden markets. Instructor(s): K. Hoang Terms Offered: Autumn

SOCI 40199. Applied Regression. 100 Units.

Instructor(s): J. Trinitapoli Terms Offered: Winter Prerequisite(s): Should take SOCI 30004 and SOCI 30005 or equivalent

SOCI 40201. Race and Immigration in the U.S. 100 Units.

The dominant paradigm of American race relations has changed dramatically in the last two decades, as the prevailing White-Black binary is challenged by mass migration from Asia and Latin America. This course will examine the utility of classical assimilation frameworks for understanding the experiences and trajectories of Latino and Asian immigrants and their children. It will introduce students to competing debates about the future direction of the U.S. ethno-racial hierarchy, addressing questions such as: How do the experiences of previous European immigrants differ from those of contemporary non-white immigrants? Are changing demographics leading to the emergence of a black/non-black divide, a tri-racial order, or something else although? And what are the consequences for race and ethnic relations and new forms of social inequities? Instructor(s): S. Zamora Terms Offered: Autumn

SOCI 40203. Sociology of Religion. 100 Units.

What is religion? How can religion be studied sociologically? How and why has religion's significance changed throughout the modern era? How do we account for the growth and decline of religious groups? The religious beliefs, commitments, and practices of individuals? The interplay between religion and other macro-level institutions? These are some of the core questions underpinning the sociology of religion. The course is designed to cultivate in students an understanding of the distinctively sociological approach to studying religion, and familiarize students with the important theoretical approaches as well as major findings, problems and issues in the field. Readings on theoretical perspectives will range from classic sociological theories to the most recent developments. Readings on research issues will cover a diverse range of substantive topics.

Instructor(s): J. Trinitapoli Terms Offered: Winter

SOCI 40204. Categorical Data Analysis. 100 Units.

This course introduces students to statistical methods for analyzing categorical data, with an emphasis on practical applications in research on social stratification and mobility rather than statistical theories. We will discuss models for binary, ordinal, nominal, and event occurrence outcomes, as well as models for censored and count outcomes. The course assumes a good working knowledge of mathematical statistics, linear algebra, and linear regression models for continuous variables. Instructor(s): X. Song Terms Offered: Spring

Prerequisite(s): Taking SOCI 30004 and 30005 strongly recommended. Advanced Undergrads consent of Instructor

SOCI 40205. Transnational Regulation. 100 Units.

There has been an explosion of research in regulation in recent years. In particular, a tremendous amount of work has been done on transnational governance and the public-private regulation of environmental, labor, and health and safety conditions in global industries and markets. This course will survey the main trends in new "post command control/post principle-agent-based" regulation research (including new public administration, meta-regulation, private regulation, experimentalism). The first part of the course will focus on theory and approaches, the second on cases: environment, fair trade, labor standards, agricultural quality, industrial health and safety. (C)

Instructor(s): G. Herrigel Terms Offered: Winter Equivalent Course(s): PLSC 47601

SOCI 40206. Dewey and Hayek on Markets and Democracy. 100 Units.

Dewey and Hayek are an interesting pairing in the context of discussions of neoliberalism. Both share a commitment to the open ended development of both individuality and society, both emphasize bottom up pressures for change, and both are committed to fundamentally processual and non-aggregative conceptions of sociability and social explanation. Yet, the two argue in diametrically opposing ways regarding how such processes should be governed. For Hayek, the market was the "natural" terrain for these sorts of processes to most fruitfully expand, while public deliberation and democracy were viewed as threats to processes of open social unfolding--and even to freedom. Dewey argued in precisely the opposite direction, championing democracy as the optimal open-ended and self revising terrain for development. This course will examine the similarities and differences between the two thinkers on markets, economic and social action and democracy. An effort will be made to consider the views of both thinkers in light of contemporary critiques and defenses of neoliberalism. (A)

Instructor(s): G. Herrigel Terms Offered: Spring Equivalent Course(s): PLSC 47602

SOCI 50091. Seminar: Social and Political Movements` 100 Units.

This course examines the major sociological theories of social movement and revolution and discusses the sociopolitical and disciplinary contexts under which these theories originated. Along with the theoretical discussion, this course also requires the students to develop a research project of their own and write a paper for the class. By the end of this class, students will acquire basic skills to raise interesting research questions and develop coherent arguments of their own. Instructor(s): D. Zhao Terms Offered: Spring

SOCI 50092. Sem: Religion and Politics. 100 Units.

In this seminar we will consider meanings of religion and politics, and examine their interactions from a comparative perspective. After digesting alternative theoretical understandings of the relationship between religion, states, and political processes, we will turn to empirical accounts that illuminate historical and local issues at points around the globe. Among other phenomena, students will explore patterns of secularization, religious nationalism, fundamentalisms, and policy-oriented religious social movements.

Instructor(s): O. McRoberts Terms Offered: Winter

SOCI 50094. Sem: Populism and Political Belief. 100 Units.

We will begin by examining populism mainly as it has manifested in Latin America. This focus is primarily a means to pursue the question of political belief, namely, how do we explain the powerful appeal of certain politicians? (A timely question, to be sure!) We will consider several, mainly sociological approaches to political belief: charisma (Weber), ideology (Marx), hegemony (Gramsci and Laclau), communal belief as authorizing individual power (Durkheim via Mauss and Levi-Strauss), symbolic power as the power to compel belief (Bourdieu), belief as performance (Goffman), and finally, belief as the recognition of moral categories (Lakoff). Students will be asked to write an original research paper explaining the popularity of a political figure of their choosing in terms of one or more of these approaches. A significant portion of class time will be devoted to developing, collectively, the ideas behind these papers. In this respect, the seminar will be run, some of the time, as a workshop.

Instructor(s): M. Garrido Terms Offered: Autumn

SOCI 50095. Sem: Race and Ethnicity in Comparative Perspective. 100 Units.

In this seminar we examine "race and ethnicity" in global, comparative perspective. We focus here not on particular "ethnic" or "racial" groups, but rather, on particular cases which illustrate how "race" is used as a way in which to divide, sort, and rank human beings (i.e. a principle of social vision and division). We begin by critically examining key conceptual and epistemological issues in the study of ethnoracial categorization and inequality. Next, utilizing a variety of analytic tools, we compare and contrast how different societies have constructed ethnoracial boundaries and the various social mechanisms leading to ethnoracial inequality. We conclude by considering the possible future(s) of the U.S. racial order by discussing ethnoracial attitudes, multiraciality, immigration, and 'Latin Americanization.' Readings include sociological, historical, and anthropological studies of ethnoracial dynamics primarily in the U.S. and Brazil, but also South Africa, Asia, Western Europe, and Latin America more broadly.

Instructor(s): E. Monk Terms Offered: Autumn

SOCI 50096. Network Analysis. 100 Units.

This seminar explores the sociological utility of the network as a unit of analysis. How do the patterns of social ties in which individuals are embedded differentially affect their ability to cope with crises, their decisions to move or change jobs, their eagerness to adopt new attitudes and behaviors? The seminar group will consider (a) how the network differs from other units of analysis, (b) structural properties of networks, consequences of flows (or content) in network ties, and (c) dynamics of those ties. (E)

Instructor(s): J. Padgett Terms Offered: Winter Equivalent Course(s): PLSC 57200

SOCI 50097. Sem: Normative Thinking in Sociology. 100 Units.

This course will examine the nature of normative reasoning in social science, both in the empirical sense of how normative work has been done in social science(both implicitly and explicitly), and in the normative sense of how (and when) it ought to be done. Topics considered will be inequality, power, domination, law, and similar matters. Most weeks will consider single works in detail, reading them for their implicit and explicit normative theories. Texts might include explicitly normative works like Rawls's Theory of Justice as well as implicitly normative works like empirical studies of inequality. We will also consider formal examinations of this problem like Weber's "Science ans a Vocation". First preference to Sociology graduate students.

Instructor(s): A. Abbott Terms Offered: Winter

Prerequisite(s): Must have taken a course in Sociological Theory

SOCI 50098. Methods of Comparative Historical Analysis. 100 Units.

This graduate seminar critically considers the theoretical impact and methodological rigor of Comparative Historical Analysis (CHA) in political science and sociology. Studies in this tradition employ a variety of research approaches, address a wide array of topics, and explore every imaginable region of the world. Yet its practitioners are "united by a commitment to offering historically grounded explanations of large-scale and substantively important outcomes." In the seminar's opening week, we situate CHA in wider methodological and disciplinary contexts, and consider whether and how historically specific arguments might advance the quest for causal generalization in the social sciences. In most subsequent weeks, we pair up readings on specific methodological themes and dilemmas with substantive CHA works on what we might broadly term "political development." (E) Instructor(s): D. Slater Terms Offered: Winter Equivalent Course(s): PLSC 43701

SOCI 50099. Readings in Comparative Historical Analysis. 100 Units.

This graduate seminar builds directly upon Methods of Comparative Historical Analysis (POLSC 43701), which is highly recommended as a precursor but is not a prerequisite. Each week will be dedicated to a deep reading of a single major book in the expansive Comparative Historical Analysis canon, either classic or recent. Although the specific works will vary from year to year, they will always center on the primary topics that have long defined CHA as a mode of scholarly inquiry in both political science and sociology: e.g. state formation and strength, authoritarianism and democratization, nation-building and identity politics, social movements and conflicts, and economic development and reforms. (C) Instructor(s): D. Slater Terms Offered: Spring Equivalent Course(s): PLSC 43715

SOCI 60020. 1st-Year Proseminar: Research Questions and Design. 000 Units.

A required, non-credit colloquium for first-year doctoral students in Sociology. The Colloquium addresses how to generate research questions and design projects through the current work of department faculty.

Instructor(s): Staff Terms Offered: Autumn, Winter

Prerequisite(s): 1st-year Sociology PhD students only



THE WILLIAM B. AND CATHERINE V. GRAHAM SCHOOL OF Continuing Liberal and Professional Studies

The Graham School of Continuing Liberal and Professional Studies extends the University's academic values to a broad local, national, and international (https://grahamschool.uchicago.edu/international) community of adult learners. Throughout our history we have provided innovative, strategic learning solutions to individuals as well as to private, not-for-profit, and public sector organizations in the liberal arts, business, and professions.

We offer numerous credit and noncredit learning opportunities — from traditional disciplines such as literature and philosophy, to business-oriented courses, to four master's degrees. To fit the schedule of working adults, most courses are located at the University of Chicago Gleacher Center (https://grahamschool.uchicago.edu/maps) in downtown Chicago and in the evenings and on weekends. We do offer courses at other times, in Hyde Park (https://grahamschool.uchicago.edu/maps), and online (https://grahamschool.uchicago.edu/online).

For the most up-to-date information on our programs, please visit our website: grahamschool.uchicago.edu.

CONTACT US (HTTPS:// GRAHAMSCHOOL.UCHICAGO.EDU/CONTACT)

The University of Chicago Graham School 1427 E. 60th St., Second Floor Chicago, IL 60637 (773) 702-1722

The University of Chicago Gleacher Center 450 N. Cityfront Plaza Dr. Chicago, IL 60611 (312) 464-8655

grahamschool@uchicago.edu

Credit Programs

The Graduate Student-at-Large and Returning Scholar Program

The Graduate Student-at-Large and Returning Scholar programs enable eligible students to take graduate and undergraduate courses throughout the University of Chicago without being enrolled in a degree program. Graduate Students-at-Large take regular University of Chicago courses for grades and credit, allowing students to preview graduate school, define academic focus, and build a transferable record of study. Returning Scholars audit courses, earning neither grades nor credit. The Returning Scholar program is ideal for continued personal and professional development, and skill-based study, e.g. languages.

- program type: graduate-level non-degree program
- courses (https://grahamschool.uchicago.edu/credit/graduate-student-at-large/ registration)
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/credit/graduate-student-at-large/index)
- location: Hyde Park Campus (http://visit.uchicago.edu/transportation.shtml/ #maps)
- courses taken: part-time, full-time / weekdays

GRADUATE STUDENT-AT-LARGE/RETURNING SCHOLAR BUSINESS

Graduate Business Students-at-Large Business enables eligible students to take courses in the Chicago Booth School of Business. Students take Booth courses for grades and credit. It is a unique opportunity to experience Chicago Booth faculty and students, build your network, create a transferable record of study, enhance your application to Booth or other MBA programs.

Students are encouraged to attend Chicago Booth admissions events and to contact Booth admissions staff for information about applying to the Evening, Weekend and Full-Time MBA programs.

- program type: graduate-level non-degree programs
- courses (https://grahamschool.uchicago.edu/credit/graduate-student-at-large/ business/registration)
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/credit/graduate-student-at-large/business)
- location: Hyde Park Campus (http://visit.uchicago.edu/transportation.shtml/ #maps) and Gleacher Center (https://grahamschool.uchicago.edu/maps)
- courses taken: part-time, full-time / weekday evenings and Saturday mornings

MASTER OF LIBERAL ARTS

The Master of Liberal Arts program offers courses in the humanities, social sciences, and natural sciences. This program is for adults who wish to explore and be challenged by new ideas and revisit existing ones through new perspectives. Courses are taught by University of Chicago faculty drawn from divisions across the University. This is a graduate program mainly for those seeking self-enrichment, but the program also serves as context for further graduate studies and career advancement.

- program type: masters degree program
- courses (https://grahamschool.uchicago.edu/credit/master-liberal-arts/currentcourses)

- program structure, requirements, and application (https:// grahamschool.uchicago.edu/credit/master-liberal-arts/index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps)
- part-time, full-time / weekday evenings and Saturday mornings
- time to completion: 1-5 years

MASTER OF SCIENCE IN ANALYTICS

The Master of Science in Analytics will give students thorough knowledge of techniques in the field of analytics, and the ability to apply them to real-world business scenarios. Building from a core in applied statistics, students will be provided with advanced analytical training to develop their ability to draw insights from big data, including: data collection, preparation and integration; statistical methods and modeling; and other sophisticated techniques for analyzing complex data. The program is highly applied in nature, integrating business strategy, project-based learning, simulations, case studies, and specific electives addressing the analytical needs of various industry sectors. Through partnerships with key employers, the program also provides students with applied projects and data sets as well as access to career networks and employment pathways upon graduation.

- program type: masters degree program
- program structure, courses, requirements, and application (https://grahamschool.uchicago.edu/credit/master-science-analytics/index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps)
- part-time / weekday evenings and Saturday mornings
- time to completion: 1.5-4 years

Master of Science in Threat and Response Management

The Master of Science in Threat and Response Management is a multidisciplinary program of study designed to prepare public health professionals, law enforcement officials, fire and emergency personnel, medical and nursing professionals, policy makers, and those in related fields to respond to and recover from complex incidents regardless of their size or cause. These incidents can include: terrorist attacks; biological, chemical, radiological and nuclear threats; natural disasters; disease outbreaks, and more. As a student in the program, you will gain knowledge about these areas from instructors who have tactical experience in incident command, net work and share lessons with colleagues, policy makers, and other officials.

- program type: masters degree program
- courses
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/credit/master-science-threat-response-management/ index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps)

- part-time / executive format-classes meet for three extended weekends each quarter: Autumn, Winter, Spring
- time to completion: 2 years

MASTER OF ARTS IN TEACHING

The University of Chicago's Urban Teacher Education program (UChicago UTEP) offers a Master of Arts in Teaching degree and an Illinois Teaching Certificate in grades K-9, with endorsements available in all middle school subjects. UChicago UTEP has many features that distinguish it from traditional teacher education programs. Its rigorous curriculum and in-depth clinical experiences not only equips students with the knowledge, skills and ability to teach, but also prepares them to become successful and reflective teachers who are attuned to the social, cultural and economic circumstances of their students. Over eight quarters, students receive instruction which includes exploring aspects of the teaching profession that contribute to social injustice. Through guided field visits to Chicago Public Schools, UChicago UTEP students learn how to observe students, collect data about schools, and reflect and document their experiences. Students continue to develop their teaching practice through one-on-one paid tutoring sessions at the University's charter schools. The clinical experience of the program affords students two 18-week classroom rotations where they are paired with experienced teachers to further develop a teaching practice. Alumni receive support with job placement, in-classroom coaching, planning and professional development for two years, free of charge.

- program type: masters degree program
- program structure, requirements, and application (http://utep.uchicago.edu)
- location: Hyde Park Campus (http://utep.uchicago.edu/page/visit) and Chicago
 Public Schools
- part-time during the first year and full-time after / weekdays
- time to completion: 2 years

Noncredit

Arabic Language and Cultures

Students in the Arabic Language and Cultures program will learn how to communicate practical, everyday information in Arabic. Students will not only develop Arabic language skills in listening, speaking, reading, and writing, but also gain an understanding of the culture and history of the Arabic world. The certificate program is divided into three levels: beginning, continuing, and spoken colloquial Arabic. A certificate is awarded upon completion of each level.

- program type: certificate
- courses (https://grahamschool.uchicago.edu/courses? sku=&field_quarter_value=All&field_course_description_value=&field_last_name_inst_value
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/arabic/index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps)

- part-time / Saturdays (summer courses take place on weekday evenings)
- time to completion: 1-5 years

BASIC PROGRAM OF LIBERAL EDUCATION FOR ADULTS

In an era of blogs and sound bites, the University of Chicago is committed to the notion that there is no substitute for reading and discussing important texts. The Basic Program brings liberal arts at the University of Chicago to adult students. What is "basic" about the Basic Program? The program is modeled on the Common Core, the backbone of an undergraduate education at the University of Chicago. Why study the liberal arts through the Basic Program? There are no tests, papers, or grades and it engages its students in precise thinking and civil discourse.

- program type: certificate
- courses (https://grahamschool.uchicago.edu/courses? sku=&field_quarter_value=All&field_year_value[value] [year]=&field_program_tags_tid=7&field_course_tags_tid=All&field_professional_developmed
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/basic-program/index)
- location: Hyde Park Campus (http://visit.uchicago.edu/transportation.shtml/ #maps) and Gleacher Center (https://grahamschool.uchicago.edu/maps)
- part-time / weekday mornings and evenings at Gleacher; Saturday mornings in Hyde Park
- time to completion: 4 years

CLINICAL TRIALS MANAGEMENT AND REGULATORY COMPLIANCE

This certificate program provides comprehensive training across the entire clinical trials process from the perspective of the clinical study site as well as that of the sponsor or monitor. The program's curriculum covers good clinical practices, regulatory requirements and compliance, detecting fraud and misconduct, and statistics for clinical research. Certificate recipients will have the skills and knowledge to initiate clinical research studies, apply monitoring methods, and write documents and reports, while understanding and abiding by regulations.

- program type: certificate
- courses and course schedules (https://grahamschool.uchicago.edu/courses? sku=&field_quarter_value=All&field_program_tags_tid=10&field_course_tags_tid=All&field_
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/clinical-trials-management/ index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps). Program also offered online.
- part-time
- time to completion: 2.5 years

Editing

The Editing Certificate is a focused sequence of courses designed to prepare individuals for employment in today's publishing industry. In addition to core courses focused on manuscript editing, students can take electives and learn about the emerging technologies and marketing tools that dramatically affect publishing professionals today.

- program type: certificate
- courses and course schedules (https://grahamschool.uchicago.edu/ courses?sku=&field_quarter_value=All&field_year_value[value]
 [year]=&field_program_tags_tid=11&field_course_tags_tid=All&field_professional_developm
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/editing/index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps). Portions of the program are also offered online.
- part-time
- time to completion: up to 2 years

FINANCIAL DECISION MAKING

Accounting and business finance courses in the Financial Decision Making Certificate Program will start or refresh your career in finance or prepare you for top-ranked MBA programs. Classes meet in downtown Chicago. Two rigorous required courses in financial accounting and corporate finance will lay a foundation for any successful career involving business finance. You will get to choose two elective courses (or more, if you wish) from a varying list of offerings in economics, managerial analysis (also called managerial accounting), corporate budgeting, securities and investments, and other topics.

- program type: certificate
- courses and course schedules (https://grahamschool.uchicago.edu/ courses?sku=&field_quarter_value=All&field_year_value[value]
 [year]=&field_program_tags_tid=12&field_course_tags_tid=All&field_professional_developm
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/financial-decision-making/ index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps)
- part-time
- time to completion: up to 1.5 years

INTEGRATED MARKETING

Marketing, advertising, media, and public relations courses in the Integrated Marketing Certificate Program will start your marketing career or refresh it with new thinking. Classes meet in downtown Chicago. Students take six courses.Three required courses build a solid, up-to-date foundation: Successful Marketing: Basics to New Directions, Branding for Competitive Advantage, and Managing Integrated Marketing Communications. Choose three elective courses from offerings in marketing research, advertising, digital and traditional media, public relations, and more.

- program type: certificate
- courses and course schedules (https://grahamschool.uchicago.edu/ courses?sku=&field_quarter_value=All&field_year_value[value]
 [year]=&field_program_tags_tid=13&field_course_tags_tid=All&field_professional_developm
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/integrated-marketing/index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps)
- part-time / weekday evenings and, for each course, a Saturday is required
- time to completion: 1.5 years

MEDICAL WRITING AND EDITING

The Graham School's Certificate in Medical Writing and Editing is designed to teach students the fundamentals and best practices of crisp, clear, and sophisticated medical writing and editing. The certificate offers a mix of courses focused on writing and editing taught by experienced, expert instructors working in the medical publishing field.

- program type: certificate
- courses and course schedules (https://grahamschool.uchicago.edu/courses? sku=&field_quarter_value=All&field_program_tags_tid=15&field_course_tags_tid=All&field_
- program structure, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/medical-writing-editing/index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps)
- part-time
- time to completion: up to 2 years

Non-Profit Board Leadership

Develop the knowledge you need to become a successful board member of a small southside arts organization. The training you receive will enable you to make a positive impact while building your professional skills and civic responsibility. The Civic Knowledge Project's (https://grahamschool.uchicago.edu/noncredit/personal-enrichment/civic-knowledge/index) Southside Arts & Humanities Network (The Network) offers a Non-Profit Board Leadership program designed to leverage the University resources to provide participating South Side cultural organizations with talent for their boards. The Board Leadership program is unique in two ways: First, it aims to serve small and emerging arts and humanities organizations with annual budgets of less than \$500,000. These organizations often have "working boards" that require dedication. Second, this program is "by the Southside, for the Southside" — with an emphasis on connecting the intellectual resources of the University of Chicago community with the cultural resources of local non-profits. The program will train participants and match their skills and interests with one of 10 selected small South Side cultural institutions.

- program type: certificate
- program structure, courses, requirements, and application (https:// grahamschool.uchicago.edu/noncredit/certificates/board-leadership/index)

- location: Hyde Park Campus and Gleacher Center (https:// grahamschool.uchicago.edu/contact)
- part-time
- time to completion: .25 years

PROJECT MANAGEMENT PROGRAMS

Our Projet Management programs provide the tools necessary to respond to the challenges associated with increasing project complexity, tight budgets, and tighter deadlines. Students have the opportunity to learn from their peers in this highly interactive environment as well as address topics most critical to their success.

- program type: certificate
- program structure, courses, schedules, requirements, and application (https://grahamschool.uchicago.edu/noncredit/certificates/project-management/index)
- location: Gleacher Center (https://grahamschool.uchicago.edu/maps) and online
- part-time
- time to completion: 2.5 years

PROJECT MANAGEMENT STRATEGY

This certificate program is for those wishing to expand upon their practical experience in the field:

- A well-rounded intermediate program for experienced professionals with at least 3-5 years of business professional experience.
- All participants earn PDUs from the Project Management Institute.
- Broad menu of elective choices introduces you to terms and concepts as well as the strategic, leadership, human resources and operational requirements to be a successful project manager.
- Anyone with at least 3-5 years of business experience is invited to register for just one course before applying to the program.

Advanced Project Management

This program lets you take advantage of your experience while earning continuing education credits (PDUs) in a meaningful way. Benefits include:

- Interaction with peers in advanced courses sharing similar levels of experiences.
- In-depth study of topics directly pertinent to organizational success.
- All participants earn PDUs from the Project Management Institute.
- Meet continuing educational requirements with courses that will hold your interest while expanding your knowledge base.
- Freedom to choose the courses that are the most important to you professionally.
- Students must have 7-10 years of progressive project management experience, and may take courses without enrolling in the program.

VISUAL ARTS

The Visual Arts Certificate Program offers you the opportunity to build upon your studio practice while at the same time providing practical courses designed to enhance your career across many dimensions. Offered in partnership with the Hyde Park Art Center, the program is designed to help you further your art practice, while developing strengths in critiquing, teaching, presenting, and writing about art. Curating exhibitions, negotiating contracts, conducting studio visits and writing press releases are just some of the professional practices that artists can master, yet instruction in these skills is largely absent from BFA and MFA curricula. The program aims to fill the experiential gap that exists in traditional programs.

- program type: certificate
- courses and course schedules (https://grahamschool.uchicago.edu/ courses?sku=&field_quarter_value=All&field_year_value[value]
 [year]=&field_program_tags_tid=41&field_course_tags_tid=All&field_professional_developm
- program structure, location of courses, requirements, and application (https://grahamschool.uchicago.edu/noncredit/certificates/visual-arts/index)
- part-time
- time to completion: up to 3 years

The Writer's Studio

Whether you are just starting out or looking to push your writing to the next level, join our students who have had work published, won honors and awards, and become the writers they wanted to be. The Writer's Studio offers these benefits for our students: personalized instruction from high-quality instructors, inspiring interaction with other serious writers, learning opportunities uniquely designed for adult students, and convenient downtown location.

- program type: open enrollment
- <u>courses and course schedules</u>
- program structure, requirements, and application
- location: Gleacher Center
- part-time
- time to completion: 2 years

Additional Graham School Noncredit Programs

Personal Enrichment

Civic Knowledge (https://grahamschool.uchicago.edu/noncredit/personalenrichment/civic-knowledge/index)

Know Your Chicago (https://grahamschool.uchicago.edu/noncredit/ personal-enrichment/know-your-chicago/index)

Lecture Series (https://grahamschool.uchicago.edu/noncredit/personalenrichment/lecture-series/index)

Open Enrollment Courses (https://grahamschool.uchicago.edu/courses? sku=&field_quarter_value=All&field_program_tags_tid=All&field_course_tags_tid=81 Travel Study (https://grahamschool.uchicago.edu/noncredit/personalenrichment/travel-study/index)

Professional Development

Corporate and Custom Training (https://grahamschool.uchicago.edu/ noncredit/professional-development/corporate-custom-training/index) National Museum Publishing Seminar (https://grahamschool.uchicago.edu/ noncredit/professional-development/national-museum-publishing/index)

SUMMER

The University of Chicago offers numerous summer learning opportunities for students of all ages through the Graham School.

High school students can live and work as undergraduates at the University, studying subjects such as law, writing, economics, and cutting-edge biological research, or even study abroad in Greece or participate in a paleontological dig. Visiting students from other colleges and universities can also study on-campus during the summer, taking advantage of the University's intensive language courses and other regular undergraduate course offerings. For adult students, the School offers noncredit courses, lectures, and events downtown. No matter what your interests are or where you wish your goals to take you, we are certain you can find myriad possibilities to enrich your summer at the Graham School. THE UNIVERSITY OF CHICAGO SUMMER SESSION PROGRAMS (HTTPS://SUMMER.UCHICAGO.EDU) BASIC PROGRAM SUMMER COURSES LIBERAL ARTS SUMMER COURSES PROFESSIONAL DEVELOPMENT SUMMER COURSES WRITER'S STUDIO SUMMER COURSES

Online

The Graham School currently offers two of its programs in full in an online format: the Clinical Trials and Regulatory Compliance Certificate Program, and the Medical Writing and Editing Certificate Program.

We are continually working to expand our online learning opportunities. If you would like to speak with a staff member about specialized group online training, please contact us at grahamschool@uchicago.edu.



THE UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS

Founded in 1898, the University of Chicago Booth School of Business (http:// www.chicagobooth.edu) is the second-oldest business school in the United States and one of the most distinguished. The school's programs consistently rank highly in surveys, and the school has a strong reputation for innovation in both research and teaching. For example, Chicago Booth faculty (http://www.chicagobooth.edu/ faculty/directory) have made significant contributions in the areas of finance, the economics of regulation, and decision making. For more than a century, Chicago Booth has been known as an innovator in business education and a creator of ideas.

In autumn 2004 Chicago Booth opened its Hyde Park Center. Named the Charles M. Harper Center in 2007, this facility brought together all of Chicago Booth's previously existing Hyde Park campus buildings into one 415,000-square-foot space. Located at 5807 South Woodlawn Avenue, Harper Center was designed around how teachers want to teach and how students want to learn. With the opening of Harper Center, Chicago Booth could lay claim to the best business school facilities in the world. Chicago Booth is the only business school with permanent campuses on three continents. Built in 1994, Gleacher Center, off Michigan Avenue in downtown Chicago, provides state-of-the-art executive education and conference facilities and is home to the school's part-time MBA programs. In London, Woolgate Exchange is the home of the school's Executive MBA Program Europe. In Hong Kong, the Cyberport, located in a bustling metropolis with excellent communications and transportation, is the location for the Executive MBA Program Asia.

The University of Chicago Booth School of Business offers six programs of study leading to a degree: four leading to an MBA (the Full-Time MBA Program, the Evening MBA Program, the Weekend MBA Program, and the Executive MBA Program), one leading to an IMBA (the International MBA Program), and the PhD Program.

The Full-time MBA Program

The MBA curriculum is designed to prepare students for significant careers in management. It encompasses both the basic disciplines that underlie management and the operational areas specific to business. The courses are designed to provide understanding of the components of managerial decision making while furnishing perspective on the role of business as an economic, political, and social institution.

The MBA experience is not restricted to the classroom at Chicago Booth. Although Booth is not a case study institution, a substantial percentage of the total course work, depending on the student's choice of classes, will consist of various kinds of cases and applied analyses. Because of the school's location in one of the world's major commercial centers, students meet business, economic, labor, and political leaders at the numerous lecture and seminar series held on campus and through alumni and friends in Chicago's business community. Freedom of choice is a way of life at Chicago Booth. Professors are free to use the teaching method they believe to be most effective; students are free to choose the courses (https://intranet.chicagobooth.edu/pub/coursesearch/coursesearch) and professors (http://www.chicagobooth.edu/faculty/directory) from whom they can best learn. In addition, students are encouraged to make use of the resources of the entire university and take advantage of the critical and intellectual diversity that thrives on the campus. The Chicago Booth MBA is characterized by a willingness to experiment, to judge people by their performances rather than their origins, to judge ideas by their consequences rather than their antecedents.

Chicago Booth's Leadership Effectiveness and Development Program (http:// www.chicagobooth.edu/programs/full-time/academics/lead) (LEAD) was founded in 1989 as one of the first experiential leadership programs at a major business schools. Held during autumn quarter and lead by second-year student facilitators, the program provides a common educational experience within a curriculum that has always offered exceptional flexibility. This required, noncredit course for fulltime program students is designed to enhance self-awareness and interpersonal effectiveness through a varied and highly interactive curriculum. Through these experiences, students will enhance their mastery of three of the most important aspects of leadership: building relationships, inspiring others, and influencing outcomes. Other class activities in autumn quarter revolve around the 10 student cohorts assigned during LEAD that help build a sense of community, instill the value of teamwork, and acquaint students with the school.

The school admits persons with a wide variety of backgrounds. The normal prerequisite is a four-year bachelor's degree, or equivalent, from an accredited institution. Students who do not have a bachelor s degree may apply to the school for special eligibility. Those interested in consideration for special eligibility must receive approval before an application is submitted and should, therefore, write to the director of admissions for further information.

Requests for an application and other inquiries should be addressed to the Office of Admissions and Financial Aid, The University of Chicago Booth School of Business, 5807 South Woodlawn Avenue, Chicago, Illinois 60637, phone: 773.702.7369, email: admissions@ChicagoBooth.edu. Admissions information is also available online (http://www.chicagobooth.edu/programs/full-time/admissions).

The International MBA Program

The University of Chicago Booth School of Business also offers an international MBA (IMBA) degree. This program provides students with in-depth training in business fundamentals as well as the skills and training required to be competitive at the global level.

The core of the IMBA program draws on the traditional strengths of the school's MBA program. Students enjoy flexibility in course selection, few absolute course requirements, and access to the best business faculty in the world. They grasp the fundamentals of business and develop the skills necessary to apply those fundamentals in real world situations.

In addition, IMBA students develop a broad set of intercultural skills necessary for successful careers in international business. They master a foreign language, spend at least one term of study abroad, participate in specialized multicultural programming, and potentially work on real company projects as part of specially tailored project courses while studying overseas. International education is delivered by Booth faculty, world-renowned scholars from other units of the university (such as East Asian Studies or International Relations), and by faculty from partner universities around the globe.

Though the IMBA contains additional requirements, the IMBA program is completed in the same time frame as the traditional MBA program. As a result, most students should expect to complete the program in the twenty-one months usually required for the MBA program. Since expertise in international business is implicit in the IMBA degree, recognition of an international business concentration would be redundant; therefore, no IMBA student may declare an international business concentration.

Acceptance into the IMBA program is based first on gaining admission to the Full-Time MBA Program. During the first quarter of enrollment students may declare their intention to follow the IMBA curriculum. To obtain an MBA application, contact the Office of Admissions and Financial Aid, The University of Chicago Booth School of Business, 5807 South Woodlawn Avenue, Chicago, Illinois 60637, or phone 773.702.7369. Admissions information is also available online (http:// www.chicagobooth.edu/programs/full-time/admissions).

Joint Degree Programs

Chicago Booth participates in joint degree programs with several other schools and divisions of the University: the Law School; School of Social Service Administration; Pritzker School of Medicine; Irving B. Harris Graduate School of Public Policy; East European/Russian, Middle Eastern, South Asian, and Latin American area study centers; and Committee on International Relations. These programs allow the student to pursue combined programs of study. For more information on the joint MBA/AM programs in international relations or Middle Eastern, East Asian, East European/Russian, Latin American, and South Asian studies, contact the Committee on Joint MBA/AM Programs, The University of Chicago Booth School of Business, 5807 South Woodlawn Avenue, Chicago, Illinois 60637. For all other joint programs, write to the director of admissions of Chicago Booth and the dean of students of the appropriate school.

THE PART-TIME MBA PROGRAMS

The Evening MBA Program

The University of Chicago pioneered the concept of part-time MBA study for men and women employed in management and the professions. Even though the school's Evening MBA Program is more than fifty years old, it is still unique in the field of management education because it is identical in every important way to the full-time program. Entrance requirements and degree requirements are the same for both programs, and courses are taught by the same faculty. While the academic aspects of the full-time and part-time programs are the same, their logistics are quite different. Evening MBA classes meet on weeknights in the school's convenient downtown location at Gleacher Center, 450 North Cityfront Plaza Drive, along the north bank of the Chicago River between Michigan Avenue and Columbus Drive. Approximately 1,600 students from a diverse background of job functions and industries are currently engaged in part-time study in the program. Many of the students come from Chicago area banks and financial institutions; heavy industry, consulting, advertising, and the entrepreneurial and nonprofit sectors also are well represented. Job titles of current students range from new management trainees to senior executive officers.

Evening MBA students are required to complete Leadership Exploration and Development. This program is initiated during Launch, an orientation program, and continues throughout the program of study.

Classes are available in all four academic quarters. Students completing two courses per quarter will fulfill the program requirements in two-and-one-half years, although the average graduation time is approximately three years. All MBA candidates are allowed a maximum of five years to complete the degree program.

Admissions information is available online (http://www.chicagobooth.edu/ programs/evening/admissions).

The Weekend MBA Program

Many managers often find it convenient to take their classes on Saturdays due to travel schedules or the location of their offices far from Chicago. To meet the needs of individuals and their companies, Booth provides an additional avenue of continuing education in its Weekend MBA Program. Students take courses on Saturday mornings and Saturday afternoons at the convenient downtown Gleacher Center and thereby can complete the MBA program in as little as two-and-onehalf years. Some students fly in from across the country and around the globe, with over 70 percent of weekend students living outside of Illinois. The Weekend MBA Program follows in the Chicago Booth tradition of offering all MBA candidates the same academic program, same faculty, and same degree as the full-time and evening MBA programs.

Weekend MBA students are required to complete Leadership Exploration and Development. This program is initiated during Launch, an orientation program, and continues throughout the program of study.

Classes are available in all four academic quarters. Students completing two courses per quarter will fulfill the program requirements in two-and-one-half years, although the average graduation time is approximately three years. All MBA candidates are allowed a maximum of five years to complete the degree program.

Admissions information is available online (http://www.chicagobooth.edu/programs/weekend/admissions).

The Executive MBA Program

The Executive MBA Program is a part-time MBA program designed to prepare experienced executives to be more effective general managers.

Each year, approximately 90 students are admitted to each location of study in this intensive, twenty-month program. The Executive MBA Program curriculum emphasizes the value of learning in groups and sharing experiences. Students will participate primarily at one of our three international locations: downtown Chicago (Gleacher Center); London (Woolgate Exchange); or Hong Kong (the Cyberport); students will have an opportunity to study at each campus over their program of study in international cohorts. These international cohorts are composed of an equal mix of students from all three campuses and convene for week-long sessions in Chicago, London and Hong Kong.

Although the format is different, the Executive MBA Program, like all of Chicago Booth's MBA programs, is based on the Chicago approach to business education. This approach emphasizes an understanding of the fundamental forces in the economy, in organizations, and in individuals, and also in applying this understanding to analyze and produce creative, imaginative solutions to real world problems.

Executive MBA students are required to complete Leadership Exploration and Development. This program is initiated during Launch, an orientation program, and continues throughout the program of study.

Courses in the Executive MBA program are taught by full-time members of the faculty. Most courses are cohorted but students are offered elective courses in finance, marketing, strategy, and entrepreneurship for students interested in deepening their knowledge in areas of particular relevance to their careers.

For further information about the program, contact:

Admissions Office of the Executive MBA Program North America The University of Chicago Booth School of Business 450 North Cityfront Plaza Drive Chicago, Illinois 60611 phone: 312.464.8750 email: xp@ChicagoBooth.edu

Admissions Office of the Executive MBA Program Europe The University of Chicago Booth School of Business Woolgate Exchange 25 Basinghall Street London EC2V 5HA United Kingdom phone: 44.(0)20.7643.2200 email: europe.inquiries@ChicagoBooth.edu

Admissions Office of the Executive MBA Program Asia The University of Chicago Booth School of Business 100 Cyberport Road Hong Kong phone: 852.2533.9500 email: asia.inquiries@ChicagoBooth.edu

The PhD Program

The PhD Program is an integral part of Chicago Booth. The school began the first PhD program in business in the United States in 1920 and awarded its first PhD degree in 1922. Since then, more than five hundred degrees have been granted.

The program leading to the degree of doctor of philosophy is designed for students of outstanding ability who desire advanced studies in preparation for careers in university teaching and research. The number of students admitted to the program each year is small and, within the framework of the general requirements described below, programs of study are designed to fit individual interests. Students with a variety of backgrounds are admitted to the program; undergraduates with strong academic backgrounds (e.g., economics, mathematics, psychology, sociology) and strong research interests are encouraged to apply. Students without strong academic backgrounds in their area of study may have to take prerequisite courses in economics, mathematics, or statistics.

Information about the program and application materials may be requested from the PhD Program Office, The University of Chicago Booth School of Business, 5807 South Woodlawn Avenue, Chicago, Illinois 60637, and are available online (http:// www.chicagobooth.edu/programs/phd).

Booth Book Fee

Effective Autumn 2013, cases, articles, and simulations will be delivered electronically through Chalk, faculty course webpages, or hard-copy in class. Students enrolled in a Booth course will incur a \$25 per course fee, assessed via their tuition bill. Students may be required to purchase a text book in addition to this expense, as this fee replaces only the custom course pack.



The Divinity School

PROGRAMS OF STUDY

The Divinity School offers programs of study leading to the degrees of Master of Arts (M.A.), Master of Arts in Religious Studies (A.M.R.S.), Doctor of Philosophy (Ph.D.), and Master of Divinity (M.Div.).

The M.A. program is a two-year foundational program in the academic study of religion for students who wish to acquire the requisite skills to develop a research agenda for doctoral study, or to establish a basis for a career in such related fields as education, publishing, government service, nonprofit work, etc.

The M.A. in Religious Studies (A.M.R.S.) is a concentrated program in the study of religion for those in other professions (e.g., law, medicine, business, journalism, the arts) or those who seek greater knowledge of and sophistication in the study of religion. The degree may be pursued in one year, or over a period of three years, taking one or two courses per quarter, allowing students to balance study with existing professional commitments.

The Ph.D. program is a rigorous program of advanced study and research that prepares students for a lifetime of field-defining scholarship, intellectual leadership, and teaching in the academic study of religion.

The M.Div. program is an intensive cohort-based three-year course of study that prepares students for public religious leadership both in traditional ministerial professions and in new and emerging forms of ministry.

Additional information can be found in the Divinity School *Announcements* and website. (http://divinity.uchicago.edu)



The Law School

The Law School offers a three-year program of professional instruction leading to the degree of Doctor of Law (J.D.). It is designed to prepare students for the practice of law in any American jurisdiction. A bachelor's degree from an approved college is usually a prerequisite to admission, although highly qualified students with only three years of undergraduate studies may be admitted. All applicants must take the Law School Admission Test. Each entering class is limited to approximately 190 students. A student in good standing at an approved American law school who has completed at least one year of law study or a graduate of an approved foreign law school whose studies have been primarily in the common law may apply for admission with advanced standing.

The school offers advanced studies leading to the degrees of Master of Laws (LL.M.), Doctor of Jurisprudence (J.S.D.), Master of Comparative Law (M.Comp.L.), and Doctor of Comparative Law (D.Comp.L.).

What sets Chicago apart from other law schools is its unabashed enthusiasm for the life of the mind and its conviction that ideas matter and are worth discussing. We value legal education and training, not only as preparation for legal careers, but for their own sakes as well. Legal study at Chicago is a passionate venture that begins in the classroom, where the faculty engage their students in a rigorous Socratic dialogue. Chicago's unique first year required course, Elements of the Law, introduces students to the law as an interdisciplinary field and gives them the tools to continue the interdisciplinary inquiry throughout their legal education.

Chicago remains committed to legal education as an education for generalists, although students with particular interests will find it possible to study topics in depth through advanced and more specialized courses.

Emphasizing the acquisition of broad and basic knowledge of law, an understanding of the functioning of the legal system, and the development of analytic abilities of the highest order, a Chicago legal education prepares students for any professional role they might choose: legal practice or legal education, entrepreneurial ventures, international private or public law practice, corporate practice, government service, alternative dispute resolution including arbitration and mediation, or work with nonprofit organizations. Graduates do many things in their careers, and they all take with them the analytic skills emphasized during their years at the Law School.

In addition to a wide array of courses and seminars, second and third year students may participate in a number of clinical programs, including the Prosecution and Defense Clinic, the Gendered Violence and the Law Clinic, the Housing Initiative Clinic, the Criminal and Juvenile Justice Project Clinic, the Civil Rights Clinic: Police Accountability, the Institute for Justice Clinic on Entrepreneurship, the Exoneration Project Clinic, the International Human Rights Clinic, and the Abrams Environmental Law Clinic. In these programs, students engage in supervised practice, including the representation of clients in court. A significant portion of the faculty specialize in disciplines other than law, such as economics, history, sociology, and political science. The curriculum devotes substantial attention to relevant aspects of economics, legal history, comparative law, psychiatry, statistics, and other social science methodology. In addition to the student edited *University of Chicago Law Review, Legal Forum*, and the *Chicago Journal of International Law*, the school has three scholarly journals the *Supreme Court Review*, the *Journal of Law and Economics*, and the *Journal of Legal Studies*. The Law School is also home to the Center for Comparative Constitutionalism, the Coase-Sandor Institute for Law and Economics, the Center for Studies in Criminal Justice, and the Legal History Program.

Detailed information on admission, programs, faculty, and facilities is contained in the *Announcements* of the Law School, available online. (http://www.law.uchicago.edu/students/announcements)



Institute for Molecular Engineering

ime.uchicago.edu

Dean and Pritzker Director

Matthew Tirrell

Academic and Student Affairs

- Juan de Pablo, Director of Graduate Studies
- Rovana Popoff, Associate Dean and Dean of Students
- Novia Pagone, Associate Dean of Students

FACULTY

- David Awschalom (http://ime.uchicago.edu/awschalomlab/people/ david_awschalom)
- Andrew Cleland (http://ime.uchicago.edu/andrew_cleland)
- Juan de Pablo (http://ime.uchicago.edu/de_pablo_lab/people/juan_de_pablo)
- Giulia Galli (http://ime.uchicago.edu/giulia_galli)
- Supratik Guha (http://ime.uchicago.edu/supratik_guha)
- Jun Huang (http://ime.uchicago.edu/huang_group/people/jun_huang)
- Jeffrey Hubbell (http://ime.uchicago.edu/jeffrey_hubbell)
- Nancy Kawalek (http://ime.uchicago.edu/nancy_kawalek)
- Paul Nealey (http://ime.uchicago.edu/nealey_lab/people/paul_nealey)
- Melody Swartz (http://ime.uchicago.edu/melody_swartz)
- Matthew Tirrell (http://ime.uchicago.edu/tirrell_lab/people/matthew_tirrell)

The Institute for Molecular Engineering (IME) is at the forefront of an emerging field. This exciting venture prepares students to combine problem-solving skills with broad expertise in the fundamental sciences to build useful systems from the molecular level up. The IME's approach to engineering research and education emphasizes analytical and disciplinary integration, rather than the traditional separation of engineering disciplines. As a result, students from diverse scientific backgrounds may collaborate on research projects that involve the incorporation of synthetic molecular building blocks, including electronic, optical, mechanical, chemical, and biological components, into functional systems that will impact technologies from advanced medical therapies to quantum computing.

Established in 2011 by the University of Chicago, in partnership with Argonne National Laboratory (http://www.anl.gov), the IME brings together a growing team of world-class researchers from diverse science and engineering disciplines who take a hands-on approach to mentoring students and cultivating relationships with industrial and academic partners - resulting in exciting discoveries, new technologies, and innovative solutions.

IME researchers conduct their work at the new William Eckhardt Research Center, one of the largest and most modern accessible nanofabrication facilities in the Midwest, which includes cutting-edge clean rooms, molecular imaging facilities, biomolecular research labs, and a wet-lab for nanofabrication and other materials work. Additionally, Argonne National Laboratory brings important resources to the endeavor, including the Advanced Photon Source (http://www.aps.anl.gov), the Argonne Leadership Computing Facility (http://www.alcf.anl.gov) and the Center for Nanoscale Materials (http://nano.anl.gov).

In May 2013, the University of Chicago's Council of the University Senate approved the Institute for Molecular Engineering's PhD program, thus launching the first engineering graduate program in the history of the University of Chicago.

How to Apply

The Institute for Molecular Engineering welcomes students with diverse academic backgrounds, including all fields of physical, biological and computational sciences, who possess the motivation and background to transcend disciplinary boundaries and pursue research in a bold, problem-focused way. Applicants to the Ph.D. program should have a bachelor's degree in a STEM field and should provide scores for the GRE general test and the TOEFL (if not a native English speaker). The relevant GRE subject test scores will be considered if submitted, and could strengthen an application, but are not strictly required. Please submit a personal statement of research interests, three recommendation letters, and transcript(s) from all undergraduate and graduate institutions. Applications are due January 5, 2016. https://apply-ime.uchicago.edu/apply

Degree Requirements

Graduate students entering the IME Ph.D. program are expected to fulfill a set of course requirements including 3 core courses, 4 in-depth courses in the area relevant to their research field of choice, and 2 broad elective courses. The core and indepth courses are selected from a portfolio of graduate-level courses, in conjunction with the faculty advisor. These courses are offered by the IME, sister departments (Physics, Chemistry, Biophysics, Computer Science and Biological Sciences) or developed specifically for IME students. The broad electives are to provide students with the opportunity to acquire skills in leadership, communication, technology development and product design. The hallmark of IME's Ph.D. program is a highly customized curriculum tailored to each individual student's needs and inspirations.

The vibrant and diverse research activities pursued by IME faculty members offer students a broad range of research opportunities. First-year students are encouraged to explore these opportunities by participating in the IME Forum, a series of faculty research talks during autumn quarter, and by establishing relationships with individual faculty members. As the institute works in a highly interdisciplinary environment, there are many opportunities to work with multiple faculty members within the institute and/or with faculty in other partner institutes at the University of Chicago and Argonne National Laboratory (see our website (http://ime.uchicago.edu/partners) for a full list). Every effort will be made to facilitate the matching of each student with one of their preferred advisors by the end of the first term. To establish candidacy, students are required to develop a research proposal describing the objectives, approaches and expected outcomes of their Ph.D. thesis work. Students will give an oral presentation of their written proposal in front of a faculty review committee for approval. This process should be completed no later than the end of the Winter quarter of the second year.

All graduate students are expected to have two quarters of teaching experience, or equivalent activity, in order to graduate.

All students will receive scholarship support from the Institute for the first quarter. Subsequently, IME provides full financial support to all graduate students throughout their graduate study at IME as long as they remain in good standing.

The IME adopts the residency requirement of the University of Chicago as a part of the degree requirements.

MOLECULAR ENGINEERING COURSES

MENG 30000. Introduction to Emerging Technologies. 100 Units.

This course will examine five emerging technologies (stem cells in regenerative medicine, quantum computing, water purification, new batteries, etc.) over two weeks each. The first of the two weeks will present the basic science underlying the emerging technology; the second of the two weeks will discuss the hurdles that must be addressed successfully to convert a good scientific concept into a commercial product that addresses needs in the market place. Instructor(s): Matthew Tirrell Terms Offered: Autumn

MENG 31000. Material Sciences and Engineering. 100 Units.

This course will discuss the structure and properties of organic and inorganic materials, ranging from polymeric systems, to metallic alloys; the focus will be on the interrelations between chemical bonding, molecular structure, and the resulting behaviour of materials. The course will address physical, chemical, and processing considerations in materials selections for specific applications. Instructor(s): Paul Nealey Terms Offered: Autumn

MENG 32000. Mathematical Foundations of Molecular Engineering. 100 Units.

This course will provide an overview of the general mathematical framework required to describe mass, momentum, energy and electronic transport in gases, liquids and solids. That framework will be illustrated in the context of common problems in diffusion, heat conduction, viscous flow and charge transfer. The course will also provide an introduction to elementary numerical and statistical methods for solution of such problems in representative engineering applications. Instructor(s): Andrew Spakowitz Terms Offered: Autumn Prerequisite(s): Required Math Courses in the Core, Algebra, Calculus, Physics

MENG 32500. Polymer Science and Engineering. 100 Units.

This course is an advanced introduction to polymer physics and engineering taught at a level suitable for senior undergraduates and graduate students in STEM fields. Topics that will be covered include the statistics and conformations of linear chain molecules, thermodynamics and dynamics of polymers, polymer blends and polymer solutions, phase equilibria, networks, gels, and rubber elasticity, linear viscoelasticity, thermal and mechanical properties. A laboratory component will supplement the lectures.

Instructor(s): Paul Nealey Terms Offered: Autumn

Prerequisite(s): Background in thermodynamics and transport.

MENG 33000. Thermodynamics and Statistical Mechanics. 100 Units.

This course will present an overview of thermodynamics and statistical mechanics in the context of molecular engineering applications. Such applications will include prediction of the thermophysical properties of multicomponent gases, solids and liquids, prediction of adsorption processes on surfaces or interfaces, and molecular-level descriptions of synthetic and biological macromolecules in solution. Throughout the course, emphasis will be placed on connecting molecular structure and interactions to measurable macroscopic properties.

Instructor(s): Juan de Pablo Terms Offered: Autumn

Prerequisite(s): Chemistry 26100-26200 or equivalent or the consent of the instructor

MENG 33100. Applied Numerical Methods in Molecular Engineering. 100 Units.

The course is intended to provide the fundamental tools of numerical methods for problems in molecular engineering. It includes interpolation, integration, minimization techniques and weighted residuals. Application of the methods towards multi-scale solutions from atomistic to continuum approximations are covered. Finite differences, finite elements, boundary elements and collocation methods are explained and used in molecular engineering problems. Fundamental concepts of statistical thermodynamics, transport phenomena, electromagnetism and Rheology are revisited.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): MATH 20000-20100 or MATH 22000 or PHYS 22100; and CHEM 11300/12300 or PHYS 13300/14300. Grads should have work in Thermodynamics and Transport.

Equivalent Course(s): MENG 23100

MENG 34100-34200. Selected Topics in Molecular Engineering: Molecular/ Materials Modelling I-II.

Molecular modeling seeks to develop models and computational techniques for prediction of the structure, thermodynamic properties, and non-equilibrium behaviour of gases, liquids, and solids from knowledge of intermolecular interactions.

MENG 34100. Selected Topics in Molecular Engineering: Molecular/Materials Modelling I. 100 Units.

Molecular modeling seeks to develop models and computational techniques for prediction of the structure, thermodynamic properties, and non-equilibrium behaviour of gases, liquids, and solids from knowledge of intermolecular interactions. This course will introduce students to the methods of molecular modeling. The topics covered will include an introduction to the origin of molecular forces, a brief introduction to statistical mechanics and ensemble methods, and an introduction to molecular dynamics, Brownian dynamics, and Monte Carlo simulations. The course will also cover elements of advanced sampling techniques, including parallel tempering, umbrella sampling, and other common biased sampling approaches. Course work or research experience is strongly recommended in: (1) elementary programming (e.g., C or C++), and (2) physical chemistry or thermodynamics.

Instructor(s): Juan de Pablo, Giulia Galli Terms Offered: Winter Prerequisite(s): MATH 20000 and MATH 20100 or MATH 22000 or PHYS 22100 Equivalent Course(s): MENG 24100

MENG 34200. Selected Topics in Molecular Engineering: Molecular/Materials Modelling II. 100 Units.

This course provides a continuation of the topics covered in Molecular Modelling I. It seeks to introduce students to electronic structure methods for modelling molecular and condensed systems. The topics covered will include an introduction to quantum mechanical descriptions of ground and excited state properties of molecules and solids. The course will focus on simulations based on the numerical solution of the Schrödinger equation using different approximations, including wavefunctions methods (e.g., Hartree Fock), and density functional theory, and various integration techniques and basis sets. Instructor(s): Giulia Galli, Juan de Pablo Terms Offered: Spring Prerequisite(s): MENG 24100

Equivalent Course(s): MENG 24200

MENG 34200. Selected Topics in Molecular Engineering: Molecular/Materials Modelling II. 100 Units.

This course provides a continuation of the topics covered in Molecular Modelling I. It seeks to introduce students to electronic structure methods for modelling molecular and condensed systems. The topics covered will include an introduction to quantum mechanical descriptions of ground and excited state properties of molecules and solids. The course will focus on simulations based on the numerical solution of the Schrödinger equation using different approximations, including wavefunctions methods (e.g., Hartree Fock), and density functional theory, and various integration techniques and basis sets.

Instructor(s): Giulia Galli, Juan de Pablo Terms Offered: Spring Prerequisite(s): MENG 24100

Equivalent Course(s): MENG 24200

MENG 34300. The Engineering and Biology of Tissue Repair. 100 Units.

This course will examine the biomolecular and cellular bases for tissue engineering, including biological processes and biomolecular actors underlying morphogenesis and tissue repair in a number of tissue systems. Biomaterials and drug release principles being developed for tissue engineering will be examined, and the means by which molecular engineering is interfaced with the biomolecules and cells involved in tissue morphogenesis for tissue engineering will be elaborated. Selected case studies in different tissue engineering applications will be considered both through didactic presentations and projects undertaken by the students. Instructor(s): Joel Collier Jeffrey Hubbell Terms Offered: Spring Prerequisite(s): Coursework or research experience in cell biology and biochemistry strongly recommended.

MENG 49900. Research: Molecular Engineering. VAR Units.

Instructor(s): Staff Terms Offered: Summer, Autumn, Winter, Spring

MENG 58001. Numerical Methods. 100 Units.

This is a practical programming course focused on the basic theory and efficient implementation of a broad sampling of common numerical methods. Each topic will be introduced conceptually followed by detailed exercises focused on both prototyping (using matlab) and programming the key foundational algorithms efficiently on modern (serial and multicore) architectures. The ideal student in this course would have a strong interest in the use of computer modeling as predictive tool in a range of discplines -- for example risk management, optimized engineering design, safety analysis, etc. The numerical methods studied in this course underlie the modeling and simulation of a huge range of physical and social phenomena, and are being put to increasing use to an increasing extent in industrial applications. After successfully completing this course, a student should have the necessary foundation to quickly gain expertise in any application-specific area of computer modeling.

Instructor(s): Andrew Siegel Terms Offered: Spring Prerequisite(s): MPCS 50101 or programming waiver

Note(s): Non-MPCS students must receive approval from program prior to registering.



THE IRVING B. HARRIS GRADUATE School of Public Policy Studies

The Harris School of Public Policy is known for its policy-relevant research and for preparing talented individuals to become leaders and agents of social change. One of six professional schools, Chicago Harris is part of a world-class intellectual community and continues the University's tradition of scholarship intended to address real-world problems. Established in 1988, Chicago Harris emerged from the interdisciplinary Committee on Public Policy Studies. Influential founding supporters include educational sociologist James Coleman, urban sociologist William Julius Wilson, and the 2000 Nobel laureate economist James Heckman.

Degree Offerings & Programming

An exciting and challenging place to learn, Chicago Harris' model of public policy training reflects the University of Chicago's tradition of research and teaching — meticulous scholarship, open inquiry, and cross-disciplinary, critical thinking. Faculty come from diverse academic backgrounds and lend their individual expertise to a collaborative curriculum. Students come ready and willing to work and prepare for leadership in public policy. Alumni around the world apply their Chicago Harris training to a multitude of public policy issues, making an impact in whatever arena they choose to work.

The rigorous curriculum stresses the development of analytical tools, which form the basis of the program's approach to understanding the nature of social problems and the impact of public policy. Chicago Harris students become conscientious consumers of social science research and are able to evaluate information and make informed policy choices.

However, classroom training is only part of the equation. Chicago Harris provides opportunities for students to apply the critical skills that they learn in the classroom to real-world situations. Through a mentor program, internships, and practica, Chicago Harris students are able to enrich their education, network with community leaders, and lend their growing public policy expertise to local, national, and international organizations. The School fosters a spirit of cooperation between students, public policy professionals, faculty, and others to address societal concerns and is constantly seeking new partnership opportunities.

Harris Degree Programs

- Master of Public Policy (http://harris.uchicago.edu/degrees/masters-degree/ MPP) (MPP), A two-year program for students interested in gaining a thorough training in analytical skills.
- Master of Science in Computational Analysis and Public Policy (http:// capp.sites.uchicago.edu) (MSCAPP), A two-year program offered with the Computer Science Department for students interested in the design, implementation, and rigorous analysis of data-driven policies.

- Master of Science in Environmental Science and Policy (http:// harris.uchicago.edu/degrees/masters-degree/ms-env-sci-policy) (MSESP), A two-year program offered with the Argonne National Laboratory for students interested in assessing the scientific repercussions of policy on the environment.
- Master of Arts in Public Policy (http://harris.uchicago.edu/degrees/mastersdegree/one-year-am) (AM), A one-year program for students already possessing another graduate degree or in conjunction with another University graduate program.
- Master of Arts in Public Policy with a Certificate in Data Analytics (http:// harris.uchicago.edu/degrees/masters-degree/macda) (MACDA), a 12-month program focused on preparing students for public and private sector jobs at the intersection of public policy and data analytics.
- Master of Arts in Public Policy with Certificate in Research Methods (http:// harris.uchicago.edu/degrees/masters-degree/macrm) (MACRM), 15-month program designed to prepare students for top-tier Ph.D. programs in economics and political science as well as other social sciences, policy, and business
- Doctor of Philosophy (PhD) (http://harris.uchicago.edu/degrees/phd), a doctoral degree for students seeking research-related careers in academia or elsewhere.
- Master of Arts in Public Policy and International Relations (http:// harris.uchicago.edu/degrees/masters-degree/am-ma-cir) (AM/MA), A two-year program offered with the Committee for International Relations for students interested in combining public policy training with a focus on international relations.
- Cooperative Program with Tel Aviv University (http://harris.uchicago.edu/ degrees/masters-degree/coop-tel-aviv) (MPP), A two-year master's program of study with course offerings at both campuses and the opportunity to earn two degrees
- Cooperative Program with the University of Chile (http://harris.uchicago.edu/ degrees/masters-degree/coop-chile) (MPP), A two-year master's program of study with course offerings at both campuses and the opportunity to earn two degrees.
- Cooperative Program with Yonsei University Graduate School of International Studies (http://harris.uchicago.edu/degrees/masters-degree/coop-yonsei), A two-to three-year program of study with course offerings at both campuses and the opportunity to earn two degrees.

Joint Degree Programs with other University of Chicago Schools

Students can earn two University of Chicago graduate degrees in an accelerated time frame.

- Center for Middle Eastern Studies (http://harris.uchicago.edu/degrees/jointdegree/middle-eastern-studies) (MPP/AM), a three year program combining public policy with modern Middle Eastern languages, history, and civilization.
- Divinity School (http://harris.uchicago.edu/degrees/joint-degree/divinityschool) (MPP/MDiv), a four year program combining public policy with issues related to public and urban ministry.

- Chicago Booth School of Business (http://harris.uchicago.edu/degrees/joint-degree/booth-school-of-business) (MPP/MBA), a three year program combining studies in public policy and business administration.
- Law School (http://harris.uchicago.edu/degrees/joint-degree/law-school) (MPP/JD), a four year program combining studies in law and public policy.
- School of Social Service Administration (http://harris.uchicago.edu/degrees/ joint-degree/school-of-social-service-administration) (MPP/AM), a three year program. Study broad social policy and issues that influence the social work profession.

Programs for University of Chicago College Students

- The Professional Option Program with the College (http://harris.uchicago.edu/ degrees/joint-degree/professional-option-program) (AB/MPP), a five year program. Earn a bachelor's degree from the College and a master's degree from the Harris School at the same time.
- Chicago Harris Scholars Program, (AB, plus MPP or MSCAPP) (http:// harris.uchicago.edu/chicagoharrisscholars), allows University of Chicago College students to apply for admission to the MPP or MSCAPP programs during their fourth year of study and defer enrollment for two years while obtaining quality experience in the labor market.

RESEARCH CENTERS

Faculty and student research at Chicago Harris is guided not only by theoretical interests, but also by a strong commitment to solving enduring public policy problems.

- Center for Human Potential and Public Policy, which supports innovative social science research and encourages transdisciplinary research approaches on a broad range of issues, including health and well-being; science, technology, and inequality; and poverty and education.
- Center for Data Science and Public Policy, which conducts research and creates computational and data-driven solutions to large-scale social problems in areas such as healthcare, education, sustainability, and community development.
- Center for Health Policy, which aims to develop a new class of healthcare leaders that carry global policy visions and are best prepared to answer challenges in health policy formulation and implementation.
- Center for Municipal Finance, which enables students and faculty to engage the major financial issues of the day facing state and local governments in the U.S. and around the globe.
- Center for Policy Entrepreneurship, which focuses on the politics of the policymaking process.
- Crime Lab, which seeks to improve our understanding of how to reduce crime and violence by helping government agencies and non-profit organizations rigorously evaluate new pilot programs.
- Cultural Policy Center, which provides research and informs policy that affects the arts, humanities, and cultural heritage.

- Energy Policy Institute of Chicago, which is an interdisciplinary research and training institute focused on the economic and social consequences of energy policies.
- Pritzker Consortium on Early Childhood Development, which brings together the world's leading experts to identify when and how child intervention programs can be most influential.

The interdisciplinary nature of the centers allows for broad participation by students and faculty. The School works closely with other research centers and programs throughout the University, including:

- Alfred P. Sloan Center on Parents, Children, and Work
- Center for Early Childhood Research
- Center for Health Administration Studies
- Center for Health and the Social Sciences
- Center for Social Program Evaluation
- Center for the Study of Race, Politics, and Culture
- Center on Aging, Health and Society
- Center on Demographics and Economics of Aging
- Chapin Hall Center for Children
- Institute of Politics
- NORC (formerly the National Opinion Research Center)
- Ogburn/Stouffer Center for the Study of Social Organizations
- The Paulson Institute
- Program on International Politics, Economics and Security (PIPES)
- Program on International Security Policy (PISP)
- Population Research Center



THE SCHOOL OF SOCIAL Service Administration

MISSION

The School of Social Service Administration is dedicated to working toward a more just and humane society through research, teaching, and service to the community. As one of the oldest and most highly regarded graduate schools of social work, we prepare professionals to handle society's most difficult problems by developing new knowledge, promoting a deeper understanding of the causes and human costs of social inequities, and building bridges between rigorous research and the practice of helping individuals, families, and communities to achieve a better quality of life.

PROFESSIONAL PURPOSE

Our educational program is grounded in the profession's history, purposes, and philosophy. Founded in 1908, the School of Social Service Administration (SSA) is one of a handful of institutions that has helped define the profession of social work and the field of social welfare. SSA's first leaders were activists in the Chicago settlement house movement, one of the main strands in what eventually became social work. Since its inception, while most early schools of social work concentrated on practical training for caseworkers, SSA's leaders insisted on the need for a solid foundation in social science and social research as well. In the decades since, the emphases on social research and on applying the insights of social science to solving human problems have continued. The School continues to establish the connections between the social and behavioral sciences, research, and the real world of policy and practice. SSA's interdisciplinary faculty is drawn from social work as well as from such related fields as economics, psychology, sociology, anthropology, political science, public policy, public health, and geography. Research at the School reflects this diversity and contributes to the development of social work knowledge.

The Master of Arts program, a two-year program that has been continuously accredited by the Council on Social Work Education and its predecessor organizations since 1919. SSA was recently reaccredited through June 2020. The School prepares students for advanced professional practice. Based on a body of knowledge, values, and skills of the profession, SSA's diverse course offerings provide students with a solid foundation in the profession and substantive exploration of two concentrations, clinical practice and social administration, the latter of which includes focused attention to non-profit management, community organization and development, and social policy. Quality instruction promotes the development of competent and effective professionals in these areas. Classes are intended to challenge and engage students in the dynamic interplay of theory, research, and practice. Students gain an understanding that whatever the focus of their practice, from the clinical micro-level to the policy macro-level, their activities

are guided by an appreciation of service in society and informed by a rigorous evidence and conceptual base.

Since 1920, our Doctoral Program has provided training for those interested in pursuing an academic career in social work and social welfare. SSA's doctoral graduates are leaders in the field of social work and social welfare scholarship. The program is designed to deepen students' mastery of both social science theory and research methods so that they are prepared to contribute to scholarly knowledge in innovative ways. The program accommodates students who are interested in developing and evaluating practice methods and interventions as well as those interested in understanding social problems and accompanying institutional and political responses. The diverse theoretical approaches of SSA's faculty make it uniquely positioned to support an interdisciplinary course of study.

VALUES

SSA's educational program is informed by the values of the social work profession. As such, we prepare professionals who are committed to improving the lives of vulnerable and diverse populations and in promoting social and economic justice locally, nationally, and globally. Social work values ensure that service is driven by a humanistic perspective that values difference and asks us to consider the impact of our ideas and our work on the well-being of our clients, our colleagues, our agencies, and on society as a whole. Our values require that we treat others with dignity and respect and make human rights and social justice central to our work.

Our values require that we behave ethically in both our personal and professional lives. Our ethical precepts encompass such matters as treating our clients with dignity, honoring human diversity and differences, never exploiting clients for our own interests, and always acting in the best interest of clients. This is accomplished through human relationships, honoring the value of integrity, and preparing graduates with the competence to achieve professional goals of the highest quality. Similar precepts govern our relationships with other professionals. We recognize our responsibilities to the organizations for which we work, but we also have the obligation to question policies and practices in the workplace that may not be aligned with the best interests of our clients. We value scientific inquiry and the use of scientific evidence, as well as the development and implementation of evidence-based policy and practice. Finally, our values require continued professional growth and development through lifelong learning.

Program Context

THE UNIVERSITY OF CHICAGO

Since its founding, the University's mission has been expressed in its motto, *Crescat scientia; vita excolatur,* "Let knowledge grow from more to more; and so be human life enriched." The University is committed to the development of new knowledge, both for its own sake and for the common good. The link of its mission to the mission and purpose of SSA is clear. As social problems become more complex, interconnected, and sprawling, SSA is building upon its distinctive interdisciplinary and applied traditions to generate more robust knowledge and to educate the most

talented social work leaders, thereby achieving even greater social benefit, both locally and globally.

SSA's first dean, Edith Abbott, said in 1920 when SSA became a full-fledged professional school, that "only in a university, and only in a great university, could a school of social work get the educational facilities that advanced professional students must have if they were to become the efficient public servants of democracy." Our current President, Robert Zimmer, shares her sentiment and stated during his address during the 487th convocation, "The University of Chicago, from its very inception, has been driven by a singular focus on inquiry...with a firm belief in the value of open, rigorous, and intense inquiry and a common understanding that this must be the defining feature of this university. Everything about the University of Chicago that we recognize as distinctive flows from this commitment."

In his speech at the City Club of Chicago in April 2012, President Zimmer again emphasized the role of the University and SSA in generating knowledge for social benefit:

...since its earliest days, the University has strived to serve this city well. In fact, the University's first president, William Rainey Harper, saw service to the broader community as essential to the University's mission. To fulfill this mission, he established the Extension Division, which consisted of public lectures and correspondence courses, and the University Press, which dispersed University research to a wide audience. Both were revolutionary developments in American higher education. As Richard Storr wrote in his history of Harper's tenure as president, "The outward thrust of the University was both deliberate and continuous."

Zimmer continued,

I could offer a great many examples of academic and research programs that illustrate Storr's link.... But I would like to turn briefly to the School of Social Service Administration, whose service to the community epitomizes that outward thrust at the same time as it underscores the university's singular focus on inquiry and belief in data-driven arguments and ideas.... One of the earliest schools of social work, SSA has its roots in the Chicago settlement house movement and is firmly tied to the history and institutions of this city. At its inception, its mission was to provide professional academic training to those serving the most vulnerable residents in the city's poorest neighborhoods.

Over the years, faculty members, administrators, and alumni have helped draft parts of the Social Security Act, have enforced child labor laws, and have fought for low-income working mothers. They have fostered the century-long partnership with Children's Memorial Hospital (now the Ann & Robert H. Lurie Children's Hospital of Chicago) and forged partnerships with over 700 agencies and programs throughout the city as part of their field placement program. They have moved from their professional training to leadership positions within social services agencies throughout the city and across the country, helping to shape the policies that transform lives. All the while, they have been focused on helping to find solutions for some of the most intractable problems of the city. SSA is held to the highest of intellectual standards, and faculty recruitment and promotions are guided by rigorous expectations. Students take advantage of the opportunities available in the University and are able to make use of the rich course offerings of its other departments. In addition to taking courses at SSA from faculty trained across multiple disciplines, students take courses in the schools of law, business, medicine, divinity, public policy, and in departments of anthropology, sociology, psychology, psychiatry, and others. This is a university in which such a crosswalk between disciplines and departments is fluid, actively encouraged, and easily accomplished.

CITY OF CHICAGO

As a great American city, Chicago and its surroundings provide a superb context for learning in the field. It is one of the nation's most diverse cities, a kaleidoscope of social and cultural traditions and populations. Chicago experiences all of the significant problems of the modern metropolis: poverty, violence, crime, dysfunctional schools, inadequate health services, drug use, family breakdown, social exclusion, and community disruption. There are both people with great progressive vision and forces that threaten to defeat them. Our students are able to witness, learn from, and contribute to this complex of activity.

Chicago has notably been at the forefront of pioneering movements in social work, community organizing, women's rights, urban planning and architecture, labor organizing, and African American politics. Building on this tradition, recent initiatives such as the University of Chicago Crime Lab (http://crimelab.uchicago.edu), Urban Education Lab (https://uel.uchicago.edu), the Network for College Success (http://ncs.uchicago.edu), the Employment Instability, Family Well-being, and Social Policy Network (EINet), (http:// ssascholars.uchicago.edu/einet) the STI and HIV Intervention Network (SHINE), (http://ssascholars.uchicago.edu/shine) the Woodlawn Children's Promise Community, and the Chicago Center for Youth Violence Prevention (one of 6 national Academic Centers of Excellence funded by the Centers for Disease Control and Prevention)—all led or co-led by SSA faculty—yield both knowledge for the field at-large and tangible benefit to the citizens of Chicago while offering opportunities to expand the University's partnership with the city of Chicago. Our ever-deepening partnerships with the neighbors in our community serve to enhance the quality of life and economic development of Chicago's South Side, the city of Chicago more broadly, and beyond to national and international levels. With this, SSA plays a very visible role in materially advancing the University's larger purpose to "enrich human lives."

THE GLOBAL CONTEXT

As social problems become ever more globally interconnected, SSA has adopted a strategic commitment to and begun the deliberate implementation of a robust international social welfare program agenda. Our program presently includes a significant focus on international social welfare by integrating cross-national and comparative content into our curriculum, developing study-abroad and internship placement opportunities for students, organizing lectures by international scholars visiting Chicago, and promoting scholarly and student exchanges in partnership with peer institutions abroad. With support provided by the University's Provost's Office, SSA has undertaken a permanent expansion of its faculty ranks, with a strategic focus placed on bringing in faculty with explicit expertise in global and international social welfare. Our first of several faculty hires in this emerging domain joined us in July 2012; and more are anticipated in the near future. SSA faculty also serve on the Steering Committee of the University's Center in Delhi, the University's Beijing Governance Committee, and the international advisory board of the *Indian Journal of Social Work*.

One outgrowth of our growing visibility on the global stage is a new acceleration of our international student enrollment, which reached an all-time high this year. To support this global student cohort, SSA held its first specialized orientation session for international students – a week of orientation and training sessions before the formal start of the fall quarter 2014 – to ease the academic and cultural transition, share information about SSA and UChicago resources, and provide networking opportunities.

We run an annual, intensive, one-month study-abroad program on urban poverty and community practice for our master's students in collaboration with the Tata Institute of Social Sciences (TISS) in Mumbai, India, the oldest established school of social work in that country. This program combines classroom instruction, field experience (pairing SSA with TISS students in a small set of community placements), seminar discussion, and informal engagement with students and faculty from both schools. The program includes a reciprocal exchange in Chicago, in which TISS students engage in a parallel program to the one in India, strengthening comparative learning across institutions and countries and building meaningful peer relationships. This work has also begun to generate research collaboration among faculty at both institutions.

In China, SSA has established a relationship with colleagues at Peking University (PKU), the home to mainland China's oldest and most well-established social work program. We have hosted PKU faculty at Chicago on two separate occasions and have visited PKU to share insights and orientations to social work curriculum and field education as well as to explore common research interests. We are also partnering with PKU as part of the China Collaborative, an effort jointly sponsored by the Council of Social Work Education in the United States, China Association of Social Work Educators in China, and the International Association of Schools of Social Work to foster the advancement of social work education and the professionalization of social work in China during a time of rapid development. In addition to co-organizing with PKU two workshops in Beijing, SSA hosted, in fall 2014, a delegation of faculty from some of China's leading social work programs, introducing them to a weeklong immersion in SSA's robust educational fieldwork-classroom integration.

We established, in 2013, an intensive Institute in China in partnership with Hong Kong Polytechnic University (PolyU) which focuses on responses to social exclusion in Hong Kong, mainland China, and the United States. The annual program allows students from SSA and PolyU to learn from and gain perspectives each other. The

intensive institutes have included local site visits in Hong Kong and Mainland China, where students have examined local social welfare issues facing migrants, asylum seekers, and tenant farmers, including housing shortages, health inequality, and economic development policies. As with the TISS program, this exchange is designed to maximize interaction and learning between students from Hong Kong, China, the U.S., and elsewhere, through a range of formal curricular, field-oriented, and informal interactions, and to leverage the comparative perspective such an exchange might provide to think critically about social work practice and social welfare.

SSA, with our counterparts at Peking University, co-sponsored and hosted a scholarly seminar and strategic planning workshop in June 2012 with support from the University of Chicago's recently established Beijing Center. The seminar explored international perspectives on social policy and urban problems. It brought together scholars from China, the United States, India, and South Korea to also explore knowledge about, policy responses to, and enduring questions focused on urbanization and globalization across particular substantive themes-education, health, children and youth, and poverty and development — as they are playing out across these four national contexts. Following the seminar, a strategic planning workshop was held to discuss the possibilities for both dyadic and multilateral exchanges and institutional relationships among participating institutions. The seminar and workshop were grounded in our developing relationship with PKU and were expanded to include key relationships and potential partnerships with two other peer social work schools in other parts of Asia, TISS in India and Seoul National University in South Korea. A follow-up workshop was held in 2014, and another in June 2015 in Mumbai, India.

In addition to these developing relationships, the presence of the University of Chicago's Beijing Center and the recent opening of the University's Center in Delhi open exciting opportunities to provide continued support for ongoing cross-national exchanges, seminars, and conferences, including hosting students and scholars from China, India, the United States, and other countries for varying periods of time.

The Vision

The forces shaping social welfare are varied and shifting and require the most intense scrutiny, cross-cutting and creative scholarship, and science that can anticipate and guide the future. Further, the field requires the most rigorously trained practitioners, policy makers, and future scholars to develop and apply complex and emerging knowledge for the profession so that social welfare strategies and interventions maximally benefit those most vulnerable and the wider society.

The School and its culture exhibit several hallmarks that distinguish us as one of the schools of social work leading the field into the future:

1. Interdisciplinary focus

Historically, SSA has been home to the most interdisciplinary cadre of social welfare scholars in the world. Building on this long-established tradition, SSA has recently established a formalized vehicle to encourage more integrated and robust evidence-based solutions to the most complex of social problems that overcome the

strong centrifugal forces in the academic world that pull apart scholars who share similar substantive concerns, but whose work ends up funneled into disciplinary silos. SSA has recently established several formalized interdisciplinary scholar networks, organizing researchers from across disciplinary lines to collaborate in generating innovative and more comprehensive knowledge to tackle society's social problems. The scholar networks connect theory to practice in the highest intellectual tradition of the University, linking some of our most influential social welfare researchers with leading scholars and practitioners from around the nation. Initiated in 2011 and currently supported at SSA are the Employment Instability, Family Well-being, and Social Policy Network (EINet) and the STI and HIV Intervention Network (SHINE). The scholar network vehicle anchors such interdisciplinary research activities at SSA and helps SSA to catalyze the development and translation of new high-impact scholarship so that it can more readily be put into practice—in the field and in the classroom.

2. Scholarship and research

Our faculty members are actively involved in cutting-edge scholarship and research that inform and shape the field. The opportunities SSA faces require disciplined intellectual intensity to pursue ideas and develop knowledge that challenge conventional ways of understanding social problems. We anticipate elevating further our intellectual leadership by recruiting additional eminent scholars who represent a rich mix of expertise and disciplinary diversity and whose ideas and intense inquiry generate new understandings and effective responses to the most intractable social problems of our times, including poverty, violence, social displacement, or other conditions that place individuals at risk for multiple adversities.

In the classroom, SSA seeks students who are serious about learning, intensely curious, analytical, and imaginative, with a clear moral compass. As social work is a rewarding field that offers real-world opportunities for promoting social justice, alleviating and preventing human suffering, we challenge students to understand root causes and human costs of social problems and think deeply to illuminate and implement effective, evidenced-based solutions. With a thorough grounding in practice and policy, coupled with analytical training to think at a complex level and solve problems, students carry out field placements in Chicago area not-forprofit organizations serving vulnerable populations, integrating the theories and techniques learned in the classroom with serving and working in the field. The SSA faculty continuously work to achieve a deeper integration between these two centers of learning: knowledge generated by faculty scholarship and research presented to students in class, and field education where this knowledge is applied to reallife situations. These efforts provide a distinctive advantage to our students and a hallmark of SSA's intensive educational approach linking conceptual knowledge to learning, while students play a role in the delivery of social services and evaluating their impact.

3. Person-in-environment

The foundation of our curriculum is built on the assumption that all clinical social workers need to understand and appreciate the complexities of communities

and organizational theory and practice, the policies that govern human services, and how to advocate for change in those systems. Similarly, students who are preparing for work at larger system levels need to know and understand the needs of those who seek our services; they also need to know how to assess, intervene, and evaluate those services. Our core curriculum gives equal weight to micro and macro practice, and the concentrations continue to be informed by issues at multi-system levels.

4. Developing skills in critical thinking

Effective and ethical practitioners must be skilled in raising questions about assertions made by theoreticians, researchers, supervisors, and colleagues. They must be able to analyze the purported rationale behind those assertions and assess the nature of evidence supporting them. We strive to produce professionals who engage in empirically-based practice and who understand the importance of garnering rigorous evidence that informs practice.

5. Chicago as the context for field work and other learning opportunities

Solving social problems requires not only conceptual clarity but also a deep realworld engagement in understanding and responding to such problems. Historically, SSA has played a lead role in tangibly advancing policies and practices serving vulnerable children and families, immigrants, the homeless, and those imprisoned or struggling with substance abuses. We have ongoing institutional partnerships with over 700 human service agencies, philanthropies, and government bodies in and around Chicago addressing those facing such deep problems. Indeed, many of our graduates serve as executives for the lead agencies in the community. Through our fieldwork partnerships in the community, each year our students provide more than a quarter million hours of direct service to the citizens of Chicago.

GOALS OF THE SCHOOL

Carrying out SSA's mission to enrich human life through scholarship, education, and service dedicated toward advancing a more socially just and humane society, we tackle the most intractable and costly of social problems by developing knowledge and rigorously trained professionals and by leading and informing the field in ways that advance our society and the concerns of those who are most vulnerable. In keeping with its mission, the School's goals are to:

- educate competent and effective professionals able to apply clinical, analytical, and organizational knowledge and skills to solve social problems and relieve the distress of vulnerable individuals through ethical practice in a rapidly changing global environment. This requires a learning environment that models respect for diversity and lifelong learners who can think critically about the world around them;
- produce scholarship which enhances our understanding of the nature and sources of problems of individuals, families, communities, and society and of effective means of preventing and intervening with those problems; and
- use the School's resources to advance social justice and to serve its immediate community and the field of social welfare through the translation of knowledge

into action. We aim to provide leadership both institutionally and through the efforts of individual faculty.

Graduates of the School of Social Service Administration should be able to:

- understand that the foundation of effective service lies in a grasp of the personin-environment. Individual distress occurs in a social context involving the interaction of biological, psychological, familial, economic, community, and cultural factors;
- understand that theories supported by empirical evidence serve as conceptual frameworks for examining individual distress, organizational functioning, community contexts, and social policies. These theories are drawn from multiple disciplines and become the foundation for a coherent framework from which to respond to human needs and promote social justice;
- think critically and challenge the underlying assumptions, core values, conceptual frameworks, and evidence on which our professional knowledge is based;
- engage in competent, ethical, and effective social work clinical practice or social administration; and
- become effective leaders in the fields of social work and social welfare.



SSA RESEARCH CENTERS

CENTER FOR HEALTH ADMINISTRATION STUDIES

The Center for Health Administration Studies (CHAS) focuses on health services and health policy research with a particular emphasis on policy and services for disadvantaged and vulnerable populations. The Center focuses on interdisciplinary and translational research that integrates health and social service delivery that contributes directly to improved population health. CHAS is an endowed University of Chicago center established in 1962 to promote active interdisciplinary collaboration among scientists both within the University of Chicago and among national and international networks of health services and policy researchers.

The Center also supports an innovative health policy and research training program for graduate professional students at the University of Chicago, the Graduate Program in Health Administration and Policy (GPHAP) (http:// www.ssa.uchicago.edu/gphap). GPHAP is unique among health administration programs in the United States. GPHAP allows students to earn either a Certificate in Health Administration and Policy (http://www.ssa.uchicago.edu/gphap-program-requirements) or a Certificate in Health Administration and Policy with a Concentration in Global Health (http://www.ssa.uchicago.edu/global-health-certificate-program), while earning a degree in one of the participating graduate schools on campus: the Booth School of Business (http://www.chicagobooth.edu), the Harris School of Public Policy (http://harrisschool.uchicago.edu), the Law School (http://www.law.uchicago.edu), the Pritzker School of Medicine (http:// pritzker.uchicago.edu), and the School of Social Service Administration (http:// www.ssa.uchicago.edu).

The Center is located within the University of Chicago School of Social Service Administration (SSA). CHAS was established at the University of Chicago in 1962 and celebrated its 50th anniversary in 2013.

CHAPIN HALL AT THE UNIVERSITY OF CHICAGO

SSA partners with Chapin Hall at the University of Chicago, an independent entity. Chapin Hall has, since its inception in 1985 as a research and policy center, focused on a mission of improving the well-being of children and youth, families, and their communities. This mission is achieved through policy research—by developing and testing new ideas, generating and analyzing information, and examining policies, programs, and practices across a wide range of service systems and organizations. Chapin Hall's researchers meet regularly with policy makers, agency directors, philanthropic organizations, and community groups to assure that important findings are placed directly in the hands of those who can best use them.

A number of faculty members from the School of Social Service Administration are partners with Chapin Hall and direct research under its auspices. SSA doctoral and master's-level students form an integral part of many Chapin Hall research teams and are active participants in seminars and discussions. Please refer to the Chapin Hall website for more information about the organization's research, publications, and conferences: http://www.chapinhall.org/.

CHICAGO CENTER FOR YOUTH VIOLENCE PREVENTION

The Chicago Center for Youth Violence Prevention (CCYVP) brings together researchers, community representatives, practitioners, and policy makers committed to understanding and reducing youth violence in poor, inner-city communities in Chicago—communities with some of the highest rates of youth violence in the country. The core work of the center is guided by the perspective that the most effective way to combat youth violence is to coordinate empirical "pre-intervention" work designed to understand the risk and development of such violence and to rigorously evaluate preventive interventions conducted both under tightly controlled conditions (i.e., randomized control efficacy trials) and in real-world settings (i.e., effectiveness trials). Central to the work of CCYVP is gaining an understanding of the characteristics of communities and neighborhoods that serve as risk and protective factors for youth development. This knowledge helps to identify ways to reduce the risk of youth violence and develop effective interventions.

CCYVP's primary aims are to build an integrative approach to address youth violence within specific communities in Chicago. The center will address these issues across developmental periods and with children and families with different levels of risk and involvement in youth violence; promote the use of evidencebased practice to reduce youth violence; develop a comprehensive surveillance system to guide intervention activities and to evaluate changes in youth violence in communities and neighborhoods; provide training and technical assistance to support schools and community agencies in selecting, implementing, and evaluating youth violence prevention programs; train new investigators in context-based prevention science; and disseminate empirical findings regionally and nationally.

Crime Lab

The University of Chicago Crime Lab (http://crimelab.uchicago.edu) seeks to improve our understanding of how to reduce crime and violence by helping government agencies and non-profit organizations develop innovative new approaches to reducing violence, and work with them to test new innovations using randomized controlled trials (RCTs). In 2011, Crime Lab launched the Urban Education Lab (http://uel.uchicago.edu) to support RCTs specifically in the area of improving education outcomes, which, particularly in disadvantaged urban areas, are deeply connected to risk of violence involvement. In 2014, Crime Lab announced the launch of the University of Chicago Crime Lab New York (http:// news.uchicago.edu/article/2014/12/17/crime-lab-new-york-will-help-promoteevidence-based-policies-prevent-crime-violen). Leading researchers will provide New York policy makers with rigorous, objective, scientific evidence to help reduce crime, violence and the costs of criminal justice in a new partnership with the City of New York. The Crime Lab began in April 2008 in partnership with the City of Chicago, and its work has been made possible by generous seed funding from the Joyce Foundation, the University of Chicago Office of the Provost, and the School of Social Service Administration through the Center for Health Administration Studies.

Interdisciplinary Scholar Networks

SSA launched the Interdisciplinary Scholar Network initiative to bring together scholars across disciplinary and professional lines and to generate innovative and more comprehensive knowledge aimed at addressing some of society's most intractable social problems. Two networks have been established:

- The Employment Instability, Family Well-being and Social Policy Network (http://ssascholars.uchicago.edu/einet) (EINet): This research network will enhance the capacity of the field to study employment instability at the lower end of the labor market and to develop and evaluate interventions aimed at reducing employment instability and its effects on children and families.
- The STI and HIV Intervention Network (http://ssascholars.uchicago.edu/shine) (SHINE): This network conducts research on the biological, behavioral, and structural factors that heighten vulnerability to sexually transmitted infections and HIV among ethnic minority communities in the United States. SHINE will develop and evaluate interventions to alleviate existing STI/HIV disparities.

INFORMATION AND APPLICATION

For further information and application materials, contact the Office of Admissions, The School of Social Service Administration, 969 East 60th Street, Chicago, IL 60637; telephone: (773) 702-1492 or by visiting the SSA website at http://www.ssa.uchicago.edu.



Index

A	
Academic Calendar	7
C	
Center for East Asian Studies	27
Center for East European and Russian/Eurasian Studies	
Center for International Studies	
Center for Jewish Studies	
Center for Latin American Studies	
Center for Middle Eastern Studies	59
Center for the Study of Gender and Sexuality	42
Clinical Departments in the Biological Sciences	
Committee on Cancer Biology	81
Committee on Computational Neuroscience	
Committee on Conceptual and Historical Studies of Science	725
Committee on Development, Regeneration, and Stem Cell Biology	103
Committee on Evolutionary Biology	
Committee on Genetics, Genomics & Systems Biology	134
Committee on Geographical Studies	747
Committee on Immunology	156
Committee on International Relations	792
Committee on Medical Physics	
Committee on Microbiology	
Committee on Molecular Metabolism and Nutrition	175
Committee on Neurobiology	
Committee on Southern Asian Studies/South Asia Language & Area Center	65
D	
Department of Anthropology	
Department of Art History	
Department of Astronomy and Astrophysics	
Department of Chemistry	541
Department of Cinema and Media Studies	

	Department of Classics	. 261
	Department of Comparative Human Development	.702
	Department of Comparative Literature	
	Department of Computer Science	. 552
	Department of East Asian Languages and Civilizations	. 296
	Department of Ecology and Evolution	.109
	Department of Economics	. 731
	Department of English Language and Literature	.317
	Department of Germanic Studies	.336
	Department of History	.753
	Department of Human Genetics	. 151
	Department of Linguistics	. 349
	Department of Mathematics	.586
	Department of Music	. 360
	Department of Near Eastern Languages and Civilizations	.370
	Department of Organismal Biology and Anatomy	. 185
	Department of Pathology	. 192
	Department of Philosophy	. 394
	Department of Physics	. 599
	Department of Political Science	. 797
	Department of Psychology	.821
	Department of Public Health Sciences	. 139
	Department of Romance Languages and Literatures	419
	Department of Slavic Languages and Literatures	. 439
	Department of Sociology	. 853
	Department of South Asian Languages and Civilizations	. 456
	Department of Statistics	.607
	Department of the Geophysical Sciences	.566
	Department of the Visual Arts	. 485
(L. L	
	General Information	8
	Graduate Divisions 2015-2016	4
	Graduate Program in Biophysical Sciences	. 538

I	
Institute for Biophysical Dynamics	16
Institute for Molecular Engineering	
Interdivisional Programs	14
M	
Master of Arts in Latin American Studies - Humanities	218
Master of Arts in Latin American Studies - Social Sciences	
Master of Arts in Middle Eastern Studies - Humanities	225
Master of Arts in Middle Eastern Studies - Social Sciences	
Master of Arts Program in the Humanities	
Master of Arts Program in the Social Sciences	638
Master of Science Program in Computer Science	
Master of Science Program in Financial Mathematics	
Master of Science Program in the Physical Sciences	
Ν	
NORC	63
Р	
Pozen Family Center for Human Rights	
Program in Biochemistry and Molecular Biophysics	74
Program in Cell and Molecular Biology	
Programs of Graduate Study in the Basic Biological Sciences	71
S	
SSA Research Centers	916
Т	
The Center for the Study of Race, Politics, and Culture	
The Divinity School	
The Division of the Biological Sciences and the Pritzker School of Medicine	
The Division of the Humanities	
The Division of the Physical Sciences	500
The Division of the Social Sciences	
The Enrico Fermi Institute	
The Interdisciplinary Scientist Training Program	
The Irving B. Harris Graduate School of Public Policy Studies	
The James Franck Institute	

842
895
37
205
877
907
5
888
Studies 877
196