



ROSALIND FRANKLIN
UNIVERSITY
of MEDICINE AND SCIENCE

ACADEMIC CATALOG

2018-2019

LIFE *in* DISCOVERY

The Rosalind Franklin University of Medicine and Science (RFU) Academic Catalog for the 2018-2019 academic year is an informational document to help guide students through academic processes, procedures and coursework. This document is not a contract; faculty listings and courses are subject to change.

The catalog is a planning tool for RFU students and is divided into the following sections:

The University

The University section provides an overview of RFU and lists university-wide policies and procedures that apply to RFU students.

Academic Programs

The Academic Programs section lists graduate and professional degree and certificate programs, and information that pertains to students of each college and school within the university.

Course Descriptions

The Course Descriptions section is an index of the courses offered at RFU. The course descriptions are arranged alphabetically by course prefix. Each course description includes a course prefix, course number, course title, quarter hours, prerequisites (if any) and course content.

Faculty List

The Faculty List includes full-time faculty members arranged alphabetically by college/school within the university and includes the faculty member's academic credentials. Adjunct faculty are included for programs offered online.

Clinical Affiliations

The Clinical Affiliations section lists the healthcare organizations that RFU partners with to provide students hands-on experience during the pursuit of their degrees.

Please note that while this catalog includes a complete list of course offerings at RFU, not all courses are offered every academic year. Please consult with an academic advisor for the courses offered in your program course plan.

2018-2019 Academic Catalog

Published by:

Office of the Registrar

Rosalind Franklin University of Medicine and Science

3333 Green Bay Road

North Chicago, IL 60064-3095

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Disclaimer

Rosalind Franklin University of Medicine and Science reserves the right to change, at any time and without notice, their requirements, regulations, course and program offerings, fees, charges and other matters addressed in this catalog. RFU must reserve the right to modify or terminate programs described herein. However, modification of program requirements will not adversely affect those students already enrolled in a program, nor will termination of a program affect anything other than the closure of admission thereto.

Non-Discrimination/Equal Opportunity Statement

Rosalind Franklin University of Medicine and Science (hereinafter “university”) does not discriminate (or tolerate those who do) on any unlawful basis (such as race, skin color, national origin, sex, including sexual orientation and gender identity, disability, age, religion, genetic information, military status or family status) in its education programs or activities, including admission, financial aid, student activities and events and other terms, conditions or privileges of enrollment.

The Full Equal Opportunity Policy (Non-Discrimination Policy) can be found in the Student Handbook.

Further information regarding matters contained in this policy may be obtained from:

Rebecca Durkin
Vice President for Student Success and Inclusion
3333 Green Bay Road
North Chicago, IL 60064
847-578-8351

Title IX Policy Statement

The university does not engage in or tolerate discrimination on the basis of sex (which includes sexual harassment and sexual violence) in its education programs and activities and the university is committed to respond to any instance of such sex discrimination by taking prompt and effective steps to end the discrimination and address its effects. The full Title IX Policy can be found in the Student Handbook.

The institutional official responsible for coordinating and overseeing university efforts to comply with the requirements of Title IX and this policy is called the Title IX Coordinator. That person is:

Rebecca Durkin
Vice President for Student Success and Inclusion
3333 Green Bay Road
North Chicago, IL 60064
847-578-8351

Accommodations and Student Disability

Rosalind Franklin University of Medicine and Science supports students who may qualify for reasonable accommodations under the Americans with Disabilities Act (ADA). Each college/school has developed a set of behavioral (technical) standards that are required of all graduates.

Disability discrimination includes when the university or other entity covered by the Americans with Disabilities Act, as amended, or the Rehabilitation Act, as amended, treats a qualified individual with a disability who is a student or applicant unfavorably because they have a disability. Disability discrimination also occurs when the university treats an applicant or student less favorably because they have a history of a disability (such as cancer that is controlled or in remission) or because they are believed to have a physical or mental impairment that is not transitory (lasting or expected to last 6 months or less) and minor (even if they do not have such an impairment). The university provides reasonable accommodation to a student or applicant with a disability. Please see the Accommodations and Student Disability Procedures in the Student Handbook for more information.

Students encountering difficulties in the process of managing accommodation with in the academic department should seek further advocacy from the ADA Coordinator. Continued follow-up of arrangements for accommodations will be monitored by the ADA Coordinator as needed. The university contact person is:

ADA Coordinator
Rosalind Franklin University of Medicine and Science
3333 Green Bay Road
North Chicago, IL 60064
ADA.Coordinator@rosalindfranklin.edu

Student Complaint Process

Rosalind Franklin University of Medicine and Science places value on the right of every student to submit a complaint or concern regarding their academic experience.

Complainants have the following rights:

- A complaint will be treated with appropriate confidentiality and in a timely manner.
- A complainant has the right to withdraw the complaint in writing at any point in the process.
- A complainant may file a written complaint without fear of retaliation. If the complaint is filed without basis or with the intent to harm a member of the RFU community, disciplinary action may be taken.
- The procedure will be applied consistently to students across colleges/units, including online-learning students.

Depending upon the nature of the complaint, the student should follow the appropriate procedures outlined below.

Academic Complaints

A student who wishes to make a complaint that is specific to a course should direct their concern to the course instructor or course director.

- If the matter is still not resolved to the satisfaction of the student, they are encouraged to make an appointment with the department chair to discuss the matter further.
- A student who wishes to make a formal appeal of any decision arising from an action at the division/program level should follow the procedures in the college/school's academic catalog.

Academic Integrity Concerns

A student who wishes to submit a complaint regarding an alleged violation of academic integrity by a fellow student should report the issue to the Associate Vice President for Student Affairs via the Incident Report Form.

Equal Opportunity Complaints

A student who wishes to file a complaint regarding equal opportunity or non-discrimination is encouraged to reference the Equal Opportunity Policy and follow the procedures for reporting, by contacting the Division of Student Affairs and Inclusion at 847-578-3205 or in person in the Health Sciences Building, Room L.675, to ensure proper action is taken. As an alternative, reports may be made to the Office of Compliance directly or through EthicsPoint, a NAVEX Global company (which allows anonymity), either via its toll-free number 800-254-0460 or its URL <http://rosalindfranklin.ethicspoint.com>.

Sex Discrimination and Title IX Complaints

The university does not engage in or tolerate discrimination on the basis of sex (which includes sexual harassment and sexual violence) in its education programs and activities, and the university is committed to respond to any instance of such sex discrimination by taking prompt and effective steps to end the discrimination and address its effects. Students are encouraged to reference the full Title IX and Sex Discrimination Policy and report concerns promptly to our Title IX Coordinator, Rebecca Durkin, Vice President for Student Success and Inclusion.

Learner or Campus Environment Complaints

Any member of the RFU community who wishes to submit a complaint regarding the learner or campus environment including, but not limited to, university-wide services, student programs, counseling and psychological services, student health, educational technology, wellness center, enrollment management, library services or student accounting, is to be directed to the Division of Student Affairs and Inclusion. Under the authority of the Vice President for Student Success and Inclusion, the staff of the division will assist students in appropriate management of the complaint depending on the nature of their concern.

Concern that Due Process Was Not Followed

The decision of the college dean or Vice President for Student Success and Inclusion is considered a final decision; however, if the student believes that due process was not followed, they have the option of submitting a written appeal to the provost. In the written appeal, the student must identify how due process was not followed. The complainant must provide the college or university with a copy of the written appeal to the provost. The provost's findings will be communicated in writing to the student and college or university representative.

Potential Criminal Activity

In the case of potential criminal activity violations, the student may immediately contact Campus Safety. Campus Safety will take appropriate immediate action to ensure the safety of all students and will file appropriate incident reports to other areas of the university as deemed necessary.

Non-University Options for Dispute and/or Complaint Resolution Complaints

If a student has exhausted all possible attempts with the institution and thinks the institution was unable to satisfactorily resolve the complaint, the student may contact the Illinois Board of Higher Education (IBHE) and file a complaint at <http://complaints.ibhe.org>.

If a student wishes to file a complaint about the institution having a substantive problem in its ability to meet the Criteria for Accreditation by the Higher Learning Commission (HLC), the regional accrediting body for RFU, the student can file a complaint with the HLC. The student can go to the HLC's webpage www.hlcommission.org/HLC-institutions/complaints to see the type of complaints that the commission will review and the process involved for filing an appropriate complaint.

Student Treatment

The university will not tolerate student mistreatment. A primary goal of RFU is the education of students who will meet the healthcare needs of society in a caring, competent and professional manner. A profession based on the ideals of service to others should be sensitive to the humanity of its practitioners, especially during training. Insensitivity during training runs counter to the fundamental tenets of health care and impairs the ability of many students to maintain their idealism, caring and compassion past training into their careers. This affects the quality of patient care as well as collegial relationships.

Examples of mistreatment include sexual harassment; discrimination or harassment based on race, religion, ethnicity, gender, sexual orientation, physical disability or age; humiliation; psychological or physical punishment; and the use of grading and other forms of assessment in a punitive manner. The occurrence, either intentional or unintentional, of such incidents results in a disruption of integrity, trust and the spirit of learning.

Students who experience "mistreatment" should report the specific incident(s) to the offender's supervisor and to the dean or associate dean of their school or the Vice President for Student Success and Inclusion. All incidents will be handled in an equitable manner with the guarantee of each student's rights with appropriate protection for both the complainant and accused.

Appropriate counseling can be arranged by contacting the Student Counseling Service at 847-578-8723.

Statement of Policy on Professionalism and Ethics

All students at RFU are expected to exhibit professional, responsible and ethical behavior. Students should display this behavior as students in the university, as healthcare providers in the clinical setting and as researchers in the laboratory or clinic. All students should, therefore, possess the highest degree of personal integrity and be able to reason about ethical issues in their professional life. Students are expected to treat patients and research subjects with respect,

compassion and sincerity, irrespective of race, color, creed, ethnic origin, religion, disability, gender, sexual orientation, or socioeconomic class, and to maintain strict confidentiality. Students are expected to be honest and trustworthy, to respect the property of others and to follow the code of professional ethics appropriate to their discipline. Any departures from these standards may result in disciplinary action. See the Student Conduct Policy in the Student Handbook for details.

2018-2019 Academic Calendar

Summer	May 29, 2018 - August 3, 2018
May 23 – 25, 2018	New Student Orientation
May 28, 2018	Memorial Day Holiday
May 29, 2018	Summer Quarter Starts
May 29 – June 1, 2018	Financial Aid Disbursement
June 1, 2018	Commencement Ceremony
June 4, 2018	Last Day to Add/Drop a Course
June 8, 2018	Registration hold placed on student's account for unpaid balances
June 18, 2018	Payment Plan Summer Installment 2 Due
July 4, 2018	Independence Day Holiday
July 2 - August 2, 2018	Enrollment Period for RFU Payment Pay (Fall Term)
July 13, 2018	Fall Registration Deadline
July 20, 2018	Payment Plan Summer Installment 3 Due
August 3, 2018	Summer Quarter Ends
August 3, 2018	Deadline to dispute a late fee
August 3, 2018	Fall Tuition and Fee Deadline
August 3, 2018	Payment Plan Fall Installment 1 Due
August 6 - 10, 2018	Summer/Fall Intersession Break
Fall	August 13, 2018 - November 2, 2018
August 7 – 10, 2018	New Student Orientation
August 13, 2018	Fall Quarter Starts
August 13 - 17, 2018	Fall Financial Aid Disbursement
August 17, 2018	Last Day to Add/Drop a Course
August 30, 2018	Summer Financial Aid Refund Deadline
September 3, 2018	Labor Day Holiday
September 4, 2018	Registration hold placed on student's account for unpaid balances
September 5, 2018	Payment Plan Fall Installment 2 Due
October 4, 2018	Payment Plan Fall Installment 3 Due
October 8, 2018	Columbus Day Holiday
October 9 - November 1, 2018	Enrollment Period for RFU Payment Pay (Winter Term)
October 12, 2018	Winter Registration Deadline
October 19, 2018	Last day of class for online programs
November 2, 2018	Fall Quarter Ends
November 2, 2018	Deadline to dispute a late fee
November 2, 2018	Winter Tuition and Fee Deadline
November 2, 2018	Payment Plan Winter Installment 1 Due
November 5 - 9, 2018	Fall/Winter Intersession Break
Winter	November 12, 2018 - February 15, 2019
November 12, 2018	Winter Quarter Starts
November 12 - 16, 2018	Winter Financial Aid Disbursement
November 16, 2018	Last Day to Add/Drop a Course
November 16, 2018	Fall Financial Aid Refund Deadline
November 22 - 23, 2018	Thanksgiving Holiday
December 3, 2018	Payment Plan Winter Installment 2 Due
December 3, 2018	Registration hold placed on student's account for unpaid balances
December 24, 2018 - January 4, 2019	Winter Break
January 7, 2019	Payment Plan Winter Installment 3 Due

January 7 - February 14, 2019	Enrollment Period for RFU Payment Pay (Spring Term)
January 21, 2019	Martin Luther King, Jr. Day Holiday
January 25, 2019	Spring Registration Deadline
February 1, 2019	Last day of class for online programs
February 14, 2019	Winter Financial Aid Refund Deadline
February 15, 2019	Winter Quarter Ends
February 15, 2019	Deadline to dispute a late fee
February 15, 2019	Spring Tuition and Fee Deadline
February 15, 2019	Payment Plan Spring Installment 1 Due
February 18, 2019	President's Day Holiday
February 18 - 22, 2019	Winter/Spring Intersession Break
Spring	February 25, 2019 - May 17, 2019
February 25, 2019	Spring Quarter Starts
February 25 - March 1, 2019	Spring Financial Aid Disbursement
March 1, 2019	Last Day to Add/Drop a Course
March 4, 2019	Registration hold placed on student's account for unpaid balances
March 15, 2019	Payment Plan Spring Installment 2 Due
March 20, 2019	All School Research Consortium
April 15, 2019	Payment Plan Spring Installment 3 Due
April 22 - May 16, 2019	Enrollment Period for RFU Payment Pay (Summer Term)
April 26, 2019	Summer Registration Deadline
May 3, 2019	Last day of class for online programs
May 17, 2019	Spring Financial Aid Refund Deadline
May 17, 2019	Spring Quarter Ends
May 17, 2019	Deadline to dispute a late fee
May 20 - 27, 2019	Spring/Summer Intersession Break
June 6 - 7, 2019	Awards Day/Commencement Ceremony (tentative)

Degree and Certificate Programs

Doctoral Degrees

Chicago Medical School

Doctor of Medicine (MD)

College of Health Professions

Doctor of Nursing Practice (DNP)

Doctor of Philosophy (PhD) in Interprofessional Healthcare Studies

Doctor of Philosophy (PhD) in Psychology

Doctor of Physical Therapy (DPT)

Doctor of Science (DSc) in Interprofessional Healthcare Studies

College of Pharmacy

Doctor of Pharmacy (PharmD)

Dr. William M. Scholl College of Podiatric Medicine

Doctor of Podiatric Medicine (DPM)

School of Graduate and Postdoctoral Studies

Doctor of Philosophy (PhD) in Biochemistry and Molecular Biology

Doctor of Philosophy (PhD) in Cell Biology and Anatomy

Doctor of Philosophy (PhD) in Cellular and Molecular Pharmacology

Doctor of Philosophy (PhD) in Microbiology and Immunology

Doctor of Philosophy (PhD) in Neuroscience

Doctor of Philosophy (PhD) in Physiology and Biophysics

Joint Doctoral Degree Programs

MD/PhD, DPM/PhD and PharmD/PhD in:

Biochemistry and Molecular Biology

Cell Biology and Anatomy

Cellular and Molecular Pharmacology

Microbiology and Immunology

Neuroscience

Physiology and Biophysics

Master of Science Degrees (MS)

Chicago Medical School

Clinical Nutrition

Health Promotion and Wellness

Nutrition Education

College of Health Professions

Biomedical Sciences
Health Administration
Health Professions Education
Pathologists' Assistant
Physician Assistant Practice
Population Health
Psychology: Clinical Counseling
Psychology: Clinical Psychology

School of Graduate and Postdoctoral Studies

Biochemistry and Molecular Biology
Cell Biology and Anatomy
Cellular and Molecular Pharmacology
Microbiology and Immunology
Neuroscience
Physiology and Biophysics

Bachelor of Science Degree (BS)

Dr. William M. Scholl College of Podiatric Medicine

Biological Sciences

Post-Baccalaureate Certificates

Chicago Medical School

Essentials in Health Promotion and Wellness
Nutrition for Healthcare Professionals

College of Health Professions

Health Administration
Health Professions Education
Population Health Analytics
Population Health Strategies

Welcome

Rosalind Franklin University of Medicine and Science is committed to the education of future health and biomedical professionals who will work in interprofessional and interdisciplinary teams to improve health and well-being.

Our pioneering focus on interprofessional education and practice and our commitment to population health are helping to light the way in an enormously complex and shifting healthcare landscape. Working in teams you will learn to improve health outcomes, break down health disparities, reduce healthcare costs and offer more responsive care.

That approach is embedded in our five schools and colleges-Chicago Medical School, College of Health Professions, College of Pharmacy, School of Graduate and Postdoctoral Studies and Dr. William M. Scholl College of Podiatric Medicine-and it aligns how we teach and train our students with national goals for improving health.

As one of more than 2,100 RFU students, you will enjoy myriad opportunities for leadership, growth and development. You will join our nationally-recognized faculty/researchers and 18,000 alumni as they work to build healthier and safer communities in classrooms and in simulation and research labs on campus; at our free Interprofessional Community Clinic for the underserved; across Lake County aboard the Community Care Connection mobile health coach; across the world, through our global health initiative; and in countless other ways.

You have chosen a demanding and deeply rewarding path. You have also chosen, in RFU, a close-knit and supportive learning community that will help you navigate that path to fulfillment. Your respective deans and faculty and staff across the university are eager to help you flourish and succeed.

Thank you for choosing RFU.

K. Michael Welch, MB, ChB, FRCP
President and CEO

President and Leadership

K. Michael Welch, MB, ChB, FRCP
President, Chief Executive Officer

Wendy Rheault, PT, PhD, FASAHP, FNAP
Provost

Marc S. Abel, PhD
Dean, College of Pharmacy

James Carlson, PhD, MS, PA-C
Vice President for Interprofessional Education and Simulation, Associate Professor

Lee Concha, MA
Senior Vice President for University Enhancement

Joseph X. DiMario, PhD
Dean, School of Graduate and Postdoctoral Studies

Rebecca Durkin, MA
Vice President for Student Success and Inclusion

Michelle L. Hastings, PhD
Faculty Senate Principal Senator, Associate Professor

Ronald Kaplan, PhD
Executive Vice President for Research

Sandra Larson, PhD, CRNA, APN, FNAP
Associate Provost of Clinical Partnerships

Richard Loesch, MBA, CGEIT
Associate VP Technology & Learning Resources, Chief Information Officer

Bret Moberg, JD, LLM
Compliance Counsel

Bruce C. Neimeyer, PhD
Vice President for University Planning

Sheema Shabahang
Executive Student Council President

John Nylen, BS, MBA
Executive Vice President for Finance and Administration

Nancy L. Parsley, DPM, MHPE
Vice President for Academic Affairs, Dean, Dr. William M. Scholl College of Podiatric
Medicine

James Record, MD, JD, FACP
Dean, Chicago Medical School

Chad B. Ruback, MEd, MBA
Vice President for Institutional Advancement

William Rudman, PhD, RHIA
Executive Director, Institute for Interprofessional Healthcare Workforce and Development

Judith Stoecker, PT, PhD
Vice President for Faculty Affairs

John Vitale, PhD, MHS, PA (ASCP)
Dean, College of Health Professions

Mission and Vision

Mission: To serve the population through the interprofessional education of health and biomedical professionals and the discovery of knowledge dedicated to improving the wellness of its people.

Vision: To achieve national recognition as the premier interprofessional health sciences university.

History

Founded in 1912 in Chicago as a medical school determined to diversify the profession by rejecting the ethnic and racial quotas of the day, Rosalind Franklin University of Medicine and Science (RFU) is rooted in a proud history of inclusion.

Also founded in Chicago in 1912, Scholl College, which shared our founding principle of non-discrimination, joined RFU in 2001. From their earliest days, both institutions admitted working men and women from diverse backgrounds. In 1939, when war was declared in Europe, we welcomed refugee physicians and scientists.

Our Chicago Medical School (CMS) was the only privately funded, independent medical school in the nation to earn accreditation under stringent guidelines put in place after the 1910 publication of the landmark Flexner Report - aimed at improving the quality of medical services throughout the United States.

More than 50 years ago we envisioned the development of a university of health sciences where future health professionals from varied disciplines would train together and learn to work in teams. In 1967, we became one of the first such universities in the country.

Today, RFU's defining focus on interprofessional, team-based education unites students in more than 30 graduate programs through Chicago Medical School, the College of Health Professions, the College of Pharmacy, the School of Graduate and Postdoctoral Studies and the Dr. William M. Scholl College of Podiatric Medicine.

In 1974, the university launched a transition of its campus from the city of Chicago to North Chicago in the far northern suburbs, aided by its enduring clinical affiliation with the neighboring Veterans Administration hospital, now the Captain James A. Lovell Federal Health Care Center.

In 2004, Rosalind Franklin University became the first medical institution in the nation to recognize a female scientist through an honorary namesake and took as its motto "Life in Discovery."

Location

Rosalind Franklin University of Medicine and Science is located at

3333 Green Bay Road
North Chicago, IL 60064
United States of America

Visitor parking is available in the South Parking Lot.

Directions

From O'Hare Airport/Chicago: Take Tri-State Tollway (294) North toward Milwaukee. Go east on Rt. 137 (Buckley Road) to Rt. 131 (Green Bay Road). Turn right (south) on Green Bay Road. RFU is on the left.

From Midway Airport/Chicago: Take Interstate I-55 North to I-90 West. Exit onto Interstate I-94 West to Tri-State Tollway (294) North toward Milwaukee. Exit off on Rt. 137 (Buckley Road) heading east to Rt. 131 (Green Bay Road). Turn right (south) on Green Bay Road. RFU is on the left.

From Mitchell Airport/Milwaukee: Take Interstate I-94 East toward Chicago/Indiana. Exit off on Rt. 137 (Buckley Road) and head left onto Buckley Road Turn right (south) on Green Bay Road. RFU is on the left-only about ¼ mile from the 137/131 intersection.

From Chicago Edens Expressway: Take 94 North to exit Rt. 137 (Buckley Road). Turn east on Rt. 137 to Rt. 131 (Green Bay Road). Turn right (south) on Green Bay Road. RFU is on the left.

Accreditation

State Authorization and Regional Accreditation

Rosalind Franklin University of Medicine and Science receives its degree-granting authority from the Illinois Board of Higher Education and is accredited by the Higher Learning Commission.

Illinois Board of Higher Education
1 North Old State Capitol Plaza, Suite 333
Springfield, IL 62701-1377
217-782-2551
www.ibhe.org

Higher Learning Commission
South LaSalle Street, Suite 7-500
Chicago, IL 60604
800-621-7440
www.hlcommission.org

The Illinois Board of Higher Education (IBHE) online complaint system is accessible through the agency's website at <http://complaints.ibhe.org>. Please visit the university Accreditation webpage to find additional accreditation information by clicking on the Higher Learning Commission Mark of Affiliation (icon).

Program Accreditations

Allopathic Medicine (MD)–Chicago Medical School

Accredited by the Liaison Committee on Medical Education (LCME)

The U.S. Department of Education recognizes the LCME for accreditation of programs of medical education leading to the MD degree in the United States and Canada. Accreditation is a process of quality assurance in post-secondary education that determines whether an institution or program meets established standards for function, structure and performance. The accreditation process fosters institutional and program improvement. It is a prerequisite for eligibility of graduates to obtain medical licensure in most states and for students to sit for U.S. Medical Licensure Examinations (USMLE) and to obtain federal student loans. Graduates from institutions whose programs are accredited by the LCME have unrestricted eligibility to enter graduate medical education programs accredited by the Accreditation Council on Graduate Medical Education (ACGME).

Clinical Psychology (PhD)–College of Health Professions

Accredited by the American Psychological Association

Office of Program Consultation and Accreditation
American Psychological Association
750 1st Street, NE
Washington, DC 20002
202-336-5979
apaaccred@apa.org
www.apa.org/ed/accreditation

Doctor of Nursing Practice (DNP)–College of Health Professions

Accredited by the Council on Accreditation (COA) of Nurse Anesthesia Educational Programs

Council on Accreditation of Nurse Anesthesia Educational Programs
222 South Prospect Avenue
Park Ridge, IL 60068-4001
847-655-1169

Pathologists' Assistant (MS)–College of Health Professions

Accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

Pathologists' Assistant Program Accreditation
National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Road, Suite 720
Rosemont, IL 60018
847-939-3597

Pharmacy (PharmD)–College of Pharmacy

Accredited by the Accreditation Council for Pharmacy Education

Accreditation Council for Pharmacy Education
135 South LaSalle Street, Suite 4100
Chicago, IL 60503
312-664-3575
www.acpe-accredit.org

Physical Therapy (DPT)–College of Health Professions

Accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE)

Commission on Accreditation in Physical Therapy Education (CAPTE)
1111 North Fairfax Street
Alexandria, VA 22314
703-706-3245
accreditation@apta.org
www.capteonline.org

Physician Assistant Practice (MS)–College of Health Professions

Accredited by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA)

The Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) has granted Accreditation-Continued status to the Physician Assistant program sponsored by Rosalind Franklin University of Medicine and Science. Accreditation-Continued is an accreditation status granted when a currently accredited program is in compliance with the ARC-PA Standards.

Podiatric Medicine (DPM)–Dr. William M. Scholl College of Podiatric Medicine

Accredited by the Council on Podiatric Medical Education

Accreditation is an indication of public approbation, attesting to the quality of the podiatric medical education program and the continued commitment of the institution to support the educational program. The council is recognized as the professional institutional accrediting agency for podiatric medical education by the U.S. Department of Education and by the Council for Higher Education Accreditation.

For further information, please contact the Council on Podiatric Medical Education at the following address:

Council on Podiatric Medical Education
9312 Old Georgetown Road
Bethesda, MD 20814
301-571-9200

Student Handbook

The University Academic Catalog focuses on academic programs offered and the various policies and procedures related to academic progress at RFU. Students should refer to the Student Handbook for information about the following:

Accommodations and Student Disability
Alcohol and/or Drug Use
Campus Safety
Communication Methods
Emergency Text Messaging System
Holiday Policy
Identification Card and Copy Card Policies
Information Technology Services: Principles and Policies
Jeanne Clery Act
Key Control and Access
Locker Policy
Missing Person Policy
Parking
Policies and Guidelines for Student Organizations, Activities and Sponsored Events
RFU Tobacco Smoke-Free Policy
Social Networking Policies and Procedures
Solicitation
Student Conduct Policies and Procedures
Student Council and Student Organizations
Student Employment at Clinical or Experiential Training Sites
Student Housing
Student Mistreatment Statement
Student Travel Policy
Title IX Policy Against Sex Discrimination

Classification of Students

Regular Students: This category includes all full-time and part-time students who have met the admission requirements and are matriculating for a degree or certificate. Full-time students are enrolled for at least 12 quarter hours per quarter.

Conditional and Preliminary Students: This category includes students whose regular applicant file shows insufficient achievement in one or more area. A probationary acceptance is offered during which time the student is given the opportunity to prove his or her academic ability or complete necessary prerequisites.

Non-Degree Students: Non-degree status is designated for two types of students who hold a bachelor's degree:

- General Non-Degree Student
 - Students who are a college student or college graduate interested in taking graduate courses for credit that will transfer back to another institution or for personal interest without any intent of completing a degree program.

- Students who are a professional seeking a course(s) for professional development.
- Student-at-Large Non-Degree Student
 - Students who are a college graduate interested in taking courses for credit (i.e., for graduate school preparation, career development or personal interest) with the intent of completing a degree at RFU. This is referred to as a “student-at-large” at some universities.

Admission

Program admission committees adhere to ethical and fair practices in the selection process. RFU admissions committees practice holistic review of their applicants to ensure the enrollment of a talented and diverse class who are academically prepared and whose experiences demonstrate alignment with the mission of the university.

Degree-seeking status options and admission procedures may differ by academic program. Prospective students should consult the appropriate section(s) of this catalog for the specific program admission requirements.

General Admission Policies

Conflicts of Interest in the Admissions Process

RFU ensures an admissions process that takes into account academic and programmatic considerations when admitting and recruiting students. To that end, any admissions committee member is prohibited from participation in the discussion, review, interview or voting on any candidate with whom the member or guest of any admissions committee has a conflicting relationship. In addition, the selection of applicants shall not be influenced by political or financial favors.

Right to Rescind Admissions

RFU reserves the right to rescind any offer of admission based on the discovery of information such as, but not limited to, discrepancies between unofficial and official transcript(s), institutional actions cited, results of background check, incomplete prerequisite coursework, or any other requirement defined by the academic program.

Degree Admissions

Degree-seeking admissions are classified as either regular or conditional status. Students whose records satisfy the general requirements for admission and have been approved by the admissions committee for their program of interest are admitted as “Regular or Full” admissions status. Students who do not meet the program requirements may be awarded “Conditional or Provisional” admission or recommended for a “Denial” of admission.

Full Status

The following RFU minimum requirements apply to all graduate programs and will be verified by the Office of Admissions and Enrollment.

- **Prior Degrees:** A bachelor's degree or specified number of course credits from an accredited institution.
- **Transcripts:** Required from all institutions attended with proof of prerequisite coursework fulfilled. Final official transcripts fulfilling requirements are required to enroll at the university. Prerequisite coursework must be completed prior to enrollment. Final official transcripts with degree conferred where applicable need to be submitted no later than the end of the first month of initial enrollment or future registration beyond the first quarter will not be permitted.
- **Test Requirements:** Typically, the programs at RFU require a graduate examination such as the PCAT, MCAT or GRE of each applicant. Please consult the program section of the catalog to determine the appropriate examination required for admission.
- **Evidence of English Language Proficiency:** Applicants who come from a country or political entity (e.g., Quebec) where English is not the official language must show and submit adequate proficiency in English to do graduate work, as evidenced by a Test of English as a Foreign Language (TOEFL) exam. This requirement applies to, but is not limited to, applicants from the following countries: Bangladesh, Burma, Nepal, India, Pakistan, Latin America, the Middle East, the People's Republic of China, Taiwan, Japan, Korea, Southeast Asia and most European countries. The test score cannot be more than two years old. (Institutional Code for TOEFL is 1117)
- **Letters of Recommendation:** May be required by the college/program.
- **Personal Statement:** May be required by the college/program.
- **Other Requirements:** Additional requirements of some colleges/programs include volunteer experience, healthcare experience, shadowing, research and leadership experience, resume, academic writing sample, interview, etc. In addition, recommendation for admission by the graduate program or college to which application is made and/or by the dean or dean's appointee for the college may be required.

The above requirements are the minimum RFU requirements for admission as a degree student; however, most programs have additional requirements. Consult the appropriate section(s) of this catalog for the specific admissions requirements of each program.

Conditional Status

Conditional status is a probationary status for degree students who have not met all of the admissions requirements, such as those who have specified course or academic deficiencies.

A program can recommend that a student be admitted conditionally. Students can be admitted on a conditional status for no more than two quarters. Programs may specify shorter time limits. If the conditions are not met within the time limit, the program will notify the registrar office and responsible person (Program Director or Dean) in the program and the student will be restricted from further enrollment.

Application Procedures

Applicants should apply through the online application forms which may be accessed for each program here: www.rosalindfranklin.edu/admission-aid/#apply. Applications and supporting credentials should be submitted as early as possible, but no later than the respective program's published deadlines. For programs that participate in an early decision application process,

deadlines may be earlier. Although most RFU programs have varying application deadlines, the university does not permit any program to accept any new applications two weeks prior to the start of the quarter.

Programs stipulate the definition of a complete application within the regulations of their profession and best practices. Students should consult the college or program section of the catalog to determine additional requirements.

Applicants may apply to multiple degree programs but can only enroll in one program per admission cycle unless admitted into a dual degree program option.

Domestic Applicants

Domestic applicants are citizens or lawful permanent residents of the United States, individuals with DACA status, or granted Asylee, Refugee or Paroled in the Public Interest status by the U.S. government. If you have submitted an application, but have not yet been approved for U.S. Permanent Residency, please see the instructions for International applicants in the next section.

Minimum required materials for admission:

- **Completed Application:** Students must submit an application to the CAS or UniCAS system and supplemental application where applicable. It must be completely filled out and submitted electronically.
- **Non-Refundable Application and Supplemental Fee:** These fees are associated with the processing of the application and supplemental application where applicable.
- **Official Transcripts:** Transcripts of all college-level work must be submitted in sealed envelopes as issued by the school to the required Central Application System (CAS) or UniCAS unless specified.
- **Unofficial Transcripts:** RFU will accept unofficial credentials uploaded to the online application systems for some programs. However, most programs require official transcripts. The online application for each program indicates which is acceptable. Additional official credentials may be required if the conferred degree is not reflected on the transcripts submitted or in-progress prerequisite courses are not reflected on the transcript submitted.
- **Letters of Recommendation:** Applicants can request online letters of recommendation through the online application system. Paper copies of recommendation letters are not accepted by the Office of Admissions and Enrollment. Please refer to program-specific requirements for details related to letters of recommendation.
- **Evidence of English Language Proficiency:** Applicants who come from a country or political entity (e.g., Quebec) where English is not the official language must show and submit adequate proficiency in English to do graduate work, as evidenced by a Test of English as a Foreign Language (TOEFL) exam. This requirement applies to, but is not limited to, applicants from Bangladesh, Burma, Nepal, India, Pakistan, Latin America, the Middle East, the People's Republic of China, Taiwan, Japan, Korea, Southeast Asia and most European countries. The test score cannot be more than two years old. (Institutional Code for TOEFL is 1117)
- **Test Scores:** Must be sent directly from the testing service to the CAS or UniCAS system. Applicants are generally required to submit a standardized test applicable to the

program of interest that could include MCAT, GRE, PCAT, etc. Please refer to program-specific requirements for details related to preferred test requirements.

International Applicants

Rosalind Franklin University of Medicine and Science is authorized under federal law to enroll non-immigrant International students. Information about appropriate certification of International students is available from the Division of Student Affairs and Inclusion.

International applicants are citizens or permanent residents of a country to which they intend to return other than the United States. International applicants may be in the United States on an educational, worker or visitor visa, or be residing in their home country. International applicants who are requesting F-1 or J-1 visa eligibility documents are also required to provide evidence of financial support.

Applicants who have filed an application for U.S. Permanent Residency, but have not yet been granted approval, are considered International applicants.

Minimum required materials for admission:

- **Completed Application:** Students must submit an application to the CAS or UniCAS system and supplemental application where applicable. It must be completely filled out and submitted electronically.
- **Non-Refundable Application and Supplemental Fee:** These fees are associated with the processing of the application and supplemental application where applicable.
- **Official Transcripts, Mark Sheets and Diplomas:** Transcripts of all college-level work must be submitted in sealed envelopes as issued by the school to the required Central Application System (CAS) or UniCAS unless specified. In general, International applicants are required to submit official copies of all academic records. Records must be in the original language and accompanied by English language translations. Specially prepared English versions are not acceptable in lieu of the records in the original language. If your degree is from an international school, submit official course-by-course evaluation from an accredited evaluation agency such as ece.org or wes.org.
- **Unofficial Transcripts:** RFU will accept unofficial credentials uploaded to the online application system for some programs. However, most programs require official transcripts. The online application for each program indicates which is acceptable. Additional official credentials may be required if the conferred degree is not reflected on the transcripts submitted or in-progress prerequisite courses are not reflected on the transcript submitted.
- **Letters of Recommendation:** Applicants can request online letters of recommendation through the online application system. Paper copies of recommendation letters are not accepted by the Office of Admissions and Enrollment. Please refer to program-specific requirements for details related to letters of recommendation.
- **Evidence of English Language Proficiency:** Applicants who come from a country or political entity (e.g., Quebec) where English is not the official language must show and submit adequate proficiency in English to do graduate work, as evidenced by a Test of English as a Foreign Language (TOEFL) exam. This requirement applies to, but is not limited to, applicants from countries that include: Bangladesh, Burma, Nepal, India, Pakistan, Latin America, the Middle East, the People's Republic of China, Taiwan,

Japan, Korea, Southeast Asia and most European countries. The test score cannot be more than two years old. (Institutional Code for TOEFL is 1117)

- **Test Scores:** Must be sent directly from the testing service to the CAS or UniCAS system. Applicants are generally required to submit a standardized test applicable to the program of interest that could include MCAT, GRE, PCAT etc. Please refer to program specific requirements for details related to preferred test requirements.
- **Declaration and Certification of Finances Form:** Is required upon admission. Federal regulations limit the types of financial assistance available to international students. International students should be prepared to finance either privately or through a sponsor the full cost of their RFU education. The International Student Certificate of Finances illustrates and documents that sufficient financial support is available to meet the projected total cost of attending RFU. The International Student Certificate is a component of the RFU international student form which must be submitted once the student has confirmed their seat in a particular program.

Post-Secondary Credentials

Applicants who have completed studies outside the United States must present all post-secondary school credentials. Such credentials must include a record of all studies completed to date, grades or examination results received (including failing as well as passing grades), maximum and minimum grades obtainable, rank in class, degrees, diplomas and certificates earned, and length of the school year. Documents must be authentic, and those not written in English must be accompanied by certified English translations. Copies are acceptable when certified as authentic by the issuing institution. Official documents should be sent by the issuing institution directly to the respective centralized application system associated with the RFU program. If an applicant's degree is from an international school, submit official course-by-course evaluation from an accredited evaluation agency such as www.ece.org or www.wes.org.

Visa Certification

The International student form will contain the following:

- Application for the SEVIS Certificate of Eligibility (Form I-20)
- Declaration and Certificate of Finances (be careful to select the specific program)
- Transfer request form*
- RFU Health Insurance information

*Students already in the United States with valid F-1 status and plan to transfer will also need to complete a Transfer Request Form. To obtain the most comprehensive and up-to-date information regarding eligibility to transfer, please visit www.ice.gov/sevis/f1-transfers.

Financial Arrangements

In order to issue the Form I-20, evidence must be provided of appropriate funding to meet U.S. tuition and living expenses, specifically for the first year of study. The financial documents will need to include a copy of a bank statement issued within the last six months. Federal regulations limit the types of financial assistance available to international students. International students should be prepared to finance either privately or through a sponsor the full cost of their RFU education. The International Student Certificate of Finances illustrates and documents that sufficient financial support is available to meet the projected total cost of attending RFU. The

International Student Certificate is a component of the RFU international student form which must be submitted once the student has confirmed their seat in a particular program.

Non-Degree Applicants

Non-degree status is designated for two types of applicants who hold a bachelor's degree:

General Non-Degree Student

- A college student or college graduate who is interested in taking graduate courses for credit that will transfer back to another institution, or for personal interest without any intent of completing a degree program.
- A professional seeking an online course(s) for professional development.

Student-at-Large, Non-Degree Student

- A college graduate who is interested in taking courses for credit (i.e., for graduate school preparation, career development or personal interest) with the intent of completing a degree at RFU.

Minimum required materials for non-degree admission:

- **Completed Application:** Students must submit an electronic application to the RFU application system and it must be completely filled out.
- **Official Transcripts, Mark Sheets and Diplomas:** Official transcripts showing evidence of having earned a bachelor's degree (or highest degree earned if applicable) from an accredited college or university.
- **Unofficial Transcripts:** RFU will accept unofficial credentials uploaded to the online application system for some programs. However, most programs require official transcripts. The online application for each program indicates which is acceptable. Additional official credentials may be required if the conferred degree is not reflected on the transcripts submitted or in-progress prerequisite courses are not reflected on the transcript submitted.
- **Personal Statement:** Students must submit a statement explaining reasons for seeking to take course(s) as a non-degree student.
- **Evidence of English Language Proficiency:** Applicants who come from a country or political entity (e.g., Quebec) where English is not the official language must show and submit adequate proficiency in English to do graduate work, as evidenced by a Test of English as a Foreign Language (TOEFL) exam. This requirement applies to, but is not limited to, applicants from the following countries: Bangladesh, Burma, Nepal, India, Pakistan, Latin America, the Middle East, the People's Republic of China, Taiwan, Japan, Korea, Southeast Asia and most European countries. The test score cannot be more than two years old. (Institutional Code for TOEFL is 1117)

Changing from Non-Degree to Degree

Non-degree graduate students interested in changing to degree status must adhere to the requirements specified for domestic or international degree-seeking students for their desired program/college. All application credentials must be on file before the student will be considered for degree status. The appropriate online application and all required application materials,

including official transcripts, must be submitted by the application deadline of the program/college to which the student is applying. Please see the admissions section for each program/college to determine the application procedures and deadlines to follow.

No more than two courses can be taken as a non-degree student and transferred into the degree program.

Changing Academic Programs/Adding a Second Program

Students interested in changing academic programs from one degree-seeking program to another should first consult with an academic advisor for the program they are seeking to enroll in. Students will need to apply to the desired program/college and submit all necessary application credentials in order to be considered. Students will have to submit all official transcripts (including those from RFU) by the deadline and adhere to all admissions requirements at the time of application.

Combined Degree Enrollment

Current RFU students can expand and enhance their skills as healthcare professionals with the addition of a specialization degree or certificate within our online curriculum. A student must seek approval from their current program prior to applying for enrollment in a combined program.

To apply, students must complete the following:

- **Combined Degree Application:** The application can be found on the RFU Admissions and Enrollment InSite page. This application and supporting documents must be received by the Office of Admissions and Enrollment by the published application deadline.
- **Personal Essay:** Attach a one-page essay stating your reasons for pursuit of this course of study; indicate how it will help you achieve future career plans and list educational goals you wish to achieve. Please note qualities you think will make you a successful candidate for an online program.
- **Dean's Letter:** A letter of support must be submitted by the dean (or dean's designee) of your current school/college for students in CMS, COP and SCPM, or your Department Chairperson for CHP, verifying your academic performance will not be jeopardized by concurrent enrollment.
- **Transcripts:** If applying to the Master of Science in Nutrition program, submit the official transcripts showing completed courses in human nutrition and lifecycle nutrition.

Transfer Credit

Transfer credit is academic credit that is awarded to a student by another college or university and is accepted for application to the requirements of a graduate or professional degree at Rosalind Franklin University of Medicine and Science.

RFU students who have been admitted to certain graduate programs and have earned graduate credit at another college or university may petition to apply such credit toward a graduate or professional degree. Transfer of credit is not applicable to students enrolled in certificate programs. By definition, a petition to transfer credit is a request for an exception to the rule that all graduate courses must be taken at RFU. Faculty within a graduate or professional program

may make the decision as to whether transfer courses will be applied to a program plan and assume the responsibility to review transfer course for verification of the core learning competencies, expectations and criteria for the requested transfer. Individual departments and programs may have limits on the use of transfer credits from other institutions.

To be considered for transfer credit a student must be in good academic standing and:

- Demonstrate that the course meets and/or contains equivalent core learning competencies for the requested transfer, shown through a course syllabus and/or other official course material and an official transcript;
- Earned the credit at a regionally accredited college or university;
- Earned a grade of A or B. (RFU will accept a Pass grade if the course is graded only on a pass-fail basis.);
- Demonstrate how the course meets degree requirements at the college or university where the credit was earned.

Course credits must be transferred in total or not at all. The transferred credit appears on the RFU transcript and the associated grades will appear on the student record and is counted in the cumulative number of credits earned. Transfer credit grades are not computed in the student's RFU cumulative GPA. Credit from all semester-system schools will be transferred according to the standard ratio of 1.0 semester hour = 1.5 RFU quarter hour.

Background Check

- **Introduction and Purpose:** The student background check process includes background checks on prospective students and those on existing students. Background checks are conducted on prospective students and the results of those background checks are used for educational purposes, primarily for making decisions regarding matriculation. Background checks are conducted on existing students enrolled in certain healthcare education programs and the results of those background checks are used for educational purposes, primarily to facilitate placement of students in educational experiences at clinical and other sites that have access criteria. The results of those background checks may contain information that is protected by law and is uniquely sensitive. This policy addresses the process in which student background checks are conducted and the results of those student background checks are used and maintained in an effort to promote compliance with the law and recognize the uniquely sensitive information that may be involved.
- **Results of Background Check:**
 - **Internal Use:** University faculty and staff may, on a need to know basis only, use the results of background checks only for the following education purposes unless expressly approved by the Vice President for Student Success and Inclusion:
 - Making decisions regarding matriculation; and
 - To facilitate placement of students in educational experiences at clinical and other sites that have access criteria.
 - **Disclosure to Others:** University faculty and staff shall not disclose the results of background checks to any person external to the university (unless expressly approved by the Vice President for Student Success and Inclusion).

- **Safeguards to Protect:** Background check results are considered confidential information and university faculty and staff shall utilize reasonable safeguards to protect the results of background checks from inappropriate use and disclosure.

Immunization

- **Introduction and Purpose:** All students entering Rosalind Franklin University of Medicine and Science (RFUMS) are required to show proof of immunity through immunization records and (in the case of clinical programs), blood titers in order to ensure that the spread of communicable diseases is minimized. Each student must also complete a health history and physical form documenting their health status. These requirements comply with the State of Illinois College Immunization Code (77 ILL. ADM. CODE 694) as well as follow guidelines and recommendations from the Centers for Disease Control and Prevention and the Immunization Action Coalition.
- **Procedures:** Each student must provide evidence that he/she has met the immunization requirements as outlined on the Pre-Matriculation Immunization Form. In accordance with the University requirements set forth by the Division of Student Affairs, Diversity, and Inclusion, each student will create a personal profile through CastleBranch (rfu.castlebranch.com), as directed by the Division of Strategic Enrollment Management. The CastleBranch portal requires a student to select the program he/she is enrolled in; Clinical or Non-Clinical immunization requirements are assigned to a student's CastleBranch account, accordingly:
 - In addition to the immunization requirements, every student must complete a physical exam within one year prior to the start of classes. He/she must submit a completed Health History and Physical Form signed by a healthcare provider and the student.
 - All students, irrespective of the program they're enrolled in, can obtain the two required forms (Pre-Matriculation Immunization AND Health History and Physical) from their CastleBranch account. The forms are to be downloaded, completed, and re-uploaded to their CastleBranch profile. All documents must include the student first and last name.
 - Students can obtain the required immunizations, antibody titers and physical exam through the Rosalind Franklin University Health Clinics. Orders for these immunizations and titers can be obtained from an appropriate licensed provider including providers at the Rosalind Franklin University Health Clinics.
 - Students who request exemptions to this policy will be referred to the Division of Student Affairs, Diversity, and Inclusion at RFUMS to determine whether the exemptions will be permitted (RFUMS Student Handbook: Student Health and Wellbeing, Immunization Requirements and Resources).
- **Specific Procedures for Clinical Programs:** Applies only to students enrolled in CHP, CMS, COP, and SCPM
- Quantitative titer lab reports including numerical values are also uploaded to the student's personal profile. All documents must include first and last name.
 - Proof of one Tdap vaccine in adolescence or adulthood is required. If the Tdap vaccine was more than 10 years ago, proof of a Td vaccine within the past 10 years is required.
 - IgG antibody (quantitative) titer results must be submitted for measles (rubeola), mumps, rubella, varicella, and hepatitis B surface antibody (after completion of the 3-

- dose hepatitis B vaccine series). These five antibody titers must show numerical levels in the immune or positive range.
- If the titers for measles (rubeola), mumps, or rubella are negative or equivocal, then the prior MMR immunization history should be reviewed.
 - A student with negative titers who has never received MMR vaccination should receive two MMR vaccinations four weeks apart with titers drawn not less than four weeks post the second vaccination. If the repeat titers are negative, the student should receive one more MMR vaccine with titers drawn not less than four post vaccination.
 - A student with negative titers who has documentation of two prior MMR vaccines should receive one MMR vaccine with titers drawn not less than four weeks post vaccination.
 - If the student has had three documented MMR vaccinations and the follow up titers are still negative, no further MMR vaccination is required.
 - If the titer for varicella is negative or equivocal, the prior varicella immunization history should be reviewed.
 - If the student has no documentation of past varicella immunization, the student needs to complete a series of two varicella immunizations administered at least 28 days apart (even if the student has had chicken pox). A titer should be redrawn not less than four weeks post the second vaccination. If the titer is negative, the student should receive one more varicella vaccine with a titer redrawn not less than four weeks post vaccination.
 - If the student has documentation of two prior varicella vaccines, the student should receive one varicella vaccine and the titer should be redrawn not less than four weeks post vaccination.
 - If students have had three documented varicella vaccines and the follow up titer is still negative, no further varicella vaccination is required.
 - If the student has not received the series of three hepatitis B immunizations, the hepatitis B series of three vaccinations needs to be initiated.
 - The second vaccination should be given one month after the first.
 - The third vaccination should be administered five months after the second.
 - A hepatitis B surface antibody titer is drawn one month after the third vaccination.
 - If the student has had three hepatitis B immunizations but the hepatitis B surface antibody titer comes back negative or equivocal, the student should be re-vaccinated with a 3-dose hepatitis B series following the routine schedule of 0, 1, and 6 months.
 - A repeat hepatitis B surface antibody, quantitative titer is to be drawn not less than four weeks after dose #3 of the series
 - If the repeat hepatitis B surface antibody titer is negative or equivocal, a hepatitis B surface antigen and hepatitis B core antibody should be tested.
 - If the hepatitis B surface antigen or hepatitis b core antibody is positive, the student needs further evaluation to determine their hepatitis B status. He/she must be seen by a primary care physician for follow-up.
 - If the student's hepatitis B surface antibody titer is negative after six doses of the vaccine and the hepatitis B surface antigen and hepatitis B core antibody are negative, the student is a non-responder. The student should be counseled regarding risks of exposure to hepatitis B virus, precautions to prevent infection,

- and post-exposure HBIG prophylaxis for known or likely exposure to blood that is positive for hepatitis B surface antigen.
- Each student must undergo a 2-Step PPD (two tuberculosis skin tests administered 7-21 days apart) testing within six months prior to the start of classes, regardless of BCG vaccination status. Alternatively, a QuantiFERON Gold Tb blood test within six months prior to the start of classes is accepted.
 - For students with a positive tuberculosis (Tb) skin test (new or history of), a baseline chest x-ray is required within 12 months prior to the start of classes. The student must provide documentation of the positive PPD skin test (date administered, date read, and millimeters of induration), a copy of the chest x-ray, and a completed annual Tb Symptom Screening Questionnaire.
 - Students with a new positive Tb skin test (PPD) must be referred to a physician for follow-up.
 - After the initial 2-Step PPD, students must maintain annual 1-Step PPD updates. Annual tuberculosis skin testing will be provided through the Health Clinics at no charge to the student once the entry PPDs have been completed. Alternatively, annual QuantiFERON Gold Tb testing is accepted (this is not provided through the Health Clinics).
 - A student with a known past positive PPD must complete an annual TB Symptom Screening Questionnaire. In addition, he/she is required to complete a chest x-ray every three years if free of Tb symptoms. Any student who develops Tb symptoms must follow up with a physician and have an updated chest x-ray.
 - Seasonal influenza vaccination is required annually after matriculation.
 - **Specific Procedures for Non-Clinical Programs:** Applies only to students enrolled in BMS, Board Review, PMP, and SGPS
 - Proof of one Tdap vaccine in adolescence or adulthood is required. If the Tdap vaccine was more than 10 years ago, proof of a Td vaccine within the past 10 years is required.
 - Documentation of two MMR vaccines from childhood must be documented.
 - Documentation of three hepatitis B vaccines OR an immune hepatitis B surface antibody titer.
 - Hepatitis A and meningococcal vaccines are optional at this time. Documentation should be submitted if they have been completed.
 - Each student must undergo 1-Step PPD testing within six months prior to the start of classes, regardless of bacille Calmette-Guerin (BCG) vaccination status. Alternatively, a QuantiFERON Gold Tb test within six months prior to the start of classes is accepted.
 - For students with a known positive tuberculosis skin test (new or history of), he/she must provide documentation of the positive PPD and have a baseline chest x-ray or QuantiFERON Gold Tb test within the 12 months prior to the start of classes. The student must provide documentation of the positive PPD skin test (date administered, date read, and millimeters of induration), a copy of the chest x-ray report or QuantiFERON Gold Tb test. Students must also complete annual Tb Symptom Screening Questionnaire.
 - Students with a new positive Tb skin test (PPD) must be referred to a physician for follow-up.
 - Seasonal influenza vaccination is recommended annually.

- **Consequences:** If students do not complete their immunization requirements within one month of matriculation, students will be placed on an immunization hold and will be unable to register for classes the next quarter. Once students complete the requirements, the registration hold will be removed. If students are in the process of receiving a vaccination series (e.g. hepatitis B series) after matriculation, students will not be placed on a hold as long as they continue the necessary follow-up to meet the immunization requirements.
- **Responsibilities**
 - Students:
 - Ensure that immunization requirements are fulfilled prior to matriculation.
 - Submit proof of immunizations to CastleBranch prior to matriculation.
 - Maintain up-to-date immunizations during their time as students at RFUMS.
 - Maintain awareness of upcoming immunization needs.
- **RFUHC:**
 - Serve as a clinical resource regarding vaccines and immunizations.
 - Monitor and report student immunization status (compliant, in-process, non-compliant) to the Division of Student Affairs, Diversity, and Inclusion at RFUMS.
 - Ensure coherence between immunization requirements and documentation tracking in CastleBranch.
- **Student Health Leadership Taskforce:**
 - Determine student immunization requirements and communicate with the Division of Student Affairs, Diversity, and Inclusion at RFUMS about immunization requirements.
 - Ensure that clinical policy supports educational requirements.
 - Update immunization policy as needed according to CDC guidelines.

Student Financial Services

Financial Aid

The Office of Student Financial Services (OSFS) is responsible for administering and coordinating aid funds from federal, private and university sources. The primary goal of the OSFS is to provide financial assistance to applicants who, without such aid, would be unable to attend RFU.

A variety of financial aid is available to qualified students attending RFU. Questions concerning financial assistance should be directed to the Office of Student Financial Services or online at financial.services@rosalindfranklin.edu.

For contact information call 847-578-3217 or visit www.rosalindfranklin.edu/admission-aid/financial-services/financial-aid.

Eligibility Requirements and General Application Procedures

To be eligible for financial aid, an applicant must:

- Be a citizen or permanent resident of the United States or other eligible non-citizen.

- Be enrolled at least half-time (six or more graded quarter hours at RFU) and admitted to a degree-seeking program.
- Not be in default on a Federal Perkins Loan or Federal Direct Loan.
- Not owe a repayment to a grant program.
- Be making satisfactory academic progress per federal financial aid regulations.
- Agree to use any student financial aid received solely for educational expenses.
- Begin attendance in all courses for which aid is received.

The Free Application for Federal Student Aid

Students who wish to be considered for financial aid must complete the Free Application for Federal Student Aid (FAFSA). FAFSAs are available on October 1 of each year.

When completing the FAFSA, it is vital that students consistently report their name, social security number and date of birth. The U.S. Department of Education will verify the information reported with various other federal agencies. If the information does not match, it will delay processing. Additionally, the information reported on the FAFSA must match exactly with the permanent student record at RFU.

The OSFS recommends that students complete the FAFSA online at www.fafsa.ed.gov. RFU's school code (001659) must be listed; otherwise, RFU will not receive the FAFSA information. To complete the FAFSA online the student must have a FSA ID in order to be able to sign the form electronically. Students may create a FSA ID at <https://fsaid.ed.gov>.

After receiving your FAFSA, the federal processor will send the student a Student Aid Report (SAR) electronically. The SAR lists all the information submitted on the FAFSA and explains the EFC calculated from that information. Students should review the SAR for accuracy and make any necessary corrections.

Additional Document Requirements

In addition to a complete FAFSA, students will be required to complete the RFU Financial Aid Application annually.

If additional information is required, the OSFS will send the student an email detailing the specific documentation being requested. It is important that all required documentation be submitted with proper signatures in a timely manner as until all required documentation is received and reviewed, the university cannot finalize a financial aid award. Students should return the required documentation within two to four business days from the initial correspondence.

Determining Financial Need

For each student the OSFS must determine an estimated cost of attendance (COA) which reflects costs the student may encounter during the academic year. Such expenses may include:

- Tuition
- Fees
- Books and supplies
- Room and board
- Transportation
- Miscellaneous personal expenses

The total COA is not the amount that the student will owe the university for the year. Some items in the COA are indirect costs and some are estimates. Direct costs are those the student pays directly to the university and include tuition, fees and tuition differentials. Room and board are direct costs for those living in campus housing. Indirect costs are costs a student will likely face during the academic year but which are not owed directly to the university. Indirect costs include books and supplies, transportation and miscellaneous personal expenses. Room and board are indirect costs for those not living in university housing.

Financial need is determined by subtracting the student's expected family contribution (EFC) and any other outside resources from the student's cost of attendance (COA) as per the following formula: "A student must have financial need in order to be eligible for need-based financial aid. Additionally, the sum total of financial assistance a student receives from all sources (grants, scholarships, waivers, loans, work study, etc.) cannot exceed the student's estimated cost of attendance."

Award Notification

Once the student's FAFSA and any additional required documents have been processed, the OSFS is able to award the student financial aid. At such time, an email will be sent to the student's RFU email address (or preferred email to those only admitted) with instructions on how they can view their Award Notification online. Students must notify the OSFS of any additional sources of funding not listed on the Award Notification.

Ideally, the OSFS will begin to process awards for new incoming students in late March. However, much depends upon notification from the federal government about funding levels for the various programs. Awards for continuing students will be processed in mid-April.

Please be aware that financial aid awards can be adjusted (increased, decreased or cancelled) at any point during the academic year. Awards can be adjusted for a variety of reasons, such as if the OSFS learns of outside financial resources (including tuition waivers and scholarships), if corrections are made to the student's FAFSA or if the student changes enrollment, grade levels, programs, etc. If an award is adjusted, the student will be sent an email informing them that a revised Award Notification is available to be viewed online.

There are several types of special circumstances that can affect a student's status and aid eligibility during the year. Special circumstances must be unaccounted for by the regular awarding process. For example, an unexpected vehicle repair, medical/dental expense or daycare costs could potentially be reasons for filing a special circumstances request. Lifestyle choices, such as the purchase of a new car or home and other situations unrelated to higher education, such as credit card debt, are not considered special circumstances. Special circumstances must always be thoroughly documented. If the student experiences a change in financial situation, the student should contact the Office of Student Financial Services.

Disbursement of Financial Aid and Refunds

Financial aid will first be credited toward any outstanding balance assessed to the account. If the financial aid disbursed is greater than the total student account balance, Student Accounts will issue a refund to the student. This is done either by direct deposit, which is much faster and encouraged, or a refund check.

Students who receive financial assistance and withdraw from the university, or cease to participate in a quarter without formally withdrawing from the university, may be required to repay a portion of their award(s). The exact amount to be repaid to financial aid accounts will be determined by the amount of aid received, the educational costs incurred and the length of time attended during the quarter. Students who do not begin attendance in all registered courses may have financial aid reduced. See the OSFS website for more information on the return of Title IV aid.

Satisfactory Academic Progress for Federal Aid Eligibility

Satisfactory Academic Progress (SAP) ensures students are able to complete their academic program in a timely manner while achieving and maintaining compliance with minimum academic standards. Federal regulations mandate that all students are required to conform to SAP standards as they work toward a degree in order for them to qualify to receive financial assistance through all university eligible Title IV Federal Financial Aid programs. Complying with the Rosalind Franklin University SAP policy ensures students complete their academic program in a timely manner while achieving and maintaining compliance with minimum academic standards.

- **Standards of Satisfactory Academic Progress**
SAP standards (Academic Standing, Pace and Maximum Time Frame, from now on collectively referred to as "Standards") consist of quantitative and qualitative measurements that are determinants of SAP. The qualitative measurement evaluates the quality (i.e., GPA and academic standing) of the students' academic work. The quantitative measurement evaluates the Pace by which students are working toward the

completion of their program and the Maximum Time Frame required to complete their program.

- **CGPA and Academic Standing (Qualitative):** All students must maintain a minimum cumulative grade point average (CGPA) or comparable norm and be neither dismissed nor suspended from their academic program, as determined by their program's specific academic standards policy. All students are also required to achieve a CGPA or comparable norm that is consistent with their program requirement for graduation.
- **Pace (Quantitative):** Students must be on target to complete their academic program within the set time frame, which is measured by the Pace at which they complete their required coursework. All students must maintain a minimum Pace. To determine if a student is meeting this standard, total cumulative earned credit hours at RFU plus accepted transfer credit hours are divided by the total cumulative attempted credit hours, including accepted transfer credits. A student must successfully complete the designated cumulative minimum percentage of all attempted credit hours at the point of SAP evaluation as determined by the calculation above.
- **Maximum Time Frame (Quantitative):** All students are expected to finish their degree or certificate program within a maximum time frame, no longer than 150% of the published length of their program.
- **Additional Constraint on Financial Aid Eligibility**

Students who have completed the academic requirements for a program, but do not yet have the certificate or degree, are not eligible for federal financial aid funds for that program of study.
- **SAP Evaluation**
 - **Academic Year:** The academic year at RFU consists of summer, fall, winter and spring, payment periods/quarters. Summer begins the academic year and spring concludes it.
 - **Frequency and Timing:** RFU evaluates all students' academic progress quarterly or annually. As grades are posted, the Office of Financial Aid will review the academic records of all students who are receiving federal financial aid funds to determine if they are meeting the Standards. This review will be performed for all students who were enrolled at RFU for the previous academic year. Students returning from administrative leave may follow the appeal policy if consideration for financial aid is desired. All periods of enrollment at RFU will be included in the measurement of satisfactory academic progress. Terms in which the student enrolled but did not receive financial aid are also included in the measurement.
 - **Evaluation:** The Office of Financial Aid will perform an annual or quarterly review of each student's progress to ensure that students are meeting each of the Standards. If it is determined that the student is not compliant with any of the Standards, the student becomes ineligible to receive federal financial aid and financial aid eligibility will be suspended.
- **SAP Notification**

A student not meeting the Standards will be notified in writing of their Financial Aid Warning or Suspension after all grades have been posted for their program of study. The notification will include an explanation of the Standards evaluated and instructions on how to proceed. Written notification will be sent electronically via their RFU email

account and/or mail via the last known mailing address according to the Registrar's records.

- **Financial Aid Warning:** Financial aid eligibility will be reinstated for one quarter. No SAP appeal is necessary. During the warning quarter, students are expected to improve their academic standing and degree progress to meet standards of SAP at the end of the quarter. Students who fail to achieve SAP at the end of the quarter will be denied financial aid beginning the following quarter. A SAP Appeal to request financial aid consideration will be required at that time.
- **Financial Aid Suspension:** Students who do not meet the Standards at the time of the quarterly/annual evaluation will be ineligible to receive federal financial aid funds for the subsequent quarter (unless they submit an appeal and are placed on financial aid probation). Financial aid is suspended for a student who fails to meet the standards of SAP and:
 - Has not submitted an appeal of their status or has had their appeal rejected by the appropriate review committee;
 - Fails to regain eligibility by meeting the minimum Standards after a successful appeal and completion of the probationary period;
 - Has not fulfilled the requirements set forth in their Academic Plan.
 - Students with financial aid eligibility suspended may either:
 - ✧ Remediate any of the Standards that are non-compliant while not receiving federal, institutional or need-based financial aid or
 - ✧ Submit a SAP appeal.

If at any time during a non-review period, a student who has been suspended from financial aid eligibility has remediated any of the Standards that are non-compliant (e.g., due to a late grade change or completing an incomplete course), that student must contact the Office of Financial Aid to request a review of their academic record and reinstatement of their financial aid eligibility. **It should not be assumed that reinstatement is automatic.**

Unless academically dismissed, students may be permitted to enroll at Rosalind Franklin University while financial aid is suspended. Students denied federal financial aid may continue attending RFU by funding their education themselves. It is the student's responsibility to monitor their academic progress and to be aware of their program requirements and SAP standards.

- **Financial Aid Probation:** Financial Aid Probation is a status assigned to any annually reviewed student who fails to meet the Standards and has successfully appealed their Financial Aid Suspension. If placed on Financial Aid Probation, students will be required to follow an approved Academic Plan in order to receive federal financial aid for one quarter/term and have their progress be evaluated at the end of the quarter/term. Students who meet all Standards or the requirements outlined in their Academic Plan will remain eligible for federal financial aid. Students who fail to meet the Standards or the requirements outlined in their Academic Plan will again be suspended from financial aid eligibility and will be ineligible for federal financial aid going forward.
Only financial aid-eligible applicants and recipients will be placed on Financial Aid Probation. Students who successfully appeal their financial aid eligibility and are

approved will be placed on Financial Aid Probation for the current or subsequent quarter as requested by the student in the appeal process.

- **Discretionary Review of SAP in Non-Annual Review Periods:** The Office of Financial Aid and the Registrar may, at their discretion, conduct SAP assessments at any time throughout the academic year. If upon performing the analysis the financial aid or registrar staff identifies that a student may be at risk of failing to meet all Standards, the identified student(s) may be sent a courtesy notification via their RFU email address.

If a discretionary SAP assessment is performed and risk is identified, an ERP system-flag (not to be confused with Financial Aid Suspension or probation) will be placed on the student's account/record to notify the Financial Aid department, the Registrar and the student's academic advisor that the student is at risk of losing federal financial aid eligibility. Students who receive a courtesy notification letter will continue to have their federal financial aid normally processed by the Office of Financial Aid for the term during which the discretionary review was completed and until they fail to meet the standards of Satisfactory Academic Progress as determined by the annual review period described above.

- **Appeal Process**

- Students who become ineligible to receive federal financial aid for failure to meet the Standards, and have been notified of the Financial Aid Suspension, have the right to make a written appeal to the appropriate committee. Students who appeal must demonstrate all of the following:
 - That failure to meet the minimum standard was caused by extreme or unusual circumstances beyond their control (documentation must be supplied);
 - That they have resolved the issue(s) that caused the deficit and
 - That the issue(s) will not affect their performance in the future.
- **Monitoring the Status of an Appeal:** Once an appeal is submitted to the appropriate committee for a decision, that appeal will be heard at that committee's next meeting. All decisions are final. If a decision has not been made by the time tuition is due, it is the student's responsibility to contact the Office of Financial Aid to discuss the alternative payment options.

Below is a list of the potential appeal statuses that could be determined by the committee:

- **In-Progress:** Appeal has been received, but not reviewed.
- **Tabled:** Appeal has been reviewed, but the committee has deferred the appeal until it receives additional information.
- **Approved:** Appeal has been approved and the student has been placed on Financial Aid Probation.
- **Denied:** Appeal was not approved based on the information that was provided. The student is no longer eligible to receive federal financial aid.
- **Limit of Appeals:** Students may not initiate an appeal using the same extraordinary and extenuating circumstance three times.
- **Regaining Eligibility for Financial Aid Through Self-Correction:** Students who are denied federal financial aid on the basis of not meeting the Standards, may regain eligibility by becoming compliant with all of the Standards while studying at their own expense. This is known as self-correction.

It is the student's responsibility to notify the Office of Financial Aid when they have self-corrected their SAP-related issue(s). The Office of Financial Aid will then conduct a review to confirm that the student is meeting all Standards at that point in time.

- **Late Grade Posted or Grade Change:** Students whose financial aid eligibility has been suspended or those on Financial Aid Probation who have a grade posted late or changed must notify the Office of Financial Aid to have their SAP re-evaluated. It is the responsibility of the student to notify the Office of Financial Aid of these circumstances. There is no automatic process to remove the Financial Aid Suspension or Probation status for students. If no notice is provided, the student's SAP status will remain unchanged and will be re-evaluated during the next review.
- **Program Changes:** Students who switch programs while at RFU will be evaluated based only on the Standards for the program for which they are currently active. Students who are not compliant with any Standards prior to switching programs or based on their new program may be required to submit a SAP appeal form before they are eligible to receive any federal financial aid. Failure to submit an appeal may result in the student not being eligible for federal financial aid. It is the student's responsibility to recognize that a program change may result in a Financial Aid Suspension.
- **Multiple Programs:** For students simultaneously pursuing two (or more) graduate or professional degrees, the measurement of their Minimum 67% Pace of Completion and Measurement of Quality is still based on their Total Attempted Hours. Their Maximum Total Attempted Hours will be calculated using the degree with the greater number of required hours.
- **Academic Plan:** If an appeal is approved, the student will be placed on Financial Aid Probation and given an Academic Plan.
An Academic Plan is a written agreement between the student and the student's adviser that may extend the student's eligibility for federal financial aid for one quarter/term during a designated probationary period. The Academic Plan specifies requirements (i.e., minimum course completion ratio, CGPA, reduced course load or enrolling in specific courses) that the student must meet and exceed each quarter/term to maintain or regain federal financial aid eligibility. A student who does not meet these Standards will again be suspended from financial aid eligibility and will be ineligible for federal aid in future quarters/terms until the student does meet the standards.
- **Effect of Withdrawals, Tentative Grades, Remediation and Transfer Credits**
 - **Withdrawal:** Students are given a W (Withdrawal) when they officially withdraw from a course. The course will only appear on the transcript if the student withdraws after the end of the add/drop period as per the university's academic calendar. A W grade is not calculated into the GPA, attempted credits or earned credits, when dropped on or before the add/drop period. After the add/drop period, a W grade is calculated into the attempted credits, but not calculated into the GPA or earned credits.
Withdrawn courses recorded on the student's permanent academic transcript are included in the Pace and Maximum Time Frame calculations as attempted but not satisfactorily completed credits.

- **Incompletes:** Courses that are assigned an incomplete grade are included in the attempted credits but not earned credit hours for Pace and Maximum Time Frame measures. They are entered as attempted but not satisfactorily completed credits and are not included in the minimum CGPA. A student's status may change once a final grade is recorded. It is the responsibility of the student to notify the Financial Aid Office when a grade has been entered as final.
- **Pass/Fail:** All credits for Pass/Fail course attempts will be counted as attempted credits. Only P grades will count as satisfactorily completed credit hours in the quantitative measures.
- **Remediation:** For purposes of financial aid, students may be permitted to retake courses in which the student received a failing grade or its equivalent which is dependent on the academic requirements of the program in which the student is enrolled. Each time a course is attempted, it is considered an attempt when calculating the Pace of completion and Maximum Time Frame measures, regardless of whether the course is subsequently repeated for a better grade. Students are only allowed to receive federal financial aid for one repeat of a previously attempted course (for the first time only) in a term-based program, including when the student is retaking a passed class due to failing other associated coursework. Any grade that is higher than an F, or its programmatic equivalent, is considered passing for this purpose regardless of the school or program policy/requirements. If after that one allowable repeat, a satisfactory grade is not achieved, the student may **not** be eligible to receive federal financial aid for additional repeats of the same course. Students may not appeal their federal financial aid eligibility if deemed ineligible for this reason.
- **Transfer Credits:** For purposes of financial aid, only transfer credit hours officially accepted for the student's program of study will be automatically counted in the attempted and successfully completed credit hours toward the quantitative (Pace of completion) and Maximum Time Frame. Various programs at Rosalind Franklin University may have different standards and requirements regarding acceptability of transfer credits, and calculations will be based on the program in which the student is enrolled.

Types of Assistance

Federal

William D. Ford Federal Direct Unsubsidized Loans

Direct Stafford Unsubsidized Loans are offered to any student who has completed the FAFSA. A student will qualify for a Direct Unsubsidized Loan regardless of their expected family contribution (EFC).

Interest on a Direct Unsubsidized Loan accumulates while a student is enrolled in graduate courses. Interest that is not paid while the borrower is enrolled will be capitalized and added to the principal at the time of repayment. Direct Unsubsidized Loans need to be repaid after a student has graduated or drops below half-time enrollment (i.e., six credit hours).

William D. Ford Federal Direct Graduate PLUS Loan

The Direct Grad PLUS Loan, also called a Direct Graduate PLUS Loan, is a student loan available to students attending graduate school and professional school. It offers a fixed interest rate and flexible loan limits.

Eligibility for the Direct Grad PLUS Loan does not depend on expected family contribution (EFC), but students need to complete the FAFSA to qualify and also pass a simple credit check.

Interest on a Direct Grad PLUS Loan accumulates while a student is enrolled in graduate courses. Interest that is not paid while the borrower is enrolled will be capitalized and added to the principal at the time of repayment.

The Direct Grad PLUS Loan allows students to borrow up to the full annual cost of attendance (COA) minus other financial aid received (scholarships, fellowships, grants, federal student loans or private student loans).

Federal Work-Study Program (FWS)

The Federal Work-Study program provides jobs for students with financial need, allowing them to earn money to help pay for educational expenses. The program is administered through the Office of Student Financial Services.

Applicants must demonstrate financial need, complete the I-9 form at the time of hiring, complete IRS forms and submit all financial aid information required by the Office of Student Financial Services.

Applications are available through the Office of Student Financial Services. All applications, payroll, timekeeping procedures and job assignments are handled through the specific supervisor or department for which a student works. Jobs range from typical library and office work, to assisting in labs and participating in research.

Federal Work-Study wages are \$10 to \$15 per hour. The total FWS award depends on when a student applies, the level of need, the amount of other aid they will receive, the availability of funds and the time requirements of the job. The amount of the FWS award is calculated as part of a student's overall financial aid award and therefore may reduce the need for other funds. The total hours may not exceed 15 per week when classes are in session or 35 hours per week during vacation periods.

Students are paid on a bi-weekly basis from RFU.

Veterans Assistance

Incoming veterans are advised to contact the Registrar's Office at least 45 days prior to the start of the quarter to complete paperwork to receive their benefits. Veterans receiving benefits must complete an RFU Enrollment Certification Request Form each quarter and notify the university of all changes in enrollment. Inquiries concerning educational benefits for veterans and their dependents may be directed to the Registrar's Office.

Student Accounts

Tuition and Fees

Tuition and fees are subject to change. The official charges are those billed by Student Accounts

during the tuition and fee payment period for each quarter. For the most recent tuition and fee rates, see the Cost and Fee page on the RFU website at www.rosalindfranklin.edu/admission-aid/financial-services/costs-fees.

Payment of all charges on the student's account are due by the published due dates.

2018-2019 Tuition and Fee Due Dates

Summer Quarter	05/18/2018
Fall Quarter	08/03/2018
Winter Quarter	11/02/2018
Spring Quarter	02/15/2019

Any student who pays less than the total amount due on the payment due date will be assessed a late fee on the unpaid balance. The late payment fee will be assessed in accordance to the RFU Student Payment Policy

Please find the below tiered late fee schedule.

<u>Past Due Balance</u>	<u>Late Fee Assessed</u>
\$200 - \$1,999	\$25
\$2,000 - \$4,999	\$50
\$5000 - \$9,999	\$75
+\$10,000	\$100

*Maximum late fee assessed per quarter \$300

Statement of Financial Responsibility

All students must review and agree to the university's Statement of Financial Responsibility each term they are to be enrolled in or when they are requesting any transcripts. This must be done before registration is finalized and before transcripts may be released.

Within this agreement, the student agrees they are responsible for any charges that are incurred as a result for registration for classes, other optional services that the student shall utilize (such as university health insurance, university housing, etc.) and fines or charges incurred as a result of missing required deadlines. The student also further agrees that they fully understand and agree to the terms and conditions categorized below.

Late Fees and Academic Sanctions

Students that fail to pay in full after the first day of a new term will be assessed a late fee that is tiered according to their outstanding balance. It is the student's responsibility to contact a student

account representative in Student Accounts to resolve account questions, discrepancies or to obtain current account status. Because of potential delays in U.S. mail, we encourage all students to pay electronically through Web Advisor, where all payments made by credit card or e-check are updated and reflected immediately. Payments made by credit card are assessed a 2.5% transaction fee.

Thirty-one (31) calendar days after the start of the quarter, another tiered late fee will be assessed based on the outstanding balance. In addition, the student will be notified of possible academic sanctions if no payment has been received within 15 calendar days. Academic sanctions that may be applied which will include some or all of the following:

- Registration with the University for the future term will be prevented (unless satisfactory arrangements have been made with Student Accounts for repayment).
- University documents relating to academic performance, formal transcripts, diplomas and certificates withheld.
- Graduation hold.

However, the Office of Student Accounts will not impose sanctions while good-faith discussions are on-going with the student concerned.

After forty-five (45) calendar days from the start of the quarter, payment is not made, fails to make a suitable arrangement to discharge the debt, or fails to implement an agreed arrangement; the Office of Student Accounts will impose the academic sanctions, as previously discussed. The student will be asked to contact the Associate Vice President of the Office of Student Financial Services

Sixty (60) calendar days after the start of the quarter, whereas the Office of Student Financial Services, in conjunction with the Office of Student Accounts have made every reasonable effort to obtain payment and where it is apparent that the student is unlikely to pay the amount owed, a letter will be issued notifying the student's program/college. This letter will also advise them that an additional late fee has been assessed and if not compliant within 15 calendar days the student fails to make a payment, fails to make a suitable arrangement to discharge the debt, or fails to implement an agreed arrangement, students may, at the discretion of their program/college, be suspended (i.e., leave of absence) from classes and/or rotations. This may prevent the student from successfully completing a particular class, rotations, academic requirement or quarter. A separate letter will be sent to International students advising them of the University's obligation to report them to the Director of Diversity and Inclusion Programs, DSO; should they be excluded.

Seventy-Five (75) calendar days after the start of the quarter, The Associate Vice President of the Office of Student Financial Services will issue a final communication to the student notifying them of the actions below. Additionally, a notification will be sent to the student's program/college.

- Details of their outstanding debt will be passed to in-house collection, then subsequently to an external debt collection agency to obtain the payment due to the University and they will be liable for all costs incurred from this action.
- The University may terminate any University housing agreements on giving notice in the event that the occupier ceases to be a registered student at the University housing.

A former student whether they have left the University following withdrawal or otherwise,

remain liable for debts to the University. If the debt remains unpaid, or an agreed repayment plan is not honored, the University will continue to take measures to recover the debt, including the use of external debt-collection agency.

All students are responsible for all charges incurred for the quarters in attendance. Any student who withdraws from the university or a course must withdraw in accordance with the policies and procedures set forth by the university. Charges will be adjusted and any balance due must be paid before leaving the university. Any student who leaves the university with their account not paid in full will be referred to an outside collection agency for possible legal action. The student is liable for the outstanding balance and collections costs. The student's credit rating will be affected.

Effect of Academic Sanctions/Holds

Academic Sanctions/ Holds preclude students from receiving university services including:

- Registering for courses
- Dropping/adding courses
- Grades
- Transcript requests
- Graduation (diploma issuance)
- Accessing Brightspace

Notification will be made to the program/college concerning the Academic sanction/hold.

Academic sanction/hold can only be released if the outstanding balance is paid in full. Once payment has been received in full to reflect a zero balance due, the hold will be released.

Disputing a Late Fee

Students can submit an appeal about their late fees to the Student Account Committee. All disputes must be submitted in writing within the term the late fee occurred in.

For example, a late fee assessed for the Fall Term must be disputed in writing prior to the last day of the Fall Term.

Disputes will be reviewed and a decision made within 30 days, at which time the student will be notified in writing via their University student email address. Failure to submit the dispute within the term it was assessed indicates that the student is aware of the fee and accepts its assessment.

NOTE: Disputing these amounts does not guarantee that the amount will be removed. Submitting a written request for removal only means that an amount is being disputed and that the committee will review the student's account to evaluate the disputed amount's legitimacy. If the committee deems the amount to be valid, the student will be required to pay it.

Exceptions

Late fees will not be assessed if the student:

- Has made payment arrangements with the Student Account Office.
- Has pending Financial Aid (awaiting disbursement) that covers full or remaining balance.
- Has a pending outside scholarship or loan credit on their account that covers full or remaining balance.
- Is a recipient of a tuition waiver which has not yet posted to their account.

- Is a recipient of funding through the GI Bill, Armed Forces or VA benefits which have not yet posted to their student account.

Delinquent Accounts

Student accounts remaining unpaid by the end of the quarter are deemed delinquent and are referred to the In-House Collections department for further actions.

Contact Student Accounts to:

- Resolve your delinquent balance.
- Set-up payment arrangements and avoid further collection action.
- Discuss your financial difficulties and recommend repayment options.

All delinquent balances must be satisfied in full before students are permitted to register for classes. Requests for transcripts and diplomas will be denied until all delinquencies are resolved.

Further collection actions may include but are not limited to:

- Referral to an external debt-collection agency
- Credit bureau reporting

- Litigation
- Collection/attorney fees added to the delinquent balance

Tuition Refund Policy

Charges are adjusted for students who withdraw from the university or withdraw from courses/programs. Neither failure to pay nor placing a stop payment on a check constitutes an official withdrawal. Students must complete the appropriate withdrawal forms initiated in the Registrar's Office and obtain clearance signatures from designated departments. The following is the refund schedule for a withdrawal:

- 100% refund of tuition within the first week of the quarter
- 75% refund of tuition within the 2nd week of the quarter
- 50% refund of tuition within the 3rd week of the quarter
- 25% refund of tuition within the 4th week of the quarter
- 0% refund of tuition after the 4th week of the quarter

Refund & Return of Title IV, VII and Institutional Funds Policy

In establishing a refund policy, RFU has instituted and adheres to all requirements included in the Federal Formula for Return of Title IV Funds as specified in Section 484B of the Higher Education Act of 1965 (as amended). This policy will apply to Title IV and VII funding. RFU refund policy includes the following guidelines:

- Title IV funds include the following programs available at RFU, Federal Direct Unsubsidized loans, Federal Perkins loans, Federal Direct Graduate PLUS loans, and the Federal Work-Study (FWS) program. However, FWS monies awarded or earned by the student will always be excluded from the refund calculation.
- Title VII funds include Health Professions Student Loans (HPSL).
- Withdrawal after the First Day of Classes up to 60% of the Quarter for Which the Student is charged.
 - Title IV funding disbursed will be prorated on a daily basis proportional to the number of days completed divided by the number of days in the payment period for which the student was enrolled.
 - Percentage of payment period or term completed = the number of days completed up to the withdrawal date divided by the total days in the payment period or term. (Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percentage of earned aid.
 - Title VII recipients will have future disbursements cancelled if the students is not enrolled full-time in subsequent quarters.
- Withdrawal after 60% of the Quarter for Which the Title IV funding was disbursed
 - No refund of Title IV funds will be made.
 - University housing for the quarter will be credited according to the terms on the housing contract.
- If a Subsequent Quarter(s) Has Been Prepaid

- Tuition and other fees will be adjusted accordingly.
- Student services fee, disability and health insurance fees paid to the University will not be refunded if a current student withdraws after the first day of class for the quarter.
- All applicable refunds will be distributed in the following order as prescribed by federal law:

Aid to be returned = (100% of the aid that could be disbursed minus the percentage of earned aid) multiplied by the total amount of aid that could have been disbursed during the payment period or term.

 - Federal Direct Unsubsidized Loan
 - Federal Perkins Loan
 - Federal Direct Graduate PLUS Loan
 - Other Federal Sources of Aid including Title VII funding
 - Other state or private aid *
 - Institutional Aid (University loans and scholarships)**
 - The Student ***

*RFU will refund scholarship monies in accordance with the sponsoring agency's policy.

** All refunds of institutional aid will be prorated based on the remaining weeks of the current quarter. Subsequent quarters of awarded institutional funds will be cancelled; therefore, no refunds will be made.

*** RFU will only refund monies to a student who does not owe a repayment of non-institutional funds or who does not have unpaid current year charges owed to the institution.

- Students who borrowed and received monies from the Federal Direct Loan Program (Unsubsidized Loans, Graduate PLUS Loans); Perkins Loans; Institutional (RFU) Loans, Health Professions Student Loans and/or private loans will be legally responsible and obligated to repay in accordance with the terms and conditions outlined in the promissory note(s).
- Upon request by the student, examples of refund worksheets and calculations will be available for distribution in the Office of Student Financial Services.

Students who feel that individual circumstances warrant exceptions from published policy may appeal the RFU Refund Policy. Student appeals need to be submitted to the Associate Vice President of Student Financial Services.

Registration

Add/Drop

Students may adjust their schedules until the end of the course add/drop period of each quarter at RFU. The course add/drop period will last until the end of week one of the quarter.

If a student withdraws from a course during the first week of the quarter, there will be no course or grade recorded on the transcript. A student withdrawing from a course after the first week receives a W for the course in which the student was enrolled. A student may withdraw from a course up to the tenth week of the quarter; however, a student may not withdraw from a course during the two weeks prior to the final examination or final project. Students withdrawing after the tenth week or during the two weeks prior to the final examination will receive regular grade designations as determined by the instructor(s).

All students who register for a course and neither complete the course objectives nor officially withdraw according to any one of the procedures described in this document will be graded F in that course and must assume all financial obligations associated with the course.

Hold

A hold is a restriction placed on a student’s account that may prevent a student from receiving university services. A hold will not be removed until it is resolved with the department that placed the hold on the account.

Common Reasons for Holds

Hold Type	Reason	Description
Student Financial Services	Non-Payment of Fees and Charges	Financial Aid Disbursement withheld. Not allowed to register. Transcript and diploma withheld.
Registrar	Missing Required Documentation	Not allowed to register. Transcript and diploma withheld.
Registrar Immunization	Immunization Non-Compliance	Not allowed to register. Access to Brightspace revoked. Transcript and diploma withheld.

Registrar and Financial Holds

Registrar and Financial holds prevent students from receiving the following as defined by type of hold:

- Registering for courses
- Grades
- Transcript requests
- Graduation (diploma issuance)
- Accessing Brightspace

All financial holds will result in a registration hold being applied to the student’s account. For Registrar and Financial holds, notification will be made to the academic program concerning the hold.

Students can view their holds on WebAdvisor. The student must contact the department that placed the hold on their account in order to make arrangements to have the hold removed.

Grade Submission

All final grades must be completed and submitted to the Registrar's Office using Web Advisor on or before the grading deadline to ensure procedures associated with student academic performance, graduation, verification and financial eligibility can be accomplished within required regulatory deadlines.

At the end of each quarter, grades are submitted through Web Advisor by faculty members. Late submission of grades will result in restrictive academic actions that may impact a student's financial aid, graduation and verifications.

Grade Submission Deadlines:

- Final non-clinical grades are expected no later than five business days after the course ends or at the end of the academic quarter.
- Clinical experiential coursework grades are expected no later than four weeks after the end of a course for official reporting purposes.
- Final grades for students who are eligible for graduation must be submitted one week prior to the date of graduation.
- Students will be able to view their grades on Web Advisor one business day after submission.

Grading

General Grading System

The university system for grading is as follows:

A	4.00	High Achievement
B	3.00	Above Average Achievement
C	2.00	Average Achievement
F	0.00	Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Other status notations:

H	Honors	#	Graded at Sequence End
HP	High Pass	IP	In Progress
W	Withdrawal	NR	Needs Remediation
PP	Pass Proficiency Exam	NC	No Credit given
I	Incomplete	AU	Audit

Definitions:

Failure (F): Denotes that a student does not demonstrate competency or does not complete the course or clerkship requirements at a satisfactory level as outlined in the syllabus.

Honors (H): Denotes select podiatry courses and medical extramural courses in which a student has been given the distinction of honors.

High Pass (HP): A designation which may be assigned by some clinical sites; for third-year CMS students only.

Withdrawal (W): The formal termination of course registration for a quarter.

Pass Proficiency Exam (PP): Denotes that the student has successfully passed a proficiency exam for a specific course and is reported to the Registrar's Office (SCPM and CMS).

Incomplete (I): A temporary notation that a grade cannot be determined because the student has been unable to complete part of the course due to extenuating circumstances.

Graded at Sequence End (#): Courses longer than one quarter will appear on the transcript (with corresponding hours from that quarter) with the # sign for every quarter through which the course ran, except the last quarter of the course. Only the last quarter will then give the final grade for the entire course, with the cumulative total hours for all quarters over which the course ran.

In Progress (IP): Assigned to a course which is currently in progress.

Needs Remediation (NR): A temporary notation that a grade cannot be determined because the student has been unable to pass part of the course requirements.

No Credit given (NC): No credit is recorded.

Audit (AU): Enrollment for a course whereby the student does not earn academic credit. Written permission of the appropriate department chair and/or dean is required. Tuition and fees are applicable.

Grade Point Average (GPA)

Only courses graded on an A-F basis are used in calculating GPA. Courses taken as Pass/Fail, Pass Proficiency Exam and Audit are not included. The GPA calculation never includes transfer work from other colleges or universities.

To calculate GPA for one term:

1. Multiply the point value of the letter grade by the number of credit hours. This will result in the grade points earned (quality points).
2. Total the credit hours for the term.
3. Divide the total quality points by the total credit hours. The result is the GPA for the term.

To calculate the cumulative GPA:

1. Multiply the point value of the letter grade by the number of credit hours. The result is the grade points earned (quality points earned from all terms).
2. Total the credit hours from all terms.

3. Divide the total quality points for all terms by the total hours for all terms. The result is the cumulative GPA.
4. Both grades recorded for repeated courses will be used in the GPA calculation.

Units of Credit

Academic work at RFU is measured by units of credit. RFU uses the quarter system to measure the length of a term. The quarter system is generally 10-12 weeks of class including final examinations. In conjunction with the letter grade a student receives from the course instructor, units of credit give a fairly accurate evaluation of the amount of time that has been devoted to a given subject.

The number of credit hours assigned to a course is an approximation based on average student workload, which entails lecture, laboratory work and clinical/internship work.

All classes offered for credit at RFU are equated as a standard credit hour. One credit hour is equivalent to one hour (50 minutes) of lecture per week or two hours per week for laboratory, clinical experience or small-group discussion. Courses may last for one or more quarters. Grades are reported at the end of each course.

Course Numbering System

400 Upper-level undergraduate courses
500 Graduate/Professional level courses first year
600 Graduate/Professional level courses second year
700 Graduate/Professional level courses third year
800 Graduate/Professional level courses fourth year
900 Independent Study
999 Continuous Enrollment

Change of Grades

Once grades have been submitted to the Registrar's Office, final grades may be changed for the following reasons:

- Calculating error in computing the grade
- Posting the wrong grade
- Replacing an I notation
- Posting a grade if no grade was submitted
- Re-evaluation of the previous grade
- Submission of a new grade after a remediation exam/project is satisfied

When corrections need to be made, an official Change of Grade form must be sent directly to the Registrar's Office.

A previous grade cannot be changed to a W (official withdrawal), if the student had a non-academic emergency. The student should file a petition for withdrawal with the Registrar's Office.

Changes to previously recorded grades must be submitted within one calendar year following the end of a term during which the student was registered for the course. Changes must be initiated

by the instructor on a Change of Grade form, signed by the instructor and the department chair, and then submitted to the Registrar's Office for review. A reason for the requested change must be provided before the request will be reviewed.

After one year or when the student graduates, grades are considered final. Any requests for a change of grade after the one year will require documentation describing the change and why the Change of Grade form was not filed during the appropriate period.

Grades will not be changed following a student's receipt of a degree or permanent departure from RFU.

Incomplete

Incomplete (I) is not a grade, but a notation that a grade cannot be determined because the student has been unable to complete part of the course due to extenuating circumstances. Extenuating circumstances must be documented and reviewed by the course/clerkship director and/or the department chair. This notation is not to be used to denote unsatisfactory performance.

A notation of I will be replaced by a grade if a student makes up the missing material and/or takes the necessary examination(s) as approved by the department, within one calendar year, but otherwise will be changed to an F after one year or at the time of graduation.

Incomplete (I) may be given only in the following circumstances:

- The student's work to date is passing.
- There is an extenuating circumstance which legitimately prevents completion of required work (appropriate documentation is required).
- Required work may reasonably be completed in an agreed-upon time frame (typically by the end of the next quarter).
- The incomplete is not given as a substitute for a failing grade.
- The incomplete is not based solely on a student's failure to complete work or as a means of raising their grade by doing additional work after the grade report time.
- The student initiates the request for an incomplete grade before the end of the academic term.

The following provisions for Incomplete (I) apply:

- It is the responsibility of the instructor to establish the terms of the Incomplete. The Registrar will follow-up with the department on the status of Incompletes on a quarterly basis. Instructors are required to submit a Petition for Incomplete Grade to the Registrar detailing the terms of the Incomplete when the Incomplete is assigned for the purpose of tracking.
- A final grade to replace the Incomplete must be submitted within one calendar year from the date the Incomplete was recorded. The course work may be completed while the student is not enrolled.

A notation of I will be replaced by a grade when/if a student has made up the missing material and/or taken necessary examination(s) as approved by the department. An Incomplete does not calculate into the grade point average.

An Incomplete will appear on the transcript until a final grade is submitted to replace it, for up to one year. After one year, or at the time of graduation, an Incomplete will change to F and the F grade will affect the GPA.

An Incomplete will not be considered passing for purposes of determining academic standing, federal financial aid eligibility, or other purposes.

An Incomplete should not be assigned when it is necessary for the student to attend additional class meetings to complete the course requirements. Students who receive an Incomplete in a course cannot register for a future offering of the course to remove the I designation.

Remediation

Needs Remediation (NR) is not a grade, but a notation that a grade cannot be determined because the student has been unable to pass part of the course requirements.

A notation of (NR) will be replaced by a grade if a student makes up the required material and/or passes the necessary examination(s) as approved by the academic program, within one calendar year, but otherwise will be changed to an F after that year or at the time of graduation.

Needs Remediation (NR) may be given only in the following circumstances:

- The course is structured for remediation in the course syllabus.
- The student has not passed all standard requirements for the completion of the course.
- The student has met all criteria to be eligible for remediation.
- Successful remediation occurs within one calendar year.

The following provisions for Needs Remediation (NR) apply:

- A final grade to replace the Needs Remediation (NR) must be submitted within one calendar year when the NR was recorded.
- A course that is structured for remediation must include the following in the syllabus: Eligibility criteria for remediation, the process for remediating, the remediation grading outcomes, and the maximum number of attempts to remediate.
- Remediation should take place at the earliest possible opportunity as approved by the academic program. The Registrar will follow-up with the department on the status of Remediation on a quarterly basis.
- An expiration date must be included when recording the NR grade

A notation of NR will be replaced by a grade when/if a student has made up the required material and/or taken necessary examination(s) as approved by the department.

Needs Remediation (NR) does not calculate into the grade point average.

Needs Remediation (NR) will appear on the transcript until a final grade is submitted to replace it, up to one calendar year. After that year, or at the time of graduation, a Needs Remediation (NR) will change to F and the F grade will affect the GPA.

Needs Remediation (NR) will not be considered for purposes of determining academic standing, federal financial aid eligibility, or other purposes.

Remediation may be taken outside the University when allowed in the course syllabus. Post remediation, the instructor must complete an assessment of student learning competencies. A note will be added to the transcript explaining any remediation outside the University.

Remediation is not the same as a Course Repeat (or Retake). A course repeat will have a final grade recorded for both attempts of the same course.

Withdrawal

Official withdrawal from Rosalind Franklin University of Medicine and Science is required if a student wishes to drop all courses after a quarter begins. A withdrawal may be requested for military, medical, personal or financial reasons. Since certain academic programs, departments or schools may have additional specific criteria for withdrawal, a student considering a withdrawal should also consult their academic program, department or school in addition to consulting this policy.

International students who withdraw from the university may face critical consequences regarding their visa status. International students should contact the Division of Student Affairs and Inclusion to discuss the implications of non-compliance well in advance of processing a withdrawal.

RFU takes on certain financial obligations based on student enrollment as determined at the beginning of each new school year. A student who wishes to withdraw may also assume certain financial obligations. All schools that disburse federal aid are required to implement the Return of Title IV Funds federal refund policy, which can result in significant cost to a withdrawing student. Therefore, withdrawal from a school should be considered carefully. The Return of Title IV Funds calculation relates to students receiving federal financial aid.

Two Types of Withdrawals

Outlined below is specific information about each type of withdrawal.

Withdrawal

- A withdrawal is a complete withdrawal where a student who has followed the appropriate procedures ceases to attend all classes. The university recognizes that sometimes students have no alternative but to leave the school due to many and various legitimate reasons.

Administrative Withdrawal

- The administrative withdrawal is a complete withdrawal when the student either never attended or ceased to attend all classes without following the appropriate withdrawal procedures.

Actions which are not considered an official notification of withdrawal include:

- Assuming classes will be cancelled for non-payment.
- Never starting a class(es) without proper notification.

- Ceasing to attend class(es) without proper notification.
- Giving written or verbal notice to anyone other than an appropriate academic or student services designee.

The Effective Date of a Withdrawal

To meet internal and federal requirements, it is important for the university to determine a specific date that the student withdrew from the school. The university will use the earliest of the following dates in its determination:

- The date of the student’s verbal or written notification to their program dean or dean’s designee of their intent to withdraw.
- The date of the student’s complete withdrawal request form.
- The date the student has ceased to participate in all classes; however, it must be noted that ceasing attendance in a term cannot be accepted by the university as official notification of the student’s intent to withdraw. If it is determined that the last day of participation in the term is earlier than the date of the student’s withdrawal, then for federal purposes, that last day of participation must be considered as the withdrawal date in calculating the student’s earned aid.

The Impact of Dropping and/or Withdrawing and Federal Aid

Federal funds are awarded to the student anticipating that the student will complete the class(es) for which they have registered in a given term. When a student does not complete the class(es), it is necessary for the university to review the aid the student received based on the classes from which the student has dropped or withdrawn. Students who completely withdraw from classes for any term are subject to the Return of Title IV (R2T4) refund calculation as dictated by federal regulations.

Academic Standards

Assessment for Student Learning

The interprofessional (IP) healthcare education model is mission-driven and an area of distinction at Rosalind Franklin University of Medicine and Science. Interprofessional education is to “learn about, from and with each other to enable effective collaboration and improve health outcomes” (World Health Organization, 2010). Students at RFU learn to treat patients holistically with respect while valuing the contribution that each role brings to the interprofessional healthcare team.

The IP healthcare education model also interfaces well with the Triple Aim of Healthcare (Institute for Healthcare Improvement, 2007), a framework comprised of the following dimensions:

- Improving the patient experience
- Improving the health of populations and
- Reducing the per capita cost of healthcare

At RFU, students in all programs of study will demonstrate the knowledge, behaviors and attitudes found in the four competencies for Interprofessional Collaborative Practice (IPEC, 2016):

- Values and ethics for interprofessional practice
- Roles and responsibilities for collaborative practice
- Interprofessional communication practices
- Interprofessional teamwork and team-based practice

Faculty in the academic programs have mapped the IPEC competencies across the curriculum and utilize a variety of assessment methods for student learning.

For each specific degree and certificate offered, faculty also measure student achievement through assessment at the course and program levels. Examples of course-level assessment may include unit exams, case studies, journals and poster presentations. Program milestone assessment may include shelf exams administered at the completion of the required coursework in the first and second years of a clinical program. Capstone projects, portfolios, clinical evaluations and dissertations are examples of assessment for student learning near the completion of specific graduate degree programs.

Credit Hour Policy

RFU uses the Federal definition of a credit hour, which states: A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than:

- One hour*of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
- At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, clinical/clerkships, internships, thesis papers and dissertations, and other academic work leading to the award of credit hours.

*A class hour at the RFU is 50 minutes to allow students and faculty time to transition between classes and buildings.

Definition of the credit hour at RFU is in compliance with the Illinois Board of Higher Education and the Higher Learning Commission.

Definitions

Scheduled hour of classroom instruction at RFU

- 1 scheduled hour of classroom instruction = 50 minutes of classroom meeting time

Academic Term - Quarter Calendar at RFU

- 1 Academic Term generally represents a quarter
- 1 Quarter Credit Hour is defined as 1 Credit Hour Unit over at least 10 weeks
- 1 Semester Credit Hour is defined as 1 Credit Hour Unit over at least 15 weeks

Notes:

- These definitions are consistent with the Carnegie Unit and Student Hour for collegiate instruction in semester and quarter credit hours.
- Courses scheduled over a period of time other than a quarter reflect proportionate instructional hours within the Academic Term

Conversion between Semester and Quarter Credit Hours

- 1 Semester Credit Hour = 1.5 Quarter Credit Hour

Note: This conversion is applied to situations such as transfer of credit from other institutions. When rounding, the resulting figure is adjusted to the nearest 0.5 hour, and that figure is assigned as the credit hour value of that course.

Procedures

The College or School offering a course is responsible to ensure scheduling consistent with the Schedule Type –Quarter Credit Hour Equivalencies Table.

- These guidelines apply to organized instruction (Lecture) in a college classroom setting when the presentation of course content is led by the instructor using a variety of teaching methods. One credit is equivalent to one hour of scheduled class time per week. Specifically, one scheduled hour is applied to in-class time instruction and two hours are applied to out-of-class time such as for preparation, reading or other study, project completion, and assignments.
- Laboratory courses occur in a laboratory or simulation setting and include preparation, follow-up reports, and study. One credit hour is equivalent to two or three scheduled hours of such activity per week.
- Training and career-related experiences, clinical, clerkship, and clinical practicum experiences occur in a health care field setting and are supervised by employed RFU full- and part-time faculty or clinical preceptors. One credit hour for clinical/clerkship experiences equals the equivalent of one to two hours of training *or* one week of full-time training or experiential participation. (The academic program defines full-time.) A clinical practicum has one credit hour equal to the equivalent of one to three hours of instruction per week. Immersive simulation, which is clinically oriented yet structured differently, has one credit equivalent to one hour of scheduled simulation class time per week.
- For thesis and dissertation credits, one credit hour is equivalent to one hour of direct faculty instruction or three hours of preparation of scholarly work per week. The instructional activity is determined by the instructor or designated instructional supervisor.
- For courses designated as research conducted by the student toward a larger project, one credit hour is equivalent to one hour of class time or direct faculty instruction or two hours of independent research per week.
- Independent/directed study credit is self-directed learning on a special topic not covered in a regular course offering noted in the University Catalog. One credit is equivalent to one hour of direct faculty instruction or two hours of self-study per week.

- For multi-professional and interprofessional courses, the academic program/department from which the course originates will assign the credit hours awarded and the number of credits will apply consistently to all students enrolled, regardless of their degree program.
- Distance education occurs when one or more technologies are used to deliver instruction to students who are physically separated from the instructor and supports regular and substantive academic engagement between the students and the instructor, synchronously or asynchronously. At RFU, distance education includes courses offered in the blended (also known as hybrid), and online formats. The breadth and depth of the course content have been evaluated by the program faculty and the college/school for content, academic rigor, and also equivalency of a face-to-face version of the same course, if offered. The approval by the department and college/school for the credit hours to be awarded for blended and online courses has been documented.
- Online technologies and teaching methods often include discussion boards, electronic reading assignments, virtual course meetings between student-instructor and student-student interactions, videos, simulations, podcasts, and online group project work. When a traditional, face-to-face course is enhanced with instructional technology such as the posting of content, assessments, or grades in the learning management system, it is not considered a blended or online course.

Student Records

Academic Period

The RFU academic calendar follows the quarter system. An academic period refers to the period of time during which students are registered and at the end of that period they are assessed for academic performance. Academic periods are determined by the academic rules established by the university.

RFU refers to summer quarter, fall quarter, winter quarter and spring quarter as academic periods. Each academic period begins on the eighth day following the last scheduled day of the previous period.

Rosalind Franklin University Family Educational Rights and Privacy Act (FERPA) Policy

Introduction and Purpose: To inform students of their rights and responsibilities pertaining to their university records, in compliance with federal notification requirements. To protect the privacy of student records. To articulate definitions relating to student records, how they may be accessed and disclosed, the complaint procedure and other information relevant to the student record.

Scope and Applicability: University employees (faculty, staff and student employees) and other covered individuals (e.g., affiliates, vendors, independent contractors, etc.) in their accessing and handling of student records, data or information in any form (paper, digital text, image, audio, video, microfilm, etc.) during the course of conducting university business (administrative, financial, teaching, research or service). This policy shall apply to all offices and divisions of

Rosalind Franklin University of Medicine and Science and to all current or former students of RFU.

Policy Statement: The following constitutes RFU policy concerning student rights of access to personal educational records in compliance with the FERPA. Certain definitions and principles contained in the law and guidelines are as follows:

- A student is defined as one who has attended, or is attending, RFU and whose records are in the files of the university. Attendance is defined as the date of first enrollment at the university or participation in a university-sponsored program or activity, whichever occurs earlier.
- Educational records do not include files retained by individuals that are not accessible to any other person except a designee or replacement.
- Directory (public) information is limited to name, local and home address and telephone, email address, school or college, class, major field of study, dates of attendance, enrollment status, anticipated graduation date, degrees and awards received, the most recent educational institution attended and a photograph of a student taken for university purposes. Directory (public) information also includes class rosters listing students in an RFU academic course (Brightspace); such rosters may only be used for the purpose of conducting that course.
- Record means any information or data recorded in any medium, including but not limited to handwriting, print, tapes, computer files, microfilm or microfiche.

Release of Directory Information: Directory information may be released unless the student files the appropriate form in the Registrar's Office requesting that directory information not be released. Directory information that cannot be restricted includes whether the individual was ever enrolled and degrees awarded.

Release of Grades: Reports of a student's grades are not routinely mailed. Students may access their grades electronically on Web Advisor. The posting of a student's grades must be done in a manner designed to maintain confidentiality. Grades or evaluations linked to personal identifiers (names, RFU ID numbers, or social security numbers) may not be publicly disclosed without specific permission from the student. Without student permission, grades or evaluations may be posted whether on office doors or on websites, only by using randomly generated codes or numbers.

Record Storage: Students have records in one or more of the following offices:

- Registrar's Office
- Financial Aid
- Student Accounts
- Division of Student Affairs and Inclusion
- Division of Strategic Enrollment Management
- Human Resources (Federal Work Study)
- Some departments maintain additional student records separate from the university-wide departments. A list of the academic departments that may have records and their locations can be obtained from the dean's office of the school or college in which the department is located, or from the Registrar's Office.

Record Access and Exceptions: A student's record is open to the student, except as listed below. Any reference to student records or to access to student records in this document is subject to these exceptions:

- Confidential letters of recommendation placed in files before January 1, 1975.
- Financial records of the student's parents or any information contained therein.
- Employment records, except for those cases in which the employment is required as part of the student's program.
- Medical and psychological records.
- Letters of recommendation or other documents that carry a waiver of the student's right to access.
- Records compiled by campus security solely for the purposes of law enforcement.
- Student education records are open to university officials who have a legitimate educational interest in the information contained in the records.
- A university official is an employee or other agent of the university. A university official may also be a person or company with whom the university has contracted to carry out a function on the university's behalf.
- The determination of a legitimate educational interest will be made by the person responsible for the maintenance of the record. This determination will be made scrupulously and with respect for the individual whose records are involved. A legitimate educational interest requires that the individual seeking access must have the requested information to perform a job function.

Conditions of Access Waivers for Student References: To ensure the confidentiality of references, certain documents may carry waivers signed by the student relinquishing the right of access to the document. Waivers are subject to the following conditions:

- Waivers can be signed only for the specific purposes of application for admission, candidacy for honor or honorary recognition and candidacy for employment.
- Waivers cannot be required.
- The student shall be told, upon request, the names of those supplying references.
- All items in the academic record not covered by waivers are open to the student. Material not covered by waivers may not be protected by keeping it out of the student's file.

Third-Party Access: Normally, records can be released, or access given, to third parties (i.e., anyone not a member of the faculty or staff), only with the written consent of the student. Without the consent of the student, releases to third parties may be given only as follows:

- To federal officers as prescribed by law
- As required by state law
- To research projects on behalf of educational agencies, providing that the agencies guarantee no personal identification of students
- To accrediting agencies carrying out their functions
- In response to a judicial order or lawfully issued subpoena
- By Campus Security to other law enforcement agencies in the investigation of a specific criminal case
- To parents of students who are dependents as defined and verified by IRS standards

- A student's parent(s) or legal guardian(s) regarding the student's use or possession of alcohol or a controlled substance if there has been a determination by the university that the student's use or possession of alcohol or a controlled substance constitutes a violation of a university rule or regulation; and the student is under the age of 21 at the time of disclosure to the parent(s) or legal guardian(s)
- A student's parent(s) or legal guardian(s) in connection with an emergency
- To appropriate persons if the knowledge of such information is necessary to protect the health or safety of the student or other persons

Continued Record Maintenance: Nothing in this university FERPA policy requires the continued maintenance of any student record. However, if under the terms of this policy a student has requested access to the record, no destruction of the record shall be made before access has been granted to the student.

Records of Deceased Students: FERPA rights cease upon death. However, it is the policy of RFU that no records of deceased students be released after the date of death, unless specifically authorized by the executor of the deceased's estate, by the next of kin or as stipulated in the Record Access and Exceptions section of this policy.

Record Correction Requests: Students have the right to ask to have records corrected that they believe are inaccurate, misleading or in violation of their privacy rights. The procedures are as follows:

- The student must ask the custodian of the record to amend the record. The student should identify the part of the record that the student wants changed and the reasons.
- Rosalind Franklin University of Medicine and Science may comply or may decide not to comply with the request. If not, the university will inform the student of the decision and advise the student of the right to a hearing. Requests for a hearing are to be sent to the Vice President for Strategic Enrollment Management. Upon request, the university will arrange for a hearing and so notify the student.
- The hearing will be conducted by a hearing officer who is a disinterested party. However, the officer may be an official of the institution. The student may be assisted by one or more individuals.
- The university will prepare a written decision based solely upon the evidence presented at the hearing. The decision will include a summary of the evidence and the reasons for the decision.
- If the university decides that the challenged information is not inaccurate, misleading or in violation of the student's right to privacy, it will notify the student that they have a right to place in the record a statement commenting on the challenged information or set forth reasons for disagreeing with the decision.
- The statement will be maintained as part of the student's record as long as the contested portion is maintained. If the university discloses the contested portion of the record, it must also disclose the statement.
- If the university decides that the information is inaccurate, misleading or in violation of the student's right of privacy, it will amend the record and notify the student in writing that the record has been amended.

Creation, Permanence and Disposal of Student Records: The following is a general guideline regarding the disposal of student records:

- Only such records as are demonstrably and substantially relevant to the educational purposes of the university shall be generated or maintained;
- Permanent retention of student records is limited to those records which are of long-range value to the individual or the university;
- All duplicate copies of permanent records, other than those maintained by the custodian of the permanent records shall be maintained only for the minimum period of time required to serve the basic official function of the individual or department generating or maintaining them. Such records shall be destroyed as soon as they are no longer needed (i.e., within one year following graduation or two years after the last date of attendance). A student will be granted access to their records prior to their destruction when the student has an unsatisfied request outstanding.

Directory Information: In compliance with the federally-enacted regulations and university policies, directory information regarding students attending Rosalind Franklin University of Medicine and Science shall be the:

- Student's name
- Local address
- Permanent address
- Email Address
- Telephone listings
- Year at the university
- Dates of attendance
- Academic college and major field of study
- Enrollment status
- Participation in officially recognized activities and sports
- Degrees, honors and awards received
- Most recent educational agency or institution attended
- Photographic or electronic pictures or images

Public information pertaining to any individual student may be released by the Registrar upon inquiry unless the student has not agreed to release directory information. Partial or whole lists of students by name and address will not be released for commercial purposes.

Each major administrative unit shall define the kinds of reports and information that may be released to the public.

Information contained in personal files of the student is considered confidential information. With the exception of the information noted above, all student records are considered to be confidential and are open only to university personnel (individuals under contract) who need the information to carry out their official responsibilities (assigned duties and functions).

Although university personnel are authorized access to this information on a "need-to-know" basis (to perform specific duties and functions), they are not permitted to release information to persons outside the university unless authorized in writing by the student, by a court order or according to the exceptions listed in the Record Access and Exceptions section.

Only the official or designated person responsible for the records has the authority to release them. Records may be disclosed to a third party only on condition that the recipient will not permit others to have access to the information without the written consent of the student.

Rights of Access and Review of Records: Students have the right to inspect, review or receive an interpretation of copies of their educational records, except as excluded below. This right may be exercised by completing a written request to access the records. Such requests should be honored as quickly as possible and reasonable, normally within 48 hours; if detailed documentation and/or interpretation are required, the request should be honored within ten days. In all cases, requests for such information must be honored within 45 days.

If a copy(ies) of a portion or all of the records in a student's file is requested, the custodian of the records may charge a fee for copies made, provided the fee does not effectively prevent students from exercising their right to inspect and review (under supervision of a university employee) their records. No fee will be charged to the student to search for or to retrieve records. Each custodian of records is responsible for requiring proper identification of the individual making the request about their records.

Custodians of Student Records: The Division of Strategic Enrollment Management shall be responsible for the proposal, interpretation, enforcement and publication of general policies and procedures consistent with state and federal laws and guidelines as they relate to the creation, maintenance, use, dissemination and destruction of records of students who are attending or have attended RFU and shall coordinate the development of general policies and procedures with the appropriate university officials listed below.

Each type of student record is the responsibility of a designated university official and only that professional staff member or designate has authority to release records. Please note that some student records listed below are outside the scope of the Division of Strategic Enrollment Management. The responsible officials are:

- **Academic and Admissions Records (after matriculation)**
 - Official: University Registrar
 - Location: Division of Strategic Enrollment Management
- **Admissions Records (prior to matriculation)**
 - Official: Director of Admissions and Enrollment
 - Location: Division of Strategic Enrollment Management
- **Alumni Records**
 - Official: Director of Alumni Affairs
 - Location: Office of Alumni Affairs
- **Disciplinary Records**
 - Official: Executive Director of Campus Life
 - Location: Division of Student Affairs and Inclusion
- **Employment (Work-Study and Student Employment)**
 - Official: Executive Director of Human Resources
 - Location: Human Resources
- **Student Financial Services (Financial Aid and Student Accounts)**
 - Official: Associate Vice President of Student Financial Services
 - Location: Office of Student Financial Services
- **International Students**

- Official: Director of Diversity and Inclusion Programs
- Location: Division of Student Affairs and Inclusion
- **Security Records**
 - Official: Director of Campus Safety
 - Location: Department of Campus Safety
- **Veterans Records**
 - Official: Coordinator of Veterans Affairs
 - Location: Registrar's Office
- **Student Activities**
 - Official: Coordinator of Student Life
 - Location: Office of Student Life
- **Criminal Background Checks**
 - Official: Vice President for Strategic Enrollment Management
 - Location: Division of Strategic Enrollment Management

Complaint Procedure: If a student believes that the university is not in compliance with the RFU Student Record Policy and/or the Family Educational Rights and Privacy Act (FERPA), they should check first with the office involved and/or the Vice President of Strategic Enrollment Management.

If a student wishes to file a complaint with the federal government concerning the university's failure to comply with FERPA, they must submit the complaint, in writing, to the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-5920 (www.ed.gov/policy/gen/guid/fpco/ferpa/students.html). The Family Policy Compliance Office will notify the student and the university when the complaint has been received. They will investigate the complaint and may require further information. Following its investigation, they will provide written notification of its findings and basis for such findings. In the event the university is found not to be in compliance, it will be afforded the necessary time to comply. If it does not then comply, additional action may be taken by the Family Policy Compliance Office. For guidelines concerning this complaint procedure, see 34 CFR Paragraph 99.64 and the subsequent regulations of the Family Educational Rights and Privacy Act.

Exclusions or Special Circumstances: Faculty, staff and/or student employees who violate this university policy may be subject to disciplinary action for misconduct and/or performance based on the administrative process appropriate to their employment.

Students who violate this university policy may be subject to proceedings for non-academic misconduct based upon their student status.

Faculty, staff, student employees and/or students may also be subject to the discontinuance of specified information technology services based on the policy violation.

Contact:

Office of the Registrar
 Rosalind Franklin University of Medicine and Science
 3333 Green Bay Road
 North Chicago, IL 60064
 847-578-8481
registrar@rosalindfranklin.edu

Student Records (General)

Academic Records and Transcripts: The permanent academic record for each student is maintained by the Registrar's Office. While the grades may be reported unofficially to the student, dean and advisor, the only true and valid documentation of academic work and student status is an official transcript of the academic record. The transcript is available only with the signed authorization of the student.

The academic transcript is part of a student's academic record. Other university offices collect and maintain necessary information (records) about students. These records and the transcript, together, constitute the student's permanent academic record.

The permanent academic record is the unabridged history of a student's academic progress at RFU and cannot be altered except in conformance with policies governing adding, dropping, modifying courses, recording academic achievements and evaluation.

Record Retention: The Division of Strategic Enrollment Management at RFU maintains various records concerning students. In order to preserve students' rights to privacy as well as conform with federal law, the university has established certain procedures to govern the handling of student records.

Retaining records serves two purposes. In the short term, it provides those responsible for management of student development with the means to monitor progress and resolve problems. In the long term, a clear records retention policy enables the university to comply with federal, state, private and local regulations governing auditability.

Federal regulations, as they relate to student records, are governed by the Family Educational Rights and Privacy Act of 1974 (FERPA). Please review the FERPA policy for more details.

Name Changes: A student may request a name change by completing the necessary request with the Registrar's Office. Documentation of a student's name change is required. A student must present the original documentation in person or mail a certified copy of the documentation. A student must provide a certified copy of marriage license, court-issued name change or divorce decree. A student must also provide a social security card indicating the new name.

National Student Clearinghouse (NSC): The National Student Clearinghouse (NSC) is a central repository of student enrollment information. Its purpose is to provide required enrollment information to the servicers and guarantors of the Federal Student Loan Programs.

There are several advantages to allow the National Student Clearinghouse (NSC) to provide the enrollment information for servicing student loans:

- It allows students who transfer from one participating school to another to continue their in-school deferment status without inherent delays.
- The servicers can contact one central location to obtain information for all of the students whose loans they service.
- Deferments can be granted much more quickly because the data is shared with the servicers electronically.
- There is less chance of human error because the reporting process is standardized and enrollment updates occur frequently.

RFU provides enrollment information to the NSC on a monthly basis. The purpose of these frequent certifications is to be able to reflect changes in enrollment status. The NSC loads the data onto their database and sends electronic enrollment reports to the servicers who are members of the NSC and mail paper reports to non-members upon request.

Transferring Admissions Records to the Registrar's Office: A complete admission file should be kept for each applicant until the end of an application process. When a student is admitted into the university, the admissions file is subject to standard retention policies. However, when an admitted student does enroll, certain files must be transferred to the Registrar's Office in accordance with the following process.

Transfer of Admissions File to the Registrar's Office Process: The following documents from the student's application should be transferred to the Registrar's Office to become part of the Student's Educational Record:

- Letter of acceptance
- Application for admission
- Supplemental application (if applicable)

All other application materials may be maintained for seven years in remote storage. Examples of these other application materials include:

- Letters of evaluation
- Screener sheets
- Interview forms
- Proof of supplemental application fee

Copy of the Letter of Acceptance should be sent to:

- Registrar's Office
- Financial Aid Office

Leave of Absence

A leave of absence (LOA) may be requested by a degree-seeking student to provide assurance that the student can retain their active student status and complete all curriculum requirements in place at the time of original matriculation to his/her program of study. All leave of absence requests must be approved or denied by the student's primary academic dean or designee.

Students can request a voluntary leave of absence for medical, family, academic or personal reasons. In addition, students may be placed on administrative leave for various reasons.

- **Eligibility:** To be eligible for a leave of absence, a student must be degree-seeking, have completed at least one full term of enrollment prior to the date a leave is to begin, in good academic standing and/or making reasonable progress toward the degree. A leave of absence must be requested in writing and include the reason, proposed duration, effective date and return date and in the case of medical leave, sufficient documentation to support the request. Since all situations and circumstances are different, leave of absence requests are handled on a case-by-case basis. RFU may stipulate conditions to be met in order to return from a leave of absence. Students should not

presume that their request for leave of absence will be approved. Discontinuance of study without the dean or the dean's designee approval does not constitute a leave of absence.

- **Implementation:** Prior to requesting a leave of absence, students should consider its potential implications for related matters including but not limited to: funding, loan repayment, immigration status, health insurance and future course scheduling.
 - Students attending the university under the Student and Exchange Visitor Information System (SEVIS) are required to notify the Office of Student Affairs and Inclusion before requesting a leave of absence under this policy.
 - Students are subject to changes in their financial aid eligibility during a leave of absence.
 - Title IV of the Higher Education Act stipulates that for federal student aid purposes, a leave of absence, together with any additional leaves of absence, must not exceed a total of 180 days in any 12-month period. Only an enrollment interruption that meets Title IV guidelines is reported as a “leave of absence” to the National Clearinghouse by the RFU Registrar’s Office. Any enrollment interruptions that do not meet the federal definition are recorded as inactive or withdrawn periods.
 - Students planning leaves of absence are required to meet with a member of the Financial Aid Office prior to taking the leave in order to ascertain how the leave will affect their financial aid status, unless they have no scholarships or current or prior loans or grants.
 - Leaves of absence that do not meet the Federal Title IV definition utilize grace periods and cancel deferments of student loans. Students on leaves of absence are not eligible for financial aid.
 - Students are subject to certain requirements with respect to their liability and health insurance status during a leave of absence.
 - Students on leaves of absence are not covered by the RFU general liability policy.
 - Students on leaves of absence must continue their coverage by the CMS and SCPM disability insurance policy and will be charged the standard fee for this coverage.
 - Students on leaves of absence are not eligible for health insurance under the RFU student plan. However, insurance purchased prior to the onset of the leave provides coverage through the end of the quarter following the time the leave was initiated.
 - This policy does not prohibit students on leave from taking an exam to address an incomplete.
 - Students on any type of leave of absence may not participate in non-remedial curricular or non-curricular activities where they would be representing RFU or its students.
- **Time Limit:** Leaves of absence are granted for a maximum of four consecutive quarters (e.g., summer, fall, winter, spring). Although a leave may be taken for as many as 12 months, students are encouraged to return to graduate study as soon as reasonably possible to minimize the impact of the leave on degree progress. Students may petition for an extension of one additional quarter with good cause. Students cannot be reinstated for a particular quarter after the registration deadline for that quarter has passed.

A student who is granted a leave is still required to complete all degree requirements within the specified time of enrollment. A leave does not extend the specific time period for obtaining a degree unless a waiver is granted by their dean or dean's designee.

- **Administrative Leave:** RFU may place a student on an administrative leave of absence from the student's academic program when the student: (1) poses a direct threat to health and safety of self or others and (2) is not able or not willing to take a voluntary leave of absence. This policy may not be used in lieu of disciplinary actions to address any violations of university rules, regulations, policies, or practices. A student who is placed on an administrative leave while on academic and/or disciplinary status will return on that same status.
 - If a student is placed on an administrative leave, the Student Identification card is to be returned or deactivated by Campus Security and access to their email computer account may be suspended at the discretion of the dean or the dean's designee. The student may visit the campus and any other university-owned facilities only with the written permission of the dean or the dean's designee. Such permission may be set forth in the letter notifying the student of the involuntary leave. Otherwise, the student must be off the campus during the approved period of leave. Campus Security will be notified of the student's administrative leave and will take appropriate steps to limit access of the student during the approved period of the administrative leave.
 - The relevant academic program, department or school will be responsible for notifying the appropriate university offices, administrators, faculty advisors and instructors of the administrative leave.
 - The notation "leave of absence" will be entered on the student's transcript.

Graduation Requirements

Students will be recommended for graduation by the college/school faculty upon successful completion of all degree requirements, review of academic performance and demonstration of professional standards. All candidates for certificates and degrees are recommended to the Board of Trustees for approval. All financial obligations, fees and fines to the university must be settled. For specific degree requirements view the graduation requirements section for that specific program.

University-Wide Academic Opportunities

Baldwin Institute for Interprofessional Education

The DeWitt C. Baldwin Institute for Interprofessional Education was established at Rosalind Franklin University of Medicine and Science to support and further develop the university's dedication to interprofessional, team-based, patient-centered care. The role of the institute is to serve as a hub of learning, practice and research in interprofessionalism (IP), coordinating and continually improving this crucial element of the university's mission and vision. Institute team members support faculty as they incorporate interprofessional competencies and activities into a variety of learning opportunities for students such as the following:

- Specialized IP courses such as the Foundations for Interprofessional Practice course required for all first-year students enrolled in clinical degree programs.

- Required program and elective courses offered using an IP education approach.
- Interprofessional simulations and IP student-led Grand Rounds.
- Service Learning opportunities for students that focus on practicing team-based care while serving communities in need.
- Opportunities to work in the Interprofessional Community Clinic (ICC) that is run by RFU students representing a variety of health profession programs.
- Courses in the PhD and DSc degree programs in Interprofessional Healthcare Studies.

The Institute also collaborates with the university's colleges and schools to offer faculty development programs, webinars and symposia about IP education and clinical practice. Institute personnel work with university faculty to conduct specialized research to improve health outcomes and advance the field of IP education and practice. Periodically, opportunities also emerge to collaborate and present best practices in interprofessionalism at regional, national and international conferences.

The DeWitt C. Baldwin Institute for Interprofessional Education is located on the first floor of the Health Sciences Building.

Global Health at RFU

The Office of Global Health Initiatives coordinates opportunities for students to serve communities in low- and middle-income countries while learning to identify and remedy health disparities. Global Health at RFU educates students about meeting the health needs of the poor in underserved communities with compassion, integrity, high ethical standards and a high level of competence. The university believes the benefits of learning in and about other parts of the world are invaluable. RFU also believes that honing students' cross-cultural communication and problem-solving skills will help to improve healthcare delivery and patient outcomes in the United States.

RFU is especially well-suited to advance the field of Global Health because of our interprofessional approach to learning and service. In addition to partnership sites in China, St. Lucia and Uganda, collaboration with Child Family Health International (CFHI) offers students a variety of global health learning experiences at 31 sites in 10 countries. During the past three academic years, more than 250 RFU students have participated in Global Health opportunities in 28 different countries.

Interprofessional Community Clinic

The Interprofessional Community Clinic (ICC) is a unique and impactful clinical opportunity for RFU students, and influences local communities to ensure a healthier population. Founded in 2013 by students from the Chicago Medical School, the ICC now has students from the following degree programs working together in interprofessional teams to provide accessible, quality healthcare to non-insured residents of surrounding communities.

Psychology
Podiatric Medicine

Physical Therapy
Physician Assistant

Allopathic Medicine
Pharmacy

The clinic is currently open Thursday evenings from 4-8 p.m. in the RFU Health Clinics adjacent to the university campus in North Chicago. The clinic's evening hours allow patients to see

several different healthcare providers in one visit, which benefits individuals lacking paid time-off from work, transportation or child care during the day.

For students, the Interprofessional Community Clinic serves as a welcome complement to their long hours of study. It also helps students relate to their ultimate goal of being a healthcare provider during the didactic years of their program of study. Students can volunteer at the clinic, join the student organization that facilitates the operation of the clinic or do both. For more information about the ICC's unique model of service, clinical practice and student initiative, contact the Interprofessional Clinical Initiative (ICI), the student organization responsible for running the Interprofessional Community Clinic at ici@rosalindfranklin.edu.

Service Learning

Service learning at RFU is a year-round, mission-driven effort to provide students with opportunities to serve the community they live in and gain knowledge that goes beyond the traditional classroom. Through meaningful service-learning projects, students will not only address issues affecting the health and well-being of North Chicago and Lake County residents, but they will also be exposed to the social, cultural and diverse context of our local community and their health needs. Their service learning experience will help them gain insight into the reality of health disparities and the social determinants of health that disproportionately affect urban populations and the underserved.

Service learning provides an opportunity for our students to practice what they learn in the classroom and bring a meaningful benefit to the communities they serve. Through interprofessional teamwork, students will improve their knowledge and ability for civic engagement, cultural humility and social responsibility.

For assistance and questions, please contact:

Jesus Ruiz, MAEd

Office of Service Learning and Civic Engagement

Division of Student Affairs and Inclusion

847-578-8785

jesus.ruiz@rosalindfranklin.edu

Chicago Medical School (CMS)

Mission

Chicago Medical School educates physicians and scientists dedicated to providing exemplary, compassionate care and excellence in scientific discovery within an interprofessional environment.

Vision

To be an outstanding community-based medical school with excellence and innovation in medical education, scientific discovery and clinical care.

Programs of Study

Doctor of Medicine (MD)

Doctor of Medicine/Doctor of Philosophy (MD/PhD)

Clinical Nutrition (MS)

Health Promotion and Wellness (MS)

Nutrition Education (MS)

Certificate in Essentials of Health Promotion and Wellness

Certificate in Nutrition for Healthcare Professionals

Doctoral Degrees

Doctor of Medicine (MD)

Program Accreditation

Chicago Medical School is fully accredited by the Liaison Committee on Medical Education (LCME). The U.S. Department of Education recognizes the LCME for accreditation of programs of medical education leading to the MD degree in the United States and Canada. Accreditation is a process of quality assurance in post-secondary education that determines whether an institution or program meets established standards for function, structure and performance. The accreditation process fosters institutional and program improvement. It is a prerequisite for eligibility of graduates to obtain medical licensure in most states, and for students to sit for U.S. Medical Licensure Examinations and to obtain federal student loans.

Program Introduction

Chicago Medical School offers a four-year program where students learn the essential knowledge, skills and attitudes of a physician, including excellent communication skills, technical expertise and the ability to reason and solve problems. In addition, the medical curriculum moves beyond these fundamentals by offering innovative teaching methods, an emphasis on professional growth and development, a supportive atmosphere with individual guidance and mentoring, opportunities to participate in bench or clinical research and interprofessional learning in the classroom and clinical setting. Students learn from an incredibly diverse array of patients at a wide variety of clinical sites in and around Chicago, as well as at the

Billings Clinic in Billings, MT. CMS graduates are well prepared to adapt and thrive in the healthcare arena today and into the future, and to pursue residency training in any specialty.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements.

MD Application Procedure

- **American Medical College Application Service (AMCAS):** Applicants for admission to the first-year class must be initiated through AMCAS. Applications must be submitted online through the AMCAS website.
- **Supplemental Application:** Upon receipt of the AMCAS application, Chicago Medical School will forward additional materials and instructions to you to complete the application. Candidates must submit a \$125 application fee when submitting the supplemental application materials. Applicants receiving an AMCAS fee waiver automatically receive a waiver of the CMS application fee. All application materials, including the supplemental fee, must be received by the deadline.

MD Admission Requirements

Prior Degree: Chicago Medical School requires at least 90 credit hours of undergraduate academic work at a regionally accredited college or university prior to applying. The vast majority of successful applicants have earned a bachelor's degree prior to matriculation.

Prerequisite Courses: Listed below are the baccalaureate degree-level science courses currently required for admission to the Medical School. In addition, applicants are urged to seek a broad-based education that includes the humanities and social sciences.

- One-year Introductory Biology with laboratory experience is required.
- Two-year Chemistry Sequence that includes all three of these chemistry disciplines is required:
 - General/Inorganic Chemistry with accompanying laboratory;
 - Organic Chemistry with accompanying laboratory;
 - Biochemistry (accompanying laboratory recommended but not required).
- One year of Physics with laboratory is required.

Recommended Courses: Two courses in Behavioral/Social Sciences, preferably first-year Psychology and Sociology strongly suggested, one course in Statistics, one course in Advanced Biology (200 level or above; e.g., Molecular and Cell Biology, Physiology, Genetics, Microbiology, Neurobiology), English Composition, other coursework in the Humanities and Social Sciences (e.g., Philosophy/Ethics). Applicants are encouraged to gain research laboratory experience either through research or a laboratory research course.

Grade-Point Average (GPA): There is no minimum GPA required. Undergraduate academic

performance, especially in the sciences, is important but is only one of the many factors evaluated when considering an application.

Tests: The Medical College Admissions Test (MCAT) exam is required. MCAT exam scores are good for three years prior to the year of matriculation. If multiple exams are taken, the most recent score is considered.

Letters of Recommendation: There are three options for submitting letters of recommendation:

1. Three individual letters of recommendation
2. One committee letter
3. One letter-packet containing no more than three individual letters

If a candidate chooses to submit three individual letters, the CMS admissions committee prefers, (but does not require), at least one recommendation from a medical professional, (not necessarily an MD), with whom the candidate has worked. A maximum of three individual letters of recommendation or one committee letter of recommendation will be considered by the CMS Admissions Committee. Additional submitted letters of recommendation will not be considered by the committee.

Motivation for a Career in Medicine: The CMS admissions committee is seeking applicants who understand the importance of interprofessional health care and thrive in a diverse community. CMS applicants should also have leadership experience, excellent communication skills, a high level of professionalism and demonstrated dedication to service to the underserved.

Resume or Curriculum Vitae: A resume or curriculum vitae (CV) is a component of the AMCAS application.

Personal Statement: Applicants will submit a statement of purpose within the AMCAS application.

Non-Degree Applicant Policy: CMS does not accept non-degree seeking students.

Supplemental Application: Applicants are sent the supplemental application upon completion of the AMCAS application with optional essays for applicants to describe the diversity they bring to the program and/or the challenges they encountered on their journey to medical school.

Computer-Based Assessment for Sampling Personal Characteristics Test (CASPer): All applicants are required to complete a CASPer assessment to assist with our selection process. Successful completion of CASPer is mandatory in order to maintain admission eligibility. CASPer is an online test which assesses non-cognitive skills and interpersonal characteristics and complements the other tools that are used for applicant screening. Implementing CASPer further enhances fairness and objectivity in the selection process.

Transfer Applicant Policy

CMS considers transfer student applications exclusively for entry into the first clinical year based on availability restrictions and only for students deemed to be in a rare and/or extraordinary circumstance. Approval of a transfer application depends on many factors and is solely at the discretion of CMS.

Transfer applicant admissions requirements include:

- Having a compelling reason to transfer, i.e., students from a medical school that has closed suddenly, students with extenuating family circumstances, including being the spouse or domestic partner of a CMS medical or RFU graduate student, house staff or faculty
- Transferring from an LCME accredited school; have written approval from the dean of the applicant's current school
- Being on track to successfully complete all preclinical coursework at the transferring institution
- Having registered for Step 1 of the USMLE licensing exam or successfully completed the exam
- Having completed all preclinical academic requirements specified in the CMS Student Evaluation Promotions and Awards Committee Handbook before the start of studies
- Meeting all other admissions requirements as stated in the RFU catalog for the year of the application

Technical Standards

To assure that candidates for admission, promotion, and graduation are able to complete the entire course of study and participate fully in all aspects of medical training, essential abilities and characteristics are required. These include certain minimum physical and cognitive abilities and sufficient mental and emotional stability. Any intention of the student to practice only a narrow part of the curriculum upon graduation does not alter the requirement that all students perform satisfactorily in the full curriculum and meet all graduation requirements. For purposes of this document and unless otherwise defined, the term "candidates" means candidates for admission to medical school as well as Chicago Medical School students who are candidates for retention, promotion or graduation.

Chicago Medical School has a societal responsibility to train competent healthcare providers who demonstrate critical judgment, extensive knowledge and well-honed technical skills. The essential skills, abilities and characteristics described herein are also referred to as technical standards. They are described below in several broad categories including: *observation; communication; motor function; intellectual-conceptual, integrative, and quantitative abilities; and social and behavioral skills*. These standards must be met throughout medical school in order for students to make satisfactory progress and graduate. Candidates and current students who have questions regarding the technical standards or who believe they may need to request reasonable accommodation(s) in order to meet the standards are encouraged to contact Services for Students with Disabilities.

Observation

Candidates must be able to acquire a defined level of required information as presented through demonstrations and experiences in the basic sciences, including but not limited to such things as dissection of cadavers; examination of specimens in anatomy, pathology, and neuroanatomy laboratories; and microscopic study of microorganisms and tissues in normal and pathologic states. Candidates must be able to accurately acquire information from patients and assess findings. They must be able to perform a complete physical examination in order to integrate findings based on this information and to develop an appropriate diagnostic and treatment plan. These skills require the use of vision, hearing, and touch *or* the functional equivalent.

Communication

Candidates must be able to communicate effectively, efficiently, and sensitively with patients, families, other healthcare providers, faculty, staff, and peers. They must be able to obtain a medical history; describe changes in mood, activity, posture and behavior; interpret non-verbal aspects of communication, document and transmit information accurately and clearly, and establish therapeutic relationships with patients.

Motor

Candidates must be able, with appropriate training, to perform a complete physical exam and basic clinical procedures. The candidates must be able to respond promptly to general and emergency clinical situations. These skills require a degree of physical mobility and neuromuscular coordination.

Intellectual-Conceptual (Integrative and Quantitative) Abilities

Candidates must be able to learn through a variety of modalities including, but not limited to, classroom instruction; small group, team and collaborative activities; individual study; preparation and presentation of reports; simulations and use of computer technology. The candidates must be able to measure, calculate, reason, analyze, integrate and synthesize. In addition, they must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. They must also be able to formulate and test hypotheses that enable effective and timely problem-solving in diagnosis and treatment of patients in a variety of clinical settings and health care systems.

Behavioral and Social Attributes

Candidates must possess the emotional health required for full utilization of intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive, and effective relationships with patients. They must display characteristics of integrity, honesty, attendance and conscientiousness, empathy, a sense of altruism, and a spirit of cooperation and teamwork. The candidates for the MD degree must accept responsibility for learning and must exercise good judgment. They must be able to contribute to collaborative, constructive learning environments; accept constructive feedback from others; and take personal responsibility for making appropriate positive changes. The candidates must have the physical and emotional stamina and resilience to be able to tolerate physically taxing workloads and to function in a competent and professional manner under highly stressful

situations. Candidates must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in the clinical problems of patients. If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

Transfer credits and advanced standing will be determined on a case-by-case basis.

Core Competencies

Upon completion of the program, the student will be able to demonstrate the following outcomes or competencies:

- **Patient Care: Provide patient-centered care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.**

Specifically, students must:

- Perform all medical, diagnostic, and surgical procedures considered essential for the area of practice. (EPA: 10, 12)
 - Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests. (EPA: 1, 2, 4, 6)
 - Organize and prioritize responsibilities to provide care that is safe, effective, and efficient. (EPA: 10, 11)
 - Interpret laboratory data, imaging studies, and other tests required for the area of practice. (EPA: 2, 3, 5, 10)
 - Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment. (EPA: 3, 4, 10)
 - Develop and carry out patient management plans. (EPA: 4, 5, 10, 11)
 - Counsel and educate patients and their families to empower them to participate in their care and enable shared decision making. (EPA: 3, 11, 12)
 - Provide appropriate referral of patients including ensuring continuity of care throughout transitions between providers or settings, and following up on patient progress and outcomes. (EPA: 8)
 - Provide health care services to patients, families, and communities aimed at preventing health problems or maintaining health. (EPA: 3)
 - Provide appropriate role modeling.
 - Perform supervisory responsibilities commensurate with one's roles, abilities, and qualifications.
- **Knowledge for Practice: Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. Specifically, students must:**

- Demonstrate an investigatory and analytic approach to clinical situations. (EPA: 1, 3, 13)
- Apply established and emerging bio-physical scientific principles fundamental to health care for patients and populations. (EPA: 2)
- Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving and other aspects of evidence-based health care. (EPA: 2, 7)
- Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations. (EPA: 2, 3, 7)
- Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial and cultural influences on health, disease, care-seeking, care compliance, and barriers to and attitudes toward care.
- Contribute to the creation, dissemination, application, or translation of new health care knowledge and practices.
- **Practice-Based Learning and Improvement: Demonstrate the ability to investigate and evaluate one's care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning. Specifically, students must:**
 - Identify strengths, deficiencies, and limits in one's knowledge and expertise. (EPA: 2, 4, 6, 7)
 - Set learning and improvement goals.
 - Identify and perform learning activities that address one's gaps in knowledge, skills, and/or attitudes. (EPA: 7)
 - Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement. (EPA: 13)
 - Incorporate feedback into daily practice. (EPA: 8)
 - Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems. (EPA: 7)
 - Use information technology to optimize learning. (EPA: 4, 7, 8)
 - Participate in the education of patients, families, students, trainees, peers and other health professionals.
 - Obtain and utilize information about individual patients, populations of patients, or communities from which patients are drawn to improve care. (EPA: 3, 7)
 - Continually identify, analyze, and implement new knowledge, guidelines, standards, technologies, products, or services that have been demonstrated to improve outcomes. (EPA: 13)
- **Interpersonal and Communication Skills: Demonstrate interpersonal and communication skills that result in the effective exchange of information and**

collaboration with patients, their families, and health professionals. Specifically, students must:

- Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds. (EPA: 1, 4, 5, 6, 11)
- Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies (also, see 7.3). (EPA: 2, 5, 6, 7, 8, 9, 10, 13)
- Work effectively with others as a member or leader of a health care team or other professional group (also, see 7.4). (EPA: 8, 9)
- Act in a consultative role to other health professionals.
- Maintain comprehensive, timely, and legible medical records. (EPA: 5, 11, 12)
- Demonstrate sensitivity, honesty, and compassion in difficult conversations, including those about death, end of life, adverse events, bad news, disclosure of errors, and other sensitive topics. (EPA: 10, 12)
- Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions. (EPA: 1, 9, 11)
- **Professionalism: Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Specifically, students must:**
 - Demonstrate compassion, integrity, and respect for others. (EPA: 1, 6, 9)
 - Demonstrate responsiveness to patient needs that supersedes self-interest.
 - Demonstrate respect for patient privacy and autonomy. (EPA: 1, 6, 8)
 - Demonstrate accountability to patients, society, and the profession. (EPA: 5,13)
 - Reflect on one's own values, culture, and beliefs and demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation. (EPA: 1)
 - Demonstrate a commitment to ethical principles pertaining to provision or withholding of care, confidentiality, informed consent, and business practices, including compliance with relevant laws, policies, and regulations. (EPA: 12)
- **Systems-Based Practice: Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Specifically, students must:**
 - Work effectively in various health care delivery settings and systems relevant to one's clinical specialty. (EPA: 5)
 - Coordinate patient care within the health care system relevant to one's clinical specialty. (EPA: 9)

- Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care. (EPA: 3, 4, 11, 12)
- Advocate for quality patient care and optimal patient care systems. (EPA: 13)
- Participate in identifying system errors and implementing potential systems solutions. (EPA: 13)
- Perform administrative and practice management responsibilities commensurate with one's role, abilities, and qualifications.
- **Interprofessional Collaboration: Demonstrate the ability to engage in an interprofessional team in a manner that optimizes safe, effective patient- and population-centered care. Specifically, students must:**
 - Work with other health professionals to establish and maintain a climate of mutual respect, shared values, dignity, diversity, ethical integrity, and trust. IPEC Competency 1 (Values/Ethics) (EPA: 9)
 - Use the knowledge of one's own role and the roles of other health professionals to appropriately assess and address the health care needs and advance the health of the patients and populations served. IPEC Competency 2 (Roles/Responsibilities) (EPA: 9)
 - Communicate with patients, families, communities and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease in individual patients and populations. IPEC Competency 3 (Interprofessional Communication) (EPA: 9)
 - Participate in different team roles to establish, develop, and continuously enhance principles of team dynamics within interprofessional teams to plan, deliver and evaluate patient- and population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable. IPEC Competency 4 (Teams and Teamwork)
- **Personal and Professional Development: Demonstrate the qualities required to sustain lifelong personal and professional growth. Specifically, students must:**
 - Develop the ability to use self-awareness of knowledge, skills, and emotional limitations to engage in appropriate help-seeking behaviors. (EPA: 1-13)
 - Demonstrate healthy coping mechanisms to respond to stress.
 - Manage conflict between personal and professional responsibilities.
 - Practice flexibility and maturity in adjusting to change with the capacity to alter one's behavior. (EPA: 6)
 - Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients. (EPA 1-13)
 - Provide leadership skills that enhance team functioning; the learning environment, and/or the health care delivery system.
 - Demonstrate self-confidence that puts patients, families, and members of the health care team at ease. (EPA: 6, 11, 12)

- Recognize that uncertainty is part of clinical health care and respond appropriately. (EPA: 2)

Program Course Plan*

Phase I

Year 1 (81.5 QH)

HIPS 515 Foundations of Interprofessional Practice (2 cr.)
MCBA 500 Clinical Anatomy (8.5 cr.)
MCMS 500 Clinical Foundations of Medicine – EMT (6 cr.)
MCMS 505 Infection – Immunology – Hematology (9.5 cr.)
MCMS 510 Scientific Foundations of Medicine (10.5 cr.)
MCMS 515 Gastroenterology (8 cr.)
MCMS 520 Skin (3.5 cr.)
MCMS 525 Cardiovascular – Pulmonary – Renal (15 cr.)
MCUR 502 Essentials of Clinical Reasoning (13 cr.)
MMTD 509 Epidemiology (1.5 cr.)
MMTD 510 Bioethics (2.5 cr.)
MOSA 500 Clinical Reflections I (1.5 cr.)

Year 2 (51 QH)

MCMS 600 Musculoskeletal (4 cr.)
MCMS 605 Neurobehavioral Health (19.5 cr.)
MCMS 610 Endocrine – Reproductive (13 cr.)
MCMS 615 Multisystem (6.5 cr.)
MCUR 502 Essentials of Clinical Reasoning (continued)
MCUR 606 Clinical Skills (2 cr.)
MMTD 601 Patient Safety (2 cr.)
MOSA 502 Clinical Reflections II (1 cr.)
Sophomore Electives (3 cr.)

Phase II

Year 3 (73 QH)

MFPM 700 Family Medicine/Primary Care Clerkship (9 cr.)
MMED 700 Medicine Clerkship (12 cr.)
MNEU 801 Neurology Clerkship (6 cr.)
MOBG 700 Obstetrics/Gynecology (9 cr.)
MOSA 700 Clinical Reflections III (1 cr.)
MPED 700 Pediatric Clerkship (9 cr.)
MPSY 700 Psychiatry Clerkship (9 cr.)
MSUR 700 Surgery Clerkship (12 cr.)
Year 3 Elective (6 cr.)

Phase III

Year 4 (55 QH)

MCUR 898 Transition to Internship (1 cr.)

MOSA 805 Clinical Reflections IV (1 cr.) 36 weeks total for senior requirements (Sub-internship and Electives):

- 4 weeks Internal Medicine, Family Medicine, Pediatric or Emergency Medicine Sub-internship
- 31 weeks Electives
 - 12 weeks minimum intramural CMS electives
 - 20 weeks maximum extramural electives
 - 8 weeks maximum non-clinical electives
 - 12 weeks maximum specialty electives (except medicine or pediatrics)

* Program Course Plan for students matriculating in 2018 (anticipated graduation 2022).

Assessment for Student Learning

Grading System

Grades are awarded for all courses leading to the MD degree. Final grade designations will be assigned using defined grading systems by year and curricular classification. Assessment of student learning may include, but are not limited to, traditional multiple-choice examinations, written assignments, projects, presentations, demonstration of required skills, and direct observation.

In the clinical setting, students are evaluated based on a detailed grading rubric which includes descriptions of skills, attitudes, and behaviors observed in the clinical setting. Students must also pass the appropriate final subject exam. A passing grade for the final subject exam is determined based on student performance in comparison to nationally published performance standards.

Grading Systems by year and curricular classification:

- Phase I (M1 year, M2 year) Courses: pass or fail (P/F)
- Phase II (M3 year) Required Clerkships: pass, high pass, honors (P/HP/H)
- Phase III (M4 year) Sub-Internships: pass, high pass, honors (P/HP/H)
- Electives: pass, high pass, honors (P/HP/H) or pass/fail or pass/fail/honors or A, B, C, F
- If a student receives an Incomplete (I) or Needs Remediation (NR), necessary coursework must be completed or remediated by the deadline indicated by the instructor. If coursework is not satisfactorily completed by the deadline or within one calendar year, the grade will be changed to Fail (F).
- **Academic Records**
Numeric grades, weighted by course credits, will be maintained by the Office of the Registrar. Students with a weighted cumulative score of 89.5% or higher, accumulated from their first two years of coursework, will be recognized as having achieved “MD with Distinction in Basic Sciences.”

Assessment Methods

Students are assessed through:

- Course and Clerkship Performance

- Formative and Summative Examination
- Written Assignments, Projects, and Presentations
- Multi-Source Assessment of Skills and Behaviors
- National Normed Exam Performance
- Portfolio Assessment
- Comprehensive Examination and Longitudinal Performance
- Lab Exam Performance
- Direct Observation in Clinical Setting

Graduation Requirements

Requirements for the MD Degree

To be awarded the MD degree from CMS, a student must accomplish the following:

- Total program-specific quarter hours for degree: 260.5
- Successful completion of all required courses and an approved group of elective courses
- Pass a comprehensive Clinical Skills Exam
- Pass the USMLE Step 1, USMLE Step 2 Clinical Knowledge (CK) and USMLE Step 2 Clinical Skills (CS) exams
- Perform all student functions in a professional and ethical manner
- Meet the Technical Standards (observational, communicational, motor, intellectual-conceptual and behavioral/social) as described in the Admission Requirements section
- Complete all requirements within six calendar years, including periods of absence

Joint MD/PhD Program

Program Introduction

The joint MD/PhD Degree Program is designed for individuals who are strongly motivated to have a career in both academic medicine and research.

Application Procedure

To begin studies as a joint degree student, the applicant must be accepted into both Chicago Medical School (CMS) and the School of Graduate and Postdoctoral Studies (SGPS). There are two application tracks to the joint degree program:

- **Track 1:** The candidate applies simultaneously to both schools during the initial AMCAS entry-level application process. Candidates must indicate their preference on the AMCAS application as “MD/PhD.” Most MD/PhD candidates who are invited to interview by SGPS for the PhD program have at least a 3.75 cumulative GPA (on a 4.0 scale) and 515 or higher score on the MCAT. Accepted MD/PhD candidates are admitted jointly to CMS and SGPS. MD/PhD candidates who are not accepted by SGPS for the PhD program will still be considered by CMS for the MD program.

- **Track 2:** Students who have already matriculated into the MD program and have successful research experience, obtained during their medical school education, may choose to apply for the MD/PhD program during their M2 year. If accepted, a student would start in the PhD portion of the program after completing their M2 year. A competitive candidate will have a Rosalind Franklin University (MD program) GPA of 3.5 or above and strong evidence of potential for a career in research.

Requirements for the Joint MD/PhD Degree

To be awarded the MD/PhD degree from CMS and SGPS, a student must accomplish the following:

- Complete the medical school curriculum, as described above in requirements for the MD degree.
- Complete the requirements for the PhD degree, as determined by the student's Research Committee. All combined degree students must also pass the following SGPS courses:
 - GIGP 507 Art of Scientific Presentation
 - GIGP 508 Ethics and Regulatory Issues in Biomedical Research
 - GIGP 509 Biostatistics
 - GIGP 510 Computer Applications in Biomedical Sciences

Special Degree Designations

MD with Distinction in Research

This program offers students with a special interest in research the opportunity to pursue a project in depth in either basic or clinical sciences, under the direction of a research mentor. Students are required to submit a written project proposal (with the aid of the mentor), to identify a faculty committee (other than the mentor) to oversee the student's progress and to submit a final project report with data of publishable quality. Upon satisfactory completion, students receive a certificate and recognition on Awards Day, and a notation appears on the student's transcript.

MD with Distinction in Basic Science

Students with a weighted cumulative score of 89.5% or higher, accumulated from their first two years of coursework, will be recognized as having achieved MD with Distinction in Basic Science. Upon satisfactory completion, students receive recognition on Awards Day, and a notation appears on the student's transcript.

Continuing Education

Each year, approximately 10 symposia are sponsored by the Office of Continuing Medical Education (CME) in conjunction with the school departments. In addition, approximately 19 recurring conferences, grand rounds and tumor boards are sponsored by the CME office on campus and at affiliated hospitals.

The content areas of CME activities include (but are not limited to):

- Clinical medical sciences (new, reviewed and investigational)
- Basic sciences (new, reviewed and investigational)
- Theory and practice of healthcare delivery systems
- Education of healthcare professionals including communication skills, bioethics and leadership

These programs provide activities which are evidence-based and designed to produce a change in learner competence and performance, with the goal of improving patient outcomes. CME activities promote leadership within the healthcare field and promote a team-based approach to healthcare delivery.

The CME program is fully accredited with commendation by the Accreditation Council for Continuing Medical Education (ACCME) and provides appropriate credit for the Physician's Recognition Award of the American Medical Association. Credit is applicable for state medical licensure.

Graduate and Postdoctoral Education

Residency Programs

- Internal Medicine (James A. Lovell Federal Health Care Center)
- Internal Medicine (Centegra Health System)
- Psychiatry (James A. Lovell Federal Health Care Center and Presence Saint Mary and Elizabeth Medical Center)

Fellowship Programs

- Cardiology
- Interventional Cardiology
- Pulmonary Medicine
- Infectious Disease
- Endocrine Disease

The residency and fellowship programs are primarily based at the James A. Lovell Federal Health Care Center and Centegra Health System.

The training occurs at several affiliate sites including Presence Saint Mary and Elizabeth Medical Center, Mount Sinai Hospital Medical Center in Chicago, Advocate Illinois Masonic Medical Center, Elgin Mental Health Center, Lake County Health Department Community Health Center, Horizon's Behavioral Health LLC, and Vista Medical Center East.

Chicago Medical School, as the sponsoring institution for these programs, is fully accredited by the Accreditation Council for Graduate Medical Education (ACGME), with the next self-study and site visit in the ACGME's Next Accreditation System scheduled for April 2024. All the residency and fellowship programs are also fully accredited with commendation.

Chicago Medical School is committed to supporting Graduate Medical Education (GME) programs of the highest caliber. The goal of these programs, consistent with the strategic goals of Chicago Medical School and Rosalind Franklin University of Medicine and Science, is the training of highly skilled, scholarly physicians whose practices will engender the highest ideals of compassion and professionalism.

Master of Science Degrees

Clinical Nutrition (MS)

Program Introduction

The online Master of Science in Clinical Nutrition prepares students to further their practice in the field of clinical nutrition using evidence-based nutrition knowledge and professional skills in critical thinking, leadership and communication. The program is designed for dietetic and healthcare professionals who want to offer an advanced level of care to patients and seek professional growth. Students individualize their program of study by completing projects on clinical nutrition topics of personal and professional interest.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree in nutrition, dietetics or a related field from a regionally-accredited college or university.
- Clinical experience in medical-surgical or critical care nutrition from healthcare professional clinical training, such as a dietetic internship, or on-the-job experience.
- **Prerequisite Courses:** Successful completion of the following specific coursework recorded on the applicant's official bachelor's degree transcript with a grade of C or better (4 quarter hours):
 - Biology
 - Biochemistry
 - Chemistry with Lab
 - Organic Chemistry with Lab
 - Physiology
- Work experience in nutrition, dietetics or a related health or science field is highly recommended.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average of 2.75 on a 4.0 point scale in the last two years of undergraduate study.
- Official transcripts from each college, university or community college previously attended must be submitted as part of the online application process
 - Students who have studied outside the U.S. will need to have their transcripts evaluated for U.S. equivalency using a service such as World Education Services (www.wes.org) or Educational Credential Evaluators (www.ece.org).
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.

- If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
- Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
- Test scores must be a test taken within two years of the date from when a complete application is submitted.
- The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- **Letters of Recommendation:** One letter of recommendation is required, two preferred, from professionals and/or academicians who know the applicant well (i.e., pre-health advisors/committees, professors or supervisors). Letter writers are encouraged to share their contact information. Letters must include a signature and be on official letterhead.
- **Current Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Personal Statement:** A personal statement is not required.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** Non-degree applicants may be admitted to take a limited number of courses with the permission of the department chair.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

A maximum of nine quarter hours of graduate credit that addresses the requirements outlined in the core competencies for this program may be accepted from other regionally-accredited institutions. No credit will be given for prior learning experience or through proficiency examinations.

Core Competencies

Upon completion of the Master of Science in Clinical Nutrition program, the student will:

- Apply nutrition and health promotion knowledge to professional activities
- Educate the individual, family and community about nutrition
- Demonstrate the ability to think critically and evaluate research
- Communicate effectively as a health professional
- Demonstrate leadership in an interprofessional nutrition and wellness environment

Program Course Plan

Year 1 (23 QH)

HIPS 561 Statistics for Health Professionals (4 QH)
HNUT 504 Information and Health Literacy (3 QH)
HNUT 505 Communication Strategies, Methods and Techniques (3 QH)
HNUT 511 Nutrition in Chronic Disease (4 QH)
HNUT 513 Health and Wellness Coaching (3 QH)
HNUT 532 Instructional Design for Health Education (3 QH)
Elective (3 QH)

Year 2 (19 QH)

HNUT 506 Health Education Teaching Experience (1 QH)
HNUT 512 Leadership (3 QH)
HNUT 526 Evaluating Research and Health Recommendations (4 QH)
HNUT 541 Prevention, Health Promotion and Wellness (3 QH)
HNUT 554 Nutrition in Critical Care (3 QH)
HNUT 596 Portfolio Evaluation (2 QH)
Elective (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Online student learning is assessed using both formative and summative assessments. Formative assessments include discussion activities, written assignments, written reflections and quizzes. Summative assessments include written papers, projects, presentations, exams, a final written portfolio and final portfolio presentation to a faculty audience.

Graduation Requirements

Students must meet the following program requirements:

- Satisfactory completion of 42 quarter hours of core program courses and elective requirements
- Meet core program competencies as demonstrated by successful completion of portfolio projects in core program courses and in the final Portfolio Evaluation course
- Successful completion of all course requirements within five years from the date of matriculation
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Health Promotion and Wellness (MS)

Program Introduction

- Full-time completion of graduate degree in two years with flexible completion within five years
- An online program ideal for healthcare practitioners and fitness professionals who are ready to offer an enhanced level of wellness services. With this degree, graduates are prepared to:
 - Teach people to lead a healthy lifestyle
 - Help organizations develop wellness plans to keep employees healthy and decrease healthcare costs
 - Help people with chronic diseases improve their quality of life and reduce disability
 - Encourage people to adopt healthy lifestyles to prevent disease
- Innovative curriculum aligned with changes in health care and a focus on wellness
- No on-campus attendance is required
- All coursework is completed online to suit the needs of self-motivated, goal-oriented professionals

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior degree:** Bachelor's degree from a regionally-accredited college or university.
- **Prerequisite Courses:** A minimum of two courses in the life/physical sciences and one course in the social sciences recorded on the applicant's official bachelor's degree transcript with a grade of C or better.
 - Alternatives to coursework requirements may include relevant academic work or professional work experiences with preference for candidates with coursework in the life/physical sciences.
- Professional experience in health promotion and wellness is desirable.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average of 2.75 on a 4.0 point scale in the last two years of undergraduate study.
- **Transcripts:** Official transcripts from each college, university or community college previously attended must be submitted as part of the online application process.
 - Students who have studied outside the U.S. will need to have their transcripts evaluated for U.S. equivalency using a service such as World Education Services (www.wes.org) or Educational Credential Evaluators (www.ece.org).
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.

- Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
- Test scores must be a test taken within two years of the date from when a complete application is submitted.
- The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- **Letters of Recommendation:** One letter of recommendation is required, two preferred, from professionals and/or academicians who know the applicant well (i.e., pre-health advisors/committees, professors or supervisors). Letter writers are encouraged to share their contact information. Letters must include a signature and be on official letterhead.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Personal Statement:** A personal statement is not required.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** Non-degree applicants may be admitted to take a limited number of courses with the permission of the department chair.
- **Supplemental Application:** This program does not have a supplemental application.
- **Early Decision Program:** This program does not accept early decision applicants.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.
- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).

- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate, and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

A maximum of nine quarter hours of graduate credit that addresses the requirements outlined in the core competencies for this program may be accepted from other regionally accredited institutions. No credit will be given for prior learning experience or through proficiency examinations.

Core Competencies

Upon completion of the Master of Science in Health Promotion and Wellness program, the student will:

- Apply health promotion and wellness knowledge to professional activities
- Educate the individual, family and community about nutrition
- Demonstrate the ability to think critically and evaluate research to create wellness initiatives
- Communicate effectively as a health professional
- Demonstrate leadership in an interprofessional health and wellness environment

Program Course Plan

Year 1 (26 QH)

HHCM 517 Management Ethics (3 QH)

HHCM 521 Evidence-Based Management (3 QH)
HHCM 522 Healthcare Policy and Delivery Systems (4 QH)
HIPS 561 Statistics for Health Professionals (4 QH)
HNUT 504 Information and Health Literacy (3 QH)
HNUT 508 Cultural Dimensions of Health Care (3 QH)
HNUT 510 Modern Nutrition (3 QH)
HNUT 512 Leadership (3 QH)

Year 2 (19 QH)

HNUT 505 Communication Strategies, Methods and Techniques (3 QH)
HNUT 532 Instructional Design for Health Education (3 QH)
HNUT 541 Prevention, Health Promotion and Wellness (3 QH)
HPHW 583 Independent Study in Health Promotion and Wellness (4 QH)
HPHW 596 Portfolio Evaluation in Health Promotion and Wellness (3 QH)
HPOP 540 Essentials of Population Health (3 QH)

Assessment for Student Learning

Grading System

A 4.00 High Achievement
B 3.00 Above Average Achievement
C 2.00 Average Achievement
F 0.00 Failure

Grades without Associated Grade Points:

P Pass
F Fail

Assessment Methods

Online student learning is assessed using both formative and summative assessments. Formative assessments include discussion activities, written assignments, written reflections and quizzes. Summative assessments include written papers, projects, presentations, exams, successful implementation of a community health project, a final written portfolio and final portfolio presentation to a faculty audience.

Graduation Requirements

Students must meet the following program requirements:

- Satisfactory completion of 45 quarter hours of core program course requirements
- Meet core program competencies as demonstrated by successful completion of portfolio projects in core program courses and in the final Portfolio Evaluation course
- Successful completion of all course requirements within five years from the date of matriculation
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Nutrition Education (MS)

Program Introduction

The online Master of Science in Nutrition Education degree prepares students in the fields of nutrition and dietetics who want to expand their commitment to nutrition education initiatives designed to impact the health and well-being of individuals, families and diverse communities. The program balances the science of nutrition with solid teaching and communication practices and prepares graduates to lead efforts in healthcare, the community, and in the food and wellness industries. Students individualize their program of study by completing projects on nutrition education topics of personal and professional interest.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree in nutrition, dietetics or a related field from a regionally-accredited college or university.
- **Prerequisite Courses:** Successful completion of the following specific coursework recorded on the applicant's official bachelor's degree transcript with a grade of C or better (4 quarter hours):
 - Biology
 - Biochemistry
 - Chemistry with Lab
 - Organic Chemistry
 - Physiology
- For applicants with the requisite science background but without a degree in nutrition or dietetics, the following nutrition courses are required: human nutrition, lifecycle nutrition and clinical nutrition.
- Work experience in nutrition, dietetics or a related health or science field is highly recommended.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average of 2.75 on a 4.0 point scale in the last two years of undergraduate study.
- Official transcripts from each college, university or community college previously attended must be submitted as part of the online application process.
 - Students who have studied outside the U.S. will need to have their transcripts evaluated for U.S. equivalency using a service such as World Education Services (www.wes.org) or Educational Credential Evaluators (www.ece.org)
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.

- Test scores must be a test taken within two years of the date from when a complete application is submitted.
- The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- **Letters of Recommendation:** One letter of recommendation is required, two preferred, from professionals and/or academicians who know the applicant well (i.e., pre-health advisors/committees, professors or supervisors). Letter writers are encouraged to share their contact information. Letters must include a signature and be on official letterhead.
- **Current Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Personal Statement:** A personal statement is not required.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** Non-degree applicants may be admitted to take a limited number of courses with the permission of the department chair.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.
 In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.
- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an

online course environment requires that the candidate be able to remain at the computer for prolonged intervals.

- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

A maximum of nine quarter hours of graduate credit that addresses the requirements outlined in the core competencies for this program may be accepted from other regionally accredited institutions. No credit will be given for prior learning experience or through proficiency examinations.

Core Competencies

Upon completion of the Master of Science in Nutrition Education program, the student will:

- Apply nutrition and health promotion knowledge to professional activities
- Educate the individual, family and community about nutrition
- Demonstrate the ability to think critically and evaluate research
- Communicate effectively as a health professional
- Demonstrate leadership in an interprofessional nutrition and wellness environment

Program Course Plan

Year 1 (23 QH)

HIPS 561 Statistics for Health Professionals (4 QH)

HNUT 504 Information and Health Literacy (3 QH)

HNUT 505 Communication Strategies, Methods and Techniques (3 QH)

HNUT 511 Nutrition in Chronic Disease (4 QH)

HNUT 513 Health and Wellness Coaching (3 QH)

HNUT 532 Instructional Design for Health Education (3 QH)

Education Elective (3 QH)

Year 2 (19 QH)

HNUT 506 Health Education Teaching Experience (1 QH)

HNUT 512 Leadership (3 QH)

HNUT 526 Evaluating Research and Health Recommendations (4 QH)

HNUT 541 Prevention, Health Promotion and Wellness (3 QH)

HNUT 596 Portfolio Evaluation (2 QH)

Electives (6 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Online student learning is assessed using both formative and summative assessments. Formative assessments include discussion activities, written assignments, written reflections and quizzes. Summative assessments include written papers, projects, presentations, exams, a final written portfolio and final portfolio presentation to a faculty audience.

Graduation Requirements

Students must meet the following program requirements:

- Satisfactory completion of 42 quarter hours of core program courses and elective requirements
- Meet core program competencies as demonstrated by successful completion of portfolio projects in core program courses and in the final Portfolio Evaluation course
- Successful completion of all course requirements within five years from the date of matriculation
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Post-Baccalaureate Certificates

Certificate in Essentials of Health Promotion and Wellness

Program Introduction

- The certificate can be completed within a year with a maximum of four years for completion.

- This is a program for healthcare practitioners and fitness professionals who are ready to offer an enhanced level of health promotion services, and others who may wish to pursue new opportunities in population health with a wellness focus.
- Within the framework of population health, learn to create evidence-based health promotion and wellness initiatives designed to improve quality of life and provide a foundation for improved health outcomes and reduced healthcare costs.
- No on-campus attendance is required.
- All coursework is completed online to suit the needs of self-motivated, goal-oriented professionals.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from a regionally-accredited college or university.
- **Grade-Point Average (GPA):** Cumulative minimum grade-point average of 2.75 on a 4.0 point scale in the last two years of study.
- Work or experience in a related health or science field is recommended but not required.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be from a test taken within two years from the date when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- **Letters of Recommendation:** One letter of recommendation is required, two preferred, from professionals and/or academicians who know the applicant well (i.e., pre-health advisors/committees, professors or supervisors). Letter writers are encouraged to share their contact information. Letters must include a signature and be on official letterhead.
- **Resume or Curriculum Vitae:** This program does require a resume or curriculum vitae.
- **Personal Statement:** This program does require a personal statement.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Supplemental Application:** This program does not have a supplemental application.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for

successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credit will be awarded for the certificate program.

Core Competencies

Upon completion of the Essentials of Health Promotion and Wellness certificate, the student will:

- Demonstrate critical thinking and analysis of applied research to create evidence-based health promotion and wellness initiatives
- Demonstrate the ability to plan education experiences for the individual, family and community on health and wellness issues
- Create effective health promotion and wellness efforts to improve population health

Program Course Plan

Year 1 (13 QH)

HIPS 561 Statistics for Health Professionals (4 QH)

HNUT 532 Instructional Design for Health Education (3 QH)

HNUT 541 Prevention, Health Promotion and Wellness (3 QH)

HPOP 540 Essentials of Population Health (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Online student learning is assessed using both formative and summative assessments. Formative assessments include discussion activities, written assignments, written reflections and quizzes. Summative assessments include written papers, projects, presentations and exams.

Graduation Requirements

Students must meet the following program requirements:

- Satisfactory completion of 13 quarter hours of program course requirements
- Successful completion of all course requirements within four years from the date of matriculation
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Certificate in Nutrition for Healthcare Professionals

Program Introduction

- The certificate can be completed within a year with up to four years for completion.
- This certificate is designed to provide future or present healthcare professionals with the knowledge necessary to work with patients and clients to encourage diet practices consistent with health and well-being.
- No on-campus attendance is required.
- All coursework is completed online to suit the needs of self-motivated, goal-oriented professionals.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from a regionally accredited college or university.
- **Grade-Point Average (GPA):** Cumulative minimum grade-point average (GPA) of 2.75 on a 4.0 point scale in the last two years of undergraduate study.
- Work or experience in a related health or science field is recommended but not required.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be a test taken within two years from the date when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- **Letters of Recommendation:** One letter of recommendation is required, two preferred, from professionals and/or academicians who know the applicant well (i.e., pre-health

advisors/committees, professors or supervisors). Letter writers are encouraged to share their contact information. Letters must include a signature and be on official letterhead.

- **Resume or Curriculum Vitae:** This program does require a resume or curriculum vitae.
- **Personal Statement:** This program does require a personal statement.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Prerequisite Courses:** Successful completion of the following specific coursework recorded on the applicant's official bachelor's degree transcript with a grade of C or better (4 quarter hours):
 - Biology
 - General Chemistry with Lab
 - Physiology/Anatomy
- **Supplemental Application:** This program does not have a supplemental application.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.

- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credit will be awarded for the certificate program.

Core Competencies

Upon completion of the Nutrition for Healthcare Professionals certificate, the student will be able to apply knowledge of nutrition and health promotion to professional activities.

Program Course Plan

Year 1 (12 QH)

HNUT 510 Modern Nutrition (3 QH)

HNUT 542 Complementary Medicine and Dietary Supplements (3 QH)

HNUT 555 Nutrition in the Lifecycle (3 QH)

HNUT 576 Nutrition in Human Physical Performance (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P Pass

F Fail

Assessment Methods

Online student learning is assessed using both formative and summative assessments. Formative assessments include discussion activities, written assignments, written reflections and quizzes.

Summative assessments include written papers, projects, presentations and exams.

Graduation Requirements

Students must meet the following program requirements:

- Satisfactory completion of 12 quarter hours of program course requirements
- Successful completion of all coursework within four years from the date of matriculation
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

College of Health Professions (CHP)

Mission

To serve the population through the interprofessional education of health and biomedical professionals and the discovery of knowledge dedicated to improving the wellness of its people.

Vision

To achieve national recognition as the premier interprofessional health sciences university.

Programs of Study

Degree Programs

Biomedical Sciences (MS)

Doctor of Nursing Practice Entry (DNP)

 Doctor of Nursing Practice Completion (DNP) (online)

Doctor of Physical Therapy (DPT)

 Transition Doctor of Physical Therapy (tDPT) (online)

Health Administration (MS) (online)

Health Professions Education (MS) (online)

Interprofessional Healthcare Studies (DSc) (online)

Interprofessional Healthcare Studies (PhD) (online)

Pathologists' Assistant (MS)

Physician Assistant Practice (MS)

Population Health (MS)

Psychology (PhD)

Psychology: Clinical Counseling (MS)

Psychology: Clinical Psychology (MS)

Online Certificate Programs

Health Administration

Health Professions Education

Population Health Analytics

Population Health Strategies

Doctoral Degrees

Doctor of Nursing Practice (DNP)

This 36-month entry into practice program was created for Registered Nurses who wish to continue their education to become Certified Registered Nurse Anesthetists (CRNA) and earn the Doctor of Nursing Practice (DNP) degree. The program curriculum is predominantly delivered on campus, with some upper-level doctoral content presented online. CRNAs are doctoral-level advanced practice nurses who manage patients' anesthesia care in every type of setting where anesthesia services are delivered. They collaborate with other healthcare professionals in virtually every area of health care.

Successful students will be awarded a Doctor of Nursing Practice (DNP) degree upon program completion and will be recommended to take the National Certification Exam for Nurse Anesthetists, a requirement for entry to practice as a CRNA. Doctoral education for entry to nurse anesthesia practice will be required for all nurse anesthetists by 2025; all accredited nurse anesthesia programs in the U.S. will transition to doctoral level education over the next 7 years.

Mission

The mission of the Doctor of Nursing Practice program is to prepare and educate nurse anesthetists to provide high-quality advanced practice nurse anesthesia care in a competent, compassionate and ethical manner. Our program realizes its mission within a value-driven culture. This culture emphasizes critical thinking and analysis of ideas; commitment to life in discovery; confidence grounded in humility; and personal responsibility for developing excellence.

The mission will be achieved as follows:

- Encouraging nurse anesthesia students and graduates to be patient advocates and integral members of the healthcare team, meeting the needs of a diverse population of patients
- Promoting research, professional engagement and academic endeavors as part of the process of lifelong learning
- Providing and encouraging continuing education for colleagues across healthcare disciplines
- Promoting community service to meet educational and health care needs of the community
- Developing professional leaders in nurse anesthesia, advanced practice nursing and in the non-physician provider community

Vision

The program will be the preeminent nurse anesthesia educational program in the United States.

Program Accreditation

The program was reviewed by the Council on Accreditation (COA) of Nurse Anesthesia Educational Programs in 2012 for its Masters of Science in Nurse Anesthesia program and was awarded the maximum reaccreditation of 10 years without any requirements for progress reports. In 2015, the program was reviewed by the Council on Accreditation of Nurse Anesthesia Educational Programs and approved to award the entry-level DNAP and completion-level DNAP, and to provide up to 100% of its curriculum in a distance education format. The degree title was changed to Doctor of Nursing Practice (DNP) in May 2017 after approval by the Illinois Board of Higher Education and the COA. The next accreditation review is scheduled for May 2022.

The Council on Accreditation of Nurse Anesthesia Educational Programs
222 S. Prospect Avenue
Park Ridge, IL 60068
847-692-7050
accreditation@aana.com

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements.

DNP (Entry-Level)

The admission requirements for the entry-level DNP degree program are listed below and are in compliance with the requirements established by the Council on Accreditation.

- Submission of all Nurse Anesthesia program application materials by published deadline
- Submission of all undergraduate- and graduate-level transcripts by published deadline
- **Grade-Point Average (GPA)*:** A minimum grade-point average (GPA) of 3.0 on a 4.0 point scale for undergraduate curriculum
- **Prior Degree:** A bachelor of science degree from an accredited institution of higher education prior to application into the program
- Current unencumbered licensure as a registered nurse in the United States, its territories or protectorates
- At least one year of full-time experience, preferably two, as an RN in a critical care setting at the time of matriculation
- **Tests:**
 - Graduate Record Examination (GRE) scores within five years of application (waived for applicants with earned master's degree)
 - Test of English as a Foreign Language (TOEFL) scores: Required for applicants who do not hold U.S. citizenship or permanent residency. This requirement may be waived at the program's discretion
- Interview with the Doctor of Nursing Practice Program Admissions Committee
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Letters of Recommendation:** A minimum of three letters of recommendation must be submitted by the evaluator directly through NursingCAS. They should be written by at least three of the following types of people, who know you personally and can attest to your performance
 - Professor or faculty member from your nursing education program
 - Your current immediate nursing work supervisor (i.e. the person responsible for your annual nursing employment performance review)
 - A CRNA with whom you have shadowed or who knows you well from a professional environment
 - A physician whose patients you routinely take care of in your critical care nursing employment position
- **Resume or Curriculum Vitae:** A curriculum vitae (CV) is required as part of the Nursing CAS application.
- **Personal Statement:** A personal statement is not required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** Transfer applicants are encouraged to contact the program before applying.
- **Non-Degree Applicant Policy:** Non-degree applicants will be evaluated on a case-by-case basis.

- **Early Decision Programs:** The Nurse Anesthesia Program uses a rolling admissions process.

*An applicant not meeting the GPA requirement may be considered for admission if they have a minimum overall GPA of 3.0 for their last two years of study.

DNP (Completion-Level)

- Submission of all Doctor of Nursing Practice program application materials by published deadline.
- Submission of all undergraduate and graduate-level transcripts by published deadline.
- **Grade-Point Average (GPA)*:** A grade-point average (GPA) of 3.0 on a 4.0 point scale, or higher for graduate level coursework.
- **Prior Degree:** A master's degree from an accredited institution of higher education prior to matriculation into the program.
- National certification or recertification as a Certified Registered Nurse Anesthetist.
- Current unencumbered licensure as a registered nurse in the United States, its territories or protectorates.
- Submission of an employment verification and evaluation form that includes the applicant's credentialing and privileging scope of practice at their current place of employment.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Tests:** This program does not require any tests.
- **Letters of Recommendation:** This program does not require any letters of recommendation.
- **Resume or Curriculum Vitae:** This program does not require a resume or curriculum vitae.
- **Personal Statement:** A personal statement is not required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Early Decision Programs:** This program does not accept early decision applicants.

*An applicant not meeting the GPA requirement may be considered for admission if they excel in other admission decision criteria.

Technical Standards

A CRNA provides perioperative anesthesia services to patients undergoing operative procedures as well as obstetric services. Care starts when the patient is admitted to the facility and continues until they are discharged. The CRNA must be able to:

- Perform a physical assessment
- Participate in preoperative teaching
- Prepare for anesthetic management
- Administer anesthesia techniques
- Oversee recovery from anesthesia
- Follow the patient's postoperative course from recovery room to patient care unit or discharge

CRNAs provide services in conjunction with other healthcare professionals such as surgeons, dentists, podiatrists and anesthesiologists (www.aana.com).

To perform these role-related competencies, a Student Registered Nurse Anesthetist (SRNA) or CRNA must possess abilities and skills that are observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social. The use of a trained intermediary is not acceptable in many clinical situations in that it implies that the judgment of the trainee must be mediated by the powers of selection and observation of a third party.

- **Observation:** The candidate must be able to acquire a defined level of required information as presented through demonstrations and experiences in the basic and applied clinical sciences. Furthermore, a candidate must be able to:
 - Observe a patient accurately, at a distance and close at hand. Acquire information from written documents. Visualize information in images from paper, films, slides or video.
 - Interpret X-ray and other graphic images, and digital or analog representations of physiologic phenomena such as electrocardiograms.Such observation and information acquisition necessitates the functional use of visual, auditory and somatic sensation while being enhanced by the functional use of other sensory modalities. In any case where a candidate's ability to observe or acquire information through these sensory modalities is compromised, the candidate must demonstrate alternative means and/or abilities to acquire and demonstrate the essential information conveyed in this fashion. If the alternatives are acceptable, it is expected that obtaining and using such alternative means and/or abilities shall be the responsibility of the student.
- **Communication:** A candidate must be able to speak, hear and observe patients in order to elicit information and describe changes in affect or physiological status. A candidate must be able to communicate effectively and sensitively with patients and their families. Anesthesia providers have limited time to establish rapport with their patients, since most surgery is performed on a same-day admission or outpatient basis. Communication includes speech and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of the healthcare team.
- **Motor:** A candidate must possess the motor skills to directly gather physical assessment data, e.g., palpation, percussion, auscultation and other diagnostic and therapeutic maneuvers, as well as basic laboratory tests. The candidate must be able to execute motor movements reasonably required to provide general and emergency health care, including airway management, placement of venous access devices, performance of neuraxial and peripheral regional anesthesia blocks, stand for long periods of time and assist with movement of anesthetized patients. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
- **Intellectual:** The candidate must be able to rapidly measure, calculate, reason, analyze, integrate and synthesize clinical information, often in stressful scenarios. The candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Critical thinking necessary for effective clinical decision-making requires these intellectual and psychological skills.

- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities related to anesthesia care and the development of effective relationships with patients and colleagues. The candidate must be able to tolerate physically-taxing workloads and to function effectively under stress. The ability to adapt to changing environment, display flexibility and learn to function in the face of uncertainties inherent in complex clinical situations is essential. Compassion, integrity, altruism, interpersonal skills, interest and motivation are all personal qualities that are assessed during the admissions and educational processes.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Terminal Doctoral Learning Outcomes

The doctoral objectives of the entry-level and completion-level DNP degrees are consistent with the 2018 COA learner outcomes for doctoral degrees, which require the doctoral graduate to demonstrate the following learner outcomes or competencies:

Patient Safety

- Be vigilant in the delivery of patient care.
- Refrain from engaging in extraneous activities that abandon or minimize vigilance while providing direct patient care (e.g., texting, reading, emailing, etc.).
- Conduct a comprehensive equipment check.
- Protect patients from iatrogenic complications.

Perianesthesia

- Provide individualized care throughout the perianesthesia continuum.
- Deliver culturally competent perianesthesia care.
- Provide anesthesia services to all patients across the life span.
- Perform a comprehensive history and physical assessment.
- Administer general anesthesia to patients with a variety of physical conditions.
- Administer general anesthesia for a variety of surgical and medically related procedures.
- Administer and manage a variety of regional anesthetics.
- Maintain current certification in ACLS and PALS.

Critical Thinking

- Apply knowledge to practice in decision-making and problem-solving.
- Provide nurse anesthesia services based on evidence-based principles.
- Perform a preanesthetic assessment before providing anesthesia services.
- Assume responsibility and accountability for diagnosis.
- Formulate an anesthesia plan of care before providing anesthesia services.
- Identify and take appropriate action when confronted with anesthetic equipment-related malfunctions.
- Interpret and utilize data obtained from noninvasive and invasive monitoring modalities.

- Calculate, initiate and manage fluid and blood component therapy.
- Recognize, evaluate and manage the physiological responses coincident to the provision of anesthesia services.
- Recognize and appropriately manage complications that occur during the provision of anesthesia services.
- Use science-based theories and concepts to analyze new practice approaches.
- Pass the National Certification Examination (NCE) administered by the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA).

Communication

- Utilize interpersonal and communication skills that result in the effective exchange of information and collaboration with patients and their families.
- Utilize interpersonal and communication skills that result in the effective interprofessional exchange of information and collaboration with other healthcare professionals.
- Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of interprofessional care.
- Maintain comprehensive, timely, accurate and legible healthcare records.
- Transfer the responsibility for care of the patient to other qualified providers in a manner that assures continuity of care and patient safety.
- Teach others.

Leadership

- Integrate critical and reflective thinking in their leadership approach.
- Provide leadership that facilitates intraprofessional and interprofessional collaboration.

Professional Role

- Adhere to the Code of Ethics for the Certified Registered Nurse Anesthetist.
- Interact on a professional level with integrity.
- Apply ethically sound decision-making processes.
- Function within legal and regulatory requirements.
- Accept responsibility and accountability for their practice.
- Provide anesthesia services to patients in a cost-effective manner.
- Demonstrate knowledge of wellness and chemical dependency in the anesthesia profession through completion of content in wellness and chemical dependency.
- Inform the public of the role and practice of the CRNA.
- Evaluate how public policy-making strategies impact the financing and delivery of health care.
- Advocate for health policy change to improve patient care.
- Advocate for health policy change to advance the specialty of nurse anesthesia.
- Analyze strategies to improve patient outcomes and quality of care.
- Analyze health outcomes in a variety of populations.
- Analyze health outcomes in a variety of clinical settings.
- Analyze health outcomes in a variety of systems.
- Disseminate research evidence.

- Use information systems/technology to support and improve patient care.
- Use information systems/technology to support and improve healthcare systems.
- Analyze business practices encountered in nurse anesthesia delivery settings.

Program Course Plan

36-Month, Entry-Level Doctor of Nursing Practice Program of Study (RN BS to DNP)

Year 1 (56 QH)

HIPS 515A & B Foundations for Interprofessional Practice (2 QH)
 HNAS 698A & B Scholarly Writing (3 QH)
 HNAS 701 Principles of Anesthesia I (4 QH)
 HNAS 710 Chemistry and Physics in Anesthesia (2 QH)
 HNAS 711 Clinical Correlations I (2 QH)
 HNAS 720 Advanced Nurse Anesthesia Pharmacology I (2 QH)
 HNAS 725 Advanced Health Assessment (4 QH)
 HNAS 750 Advanced Physiology, Pathophysiology and Pharmacology I (6 QH)
 HNAS 751 Advanced Physiology, Pathophysiology and Pharmacology II (6 QH)
 HNAS 901 Translational Research I (3 QH)
 HNAS 902 Translational Research II (3 QH)
 HNAS 903 Health Policy (3 QH)
 HNAS 906 Organizational Theory/Leadership and Management in Health Care (3 QH)
 HNAS 909 Economics and Finance in Health Care (3 QH)
 MCBA 501 Clinical Anatomy (10 QH)

Year 2 (60 QH)

HNAS 702 Principles of Anesthesia II (4 QH)
 HNAS 703 Principles of Anesthesia III (4 QH)
 HNAS 706 Principles of Regional Anesthesia and Pain Management (3 QH)
 HNAS 712 Clinical Correlations II (2 QH)
 HNAS 713 Clinical Correlations III (2 QH)
 HNAS 714 Clinical Seminar I (1 QH)
 HNAS 715 Clinical Seminar II (1 QH)
 HNAS 721 Advanced Nurse Anesthesia Pharmacology II (2 QH)
 HNAS 722 Advanced Nurse Anesthesia Pharmacology III (2 QH)
 HNAS 810 Clinical Residency I (12 QH)
 HNAS 820 Clinical Residency II (12 QH)
 HNAS 905A & B Doctoral Project Planning (2 QH)
 HNAS 905C & D Doctoral Project Planning (2 QH)
 HNAS 907 Quality and Safety/Outcomes Management (3 QH)
 HNAS 908A & B Doctoral Immersion Residency (6 QH)
 HNAS 911 Professional Dissemination Skills (2QH)

Year 3 (60 QH)

HNAS 716 Clinical Seminar III (1 QH)
 HNAS 717 Clinical Seminar IV (1 QH)

HNAS 718 Clinical Seminar V (1 QH)
HNAS 719 Clinical Seminar VI (1 QH)
HNAS 830 Clinical Residency III (10 QH)
HNAS 840 Clinical Residency IV (12 QH)
HNAS 850 Clinical Residency V (12 QH)
HNAS 860 Clinical Residency VI (11 QH)
HNAS 908C Doctoral Immersion Residency (4 QH)
HNAS 912A & B Doctoral Project (6 QH)
HNAS 913 Role Transition (1 QH)

24-Month, Completion-Level Doctor of Nursing Practice Program of Study (CRNA to DNP)

Year 1 (23 QH)

HNAS 698A & B Scholarly Writing (3 QH)
HNAS 901 Translational Research I (3 QH)
HNAS 902 Translational Research II (3 QH)
HNAS 905A & B Doctoral Project Planning (2 QH)
HNAS 906 Organizational Theory/Leadership and Management in Health Care (3 QH)
HNAS 907 Quality and Safety-Outcomes Management (3 QH)
Specialty Electives (6 QH)

Year 2 (26 QH)

HNAS 903 Health Policy (3QH)
HNAS 905C & D Doctoral Project Planning (2 QH)
HNAS 908A, B & C Doctoral Immersion Residency (10 QH)
HNAS 909 Economics and Finance in Health Care (3 QH)
HNAS 911 Professional Dissemination Skills (2 QH)
HNAS 912A & B Doctoral Project (6 QH)

Assessment for Student Learning

Grading for the Didactic Curriculum

The SRNA must maintain:

- A grade no lower than B (3.0 on a 4.0 scale) in all HNAS courses
- A grade no lower than B (3.0 on a 4.0 scale) in MCBA 501 Gross Anatomy
- A cumulative grade-point average of 3.0 on a 4.0 scale for each academic quarter throughout the length of their enrollment

SRNAs who do not meet this requirement may be subject to dismissal pending due process.

Assessment of student learning is accomplished through the use of traditional multiple-choice examinations, oral presentations, written scholarly works and simulation experiences.

Grading for HNAS 714-718

Grading for HNAS 714-718 will be a Pass or Fail as described in the syllabus.

Grading for HNAS 810-860

Successful completion of any Clinical Residency course (HNAS 810-860) is contingent upon meeting expectations for all clinical residency objectives/performance indicators and completing/submitting required documents. Minimum requirements to receive a passing grade for each Clinical Residency course include:

- A Pass grade on quality care plans as determined by the faculty mentor (required number of care plans to be completed is also determined by the faculty mentor)
- Submission of a minimum of 20 formative evaluations for the first residency, and a minimum of 10 formative evaluations for each succeeding residency (with the exception of Shriners in Chicago)
- Achievement of a minimum rating of “meets expectations” on all summative evaluation performance indicators for each residency
- Completion of an evaluation for each clinical site
- Completion of five preceptor evaluations for each clinical site unless the student worked with fewer than five preceptors

Clinical coordinators may dismiss a student from the clinical area for violations of professional standards. Examples of such behavior include but are not limited to: failure to contact the clinical coordinator at least one week before the start of a rotation; failure to prepare for assigned clinical cases; inability to work effectively and safely with assigned clinical preceptors; failure to report to the clinical site or notify the clinical site/program office of absences per program policy; and patient safety violations. Clinical performance or behavior that represents violations of patient care standards, and/or poses a patient safety risk, will result in immediate removal of the student from the clinical rotation. Students may be assigned a failing grade and be subject to dismissal prior to completing the clinical residency due to:

- Egregious ethical violations
- Egregious patient safety violations that result in near misses or negative patient outcomes
- Failure to comply with patient management orders dictated by the supervising nurse anesthetist or anesthesiologist

The overall evaluation of a student’s clinical performance, and determination of a student’s grade for each residency, will be informed by:

- Formative evaluations
- Summative evaluation
- Clinical preceptor communications with program faculty
- Program faculty communications with the student
- Number and type of performance indicators that are below expectations
- Progress toward achievement of performance indicators
- Performance in the simulation lab
- Oral board exam scores

The program administrators have the right and responsibility to determine each student’s final grade. In accordance with the policies and procedures of the College of Health Professions, and the Department of Nurse Anesthesia, students receiving a failing grade of F in any Clinical Residency course are subject to dismissal from the program.

At the earliest indication that a student's performance in the clinical area is unsatisfactory and inconsistent with the program standards, a meeting with the program administrators will be scheduled. The performance of such students will be reviewed and a course of action will be determined. Potential courses of action include but are not limited to (these courses of action may be concurrent, when applicable):

- Written warning, kept in the file of the involved student
- Remediation, which may include additional simulation lab testing and oral board exams
- Possible reorganization of clinical rotations for the affected student
- Extension of clinical residency training
- Conditional progression to the next clinical rotation. A grade of Incomplete will be posted in the transcript until successful achievement of a satisfactory evaluation from the clinical coordinator and successful achievement of "meets expectations" for all required clinical residency objectives/performance indicators
- Dismissal hearing
- Potential immediate withdrawal from the clinical rotation

Graduation Requirements

- Total quarter hours required for Entry-Level Degree: 177
- Total quarter hours required for Completion-Level Degree: 49
- Satisfactory completion of all program courses is required
- A minimum grade-point average (GPA) of a 3.0 on a 4.0 scale in all courses in the program curriculum
- Self-Evaluation Examination (SEE)
 - The Council on Certification and Recertification of Nurse Anesthetists offers a self-evaluation examination that students are required to take prior to graduation. The SEE is a computer-adaptive test that is intended to help both students and programs identify their respective strengths and weaknesses before taking the NCE. More information about the SEE is available at www.nbcna.com.

Doctor of Physical Therapy (DPT)

The Doctor of Physical Therapy program is a three-year, entry-level program that prepares a graduate to practice physical therapy effectively, safely, ethically and interprofessionally in any type of healthcare environment. The curriculum is designed to provide an in-depth and universal view of the profession, with an emphasis on clinical judgment based on current evidence to meet the evolving needs of society in a culturally sensitive manner. Students are guided to develop a lifelong commitment to professional growth and the potential to develop into master clinicians. The program includes academic, clinical and research components in individual and group-learning settings that allow students to explore specialty areas. It is designed for active learners who are skilled at critical thinking.

Program Accreditation

The Doctor of Physical Therapy program at Rosalind Franklin University of Medicine and Science is accredited by the:

Commission on Accreditation in Physical Therapy Education (CAPTE)

1111 North Fairfax Street
Alexandria, VA 22314
703-706-3245
accreditation@apta.org
www.capteonline.org

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from an accredited college or university
- **Prerequisite Coursework:**
 - General Biology with Laboratory, 6 QH (4 SH)
 - General Chemistry with Laboratory, 12 QH (8 SH)
 - General Physics with Laboratory, 12 QH (8 SH)
 - Anatomy and Physiology with Laboratory, 12 QH (8 SH)
 - Humanities/Social Sciences (must include Psychology), 12 QH (9 SH)
 - English Composition, 4 QH (3 SH)
 - Statistics, 4 QH (3 SH)

Applicants must have a minimum grade of C in the prerequisite courses. Courses with a grade below a C will not fulfill the prerequisite requirements but will be included in grade-point average calculations. Prerequisite coursework in the sciences must have been completed within the last five years. At least two-thirds of the science prerequisites should be completed prior to applying to the program. Transcripts are submitted through the Physical Therapist Centralized Application Service (PTCAS) and only official transcripts will be accepted.
- **Other Requirements:**
 - 40 hours work, volunteer or observation in a physical therapy department or practice
 - Basic computer skills including the ability to use email, the internet, word processing and the ability to create presentations and use spreadsheets
 - On-campus interview
 - Submission of applications through the PTCAS
 - Supplemental fee
 - Criminal background check will be performed on admitted students
- **Tests:**
 - Applicants are required to complete the Graduate Record Examination (GRE) within five years of application to the program. There is no minimum score required for the GRE. Early decision candidates must take the GRE and scores must be sent to RFU no later than July 31 of the year of the application.
 - The Test of English as a Foreign Language (TOEFL) examination is required of all foreign applicants whose native language is not English and who have not attended an American college or university full-time for two consecutive years.
 - An official course evaluation for U.S. equivalence report is also required for all applicants who attended a foreign educational program.
- **Letters of Recommendation:** Three letters of recommendation are required for all applicants: one from a licensed physical therapist; one from a science, math or liberal arts professor with rank of Assistant Professor or higher under which the applicant has

studied; and one from a work supervisor or a person otherwise uniquely qualified to comment on the applicant's potential for graduate, health professions study.

- **Resume or Curriculum Vitae:** A resume or curriculum vitae is not required.
- **Personal Statement:** A personal statement is required and completed in PTCAS.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Early Decision Programs:** The entry-level DPT program does participate in the early decision program via PTCAS.

Technical Standards

Candidates for entry to and students in the Doctor of Physical Therapy program must possess certain abilities to function effectively and meet the safety and technical requirements in a broad variety of classroom, laboratory and clinical settings. These essential abilities include:

- **Observation Skills:** Candidates must be able to observe close up and at a distance, to assess and monitor patient status and response to therapeutic intervention and to view monitoring equipment. For example, in a clinical situation, visual observation skills are necessary to observe skin color and integrity, edema, movement patterns, transfers, gait patterns and to appropriately monitor cardiopulmonary function.
The candidate must be able to view information on written documents, slides, overhead projectors and videotapes used in the classroom setting. The candidate must be able to observe demonstrations and experiments in the basic sciences including microscopic studies of microorganisms and tissues in normal and pathological states. The candidate must be able to view demonstrations and materials presented in the classroom.
The candidate must be able to read and gain information from patient charts, graphs, X-rays, technical equipment or other testing forms. Visual observation is essential to elicit information on attitude and mood, and to perceive nonverbal communication.
- **Communication Skills:** Communication encompasses speech, hearing and writing. The candidate must be able to communicate effectively in oral and written form, with faculty, patients, their families and significant others, as well as members of the healthcare team. This also includes nonverbal communication.
Communication with patients as well as other healthcare providers is necessary to assess, evaluate and provide optimal instruction to clients in a multidisciplinary healthcare environment.
- **Motor Skills:** The candidate must possess the motor skills necessary to directly examine and administer interventions to clients. Examples of examinations and interventions include: palpation, auscultation, positioning, transfers, gait activities, manual muscle testing and mobilization. The candidate must be able to perform multifactor tasks such as monitoring cardiopulmonary response concurrently with exercise testing and training. The candidate must be able to assess emergency situations and deliver basic first aid and CPR.
- **Intellectual (Integrative and Quantitative) Skills:** The candidate must be able to measure, calculate, reason, analyze, integrate, synthesize and apply problem-solving and critical thinking skills in a timely manner. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed

information in a timely manner and be able to apply the concepts and information they obtain to formulate evaluative and therapeutic judgments. They need to be able to obtain information, process it and prioritize activities effectively and collaboratively.

- **Behavioral and Social Skills:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. They must exercise good judgment and self-control for prompt completion of patient assessment and preparation of a plan of treatment, provide therapeutic intervention, progress the patient appropriately and provide accurate documentation of these procedures. The candidate is expected to behave and develop relationships in a mature, sensitive and professional manner with patients, families and significant others, and members of the healthcare team. They must be flexible, adapt to changing situations and deal with physically and mentally taxing workloads. They need to demonstrate integrity and concern for others, and possess strong interpersonal skills, interest and motivation to be a physical therapist.

Note: If a candidate's ability to acquire and communicate information through vision, hearing or sensory modalities is impaired, they must demonstrate alternative acceptable means and/or abilities to assimilate the information and demonstrate that the essential information can be conveyed in this fashion.

If the alternatives are acceptable, it is expected that the obtaining and using of such alternative means shall be the shared responsibility of the student and the university. An alternative must be a reasonable accommodation and not an undue hardship for the university. Reasonable accommodations may not:

- Fundamentally alter the nature of the training program
- Compromise the essential elements of the program
- Cause an undue financial or administrative burden
- Endanger the safety of patients, self or others

Efforts will be made to circumvent potential difficulties as long as this does not pose a threat to the well-being of patients, other students, faculty, other healthcare team members or the candidate themselves.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credits or advanced standing will be awarded regardless of previous experience.

Core Competencies

Upon completion of the DPT program, the graduate will:

- Be a skilled, ethical and professional physical therapist, well qualified for contemporary, patient-centered, evidence-based, autonomous, interprofessional practice.
- Be prepared to promote prevention and wellness in practice.
- Have a sense of professional duty that includes responsibility to use research in practice and engage in scientific inquiry and discovery.

- Have a sense of professional duty that includes responsibility to serve in leadership roles for the profession and for society.

Program Course Plan

Year 1 (71 QH)

HIPS 515A & B Foundations for Interprofessional Practice (2 QH)
 HPAS 551 Leadership in the Healthcare Environment (2 QH)
 HPTH 618 Orientation to Physical Therapy (3 QH)
 HPTH 619 Principles of Education (1 QH)
 HPTH 620 Clinical Skills I (5 QH)
 HPTH 622 Critical Inquiry I (3 QH)
 HPTH 623 Practice Issues I (1 QH)
 HPTH 630 Clinical Skills II (3 QH)
 HPTH 631 Clinical Skills III (3 QH)
 HPTH 634 Orthopedic Clinical Medicine (3 QH)
 HPTH 635 Kinesiology/Motor Control I (3 QH)
 HPTH 636 Kinesiology/Motor Control II (4 QH)
 HPTH 640 Clinical Skills IV (5 QH)
 HPTH 642 Critical Inquiry II (3 QH)
 HPTH 643 Practice Issues II (2 QH)
 HPTH 644 Neurological Clinical Medicine and Pharmacology (3 QH)
 HPTH 645 Clinical Physiology (6 QH)
 HPTH 646 Fundamentals of Physiology (4 QH)
 MCBA 501 Clinical Anatomy (10 QH)
 PBBS 504 Neuroscience (5 QH)

Year 2 (55 QH)

HPTH 717 Clerkship I (6 QH)
 HPTH 720 Clinical Skills V (4 QH)
 HPTH 721 Clinical Skills VI (3 QH)
 HPTH 722 Critical Inquiry III (1 QH)
 HPTH 724 Advanced Clinical Medicine & Pharmacology (5 QH)
 HPTH 725 Advanced Regional Anatomy (2 QH)
 HPTH 737 Clerkship II (12 QH)
 HPTH 740 Clinical Skills VII (3 QH)
 HPTH 741 Pediatric Physical Therapy (4 QH)
 HPTH 742 Physical Therapy in Critical Care Sector (2 QH)
 HPTH 743 Practice Issues III (1 QH)
 HPTH 744 Prosthetics/Orthotics (3 QH)
 HPTH 747 Cardiovascular and Pulmonary Physical Therapy I (3 QH)
 HPTH 748 Cardiovascular and Pulmonary Physical Therapy II (2 QH)
 HPTH 749 Critical Inquiry IV (1 QH)
 HPTH 823 Practice Issues IV (3 QH)

Year 3 (35 QH)

HPTH 827 Clerkship III (10 QH)

HPTH 837 Clerkship IV (12 QH)
HPTH 843 Practice Issues V (1 QH)
HPTH 848 Professional Practicum (12 QH)

Assessment for Student Learning

Grading System

The DPT program awards course grades using the following scale:

A	4.0
B	3.0
C	2.0
F	0.0

Assessment Methods

Students are expected to maintain a 2.75 out of 4.0 grade-point average throughout the program.

Assessment is varied depending on the class and instructor, and consists of quizzes and tests, evidence-based papers, clinical case studies and regular participation on discussion boards. Clinical performance is assessed with the American Physical Therapy Association Clinical Performance Instrument (CPI).

Graduation Requirements

Students must meet the following program requirements:

- 161 quarter hours of required degree program coursework
- A minimum 2.75 grade-point average (GPA) on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course and program requirements within three years is anticipated, with up to a maximum of five years from the date of matriculation to complete the degree.

Continuing Education

The Department of Physical Therapy offers a number of continuing education offerings for practicing physical therapists each year.

Graduate and Postdoctorate Education

In collaboration with the Manual Therapy Institute, the Department of Physical Therapy co-sponsors two programs in orthopedic manual physical therapy for practicing physical therapists. The certificate program consists of 17 weekend courses over 2.5 years and culminates in award of a certificate in Orthopedic Manual Therapy. The fellowship program requires 440 supervised clinical hours in addition to the 2.5 years of coursework and culminates in “Fellow” status in the American Academy of Orthopedic Manual Physical Therapists (AAOMPT).

Transition Doctor of Physical Therapy (tDPT)

The Transition Doctor of Physical Therapy program offers a Doctor of Physical Therapy degree for students who have obtained a bachelor's or master's degree in Physical Therapy and wish to earn the terminal doctoral degree of their profession.

- The typical length of time for degree completion is two years.
- The program is primarily online with one weekend seminar on campus.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's or master's degree in Physical Therapy
- **Transcripts:**
 - Entry-level Physical Therapy degree
 - Additional graduate work
- **Grade-Point Average (GPA):** Minimum 3.0 out of 4.0 scale
- **Letters of Recommendation:** One letter of recommendation
- **Personal Statement:** Addresses the applicant's educational and professional objectives
- **Non-Degree Applicant Policy:** Students who hold a BSPT, MSPT or DPT from an accredited college or university or have established equivalency and are licensed to practice physical therapy in a jurisdiction in the U.S. may take up to two classes.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Tests:** The Graduate Record Examination (GRE) is not required.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.

- Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

A student may receive advanced standing credits based on professional experience, board specialty certification, residency and fellowship training, graduate-level courses from other colleges or universities, and other bachelor- or master-level degrees relating to the Physical Therapy profession.

Core Competencies

Upon completion of the tDPT program the student will:

- Utilize best evidence in physical therapy practice.
- Optimize screening patients for medical disease and dysfunction.

- Gain an understanding of pharmacokinetics and pharmacodynamics and apply knowledge to their patients.
- Understand and utilize best practices in patients with cardiovascular and pulmonary, musculoskeletal, neuromuscular and integumentary disease and dysfunction.
- Understand and utilize basic principles and interpretation of imaging modalities in physical therapy practice.
- Complete an individual, independent learning experience with a faculty advisor.

Program Course Plan

Year 1 (12 QH)

HPPT 506 Evidence-Based Practice (3 QH)

HPPT 720 Physical Examination and Screening for Disease (3 QH)

HPPT 730 Pharmacology (3 QH)

HPPT 732 Anatomic Imaging (3 QH)

Year 2 (10-13 QH)

HHCM 522 Healthcare Delivery (4 QH)

HPPT 722 Advanced Clinical Practice (3 QH)

Students will choose between the following two options:

HPPT 870 Independent Study (3 QH)

OR

HPPT 880 Practicum (6 QH)

Electives (14-20 QH)

There is no comprehensive examination. The terminal project is the Independent Study or Practicum.

Assessment for Student Learning

Grading System

A	4.0
B	3.0
C	2.0
F	0.0

Students are expected to maintain a 3.0 out of 4.0 grade-point average throughout the program.

Assessment Methods

Assessment is varied depending on the class and instructor, and consists of quizzes and tests, evidence-based papers, clinical case studies and regular participation on discussion boards.

Graduation Requirements

Students must meet the following program requirements:

- 42 QH from the degree program requirements

- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course requirements within five years from the date of matriculation

Interprofessional Healthcare Studies (PhD/DSc)

Program Introduction

The Doctor of Science (DSc) or Doctor of Philosophy (PhD) in Interprofessional Healthcare Studies programs provide an opportunity for existing practitioners from various healthcare disciplines or health professions education to advance their knowledge and skills related to their professional positions. We recognize that such individuals are typically employed full-time and may also have family or other responsibilities that compete for their time. For that reason, our students study fully online in an interprofessional curriculum focusing on bridging the healthcare professions through courses that address contemporary and emerging topics. We use delivery modes and a cohort model that facilitate attendance and involvement in learning activities, and accomplishment of course requirements. The programs emphasize the development of scholarly, evidence-based skills to improve health professions education and practice and allow students to select an emphasis that interests them through selection of either a PhD or DSc, and the opportunities for elective courses that support the student's area of interest. Students may choose either the DSc which emphasizes simulation-based education or the PhD which focuses on interprofessionalism in education and practice.

Doctor of Science

The 61 quarter hour DSc program emphasizes gaining simulation-based education skills, giving practicing clinicians and educators the knowledge to teach both clinical and teamwork skills in a controlled environment. The DSc culminates in either a traditional dissertation OR a simulation education research project suitable for publication or presentation in a peer-reviewed environment. Students may take up to seven years to complete the program from the time of matriculation into the program.

Doctor of Philosophy

The 64 quarter hour PhD program emphasizes integration of interprofessional theory into healthcare practice and education for already practicing healthcare providers and educators. The PhD program culminates in a publishable, quality dissertation research project. Students may take up to seven years to complete the program from the time of matriculation into the program.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prerequisite:** Grade of B or higher in a graduate level statistics course.
- **Prior Degree:** Master's degree or clinical doctorate in a healthcare related field such as physical therapy, occupational therapy, nutrition, physician assistant studies, nursing, clinical laboratory sciences or others from an accredited college or university

- **Grade-Point Average (GPA):** Minimum cumulative grade-point average (GPA) 3.0 on a 4.0 scale in the master's degree or professional doctorate
- Be a licensed, registered, certified or otherwise credentialed healthcare professional in the United States.
- At least two years of experience in the professional discipline
- **Tests:**
 - Students are required to take the Graduate Record Examination (GRE) or equivalent
 - The Test of English as a Foreign Language (TOEFL) may be required if:
 - The student entering who earned a master's degree outside the U.S. and/or who does not hold U.S. Citizenship or permanent residency must present proof of English proficiency via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22
 - Test scores must be a test date within two years of the date from when a complete application is submitted
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language
- **Letters of Recommendation:** Two letters of recommendation are required from those who are familiar with the applicant's academic abilities and can speak to the applicant's potential to succeed in a doctoral program.
 - Students who completed a master's degree at RFU must also present a letter of support from the Department Chair of their master's program. (This applicant would submit a total of 3 letters.)
- **Personal Statement:** Applicants are required to submit a statement indicating why they wish to enroll in the program.
- **Writing Sample:** Applicants are required to submit a self-selected example that they consider to be their best written work demonstrating the applicant's ability to think and write critically.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is not required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program may accept At-Large Students when able
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for

information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:

- Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
- Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
- Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

This program does not accept transfer credits earned from other institutions.

Core Competencies

Students in the DSc program will learn to:

- Practice in an interprofessional manner to model collaborative health care and health professions education
- Teach using interprofessional praxis and theory
- Engage in scholarly activity
- Provide leadership in the development of interprofessional healthcare practice and education
- Engage in collaborative research

Students in the PhD program will learn to:

- Practice in an interprofessional manner to model collaborative health care and health professions education
- Teach using interprofessional praxis and theory
- Engage in scholarly activity
- Provide leadership in the development of interprofessional healthcare practice and education
- Engage in collaborative research to contribute to theory in the field of interprofessional practice/education

Program Course Plan – Doctor of Philosophy

Regular Schedule- Designed to be completed in 3 years. Students must register with their cohort for the 6 QH designated for the regular cohort each quarter.

Limited Schedule – Designed to be completed in 5.5 years. Students must register with their cohort for one course that is designated for the limited schedule cohort each quarter with exception of the first quarter.

Year 1 (18 QH)

HIPS 600 Introduction to Doctoral Studies and Interprofessionalism (4 QH)
 HIPS 631 Foundations in IP Research – Emerging Topics (1 QH)
 HIPS 563 Writing for Scholars (3 QH)
 HIPS 560 Research Design (4QH)
 HIPS 570 Qualitative Research (2 QH)
 HIPS 603 Interprofessional Theory Seminar (4 QH)

Year 2 (24 QH)

HIPS 562 Measurement Principles (4 QH)
 HIPS 632 Foundations in IP Research II – Methods (2 QH)
 HIPS 711 Building Effective Interprofessional Teams (3 QH)
 HIPS 601 Interprofessional Education Seminar (4)
 HIPS 633 Foundations in IP Research III – Project Design (2 QH)
 HIPS 602 Interprofessional Practice Seminar (3 QH)
 Electives (2 courses = 6 QH)

Year 3 (22 QH)

HIPS 731 IP Research Practice I – Institutional Review Boards (3 QH)
 HIPS 732 IP Research practice II – Conducting Research (8 QH)

HIPS 733 IP Research Practice III – Analyzing Data (2 QH)
HIPS 734 IP Research Practice IV – Drawing Conclusions from Data (2 QH)
HIPS 735 IP Research Practice V – Disseminating Research (3 QH)
HIPS 736 IP Research Practice VI – Defending Research (1 QH)
Elective (1 courses = 3 QH)

Program Course Plan – Doctor of Science

Regular Schedule- Designed to be completed in 3 years. Students must register with their cohort for the 6 QH designated for the regular cohort each quarter.

Limited Schedule – Designed to be completed in 5.5 years. Students must register with their cohort for one course that is designated for the limited schedule cohort each quarter with exception of the first quarter.

Year 1 (18 QH)

HIPS 740 Foundations in Simulation Enhanced Health Professions Ed (4 QH)
HIPS 631 Foundations in IP Research – Emerging Topics (1 QH)
HIPS 563 Writing for Scholars (3 QH)
HIPS 560 Research Design (4QH)
HIPS 570 Qualitative Research (2 QH)
HIPS 741 Application of Simulation Design for Educators (4 QH)

Year 2 (24 QH)

HIPS 562 Measurement Principles (4 QH)
HIPS 632 Foundations in IP Research II – Methods (2 QH)
HIPS 711 Building Effective Interprofessional Teams (3 QH)
HIPS 742 Leadership in Healthcare Simulation (3)
HIPS 601 Interprofessional Education Seminar (4 QH)
HIPS 633 Foundations in IP Research III – Project Design (2 QH)
HIPS 723 Leadership in IP Education (3 QH)
Electives (1 course = 3 QH)

Year 3 (19 QH)

HIPS 731 IP Research Practice I – Institutional Review Boards (3 QH)
HIPS 732 IP Research practice II – Conducting Research (6 QH)
HIPS 733 IP Research Practice III – Analyzing Data (2 QH)
HIPS 734 IP Research Practice IV – Drawing Conclusions from Data (2 QH)
HIPS 735 IP Research Practice V – Disseminating Research (2 QH)
HIPS 736 IP Research Practice VI – Defending Research (1 QH)
Elective (1 course = 3 QH)

Assessment for Student Learning

Grading System

A 4.00 High Achievement
B 3.00 Above Average Achievement
C 2.00 Average Achievement
F 0.00 Failure

Grades without Associated Grade Points:

P Pass
F Fail

The minimum passing grade at the end of all courses in the program is a B. Students who achieve less than a B at the end of a course are subject to dismissal from the program. The main paper/project for each course must also achieve a B or better in order for the student to pass the course, even if the student is otherwise passing.

Assessment Methods

Assessments in this program are multi-faceted and may include but are not limited to written papers, submission of articles to peer-reviewed journals, discussion board postings, individual or group projects, portfolio compilation and presentation, data analysis, practicums and completion and defense of a doctoral dissertation or research project.

Graduation Requirements

Students must meet the following program requirements to graduate:

- Successful completion of all courses/program requirements and a minimum of 61(DSc) to 64 (PhD) quarter hours beyond the master's degree. (Some dissertation work may exceed the minimum quarter hours.)
- Successful completion and defense of an approved capstone scholarly project or dissertation
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course requirements within seven years from the date of matriculation

Psychology (PhD)

The Clinical Psychology training program integrates academic, scientific and professional training and offers the Doctor of Philosophy degree and is defined by the scientist-practitioner model. In keeping with the scientist-practitioner model, we believe that clinical psychologists should be both scientists, knowledgeable in formulating and solving scientific problems, and practitioners experienced in the use of empirically supported clinical techniques. The program provides students with intensive instruction in the theoretical framework of psychology and broad experience in methods of practice of clinical psychology. The graduates of this program are capable of functioning as an investigator and as a practitioner. Within the context of a general clinical psychology training program, our program offers focused training in Neuropsychology, Health Psychology and Psychopathology.

Program Accreditation

The Psychology program is accredited by the American Psychological Association (APA).

Questions related to the program's accredited status should be directed to the Commission on Accreditation (COA):

Office of Program Consultation and Accreditation
American Psychological Association
750 1st Street, NE
Washington, DC 20002
202-336-5979
apaaccred@apa.org
www.apa.org/ed/accreditation

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degrees:** BA or BS degree from an accredited college or university.
- **Prerequisite Courses:** Adequate preparation in psychology: at least 15 credit hours of psychology, including a course in statistics and biological psychology.
- **Minimum Grade-Point Average:** Minimum grade-point average of 3.2 on a 4.0 scale for the last two years of undergraduate study.
- **Graduate Record Examination:** The advanced GRE is also required for those students who are not undergraduate Psychology majors or have a master's degree in a non-psychology discipline. A score of 600 (above the 50th percentile) in each area of the GRE: Verbal, Quantitative, Analytical and Advanced Psychology. For the Analytical Writing, at least 4.5/5 minimum.
- **Letters of Recommendation:** Three letters of reference from former professors or employers familiar with the applicant's professional or educational capabilities. Preferably, two letters should be from former professors.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is not required.
- **Personal Statement:** A personal statement is not required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Early Decision Programs:** This program does not participate in an early decision process.

Technical Standards

Candidates for entry into the Clinical Psychology doctoral program must possess certain abilities and skills to function effectively and meet the ethical and technical requirements in a broad variety of classroom, laboratory, research and clinical settings. These essential functions are:

- Observational skills
- Communication skills
- Motor skills
- Intellectual-conceptual (integrative and quantitative) abilities
- Behavioral and social attributes

Each candidate will be reviewed individually. The Admissions Committee requests that the candidate examine the required qualities and understand the school's expectations prior to accepting an offer of admission.

Many handicaps can be accommodated reasonably and without undue hardship. The purpose of this document is to act as a benchmark for the capabilities and skills needed in a candidate for the Clinical Psychology doctoral program.

- **Observational:** The candidate must be able to acquire a defined level of required information as presented through lectures, demonstrations and experiences in basic and applied psychology. Furthermore, a candidate must be able to observe a patient or research subject accurately, at a distance and close at hand, using their senses of sight, smell, touch and hearing. The candidate must be able to acquire information from written documents or electronic media, such as a computer monitor. The candidate must be able to visualize information from paper, films, slides or video. Such observation and information acquisition necessitates the functional use of visual, auditory and somatic sensation while being enhanced by the functional use of other sensory modalities. In any case where a candidate's ability to observe or acquire information through these sensory modalities is compromised, the candidate must demonstrate alternative means and/or abilities to acquire and demonstrate the essential information conveyed in this fashion. If the alternatives are acceptable, it is expected that obtaining and using such alternative means and/or abilities shall be the responsibility of the student. Costs of necessary accommodations should be reasonable and will be borne by the university when not the responsibility of the student or otherwise funded.
- **Communication:** A candidate must be able to speak, hear and observe by sight in order to elicit information, observe patients/clients, describe changes and perceive nonverbal communications. Communication includes verbal and recorded format (writing, typing, graphics or telecommunication). A candidate is expected to independently take paper, computer, practical and comprehensive examinations. A candidate must be able to communicate effectively and sensitively with faculty, fellow students, staff, research subjects, patients, families and other members of the healthcare team. Communication includes speech and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of the healthcare team. Communication via electronic media (e.g., computer terminals utilizing a keyboard) is required.
- **Motor and Sensory Systems:** It is required that candidates possess the motor skills necessary to directly perform basic clinical tests, diagnostic procedures and research procedures. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision. This requirement also includes but is not limited to the use of an electronic keyboard. Candidates must be able to move freely and safely about a research or clinical setting and reach across desktops or on top of shelves. The student must be able to travel (utilizing public or private transportation) to clinical affiliate sites or to research sites. Furthermore, the student must perform moderately taxing continuous physical work, often requiring prolonged sitting or standing, over several hours.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. In addition, the

candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem-solving, the critical skill demanded of all healthcare professionals, requires all of these intellectual abilities. The candidate must be able to perform these problem-solving skills in a timely fashion.

- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, prompt completion of all responsibilities attendant to working with patients/clients and research subjects, and the development of mature, sensitive, ethical and effective professional relationships with co-workers. The candidate must be able to tolerate physically-taxing workloads and function effectively under variable levels of stress, which may at some points reach a high level of intensity for protracted periods. Some students will take courses that require them to be able to adapt to working with unpleasant biological substances (e.g., formaldehyde-preserved human tissue). Students must be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties inherent in clinical problems and situations. The student must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues to improve. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational process. The student must consistently behave in an ethical and professional manner and comport themselves in a manner consistent with published Ethical Codes of Conduct relevant to their profession.

Note: If a candidate's ability to acquire and communicate information through vision, hearing or sensory modalities is impaired, they must demonstrate alternative means and/or abilities to assimilate the information and demonstrate that the essential information can be conveyed in this fashion. If the alternatives are acceptable, it is expected that the obtaining and using of such alternative means shall be the shared responsibility of the student and the university. It must be a reasonable accommodation and not an undue hardship for the university.

An effort will be made to work out potential difficulties as long as this does not pose a threat to the well-being of patients, research subjects, other students, faculty, other healthcare team members or the candidate themselves.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

Students who have formally registered for and successfully completed one or more graduate courses in accredited universities, prior to entry into our program, may transfer up to 10 credits toward electives. The courses to be transferred must not be redundant with current core course offerings. The faculty will recommend such action to the dean for approval. All students must enroll at Rosalind Franklin University of Medicine and Science for all required courses and specified electives for their chosen area of clinical emphasis.

Core Competencies

Objective 1: Students are knowledgeable about and able to implement condition-specific treatment approaches for all major forms of psychopathology.

Objective 2: Students know different theories of the underlying mechanism associated with the development and maintenance of adaptive and maladaptive behaviors.

Objective 3: Students will learn to select and utilize empirically based therapeutic interventions.

- Competencies expected for these objectives:
 - Students are able to develop a well-formulated, empirically based treatment intervention approach (objective 1).
 - Students are expected to develop accurate formulations of clinical presentations and do so from different theoretical viewpoints, both in clinical training and in specific courses; students are able to outline the empirically supported treatments for all major forms of psychopathology (objective 2).
 - Students will demonstrate knowledge about the efficacy of specific treatments and be able to identify the empirically supported interventions for specific conditions (objective 3).

Objective 4: Students are familiar with and can competently use methods to determine patient history, systematically evaluate current symptom presentations and develop an appropriate case formulation and a differential diagnosis.

- Competency expected for this objective:
 - Students will be able to choose and administer a full range of psychological assessment procedures that are appropriate for the person's clinical presentation.

Objective 5: Students demonstrate skills necessary to critically analyze research studies and findings.

Objective 6: Students demonstrate skills necessary to critically evaluate clinical research including treatment outcome studies and studies evaluating critical mechanisms posited to cause specific types of psychopathology.

- Competencies expected for these objectives:
 - Students competently conduct research studies that add to the knowledge base of psychology broadly and to clinical psychology specifically.
 - Students will evaluate the adequacy of clinical research studies published in the behavioral science literature and integrate findings into their clinical practice.

Objective 7: To prepare students to uphold ethical and professional standards in clinical psychology.

- Competency expected for this objective:
 - Students will demonstrate an in-depth understanding of the professional and ethical issues facing clinical psychologists.

Objective 8: The student will have knowledge, awareness and sensitivity to culture, race, gender, socioeconomic status and other individual differences.

- Competency expected for this objective:
 - Student applies knowledge of the role of culture and individual differences in

individual case formulation and treatment planning.

Program Course Plan

Year 1 (50-65 QH)

HIPS 515A & B Foundations for Interprofessional Practice (2 QH)
HPSC 500 Clinical Practicum Supervision (3 QH)
HPSC 510 Psychological Statistics I (5 QH)
HPSC 511 Psychological Statistics II (4 QH)
HPSC 515 Experimental Design and Program Evaluation (4 QH)
HPSC 520 Descriptive Psychopathology (4.5 QH)
HPSC 560 Cognition and Cognitive Assessment (4 QH)
HPSC 567* Neuropsychological Assessment (4 QH)
HPSC 576 Essentials of Physiological Psychology and Behavioral Neuroscience (3 QH)
HPSC 669 Theories of Counseling and Psychotherapy (4.5 QH)
HPSC 690 Cognitive and Behavioral Interventions (5 QH)
HPSC 755 Ethical Issues and Professional Standards in Clinical Psychology I (1 QH)
HPSC 784 Professional Seminar in Clinical Fundamentals (3 QH)
HPSC 800 Clinical Practicum (3-9 QH)
HPSC 850 Research Practicum (3-9 QH)

*Offered every other year to first and second-year students and is required for Neuropsychology track students.

Year 2 (39.5-40.5 QH)

HPSC 610 Clinical Practicum Supervision (3 QH)
HPSC 541 History and Systems (2 QH)
HPSC 567* Neuropsychological Assessment (4 QH)
HPSC 574* Neuropsychological Models of Cognition and Emotion (3 QH)
HPSC 575 Social Psychology (3 QH)
HPSC 664 Personality Assessment (4 QH)
HPSC 668 Theories of Personality and Emotion (3 QH)
HPSC 751 Health Psychology: Cognitive, Affective and Physiological Bases for Behavior (4 QH)
HPSC 754 Lifespan Developmental (4.5 QH)
HPSC 800 Clinical Practicum (6 QH)
HPSC 850 Research Practicum (6 QH)

*Offered every other year to first and second year students and is required for Neuropsychology track students

Year 3 (35.5 QH)

HPSC 521 Theoretical Psychopathology (3 QH)
HPSC 573 Health Psychology: Psychological Comorbidities of Physical Illness (4 QH)
HPSC 577 Socio and Cultural Basis of Behavior (4.5 QH)
HPSC 756 Ethical Issues and Professional Standards in Clinical Psychology II (3 QH)
HPSC 800 Clinical Practicum (9 QH)
HPSC 850 Research Practicum (Dissertation) (9 QH)

Students will choose one of the following three options:

HPSC 501 Advanced Specialty Training Seminar: Psychotherapy (3 QH)

OR

HPSC 502 Advanced Specialty Seminar: Health Psychology (3 QH)

OR

HPSC 503 Advanced Specialty Seminar: Neuropsychology (3 QH)

Electives: Credits vary by track.

Year 4 (24 QH)

HPSC 800 Clinical Practicum (9 QH)

HPSC 810 Clinical Practicum Supervision (3 QH)

HPSC 890 Dissertation Practicum (12 QH)

Electives: Credits vary by track.

Year 5 (12 QH)

Dissertation Research (12 QH)

Year 6 (12 QH)

Internship (12 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Practicum experiences are graded as Pass/Fail.

Assessment Methods

Additional methods utilized to assess student learning include:

- Annual review of progress of all students by full faculty
- Research and methods comprehensive examination during second year of program
- Clinical comprehensive examination during the third year of program
- Successful completion of master's thesis that includes required submission for publication
- Successful defense of doctoral dissertation
- Successful completion of yearlong clinical internship

Graduation Requirements

- Total program-specific quarter hours for degree: 164.5

- Successful completion of all required courses in the program curriculum and an approved group of elective courses within seven years from the date of matriculation
- A minimum of 1,000 clinical practicum pre-internship hours
- Completion of a master's thesis research project
- Submission of master's thesis to peer-reviewed journal
- Passing the comprehensive examinations
- Completion of a dissertation proposal and satisfactory oral defense of the dissertation
- Successful completion of the internship year
- Completion of an APA/APPIC approved internship
- Good academic standing defined by an overall average of B or better

It is important to note that these are minimum requirements and final determination of the adequacy and completion of students' coursework and training rests with the department. At the discretion of the department, a student may be required to take additional courses and/or training.

Continuing Education

The Department of Psychology offers its faculty and clinical supervisors CEU credit through attendance at bimonthly colloquium lectures.

Master of Science Degrees

Biomedical Sciences (MS)

The mission of the Master of Science in Biomedical Sciences (BMS) program is to provide students with opportunities that will prepare them to continue their graduate education in a variety of healthcare professions (including allopathic medicine, osteopathic medicine, podiatric medicine, dentistry, optometry, physician assistant studies and others) and research by providing a rigorous background in the biomedical sciences. The program also provides an opportunity for students to earn a certificate in one of the following fields: health administration, or population health strategies. The BMS program is a one-year (10 month) program.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- Applicants must complete an application via the Rosalind Franklin University Centralized Application Service (RFUCAS).
- **Prior Degree:** To be considered for admission, you must have a BA or BS or complete the requirements for a degree before enrollment. The degree must be from a regionally-accredited institution.
- **Prerequisite Courses (C or better):**
 - Biology or Zoology with accompanying labs (1 year/2 semesters)
 - Inorganic/General Chemistry with accompanying labs (1 year/2 semesters)
 - Organic Chemistry with accompanying lab (1 semester)
 - Physics with accompanying lab (1 year/2 semesters)
 - Composition (writing intensive) (1 semester)

- Behavior and/or Social Science (such as Introduction to Psychology and Introduction to Sociology) (2 courses)

The Admissions Committee also recommends, though does not require, coursework in biochemistry, molecular biology and statistics.

- **Test Scores:** Competitive scores on a standardized exam that are no more than three years old such as DAT, GRE or MCAT (only the new version of the MCAT will be accepted).
- **Grade-Point Average (GPA):** Competitive overall and science GPAs.
- **Letters of Recommendation:** Either one committee letter or three individual letters of recommendations from persons involved in the student's previous educational experience are required.
- **Experience:** Demonstration of interest in and understanding of the medical field and its various components. The motivation and commitment to health care, as demonstrated by previous employment, volunteer work or other experiences.
- **Leadership:** Demonstration of leadership characteristics through academic or community service activities.
- **Volunteering:** Demonstration of a commitment to public service through a variety of humanitarian activities.
- **Communication:** Demonstration of strong oral and written communication skills.
- **Resume or Curriculum Vitae:** Included in the RFUCAS application.
- **Personal Statement:** Included in the RFUCAS application.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does accept non-degree applicants.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for the MS degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to acquire information as presented through demonstration and experiences in the basic sciences. This includes information conveyed through physiological and pharmacological demonstrations in animals, microbiological cultures and microscopic images of microorganisms and tissues in normal and pathological states. Furthermore, a candidate must be able to:
 - Observe experimental results or subjects accurately, acquire information from written documents and visualize information as presented in images from paper, films, slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as oscilloscopes, computer screens, gels, etc.) with or without the use of assistive devices.

In any case where a candidate's ability to observe or acquire information is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student.
- **Communication:** The candidate must be able to communicate effectively, efficiently and sensitively with research subjects, faculty, staff and colleagues.

- **Motor:** The candidate must possess the motor skills necessary to design and perform laboratory experiments and statistical analysis of collected data.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion.
- **Behavioral and Social Attributes:** The candidate must work to their fullest potential while exercising good judgment. They must be able to function effectively in stressful situations and adapt to changing environments. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for a successful scientific career, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credits or advanced standing will be awarded regardless of previous experience. No credit will be given for prior learning experience. No credit can be earned through proficiency examinations.

Core Competencies

Upon completion of the Master of Science in Biomedical Sciences program, the student will:

- Demonstrate the ability to be academically successful within a graduate medical curriculum
- Have an understanding of the various Health Professions programs available to continue graduate education
- Have an introductory knowledge of Interprofessional health care
- Enhance skills related to student success such as study strategies, learning styles, interviewing skills, etc.
- Develop additional healthcare knowledge by completing a certificate in a desired field

Program Course Plan

Year 1 (45-46 QH)

HBMS 501 Introduction to Interprofessional Health Care (2.5 QH)

HBMS 502 Foundations of Clinical Medicine (3 QH)

HBMS 503 Clinical Molecular Cell Biology (3.5 QH)

HBMS 504 Medical Biochemistry (5 QH)

HBMS 505 Topics in Physiology (5 QH)

HBMS 506 Physiological Basis of Medicine (8 QH)

HBMS 507 Medical Neuroscience (6 QH)

Students select one of the following certificate tracks as part of the Biomedical Sciences degree requirements:

Health Administration Track

HHCM 521 Evidence-Based Management (3 QH)
HHCM 523 Current Topics in Healthcare (3 QH)
HHCM 524 Organizational Behavior and Human Resources (3 QH)

Students will choose between the following two options:

HHCM 522 Healthcare Policy and Delivery Systems (4 QH)

OR

HHCM 525 Strategic Planning and Leadership in Health Care (3 QH)

Population Health Strategies Track

HIPS 561 Statistics for Healthcare Professionals (4 QH)

HHCM 516 Risk and Quality Management in Health Care (3 QH)

HHCM 541 Community Health Assessment (3 QH)

HPOP 540 Essentials of Population Health (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Course-level assessment includes unit exams, written assignments, class participation and presentations.

Graduation Requirements

Students must meet the following program requirements:

- Successful completion (C or better) of 45-46 quarter hours of core and track coursework
 - A 3.0 grade-point average (GPA) on a 4.0 scale is required to be considered for the certificate track coursework
- Successful completion of all course requirements within two years from the date of matriculation
- A minimum grade-point average (GPA) of 2.0 on a 4.0 scale in all courses in the program curriculum

Health Administration (MS)

Program Introduction

The Master of Science degree in Health Administration (HA) is 46 quarter hours of credit offered in the online delivery format. Degree requirements can be completed in one year as a full-time student or in two years if enrolled part-time. The program prepares students to become future leaders in the healthcare industry. The program includes learning about interprofessional administration skills; the clinical inquiry process; research, business and leadership expertise for a healthcare setting; and development of leadership skills and the ability to engage in self-directed, lifelong learning. Students complete the degree program with a capstone course that includes a final portfolio and online presentation of major projects completed throughout their master's degree program.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from an accredited university or college in any discipline.
- **Grade-Point Average (GPA):** Cumulative minimum grade-point average (GPA) of 2.75 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be a test taken within two years of the date from when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- Work experience in a related health or science field is recommended but not required.
- Students currently enrolled in other programs at Rosalind Franklin University of Medicine and Science, should complete an alternative concurrent/short application form that can be accessed via InSite.
- **Letters of Recommendation:** Minimum of one letter of recommendation. A letter from an academician is preferred.
- **Personal Statement:** Personal statement addressing professional goals
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.

- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** The program will consider applicants who hold a bachelor's degree from an accredited college or university and who meet the admission requirements of the program.
- **Early Decision Programs:** This program does not accept early decision applicants.

The Health Administration program uses a rolling admissions process where applications are reviewed, decisions are made and students are enrolled every quarter. Applicants should submit all materials by the deadline prior to the quarter in which they wish to matriculate.

To apply, interested individuals must submit all required application items through the Rosalind Franklin University Central Application Service (RFUCAS).

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have

the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.

- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

A maximum of nine quarter hours of graduate credit may be accepted from other accredited institutions into the Master of Science program. No credit will be given for prior learning experiences or proficiency examinations.

Core Competencies

Upon completion of the Master of Science in Health Administration program, students will be able to:

- Apply knowledge of Health Administration
- Apply leadership and communication skills in Health Administration
- Demonstrate critical inquiry and research skills in Health Administration
- Apply business knowledge to the healthcare environment to serve their professional affiliations
- Illustrate their knowledge of the healthcare environment

Program Course Plan

Year 1 (46 QH)

HHCM 507 Healthcare Informatics (3 QH)

HHCM 508 Marketing Health Care (4 QH)

HHCM 515 Healthcare Law (3 QH)

HHCM 516 Risk and Quality Management in Health Care (3 QH)

HHCM 517 Management Ethics (3 QH)

HHCM 521 Evidence-Based Management (3 QH)

HHCM 522 Healthcare Policy and Delivery Systems (4 QH)

HHCM 524 Organizational Behavior and Human Resources (3 QH)

HHCM 525 Strategic Planning and Leadership in Health Care (3 QH)

HHCM 551 Accounting and Financial Management in Health Care (4 QH)

HHCM 590 Final Portfolio (3 QH)
HIPS 561 Statistics for Health Professionals (4 QH)
Electives (6 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Assessment of student learning occurs through course exams, discussion board postings, projects, reflection papers and the final e-portfolio for the course.

Graduation Requirements

Students must meet the following graduation requirements:

- Successful completion of a minimum of 46 quarter hours
 - 37 quarter hours of core courses
 - 6 quarter hours of elective courses
 - 3 quarter hours for the final portfolio course
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course requirements within five years from the date of matriculation

Health Professions Education (MS)

Program Introduction

The College of Health Professions offers a Master of Science (MS) in Health Professions Education for healthcare practitioners or clinicians already working with students and wish to acquire practical skills necessary for educating the next generation of healthcare practitioners. This online program is designed for self-motivated healthcare practitioners and concurrently enrolled health professions students in any area of health care. Students will obtain skills in the areas of educational leadership, curriculum design, course design and assessment and program evaluation. Students can complete the requirements for the MS degree in typically less than two years (seven quarters) full-time, or up to four years (14-15 quarters) part-time. The program prepares students to teach and manage education initiatives in an academic or corporate setting.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree in science or healthcare profession from a regionally-accredited college or university.
- **Prerequisite Courses:** No prerequisite courses required.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average (GPA) of 2.5 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be a test taken within two years of the date from when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- **Letters of Recommendation:** One letter of recommendation is required, two are preferred from professionals and/or academicians who know the applicant well.
- **Work Experience:** U.S. or Canadian certification, registration or licensure as a healthcare professional is highly recommended.
- **Non-Degree Applicant Policy:** The program will consider applicants who hold a bachelor's degree from an accredited college or university and who meet the admission requirements of the program.
- **Personal Statement:** May be required.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is not required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for

information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:

- Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
- Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
- Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently, and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

A maximum of nine quarter hours of graduate credit that addresses the requirements outlined in the core competencies for this program may be accepted from other regionally-accredited institutions.

Core Competencies

Upon completion of the Master of Science in Health Professions Education program the student will:

- Integrate learning style information and material presentation methods to facilitate student learning of health professions subject matter
- Design curricula based on assessment of student learning needs and professional accreditation requirements
- Evaluate information regarding student performance and program outcomes assessment
- Integrate educational leadership and evidence-based education principles to become a leader in the health professions educational environment

Program Course Plan

Year 1 (26 QH)

HHPE 510 Learning Theories (3 QH)

HHPE 512 Instructional Presentation Skills (3 QH)

HHPE 530 Curriculum Design (3 QH)

HHPE 535 Instructional Design for Health Professions Education (4 QH)

HHPE 540 Classroom Assessment (4 QH)

HHPE 620 Program Evaluation and Accreditation (3 QH)

Electives (6 QH)

Year 2 (21 QH)

HHPE 560 Managing Change in Educational Organizations (3 QH)

HHPE 580 Research in Education (3 QH)

HHPE 680 Teaching Practicum (3 QH)

HHPE 685 Portfolio Presentation (3 QH)

Electives (9 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Students enrolled in the Master of Science in Health Professions Education degree program are evaluated using multi-faceted assessments that include but are not limited to written papers, discussions, group projects, case studies, poster presentations, course design projects, online

exams and research assignments. Capstone projects, which include a teaching portfolio and a teaching practicum, are used to assess student learning at the completion of the program coursework.

Graduation Requirements

Students must meet the following program requirements:

- Successful completion of a minimum of 47 quarter hours as required for the degree
- Successful completion of all course requirements within five years from the date of matriculation
- Successful completion of a master's portfolio and teaching practicum
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Pathologists' Assistant Program (MS)

Mission

The mission of the Pathologists' Assistant Department is to prepare and develop individuals for the professional practice of surgical and autopsy pathology in a continually evolving healthcare environment.

Vision

The Pathologists' Assistant Department will be recognized as the leader in providing graduate-level training in Pathologists' Assistant studies through its outstanding graduates, curricular innovation, scholarly activity, community service, and the leadership it provides to the pathologists' assistant community worldwide.

Philosophy Statement

The Pathologists' Assistant Department ensures a level of professional training, both academic and clinical, that prepares its graduates to serve as stewards of the profession and empowers them to set forth and provide exceptional care and leadership for the profession as well as educate future generations of healthcare providers in the art and science of practicing anatomic pathology.

The Pathologists' Assistant Department asserts that there is an inherent dignity in surgical specimens that represent a unique human being, and that the utmost care and skill will be provided in transmitting the information contained within to pathologists, surgeons and other members of the healthcare team. As such, the same professional care will be delivered to our patients in the autopsy service who have come to teach the living from their individual lives and deaths.

Program Introduction

A pathologists' assistant is an intensively trained allied health professional who provides anatomic pathology services under the direction and supervision of a pathologist. Pathologists' assistants interact with pathologists in the same manner that physician assistants carry out their duties under the direction of physicians in surgical and medical practice. Pathologists' assistants

contribute to the overall efficiency of the laboratory or pathology practice in a cost-effective manner by performing a variety of tasks, consisting primarily of gross examination of surgical pathology specimens and performance of autopsies.

The Pathologists' Assistant program is a rigorous, full-time program. A typical program of study as outlined below consists of 12 months of didactic coursework followed by 10 months of clinical rotations through our nationally known clinical affiliates.

Program Accreditation

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Road, Suite 720
Rosemont, IL 60018-5119
773-714-8880
www.naacls.org

Admission Requirements

Admission to the program is competitive. In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Applicants are required to have a bachelor's degree from an accredited college or university.
- **Grade-Point Average (GPA):** Preference is given to students with a cumulative grade-point average (GPA) of 3.0 on a 4.0 scale prior to matriculation into the program.
- Basic computer skills including the ability to use email, the internet, word processing and the ability to create presentations and/or use and create spreadsheets.
- **Tests:** Proficiency in written and verbal English is required.
 - The Test of English as a Foreign Language (TOEFL) examination is required of all foreign applicants from countries in which English is not the native language and who have not attended an American college or university for two consecutive years. It is the applicant's responsibility to provide an official report of the TOEFL.
- A criminal background check will be performed on admitted students.
- **Transcripts:** Official transcripts from each college, university and community college previously or currently attended are required. Applicants who have studied outside of the U.S. will need to have their transcripts evaluated for U.S. equivalency using a service such as www.wes.org or www.ece.org.
- **Letters of Recommendation:** Two letters of recommendation from former professors, employers or those who are familiar with the applicant's professional or educational capabilities are required.
- **Narrative Statements:** Five photos with accompanying narrative statements are required. Each narrative statement must be a minimum of 250 words.
- **Experience:** Evidence of exposure to surgical pathology is required; exposure to autopsy pathology is highly recommended.
- **Prerequisites:**
 - A minimum of 3 semester or 4 quarter credit hours in each of the following subjects:
 - Biological Science (Human Anatomy and/or Physiology recommended)
 - Microbiology
 - General Chemistry

- Organic Chemistry and/or Biochemistry
- College-level Mathematics (Statistics recommended)
- English Composition

Applicants are required to have completed the necessary prerequisites for matriculation within 10 years of their application submission date. Each prerequisite course needs to meet the minimum credit hours noted above, receive a final grade of C or better and must be taken at an accredited institution of higher education prior to matriculation into the program.

- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Supplemental Application:** There is no supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

Candidates for entry into the Pathologists' Assistant program must possess certain abilities and skills to function effectively and meet the safety and technical requirements in a broad variety of classroom, laboratory and clinical settings.

- **Observation:** Candidates must be able to observe close-up and at a distance. In a clinical situation, visual skills are necessary to observe microscopic studies and tissues in normal and pathological states. Observation is important in order to elicit information and describe changes from the "normal." Such observation and information acquisition necessitates the functional use of visual, auditory and somatic sensation while being enhanced by the functional use of other sensory modalities.
- **Communication:** Communication encompasses speech, hearing and writing. A candidate must be able to speak, to hear and to observe by sight in order to elicit information, describe changes and perceive non-verbal communications. This would include facial changes, gesturing and posturing. The candidate must be able to communicate effectively and sensitively, in oral and written form, with faculty, fellow students, staff, patients and families, as well as all members of the healthcare team.
- **Motor:** It is required that candidates possess the motor skills necessary to directly perform basic laboratory tests and diagnostic procedures. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision. This requirement also includes but is not limited to the use of an electronic keyboard. The candidate must possess the motor skills necessary to perform postmortem examinations to include pro-section, selection and preparation of tissues for examination. They must be able to complete the autopsy protocol to include photography, coding of specimens and filing of reports. In association with the pathologist the candidate must possess the skills to dissect surgical specimens and prepare tissues for microscopic examination to include the preparation of frozen and permanent sections for light, electron and immuno-fluorescent microscopy. The candidate must also possess the motor skills necessary to operate specific instruments and perform special techniques as directed by the pathologist. Therefore, the candidate must be able to move freely and safely about a laboratory and reach benches or shelves. The student must be able to travel to clinical affiliate sites for practical experience.

Furthermore, the student must perform moderately taxing continuous physical work, often requiring prolonged sitting or standing, over several hours.

- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate, synthesize and apply problem-solving and critical-thinking skills in a timely manner. In addition, the candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. They must be able to apply the concepts and information they obtain.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. They need to exercise good judgment, self-control, prompt completion of patient/specimen assessment and provide accurate documentation of procedures. The candidate is expected to behave and develop relationships in a mature, sensitive and professional manner with patients, families and members of the healthcare team. They must be flexible, adapt to changing situations and deal with physically and mentally taxing workloads. They need to be able to obtain information, process it and prioritize activities effectively and collaboratively. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues to improve. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credits or advanced standing will be awarded regardless of previous experience.

Core Competencies

Upon completion of the 22-month master's degree program for Pathologists' Assistant, the student will:

- Recognize and respect the diversity of patients and fellow healthcare providers as well as acknowledge one's responsibilities to patients' families and the community at large.
- Effectively communicate and collaborate with other healthcare professionals in interprofessional teams.
- Engage in evidence-based practice within the anatomic pathology laboratory while making a conscious, continued effort to improve performance.
- Synthesize clinical information from various sources to present comprehensive, clinical pathologic correlations.
- Communicate complex anatomic pathology information effectively in written, verbal and photographic forms.
- Discern normal structure and function of organs, tissues and cells from pathologic changes as demonstrated by selecting appropriate techniques for collecting, handling, submitting and processing specimens.

- Embrace and actively participate in a systems approach to reducing error, ensuring safety and improving quality of care.
- Understand the value of information technology and promote its utilization in professional practice.
- Provide leadership in the laboratory through an understanding of management techniques and the operations and services provided in the anatomic pathology laboratory to facilitate efficiency and productivity.
- Conduct the practice of a Pathologists' Assistant in a professional manner and, by doing so, act as a steward of the profession for students, colleagues and the public through education and research into the art and science of the practice of anatomic pathology.

Program Course Plan

Year 1 (75.5 QH)

HAPA 535 Medical Terminology (1 QH)
 HAPA 540 Autopsy Pathology (2 QH)
 HAPA 540A Autopsy Pathology Lab (2 QH)
 HAPA 550 Seminar I (2 QH)
 HAPA 551 Seminar II (2 QH)
 HAPA 552 Seminar III (2 QH)
 HAPA 553 Seminar IV (2 QH)
 HAPA 560 Clinical Correlations I (3 QH)
 HAPA 560A Clinical Correlations I Lab (2 QH)
 HAPA 561 Clinical Correlations II (3 QH)
 HAPA 561A Clinical Correlations II Lab (2 QH)
 HAPA 562 Clinical Correlations III (3 QH)
 HAPA 562A Clinical Correlations III Lab (2 QH)
 HAPA 563 Clinical Correlations IV (3 QH)
 HAPA 563A Clinical Correlations IV Lab (2 QH)
 HIPS 515A & B Foundations for Interprofessional Practice (2 QH)
 HPAS 551 Leadership in the Healthcare Environment (2 QH)
 MCBA 501 Clinical Anatomy (10 QH)
 MPAT 600A, B & C General and Systemic Pathology (12.5 QH)
 PBBS 503A & B Structure and Function (11 QH)
 PBBS 504 Neuroscience (5 QH)

Year 2 (44 QH)

HAPA 630 Anatomic Pathology Clerkship (9 QH)
 HAPA 631 Anatomic Pathology Clerkship (13 QH)
 HAPA 632 Anatomic Pathology Clerkship (15 QH)
 HAPA 633 Anatomic Pathology Clerkship (7 QH)

Assessment for Student Learning

Grading System

A 4.00 High Achievement
 B 3.00 Above Average Achievement

C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Students enrolled in the Master of Science in Pathologists' Assistant program are evaluated using a variety of assessment methods for student learning. Didactic lecture and laboratory course assessment methods may include but are not limited to campus-based lectures, group activities, class discussions, quizzes, presentations, examinations, laboratory sessions, laboratory demonstrations, dictations and photography. Assessment methods for the clinical year of the program may include but are not limited to hands-on clinical training, readings, assignments, quizzes, examinations, portfolios, poster presentations and clinical evaluations.

Graduation Requirements

Pathologists' Assistant students are required to successfully complete the didactic and clinical curriculum, totaling 119.5 quarter hours, with a cumulative grade-point average of a 2.0 (C) or better on a 4.0 scale. Upon successful completion of the program, students will then be eligible for graduation and to take the American Society for Clinical Pathology's certification exam. Students must complete graduation requirements within five years from the date of matriculation.

Physician Assistant Practice (MS)

Mission

Educate and prepare competent, compassionate and ethical Physician Assistant leaders who, as integral members of the interprofessional healthcare team, will provide quality patient-centered care to a diverse population.

Vision

To be recognized nationally as a leader in the Physician Assistant profession through our outstanding graduates, curricular innovations, scholarly activities and service to the community.

Program Introduction

Physician Assistants (PAs) are health professionals licensed to practice medicine with physician supervision. PAs perform a comprehensive range of medical duties, from basic primary care to high-technology specialty procedures.

RFU offers a 24-month, entry-level graduate program leading to a Master of Science in Physician Assistant Practice. The first 12 months consist of didactic coursework. The second 12 months are comprised of required core clinical rotations.

The development of research and scholarship competencies occurs throughout the program's two years and culminates in a Master's Project that can be either experiential or literature-based.

Program Accreditation

Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA)
12000 Findley Road, Suite 240
Duluth, GA 30097
770-467-1224

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Transcripts:** All undergraduate and any graduate work must be submitted as part of the admissions application.
- **Prior Degree:** A bachelor's degree from an accredited college or university OR current enrollment in the DePaul University Pathway Program.
- **Grade-Point Average (GPA):** Minimum overall and science grade-point average (GPA) of 2.75 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) taken within five years prior to the time of application. *Successful candidates typically have scores above the 50th percentile in all 3 areas.*
 - Those who have studied at a foreign educational program need to provide an official evaluation of course equivalence report using a service such as World Education Services at www.wes.org or Education Credential Evaluators at www.ece.org.
- **Letters of Recommendation:** Between two and three letters of recommendation. One letter should address the applicant's scholastic aptitude, and one should be from a healthcare professional who has worked with the applicant.
- Prior direct patient-care related medical experience and/or shadowing of a Physician Assistant. Coming into the program, successful applicants typically have at least 800 hours of direct patient contact.
- **Personal Statement:** A personal statement is required.
- **Prerequisite Courses:** Each of the following prerequisite courses must be completed at an accredited institution of higher education within the last 10 years (5 years preferred) and with a grade of C or higher:
 - Biochemistry
 - Human Anatomy
 - Human Physiology
 - Introduction to Psychology
 - Microbiology (with lab preferred)
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is not required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for the entry-level master's degree in Physician Assistant Practice must possess abilities and skills which include those that are observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes. The use of a trained intermediary is not acceptable in many clinical situations in that it implies that a candidate's judgment must be mediated by someone else's power of selection and observation.

- **Observation:** The candidate must be able to acquire a defined level of required information as presented through demonstrations and experiences in the basic sciences. Furthermore, a candidate must be able to:
 - Observe a patient accurately, at a distance and close at hand, with or without standard medical instrumentation, to acquire information from written documents, and to visualize information as presented in images from paper, films, slides or video.
 - Interpret X-ray and other graphic images, and digital or analog representations of physiologic phenomenon (such as EKGs), with or without the use of assistive devices.

Such observation and information acquisition necessitates the functional use of visual, auditory and somatic sensation while being enhanced by the functional use of other sensory modalities. In any case where a candidate's ability to observe or acquire information through these sensory modalities is compromised, the candidate must demonstrate alternate means and/or abilities to acquire and demonstrate the essential information conveyed in this fashion. If the alternatives are acceptable, it is expected that obtaining and using such alternate means and/or abilities shall be the responsibility of the student. Costs of necessary accommodations should be reasonable and will be properly borne by the university when not the responsibility of the student or otherwise funded.

- **Communication:** A candidate must be able to speak, to hear and to observe patients by sight in order to elicit information, describe changes in mood, activity and posture, and perceive non-verbal communication. A candidate must be able to communicate effectively and sensitively with patients and their families. Communication includes speech and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of their healthcare team.
- **Motor:** It is required that a candidate possess the motor skills necessary to directly perform palpation, percussion, auscultation and other diagnostic and therapeutic maneuvers, basic laboratory tests and diagnostic and therapeutic procedures. The candidate must be able to execute motor movements reasonably required to provide general and emergency medical care such as airway management, placement of intravenous catheters, cardiopulmonary resuscitation, application of pressure to control bleeding, suturing of wounds and the performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. In addition, the candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem-solving, the critical skill demanded of physicians, requires all of these intellectual abilities. The candidate must be able to perform these problem-solving skills in a timely fashion.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment,

the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients. The candidate must be able to tolerate physically-taxing workloads and to function effectively under stress. They must be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties inherent in the clinical problems of patients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credits or advanced standing will be awarded regardless of previous experience.

Core Competencies

Core competencies of the Master of Science in Physician Assistant Practice include:

- **Medical Knowledge:** Medical knowledge includes the synthesis of pathophysiology, patient presentation, differential diagnosis, patient management, surgical principles, health promotion and disease prevention. PAs must demonstrate core knowledge about established and evolving biomedical and clinical sciences and the application of this knowledge to patient care in their area of practice. In addition, PAs are expected to demonstrate an investigative and analytic thinking approach to clinical situations.
- **Patient Care and Disease Prevention:** Patient care includes patient- and setting-specific assessment, evaluation and management. PAs must demonstrate care that is effective, safe, high quality and equitable.
- **Professionalism:** Professionalism is the expression of positive values and ideals as care is delivered. Foremost, it involves prioritizing the interests of those being served above one's own. PAs must acknowledge their professional and personal limitations. Professionalism also requires that PAs practice without impairment from substance abuse, cognitive deficiency or mental illness. PAs must demonstrate a high level of responsibility, ethical practice, sensitivity to a diverse patient population and adherence to legal and regulatory requirements.
- **Practice-Based Learning and Improvement:** Practice-based learning and improvement includes the processes through which PAs engage in critical analysis of their practice experience, the medical literature and other information resources for the purposes of self- and practice-improvement. PAs must be able to assess, evaluate and improve their patient-care practices.
- **Systems-Based Practice:** Systems-based practice encompasses the societal, organizational and economic environments in which health care is delivered. PAs must demonstrate an awareness of, and responsiveness to, the larger system of health care to provide patient care that balances quality and cost, while maintaining the privacy of the individual patient. PAs should work to improve the healthcare system of which their practices are a part.

- **Interpersonal and Communication Skills:** Interpersonal and communication skills encompass the verbal, nonverbal, written and electronic exchange of information. PAs must demonstrate interpersonal and communication skills that result in effective information exchange with patients, patients' families, physicians, professional associates and other individuals within the healthcare system.

Program Course Plan

+Year 1 (91 QH)

HIPS 515A & B Foundations for Interprofessional Practice (2 QH)
 HPAS 551 Leadership in the Healthcare Environment (2 QH)
 HPAS 500 Physician Assistant Professional Issues and Ethics (2 QH)
 HPAS 501 General Medicine and Infectious Disease I (9 QH)
 HPAS 502 Introduction to EKG (2 QH)
 HPAS 510 General Medicine and Infectious Disease II (9 QH)
 HPAS 512 Clinical Decision-Making I (1 QH)
 HPAS 513 Physical Assessment, Lecture/Lab (4 QH)
 HPAS 515 Psychosocial Aspects of Patient Care (1 QH)
 HPAS 518 Emergency Medicine (2 QH)
 HPAS 519 Obstetrics and Gynecology (3 QH)
 HPAS 520 General Medicine and Infectious Disease III (8 QH)
 HPAS 522 Clinical Decision-Making II (2 QH)
 HPAS 523 Clinical Procedures, Lecture/Lab (3 QH)
 HPAS 525 Geriatrics (2 QH)
 HPAS 528 Research and Statistics (2 QH)
 HPAS 532 Interprofessional Case Collaborations (3 QH)
 HPAS 537 Population Medicine (2 QH)
 HPAS 538 Introduction to Clinical Medicine for the Physician Assistant (2 QH)
 HPAS 539 Introduction to Pharmacotherapy (1 QH)
 HPAS 540 Pediatrics (2 QH)
 HPAS 542 Clinical Decision-Making III (2 QH)
 HPAS 600 Pharmacotherapy I (4 QH)
 HPAS 610 Pharmacotherapy II (4 QH)
 HPAS 620 Pharmacotherapy III (4 QH)
 HPAS 646 Advanced Physical Examination Lecture/Lab (2 QH)
 HPAS 650 Complementary Medicine (1 QH)
 MCBA 501 Clinical Anatomy (10 QH)

Year 2 (56 QH)

HPAS 550 Internal Medicine (6 QH)
 HPAS 560 General Surgery (6 QH)
 HPAS 565 Family Medicine (6 QH)
 HPAS 570 Women's Health (6 QH)
 HPAS 575 Pediatrics (6 QH)
 HPAS 580 Emergency Medicine (6 QH)
 HPAS 591 Elective I Rotation (6 QH)

HPAS 592 Elective II Rotation (6 QH)

HPAS 690 Master's Project (8 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Assessment of academic performance is done continuously throughout the program. Satisfactory academic progress is assessed through the successful completion of all course-related work and curricular activities. In addition to all ongoing student assessment processes, at the end of each year there is a formal evaluation process to determine a student's eligibility to progress to the next portion of the program. This process is known as the Formative Evaluation at the end of the first year, and the Summative Evaluation at the end of the second year.

Satisfactory academic performance is defined as maintaining a minimum grade of at least a C in each course throughout the program, or minimum overall 2.50 GPA starting with the fall quarter of the first year. In addition to academic performance, students must comply with the professionalism policy set forth in the Physician Assistant handbook and the ethical standards of the university and CHP.

Graduation Requirements

Students must meet the following program requirements:

- 147 quarter hours of required degree program coursework
- Complete all coursework with a grade of C or better
- Successful completion of all course requirements within five years from the date of matriculation
- Maintain a minimum overall 2.5 GPA on a 4.0 scale starting with the fall quarter of the first year
- Completion of a Master's Project
- Students must complete all course and curriculum work in its entirety

Population Health (MS)

Program Introduction

The Master of Science degree in Population Health is 46 quarter hours of credit offered in the online delivery format. Degree requirements can be completed in one year as a full-time student

or two years if enrolled part-time. The program is designed to prepare students for jobs in the public health and population health industry, the public health field, and in organizations that want to improve the health and well-being of their employees. These individuals could also serve in organizations that provide research and services in the fields of, healthcare analytics and health policy. Students complete the degree program with a capstone course that includes a final portfolio and online presentation of major projects completed throughout their master's degree program. Students will also develop an independent project which demonstrates achievement of the areas of focus of the Population Health program. Students will do so through completion of a field-based research project.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from an accredited university or college in any discipline.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average (GPA) of 2.75 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be a test taken within two years of the date from when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- Work experience in a related health or science field is recommended, but not required.
- Students currently enrolled in other programs at Rosalind Franklin University of Medicine and Science should complete an alternative concurrent/short application form which can be accessed via InSite.
- **Letters of Recommendation:** Minimum of one letter of recommendation.
- **Personal Statement:** Personal statement addressing professional goals.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.

- **Non-Degree Applicant Policy:** The program will consider applicants who hold a bachelor's degree from an accredited college or university and who meet the admission requirements of the program.
- **Early Decision Programs:** This program does not accept early decision applicants.

The Population Health program uses a rolling admissions process where applications are reviewed, decisions are made and students are enrolled every quarter. Applicants should submit all materials prior to the deadline of the quarter in which they wish to matriculate. To initiate the application process, applicants must submit all required application items through the Rosalind Franklin University Central Application Service (RFUCAS).

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case, where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex,

technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.

- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

A maximum of eight quarter hours of graduate credit may be accepted from other accredited institutions into the Master of Science program. However, students who have completed two existing certificates in Population Health, Population Health Strategies and Population Health Analytics at RFU may transfer (or stack) all certificate credits toward their Master of Science in Population Health. No credit will be given for prior learning experiences or proficiency examinations.

Core Competencies

Upon completion of the Master of Science in Population Health, the student will be able to:

- Apply assessment processes to improve the health of populations
- Educate individuals, families, practitioners and relevant stakeholders on community health issues
- Formulate solutions to address deficiencies in health outcomes in any given population
- Engage in the process of inquiry and communication of health status and outcomes for populations
- Develop a depth of knowledge, skill and investigate attitude toward research and leadership expertise in multiple health-related areas

Program Course Plan

Year 1 (46 QH)

HHCM 515 Healthcare Law (3 QH)

HHCM 516 Risk and Quality Management in Health Care (3 QH)

HHCM 517 Management Ethics (3 QH)

HHCM 520 Cultural Diversity and Management in Health Care (3 QH)

HHCM 522 Healthcare Policy and Delivery Systems (4 QH)

HHCM 630 Public Health Epidemiology (4 QH)
HIPS 561 Statistics for Healthcare Professionals (4 QH)
HPOP 530 Research Methodology I (4 QH)
HPOP 535 Health Economics (3 QH)
HPOP 540 Essentials of Population Health (3 QH)
HPOP 541 Community Health Assessment and Intervention (3 QH)
HPOP 590 Population Health Field Research Capstone Course (3 QH)
Electives (6 QH)

Assessment for Student Learning

Grading System

A 4.00 High Achievement
B 3.00 Above Average Achievement
C 2.00 Average Achievement
F 0.00 Failure

Grades without Associated Grade Points:

P Pass
F Fail

Assessment Methods

Assessment of student learning occurs through course exams, discussion board postings and research projects specific to each course.

Graduation Requirements

Students must meet the following graduation requirements:

- Successful completion of a minimum of 46 quarter hours
 - 37 quarter hours of core courses
 - 6 quarter hours of elective courses
 - 3 quarter hours for the final portfolio course
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course requirements within five years from the date of matriculation

Psychology: Clinical Counseling (MS)

The Master of Science in Psychology: Clinical Counseling program is typically completed with two years of full-time study.

The Clinical Counseling curriculum is designed to prepare students to deliver clinical mental-health services upon graduation. Our students receive training in the identification and treatment of a broad range of mental and nervous disorders. A variety of assessment and intervention approaches are covered with an emphasis on empirically supported techniques. Our graduates are well-prepared clinicians and consumers of the research literature. Their training ensures the

development of broad-based clinical skills and encourages close, cooperative work with other healthcare specialists including medical providers, other mental health professionals and allied health professionals. Graduates meet the educational requirements for licensure as a professional counselor in Illinois and many, if not all, other states.

Students who wish to improve their chances of admission to doctoral programs in psychology may wish to pursue the Research Track in the Clinical Counseling program. This course of study provides additional experiences in research-related coursework and application of research skills, in addition to the clinical service delivery curriculum, while still meeting the educational requirements for licensure as a clinical counselor in Illinois and many, if not all, other states.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- Significant undergraduate studies in areas such as psychology, sociology, criminal justice, etc. are recommended.
- **Prior Degree:** A bachelor's degree from an accredited institution of higher education prior to matriculation into the program.
- **Grade-Point Average (GPA):** A minimum overall GPA of 3.0 on a 4.0 scale for the last two years of undergraduate study is required.
- **Tests:**
 - The Graduate Record Examination (GRE) is optional for general applicants and is required for Research Track applicants.
 - The Advanced Psychology GRE is optional for all applicants.
 - GRE scores must be sent directly to Rosalind Franklin University from Education Testing Services (ETS).
- **Letters of Recommendation:** One letter of recommendation is required, two are preferred, from former professors, or employers, familiar with the applicant's professional or educational capabilities. The Admissions Committee prefers one letter from a former professor.
- **Transcripts:** Official transcripts from the degree awarding college or university must be submitted prior to matriculation.
- Basic computer skills including the ability to use email, the internet, word processing, and ability to create presentations and/or use and create spreadsheets.
- All applications that meet admissions requirements are reviewed individually by the program.
- A criminal background check will be performed on admitted students.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Personal Statement:** A personal statement is required.
- **Supplemental Application:** There is no supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not accept non-degree applicants.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

Candidates for entry into the Master of Science in Psychology: Clinical Counseling program must possess certain abilities and skills to function effectively and meet the ethical and technical requirements in a broad variety of classroom, laboratory, research and clinical settings. These essential functions are:

- **Observational:** The candidate must be able to acquire a defined level of required information as presented through lectures, demonstrations and experiences in basic and applied psychology. Furthermore, a candidate must be able to observe a patient or research subject accurately, at a distance and close at hand, using their senses of sight, smell, touch and hearing. The candidate must be able to acquire information from written documents or electronic media, such as a computer monitor. The candidate must be able to visualize information from paper, films, slides or video. Such observation and information acquisition necessitates the functional use of visual, auditory and somatic sensation while being enhanced by the functional use of other sensory modalities. In any case where a candidate's ability to observe or acquire information through these sensory modalities is compromised, the candidate must demonstrate alternative means and/or abilities to acquire and demonstrate the essential information conveyed in this fashion. If the alternatives are acceptable, it is expected that obtaining and using such alternative means and/or abilities shall be the responsibility of the student. Costs of necessary accommodations should be reasonable and will be borne by the university when not the responsibility of the student or otherwise funded.
- **Communication:** A candidate must be able to speak, hear and observe by sight in order to elicit information, observe patients/clients, describe changes and perceive non-verbal communications. Communication includes verbal and recorded format (writing, typing, graphics or telecommunication). A candidate is expected to independently take paper, computer, practical and comprehensive examinations. A candidate must be able to communicate effectively and sensitively with faculty, fellow students, staff, research subjects, patients, families and other members of the healthcare team. Communication includes speech and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of the healthcare team. Communication via electronic media (e.g., computer terminals utilizing a keyboard) is required.
- **Motor and Sensory Systems:** It is required that candidates possess the motor skills necessary to directly perform basic clinical tests, diagnostic procedures and research procedures. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision. This requirement also includes but is not limited to the use of an electronic keyboard. Candidates must be able to move freely and safely about a research or clinical setting and reach across desktops or on top of shelves. The student must be able to travel (utilizing public or private transportation) to clinical affiliate sites or to research sites. Furthermore, the student must perform moderately-taxing, continuous physical work, often requiring prolonged sitting or standing, over several hours.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. In addition, the candidate must be able to comprehend three-dimensional relationships and to understand

the spatial relationships of structures. Problem-solving, the critical skill demanded of all healthcare professionals, requires all of these intellectual abilities. The candidate must be able to perform these problem-solving skills in a timely fashion.

- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, prompt completion of all responsibilities attendant to working with patients/clients and research subjects, and the development of mature, sensitive, ethical and effective professional relationships with co-workers. The candidate must be able to tolerate physically-taxing workloads and function effectively under variable levels of stress, which may at some points reach a high level of intensity for protracted periods. Some students will take courses that require them to be able to adapt to working with unpleasant biological substances (e.g., formaldehyde-preserved human tissue). Students must be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties inherent in clinical problems and situations. The student must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues to improve. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational process. The student must consistently behave in an ethical and professional manner and comport themselves in a manner consistent with published Ethical Codes of Conduct relevant to their profession.

Note: If a candidate's ability to acquire and communicate information through vision, hearing or sensory modalities is impaired, they must demonstrate alternative means and/or abilities to assimilate the information and demonstrate that the essential information can be conveyed in this fashion. If the alternatives are acceptable, it is expected that the obtaining and using of such alternative means shall be the shared responsibility of the student and the university. It must be a reasonable accommodation and not an undue hardship for the university.

An effort will be made to work out potential difficulties as long as this does not pose a threat to the well-being of patients, research subjects other students, faculty, other healthcare team members or the candidate themselves.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credits or advanced standing will be awarded regardless of previous experience.

Core Competencies

Upon completion of the Master of Science in Psychology: Clinical Counseling program, the student will:

- Identify and implement empirically supported assessment and intervention strategies
- Understand and identify relevant theoretical and foundational underpinnings to the counseling profession
- Evaluate and integrate research studies into clinical practice
- Understand and uphold professional ethics

- Understand and address issues of diversity in clinical practice
- Experience and integrate interprofessional practice into their daily work as healthcare professionals

Program Course Plan

Year 1 (46 QH)

HIPS 515A & B Foundations in Interprofessional Practice (2 QH)
 HPCC 500 Research Methods for Counselors (4.5 QH)
 HPCC 501 Ethical Issues and Standards for Professional Counselors (4.5 QH)
 HPCC 502 Diagnostic Interviewing and Report Writing (3 QH)
 HPCC 503 Cognitive and Behavioral Therapy–Child/Adolescent (4.5 QH)
 HPCC 505 Personality Assessment in Counseling (4.5 QH)
 HPCC 601 Group Dynamics and Counseling (4.5 QH)
 HPSC 520 Descriptive Psychopathology (4.5 QH)
 HPSC 577 Socio and Cultural Foundations of Behavior (4.5 QH)
 HPSC 669 Theories of Counseling and Psychotherapy (4.5 QH)
 HPSC 690 Cognitive and Behavioral Interventions (5 QH)
 Electives*

Year 2 (31 QH)

HPCC 600 Substance Abuse Assessment and Treatment (4.5 QH)
 HPCC 602 Career Counseling and Development (4.5 QH)
 HPCC 603A Practicum/Internship and Seminar I (5 QH)
 HPCC 603B Practicum/Internship and Seminar II (5 QH)
 HPSC 668 Theories of Personality and Emotion (3 QH)
 HPSC 754 Lifespan Developmental Psychology (4.5 QH)
 HPSC 783 Family Systems and Therapy (4.5 QH)
 Electives*

*Electives must total 13 quarter hours.

Students accepted into the Research Track will complete the usual curriculum of the Master of Science in Psychology: Clinical Counseling (see above) with the following modifications:

- HPCC 500 Research Methods for Counselors is dropped
- HPSC 510 Psychological Statistics I is added in year 1
- HPSC 515 Experimental Design and Program Evaluation I is added in year 1
- HPSC 850 Research Practicum (2 QH) is added each quarter

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P Pass
F Fail

Assessment Methods

Letter grades will be assigned to the student's performance in courses.

Students receive regular evaluations in three areas:

- Coursework
- Clinical practica
- Professionalism

Written evaluations are prepared on a quarterly basis by the supervisor of the student's practicum. The evaluations follow a standard format and give detailed information about the student's performance in the clinical setting.

Professional conduct is critical to the development of a competent clinician. Students are evaluated regarding their professional conduct in various aspects of graduate school training.

In addition to evaluations concerning performance in specific areas, each student's progress is reviewed annually, typically in July, by the entire faculty. The objective of the annual review is to assess the student's overall progress in:

- Academics
- Clinical and research domains
- Professional/clinical conduct

Student involvement in programmatic and other professional activities is also considered. Following this evaluation, a brief written summary is provided to the student, and more detailed feedback is available from the student's advisor.

Graduation Requirements

- Completion of a minimum of 90 credits (minimum 77 hours required courses and minimum 13 hours of electives)
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all required courses in the program curriculum, electives and a passing grade in practicum courses
- Completion of a minimum of 700 hours of supervised practicum/internship

Psychology: Clinical Psychology (MS)

The College of Health Professions at Rosalind Franklin University of Medicine and Science offers a unique opportunity for students on the pathway to earning a PhD degree in Psychology to also earn a Master of Science degree in Psychology. Students who have successfully completed all requirements for the Clinical Psychology track of the Master of Science program will become candidates for the degree.

The Clinical Psychology track of the MS degree is comprised of specific courses that are also accepted into the Psychology PhD program. It is not a direct-entry degree program. This special

track or option does not directly connect to requirements for licensure in psychology at the master's level.

Admission Requirements

Applicants must meet the PhD in Psychology requirements for admission and are admitted as candidates for the PhD in Psychology degree.

Technical Standards

Applicants must meet the technical standards identified for the PhD in Psychology program.

Transfer Credits and Advanced Standing

Transfer credits are awarded according to the policy and processes in place for the PhD in Psychology program.

Program Course Plan

Students will complete the following 17 courses totaling 76.5 quarter hours with passing grades in conformity with general department criteria for maintaining good standing in the program:

- HIPS 515A & B Foundations for Interprofessional Practice (2 QH)
- HPSC 510 Psychological Statistics I (5 QH)
- HPSC 511 Psychological Statistics II (4 QH)
- HPSC 515 Experimental Design and Program Evaluation (4 QH)
- HPSC 520 Descriptive Psychopathology (4.5 QH)
- HPSC 560 Cognition and Cognitive Assessment (4 QH)
- HPSC 576 Essentials of Physiological Psychology and Behavioral Neuroscience (3 QH)
- HPSC 750 Advanced Physiological Psychology Lab (1 QH)
- HPSC 664 Personality Assessment (4 QH)
- HPSC 690 Cognitive and Behavioral Interventions (5 QH)
- HPSC 668 Theories of Personality and Emotion (3 QH)
- HPSC 669 Theories of Counseling and Psychotherapy (4.5 QH)
- HPSC 750 Advanced Physiological Psychology Lab (1 QH)
- HPSC 754 Lifespan Developmental (4.5 QH)
- HPSC 755 Ethical Issues and Professional Standards in Clinical Psychology I (1 QH)
- HPSC 784 Professional Seminar in Clinical Fundamentals (3 QH)
- HPSC 800 Clinical Practicum (12 QH in total over two years)
- HPSC 850 Research Practicum (12 QH in total over two years)

Assessment for Student Learning

Grading System

- A 4.00 High Achievement
- B 3.00 Above Average Achievement
- C 2.00 Average Achievement
- F 0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Letter grades will be assigned to the student's performance in courses.

Students receive regular evaluations in three areas:

- Coursework
- Clinical practica
- Professionalism

Written evaluations are prepared on a biannual basis by the supervisor of the student's practicum. The evaluations follow a standard format and give detailed information about the student's performance in the clinical setting. Professional conduct is critical to the development of a competent clinician. Students are evaluated regarding their professional conduct in various aspects of graduate school training. In addition to evaluations concerning performance in specific areas, each student's progress is reviewed annually, typically in July, by the entire faculty. The objective of the annual review is to assess the student's overall progress in:

- Academics
- Clinical and research domains
- Professional/clinical conduct

Student involvement in programmatic and other professional activities is also considered.

Following this evaluation, a brief written summary is provided to the student, and more detailed feedback is available from the student's advisor.

Graduation Requirements

- Completion of two academic years of full time graduate study in the Department of Psychology.
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all required courses in the program curriculum and a passing grade in practicum courses
- Satisfactory completion of the Master's Thesis

Post-Baccalaureate Certificates

Certificate in Health Administration

Program Introduction

The certificate in Health Administration (HA) prepares students to enhance their leadership skills in the healthcare industry. The four-course certificate program is typically completed in one academic year or four quarters of study, and it is offered in the online delivery format. Students enrolled in this certificate program are usually working adults in the healthcare field who seek supplemental knowledge and expertise for career advancement opportunities.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from an accredited university or college in any discipline.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average (GPA) of 2.75 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be a test taken within two years of the date from when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- Work experience in a related health or science field is recommended but not required.
- Students currently enrolled in other programs at Rosalind Franklin University of Medicine and Science, should complete an alternative concurrent/short application form that can be accessed via InSite.
- **Letters of Recommendation:** Minimum of one letter of recommendation.
- **Personal Statement:** Personal statement addressing professional goals.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Application Policy:** The program will consider applicants who hold a bachelor's degree from an accredited college or university and who meet the admission requirements of the program.
- **Early Decision Programs:** This program does not accept early decision applicants.

The certificate in Health Administration program uses a rolling admissions process where applications are reviewed, decisions are made and students are enrolled every quarter. Applicants should submit all materials prior to the deadline of the quarter in which they wish to matriculate. To initiate the application process, applicants must submit all required application items through the Rosalind Franklin University Central Application Service (RFUCAS).

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software

and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:

- Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
- Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
- Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credit will be awarded for the certificate program.

Core Competencies

Upon completion of the certificate, the student will:

- Apply knowledge of health administration and leadership
- Analyze healthcare data to inform decisions about healthcare facility management
- Recommend evidence-based interventions for organizational efficiency
- Assess issues of healthcare policies and the healthcare environment

Program Course Plan

Year 1 (12-13 QH)

HHCM 521 Evidence-Based Management (3 QH)

HHCM 523 Current Topics in Healthcare (3 QH)

HHCM 524 Organizational Behavior and Human Resources (3 QH)

Students will choose between the following two options:

HHCM 522 Healthcare Policy and Delivery Systems (4 QH)

OR

HHCM 525 Strategic Planning and Leadership in Health Care (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Assessment of student learning occurs through course exams, discussion board postings and research projects specific to each course.

Graduation Requirements

Students must meet the following graduation requirements:

- Successful completion of a minimum of 12-13 quarter hours of program courses
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course requirements within four years from the date of matriculation

Certificate in Health Professions Education

Program Introduction

The certificate in Health Professions Education is designed to introduce health professions educators to a variety of theories of learning and learning styles so they can identify a student's unique learning needs and adapt their teaching to provide more individualized and meaningful experiences. The program addresses the needs of educators who are teaching primarily in the classroom setting and the specific unique needs for teaching in the clinical setting. This knowledge of learning is applied to the development of a course in the student's area of interest. Students learn the power of assessment for improved learning and are given the opportunity to design clinical assessment tools. Learning is synthesized through reflection during the final portfolio project. Students can complete the requirements for the certificate in one year or less. The certificate program is delivered entirely online. Students who complete the certificate have the option of later enrolling in the Master of Science in Health Professions Education and applying all certificate courses to the degree.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from a regionally accredited college or university.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average (GPA) of 2.5 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be a test taken within two years of the date from when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae (CV) is required. Work experience in a related health or science field is recommended but not required. However, if you have experience in these areas, please detail it on your resume or CV.
- **Non-Degree Applicant Policy:** The program will consider applicants who hold a bachelor's degree from an accredited college or university and who meet the admission requirements of the program.
- **Personal Statement:** This program does not require a personal statement.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Letters of Recommendation:** One letter of recommendation is required, two are preferred, from professionals and/or academicians who know the applicant well.

- **Supplemental Application:** This program does not have a supplemental application.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.
 In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.
- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others,

interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credit will be awarded for the certificate program.

Core Competencies

Upon completion of the certificate in Health Professions Education, the student will:

- Apply learning theories to the development of either classroom or clinical education programs to create effective learning environments that stimulate learning
- Develop a course in an area of expertise that meets the individual learning needs of a diverse student population
- Evaluate student performance and assess educational program outcomes in either classroom or clinical settings
- Reflect on their skills as an educator in order to work toward continuous improvement

Program Course Plan

Year 1 (15 QH)

HHPE 510 Learning Theories (3 QH)

HHPE 535 Instructional Design for Health Professions Education (4 QH)

HHPE 540 Classroom Assessment (4 QH)

HHPE 685 Portfolio Presentation (1 QH)

Students will choose between the following two options:

HHPE 512 Instructional Presentation Skills (3 QH)

OR

HHPE 545 Evaluating Clinical Competence (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Students enrolled in the certificate in Health Professions Education program are evaluated using multi-faceted assessments that include but are not limited to written papers, discussions, group projects, case studies, poster presentations, course design projects and online exams. A capstone project which includes a teaching portfolio is used to assess student learning at the completion of the program coursework.

Graduation Requirements

Students must meet the following program requirements:

- Successful completion of a minimum of 15 quarter hours are required according to the certificate program curriculum
- Successful completion of all course requirements within four years from the date of matriculation
- Successful completion of a certificate portfolio
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Certificate in Population Health Analytics

Program Introduction

The certificate in Population Health Analytics is four courses, offered in the online format, that are typically completed in one academic year or four quarters of study. This certificate will prepare students for employment in the population health, public health and health and wellness fields. It will also prepare those who work in health-related businesses who desire to improve the health and well-being of their clients. It will provide individuals with solid skills in the field of health analytics to critically evaluate healthcare programs and policy interventions using sound research methodologies, statistical techniques and ethnographic principles. Students will also become competent in using informatics and the epidemiological approach in making strategically focused healthcare recommendations based on research findings.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from an accredited university or college in any discipline.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average (GPA) of 2.75 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.

- Test scores must be a test taken within two years of the date from when a complete application is submitted.
- The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- Work experience in a related health or science field is recommended, but not required.
- Students currently enrolled in other programs at Rosalind Franklin University of Medicine and Science, should complete an alternative concurrent/short application form which can be accessed via InSite.
- **Letters of Recommendation:** Minimum of one letter of recommendation.
- **Personal Statement:** Personal statement addressing professional goals.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** The program will consider applicants who hold a bachelor's degree from an accredited college or university and who meet the admission requirements of the program.
- **Early Decision Programs:** This program does not accept early decision applicants.

The certificate in Population Health Analytics uses a rolling admissions process where applications are reviewed, decisions are made and students are enrolled every quarter. Applicants should submit all materials prior to the deadline of the quarter in which they wish to matriculate. To initiate the application process, applicants must submit all required application items through the Rosalind Franklin University Central Application Service (RFUCAS).

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate

means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for successful clinical and scientific careers, and are assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credit will be awarded for the certificate program.

Core Competencies

Upon completion of the Population Health Analytics certificate, the student will be able to:

- Analyze data to measure performance using industry-relevant statistical software packages
- Analyze data to measure patient outcomes using industry-relevant statistical software packages
- Interpret healthcare data to make recommendations to improve healthcare quality while containing cost
- Employ analytical tools and techniques to answer questions related to healthcare issues
- Interpret data effectively to prepare technical reports

- Create recommendations to increase the effectiveness of healthcare organizations through the applications of information systems

Program Course Plan

Year 1 (13 QH)

HHCM 507 Healthcare Informatics (3 QH)

HHCM 630 Public Health Epidemiology (4 QH)

HPOP 508 Health Program Planning and Evaluation (3 QH)

HPOP 530 Research Methodology (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Assessment of student learning occurs through course exams, discussion board postings and research projects specific to each course.

Graduation Requirements

Students must meet the following graduation requirements:

- Successful completion of a minimum of 13 quarter hours of program courses
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course requirements within four years from the date of matriculation

Certificate in Population Health Strategies

Program Introduction

The certificate in Population Health Strategies is four courses offered in the online format, and the program can typically be completed in one academic year or four quarters of study. The certificate is designed to prepare students for employment in the fields of population health, public health and health and wellness. It also will prepare those who work in health-related businesses who want to understand and improve the health and well-being of the population. The certificate will be appropriate for individuals who intend to enhance their skills in their current healthcare career such as healthcare administration and management, medicine, physical therapy

and physician assistant studies. It will also appeal to individuals who are career changers and want to pursue new opportunities in the emerging field of population health.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from an accredited university or college in any discipline.
- **Grade-Point Average (GPA):** Minimum cumulative grade-point average (GPA) of 2.75 on a 4.0 scale.
- **Tests:**
 - The Graduate Record Examination (GRE) is not required.
 - The Test of English as a Foreign Language (TOEFL) may be required.
 - If the bachelor's degree is earned outside the U.S. and/or U.S. citizenship or permanent residency is not held, demonstrated proof of English proficiency is required via an official TOEFL report that includes a total score and category scores in reading, writing, listening and speaking.
 - Minimum scores for the Internet Based Test (IBT) of 100 or the equivalent is recommended for graduate school with no category score being lower than 22.
 - Test scores must be a test taken within two years of the date from when a complete application is submitted.
 - The language test score requirement may be waived if an applicant has demonstrated academic success as a full-time student at a U.S. college or university for at least two consecutive years, or if the applicant is from a country in which English is a primary language.
- Work experience in a related health or science field is recommended but not required.
- Students currently enrolled in other programs at Rosalind Franklin University of Medicine and Science, should complete an alternative concurrent/short application form which can be accessed via InSite.
- **Letters of Recommendation:** Minimum of one letter of recommendation.
- **Personal Statement:** Personal statement addressing professional goals.
- **Prerequisite Courses:** There are no required prerequisite courses.
- **Resume or Curriculum Vitae:** A resume or curriculum vitae is required.
- **Supplemental Application:** This program does not have a supplemental application.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** The program will consider applicants who hold a bachelor's degree from an accredited college or university and who meet the admission requirements of the program.
- **Early Decision Programs:** This program does not accept early decision applicants.

The certificate in Population Health Strategies uses a rolling admissions process where applications are reviewed, decisions are made and students are enrolled every quarter. Applicants should submit all materials prior to the deadline of the quarter in which they wish to matriculate. To initiate the application process, applicants must submit all required application items through the Rosalind Franklin University Central Application Service (RFUCAS).

Technical Standards

A candidate for an online graduate degree must possess certain abilities and skills, which include observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social attributes.

- **Observation:** The candidate must be able to use a computer to enter and acquire information and to be capable of utilizing the university's course management software and any other required software or technology. This entails significant use of a computer monitor to fully participate by reading and responding in course activities such as class discussions, group projects, utilization of web-based library resources to search for information, and linking to course readings and video presentations. Furthermore, a candidate must be able to:
 - Accurately acquire information from textbooks and other written documents, and assimilate information as presented in images from slides, video or other forms of modern electronic media.
 - Interpret graphic images and other forms of data readout (such as statistics, graphs, spreadsheets, etc.) with or without the use of assistive devices.
 - Observe experimental results or subjects accurately.

In any case where a candidate's ability to read or acquire information using the computer, textbook or other written documents is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student, subject to reasonable accommodations that may be granted under the ADA.

- **Communication:** The candidate must be able to communicate effectively, efficiently and appropriately with faculty, staff, fellow students and research subjects in both verbal and recorded format (writing, typing, graphics or telecommunication).
- **Motor:** The candidate must be able to participate in lengthy written discussions and compose lengthy written assignments and projects. For any required research the candidate needs to be able to carry out and report on a research project. Working in an online course environment requires that the candidate be able to remain at the computer for prolonged intervals.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. The candidate must be able to utilize these problem-solving skills in a timely fashion. They must have the mental ability to assimilate, learn and communicate large volumes of complex, technically detailed information in a timely manner. Candidates must be able to apply the concepts and information they have learned.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities. The candidate must exercise good judgment and self-control, be able to function effectively in stressful situations and adapt to changing environments. Development of effective working relationships with fellow students and faculty in an online learning environment is required. The candidate must be able to critically evaluate their own performance, accept constructive criticism and investigate avenues toward improvement. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities required for

successful clinical and scientific careers, and are assessed during the admissions and educational process.

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Transfer Credits and Advanced Standing

No transfer credit will be awarded for the certificate program.

Core Competencies

Upon completion of the Population Health Strategies certificate, the student will be able to:

- Apply knowledge of population health
- Assess community health issues
- Analyze healthcare data
- Recommend evidence-based health interventions
- Integrate interprofessional communication practices to engage the community

Program Course Plan

Year 1 (13 QH)

HHCM 516 Risk and Quality Management in Health Care (3 QH)

HIPS561 Statistics for Health Professionals (4QH)

HPOP 540 Essentials of Population Health (3 QH)

HPOP 541 Community Health Assessment and Intervention (3 QH)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Assessment of student learning occurs through course exams, discussion board postings and research projects specific to each course.

Graduation Requirements

Students must meet the following graduation requirements:

- Successful completion of a minimum of 13 quarter hours of program courses

- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum
- Successful completion of all course requirements within four years from the date of matriculation

College of Pharmacy

Mission To enhance patient and population health outcomes through excellence in interprofessional practice, education, research, and advocacy for the pharmacy profession.

Vision

To achieve national recognition for excellence and leadership in pharmacy and interprofessional healthcare education.

Program Accreditation

Rosalind Franklin University of Medicine and Science College of Pharmacy's Doctor of Pharmacy program is accredited by:

Accreditation Council for Pharmacy Education
135 South LaSalle Street, Suite 4100
Chicago, IL 60503
312-664-3575
www.acpe-accredit.org

Programs of Study

- Doctor of Pharmacy (PharmD)
- Doctor of Pharmacy/Doctor of Philosophy (PharmD/PhD)

Program Introduction

- The typical length of time for degree completion is four academic years.
- The College of Pharmacy graduate is prepared to pass the North American Pharmacist Licensure Examination (NAPLEX), and to pursue any of the myriad of professional opportunities available to an individual with a Doctor of Pharmacy degree.
- The College of Pharmacy offers early clinical training and experiences, interprofessional education and a variety of simulation activities.

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** A prior degree is NOT required.
- **Prerequisite Courses:** 65 semester hours or 95 quarter hours of pre-pharmacy, college-level coursework
 - General Biology with Lab – 8 SH or 12 QH
 - General Chemistry with Lab – 8 SH or 12 QH
 - Organic Chemistry with Lab – 8 SH or 12 QH
 - Physics with Lab – 4 SH or 6 QH
 - Microbiology – 3 SH or 4 QH
 - Anatomy, or Anatomy and Physiology with Lab* - 4 SH or 6 QH

- A Physiology course will not fulfill the Anatomy or Anatomy/Physiology with Lab requirement. The course must have an Anatomy component.
- Calculus – 3 SH or 4 QH
- Written Communication – 6 SH or 9 QH
- Oral Communication – 3 SH or 4 QH
- Statistics – 3 SH or 4 QH
- Social/Behavior Science (for example, anthropology, economics, geography, political science, psychology or sociology) – 6 SH or 9 QH
- Humanities (for example, art, art history, history, language, literature, music, philosophy, religious studies, theater or performance studies) – 6 SH or 9 QH
- Electives (Spanish highly recommended) – 3 SH or 4 QH
- Applicants must apply via the Pharmacy College Application Service (PharmCAS).
- **Grade-Point Average (GPA):** A cumulative GPA of 2.5/4.0 scale or higher and a science GPA of 2.5/4.0 scale or higher are competitive.
- **Tests:**
 - The Pharmacy College Admission Test (PCAT) is required for all applicants. Only scores from tests taken no more than three years prior to the enrollment year are accepted. There is no minimum PCAT; however, scores at or above the 55th percentile are most competitive.
 - The Test of English as a Foreign Language (TOEFL) and Test of Written English (TWE) are required for foreign applicants who are from countries where English is not the primary language and have not attended a United States university/college for two consecutive years.
- **Resume or Curriculum Vitae:** The PharmCAS system requests that applicants enter resume-type information.
- **Personal Statement:** A personal statement is required.
- **Supplemental Application:** A supplemental application is not required.
- **Transfer Applicant Policy:** This program does not accept transfer applicants.
- **Non-Degree Applicant Policy:** This program does not have a non-degree applicant policy.
- **Early Decision Programs:** This program accepts early decision applicants. The deadline for early decision applicants is updated on the Rosalind Franklin University of Medicine and Science PharmCAS web page on an annual basis.
- **Letters of Recommendation:** Either two individual letters of recommendation or one committee letter is required.
 - The College of Pharmacy prefers to receive two letters of recommendation from individual members of the faculty (preferably science), employers, supervisors or pharmacy professionals.
 - Letters from additional health professionals, personal references or other recommendations may be submitted in addition to the academic evaluations at the applicant's option.
 - All letters must be sent directly to the PharmCAS service. Strongly encourage your evaluators to send electronic letters of reference (eLOR) to PharmCAS. Read the PharmCAS reference section for eLOR instructions. If the evaluator plans to send a paper reference, the application must print the PharmCAS reference request form.

Technical Standards

A candidate for the PharmD degree must possess abilities and skills which include those that are observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social. The use of a trained intermediary is not acceptable in many clinical situations in that it implies that a candidate's judgment must be mediated by someone else's power of selection and observation.

- **Observation:** The candidate must be able to acquire a defined level of required information as presented through demonstrations and experiences in the basic and clinical sciences, including, but not limited to, information conveyed through physiologic and pharmacological images and demonstrations. Furthermore, a candidate must be able to:
 - Observe a patient accurately, at a distance and close at hand, with or without standard medical instrumentation, to acquire information from written documents, and to visualize information as presented in images from paper, films, slides or video.
 - Interpret graphic images and digital or analog representations of physiologic phenomenon with or without the use of assistive devices.

Such observation and information acquisition necessitates the functional use of visual, auditory and somatic sensation while being enhanced by the functional use of other sensory modalities. In any case where a candidate's ability to observe or acquire information through these sensory modalities is compromised, the candidate must demonstrate alternate means and/or abilities to acquire and demonstrate the essential information conveyed in this fashion. If the alternatives are acceptable, it is expected that obtaining and using such alternate means and/or abilities shall be the responsibility of the student. Costs of necessary accommodations should be reasonable and will be properly borne by the university when not the responsibility of the student or otherwise funded.

- **Communication:** A candidate must be able to speak, to hear and to observe patients by sight in order to elicit information, describe changes in mood, activity and posture, and perceive non-verbal communications. A candidate must be able to communicate effectively and sensitively with patients and their families. Communication includes speech and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of the healthcare team.
- **Motor:** It is required that a candidate possess the motor skills necessary to perform basic physical assessment procedures, medication administration, medication preparation and to utilize laboratory and diagnostic equipment. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. In addition, the candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem-solving, the critical skill demanded of pharmacists, requires all of these intellectual abilities. The candidate must be able to perform these problem-solving skills in a timely fashion.
- **Behavioral and Social Attributes:** The candidate must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the care of patients, and the

development of mature, sensitive and effective relationships with patients. The candidate must be able to function effectively under stress.

They must be able to adapt to changing environments, to display flexibility and to learn to function in the face of uncertainties inherent in the clinical problems of patients.

Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational process.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

No transfer credits or advanced standing will be awarded regardless of previous experience.

Core Competencies

Upon completion of the PharmD degree, the student will have achieved the following competencies:

- Demonstrate scientific and pharmaceutical knowledge
- Engage in lifelong learning
- Participate in activities that promote interprofessionalism
- Demonstrate effective communication skills
- Develop pharmacy practice skills
- Emulate professionalism
- Engage in leadership
- Enhance self-awareness

Program Course Plan

Year 1 (53 QH)

HIPS 515A & B Foundations for Interprofessional Practice (2 QH)

MMTD 510 Bioethics (2 QH)

YPHP 500 Introduction to Pharmacy Practice (1 QH)

YPHP 502 Introduction to Drug Information Resources (1 QH)

YPHP 505 Research and Statistics (3 QH)

YPHP 506 Pharmacy Skills Lab I (3 QH)

YPHP 507 Pharmacy Skills Lab II (3 QH)

YPHP 508 Pharmacy Skills Lab III (1 QH)

YPHP 510 Self-Care and Non-Prescription Medications (3 QH)

YPHP 511 Pharmacy-Based Immunization Delivery (1 QH)

YPHP 515 Introductory Pharmacy Practice Experience (6 QH)

YPHS 501 Pharmaceutics I: Introduction to Pharmaceutical Sciences (3 QH)

YPHS 502 Pharmaceutics II: Dosage Forms (2 QH)

YPHS 503 Pharmaceutics III: Calculations (3 QH)

YPHS 504 Biochemical Principles for Pharmacy (4 QH)

YPHS 506 Medicinal Chemistry (2 QH)

YPHS 510 Fundamentals in Physiology I (4 QH)
YPHS 511 Fundamentals in Physiology II (3 QH)
YPHP 519 Pathophysiology I (2QH)
YPHP 520 Pathophysiology II (2QH)
YPHS 512 Fundamentals of Pharmacology (2 QH)

Year 2 (51.5 QH)

PBBS 601 Pharmacology (8.5 QH)
YPHP 504 Health Care Systems (2 QH)
YPHP 604 Clinical Pharmacokinetics and Pharmacodynamics (2 QH)
YPHP 606 Pharmacy Skills Lab IV (3 QH)
YPHP 607 Pharmacy Skills Lab V (3 QH)
YPHP 608 Pharmacy Skills Lab VI (3 QH)
YPHS 509 Pharmaceutics Non-Sterile Compounding (1 QH)
YPHP 615 Introductory Pharmacy Practice Experience (6 QH)
YPHP 620 Pharmacotherapy I (4 QH)
YPHP 621 Pharmacotherapy II (4 QH)
YPHP 622 Pharmacotherapy III (4 QH)
YPHP 625 Applications of Drug Information (1 QH)
YPHS 600 Basic Pharmacokinetics and Pharmacodynamics (3 QH)
YPHS 609 Introduction to Pharmacogenomics and Molecular Biology (2 QH)
YPHS 610 Advanced Medicinal Chemistry (2 QH)
YPHS 620 Lifelong Learning Seminar (1 QH)
YPHS 709 Epidemiology (2 QH)

Year 3 (42.5 QH)

HPAS 551 Leadership in the Healthcare Environment (2 QH)
YPHP 703 Pharmacy Management (2 QH)
YPHP 706 Pharmacy Skills Lab VII (2 QH)
YPHP 707 Pharmacy Skills Lab VIII (2 QH)
YPHP 708 Pharmacy Skills Lab IX (1 QH)
YPHP 709 Health Care and Pharmacy Law (3 QH)
YPHP 710 Pharmacotherapy IV (3 QH)
YPHP 711 Pharmacotherapy V (4 QH)
YPHP 712 Pharmacotherapy VI (3 QH)
YPHP 713 Pharmacogenomics (1 QH)
YPHP 714 Pharmacoeconomics (2 QH)
YPHP 715 Introductory Pharmacy Practice Experience (3.5 QH)
YPHP 716 Interprofessional Case Collaborations (3 QH)
YPHP 719 Gateway to Clinical Practice (2 QH)
YPHS 704 Pharmaceutical Biotechnology (2 QH)
YPHS 720 Lifelong Learning Seminar (1 QH)
Pharmacy Practice/Pharmaceutical Sciences Electives (6 QH)

Year 4 (54 QH)

YPHP 801–806 Advanced Pharmacy Practice Experience I–VI (9 QH each)

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Assessment methods can be either formative or summative and may include exams, quizzes, homework, team-based problem-solving, group projects, peer evaluation, case studies, presentations, practical exams, term papers, reflections, simulations and/or preceptor observations.

Graduation Requirements

Students must meet the following program requirements:

- Successful completion of a minimum of 201 quarter hours
 - P1–P3 years: 147 quarter hours of required courses and 6 quarter hours of didactic electives
 - P4 year: 54 quarter hours of Advanced Pharmacy Practice Experience coursework
- Successful completion of all course requirements within 5.5 consecutive calendar years (66 months) from the date of initial matriculation. Personal leave of absence periods are not included in the calculation of enrollment time in the college.
- Successful completion of course requirements within seven calendar years including academic and personal leave.
- No minimum GPA is required for graduation.

Dr. William M. Scholl College of Podiatric Medicine

Mission

To educate future podiatric physicians in an interprofessional environment that emphasizes academic excellence, patient care and research.

Vision

The college will be the leader in the education of podiatric physicians, curricular development, research in lower extremity health and service to the community.

Program Accreditation

The Dr. William M. Scholl College of Podiatric Medicine at Rosalind Franklin University of Medicine and Science is accredited through April 2022 by the Council on Podiatric Medical Education. Accreditation is an indication of public approbation, attesting to the quality of the podiatric medical education program and the continued commitment of the institution to support the educational program. The council is recognized as the professional institutional accrediting agency for podiatric medical education by the U.S. Department of Education and by the Council for Higher Education Accreditation.

For further information, please contact the Council on Podiatric Medical Education at the following address:

Council on Podiatric Medical Education
9312 Old Georgetown Road
Bethesda, MD 20814
301-571-9200

Programs of Study

Doctor of Podiatric Medicine (DPM)
Doctor of Podiatric Medicine/Doctor of Philosophy (DPM/PhD)
Bachelor's Degree in Biological Sciences

Program Introduction

Completion of the program normally requires four years, with a maximum of six years allowed.

Doctors of Podiatric Medicine (DPMs), also known as podiatrists, are podiatric physicians and surgeons qualified by their education and training to diagnose and treat conditions affecting the foot, ankle and related structures of the leg. Podiatrists are uniquely qualified among medical professionals to treat the foot and ankle based on their education, training and experience. To accomplish these tasks and attain a high level of professional competence, the podiatric physician must:

- Assimilate a large number of anatomic, biologic and physiologic concepts and principles, and use them in assessment, diagnosis and treatment of patient conditions and diseases.

- Employ critical thinking and problem-solving skills.
- Correctly interpret the appropriate medical literature pertaining to each patient's condition(s).
- Communicate with other healthcare providers to contribute to a team approach for total patient care.
- Develop knowledge and proficiencies in diagnosis and evaluation of the overall health status of children and adults, leading to a determination regarding the relationship of the patient's health to pathology in the lower extremity.
 - Interpret diagnostic tests, interpret radiographs and other imaging modalities.
 - Communicate with other healthcare providers to contribute to a team approach for total patient care.
- Engage in effective communication with patients, including speaking and listening skills and the ability to express and interpret body language appropriately.
- Treat patients' conditions and diseases through surgical, biomechanical and palliative means.
 - Have direct physical contact and interaction with patients.
 - Use sharp instruments in the treatment of patients on a daily basis. Common procedures would include, but are not limited to, skin and nail debridement, skin and nail excision, as well as invasive and exposure-prone procedures such as soft tissue and osseous tissue surgical intervention.
 - Have direct contact with human tissue and blood.
 - Inject medications. Common injection procedures would include, but are not limited to, local anesthesia, nerve blocks; aspiration of joints, tendons and bursae; and infiltration of joints, tendons and bursae with anti-inflammatory agents.
 - Employ a team approach to treatment of the whole patient and the patient's family.
- Develop advanced fine and gross motor skill abilities, used in the direct physical treatment of patients.
 - Have direct physical contact and interaction with patients.
 - Have direct contact with human tissue and blood.
 - Inject medications. Common injection procedures would include, but are not limited to, local anesthesia, nerve blocks; aspiration of joints, tendons and bursae; and infiltration of joints, tendons and bursae with anti-inflammatory agents.
- Perform procedures that may expose the healthcare provider, patient or student to risk of infection.
 - Use sharp instruments in treatment of patients on a daily basis. Common procedures would include, but are not limited to, skin and nail debridement, skin and nail excision, as well as invasive and exposure-prone procedures, such as soft tissue and osseous tissue surgical intervention.
- Treat patients in accord with the ethical standards of the profession.
- Maintain confidentiality related to the patient and the patient's condition(s).

Curriculum

The four-year curriculum at Scholl College is composed of Basic Biomedical (Preclinical) and Clinical Science coursework, clinical experiences and clerkships.

The Basic Biomedical Science and most of the Clinical Science didactic coursework are taught in the first two years.

- The first-year courses are taught as modules of varying length allowing final examinations to be staggered rather than concentrated into one final exam week.
- During the second year, the Podiatric Clinical Skills and Reasoning II Workshop and Clinic consists of clinical laboratory skills, anesthesia administration, clinical problem-solving activities, orthopedic workshops and closely supervised patient care.
- The first part of the third year consists of the Capstone Clinical Experiences in Podiatric Medicine, Podiatric Orthopedics, Podiatric Radiology and Podiatric Surgery.
 - During the Capstone Clinical Experiences students also participate in Podiatric Clinical Skills and Reasoning III-Clinic, Community Health, Ethics and Professional Responsibility, Lower Extremity Traumatology and Peripheral Vascular Diseases.
 - During the last two months of the capstones, all students complete the practical portion of the Clinical Competency Examination.
- The remainder of the third year is spent in core and elective clerkships.
- Students spend the fourth year participating in core and elective clerkships.
 - During the month of December they return to campus for one of the core clerkships, the SCPM Clerkship. During the SCPM Clerkship, students are assigned to an affiliated hospital rotation, participate in mock residency interviews, have a number of review lectures to prepare them for the APMLE Part II written examination and complete the written portion of the Clinical Competency Examination.
- The remainder of the core and elective clerkships takes place at academic health science centers and community hospitals, at local area clinical facilities and at other affiliated programs outside of the Chicago area. During the month of January, students participate in residency interviews, including the Centralized Residency Interview Program (CRIP), and take the APMLE Part II written examination.

Admission Requirements

Scholl College enrolls students who present evidence of strong preparation for the study of Doctor of Podiatric Medicine (DPM). In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** The majority of entering DPM students possess a bachelor's or advanced degree.
- **Prerequisite Courses:**
 - A candidate's academic credentials must include successful completion of 90 semester credit hours (135 quarter hours) of coursework at an accredited college or university prior to enrollment.
 - The following minimum requirements must also be met:
 - 12 semester hours (18 quarter hours) of biology
 - 8 semester hours (12 quarter hours) each of organic chemistry, general or inorganic chemistry and physics
 - 6 semester hours (9 quarter hours) of English
 - All science courses must include lab work where applicable. Biochemistry may be substituted for half the organic chemistry requirement. Biochemistry and

microbiology undergraduate coursework are not prerequisites for admission, but completion of these courses may be of benefit to the student in the first year.

- **Tests:**
 - All candidates for admission are required to complete the Medical College Admission Test (MCAT) prior to enrollment. Candidates seeking admission to Scholl College are strongly encouraged to complete the MCAT prior to applying.
 - Applicants who plan to complete the MCAT in the winter or spring should submit an application prior to taking the test, so that admission evaluation is not delayed.
 - Scholl College will not offer acceptances to candidates who have pending MCAT scores, have a test date scheduled or have not released their scores. Interviewed applicants will have their file placed on hold until official MCAT scores are received by the American Association of Colleges of Podiatric Medicine Application Service (AACPMAS).
- **Letters of Recommendation:** The Admissions Committee desires a composite letter of recommendation from the pre-professional advisory committee or one letter of recommendation from a faculty member (preferably science).
 - One letter of recommendation from a Doctor of Podiatric Medicine (DPM) confirming the shadowing experience is required.
 - All evaluations and recommendations should not be older than one year and are considered confidential admission records and cannot be released to the applicant.
- A personal interview with members of the Admissions Committee is required of all candidates who are being seriously considered for admission and is at the invitation of the college.
- **Resume or Curriculum Vitae:** This is included in the application.
- **Personal Statement:** This is included in the application.

Technical Standards

All applicants and students are expected to meet certain technical standards for advancement and graduation. These standards are set forth herein. In adopting these standards, the college keeps in mind the ultimate safety of its students and graduates, as well as the patients they treat. The standards reflect reasonable expectations of qualified podiatric medical students (and physicians) performing essential/required functions. Use of a trained intermediary is not acceptable.

- **Visual Observation:** Candidates and students must have sufficient vision to be able to observe demonstrations, experiments and laboratory exercises in the basic sciences and performance of podiatric tasks during clinical rotations. They must be able to observe a patient accurately at a distance and close at hand. Examples of courses and clinical experiences for which visual observation is required include, but are not limited to, the following: Clinical (gross), Lower Extremity and Neuroanatomy courses; Pathology, Structure and Function, Microbiology, Essentials of Clinical Reasoning, Dermatology, Radiology, Podiatric Medicine, Podiatric Surgery and Biomechanics.
- **Communication:** Candidates and students should be able to speak, hear and observe in order to elicit information, examine patients, describe changes in mood, activity and posture, and perceive non-verbal communications. They must be able to communicate effectively and sensitively with patients. Communication includes not only speech but also reading and writing. They also must be able to communicate effectively and

efficiently in oral and written form with all members of the healthcare team. Examples of courses and clinical experiences for which communication is required include, but are not limited to, the following: all podiatric and medical clinical experiences; clinical courses in radiology, podiatric medicine, podiatric surgery, biomechanics, neurology and general internal medicine; and physiology, lower extremity anatomy, pathology and pharmacology.

- **Motor:** Candidates and students should have sufficient motor function to execute movements reasonably required to provide general care and emergency treatment to patients. Examples of common daily treatments include palliative care of foot conditions, injection of medications such as anesthetics and anti-inflammatory medications, orthotic impressions, taking and processing of pedal radiographs, and performance of foot and ankle surgeries that include soft tissue and osseous tissue invasive and exposure-prone procedures. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, administration of intravenous medication, the application of pressure to stop bleeding, the opening of obstructed airways and the suturing of simple wounds. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision. Examples of courses and clinical experiences for which motor skills and abilities are required include, but are not limited to, the following: Structure and Function, Podiatric Clinical Skills and Reasoning, Podiatric Surgery, Biomechanics, Podiatric Medicine and Podiatric Radiology.
- **Sensory:** Because podiatric medical treatment requires enhanced ability in all sensory skills, including smell, it would be necessary to thoroughly evaluate for candidacy individuals who are otherwise qualified but who have significant tactile sensory or proprioceptive disabilities. This would include individuals with significant previous burns, sensory motor deficits, cicatrix formation and limiting malformations of the upper extremities that prevent performance of essential podiatric tasks, including fulfillment of student clinical requirements. Examples of courses and clinical experiences for which sensory skills are required include, but are not limited to, the following: all clinical experiences including Essentials of Clinical Reasoning.
- **Strength and Mobility:** Because podiatric medical treatment requires sufficient upper extremity strength and mobility, it would be necessary to thoroughly evaluate for candidacy individuals who are otherwise qualified but who have significant strength and mobility disabilities. Mobility to attend in emergency codes and to perform such maneuvers as CPR also may be required. Examples of courses and clinical experiences for which strength and mobility are required include, but are not limited to, the following: CPR, Podiatric Surgery and Podiatric Clinical Skills and Reasoning.
- **Visual Integration:** Consistent with the ability to assess symmetry, range of motion and tissue texture changes, it is necessary to have adequate visual capabilities for proper evaluation and treatment integration. Examples of courses and clinical experiences for which visual integration is required include, but are not limited to, the following: all clinical experiences, courses in Structure and Function, Pathology, Dermatology, Radiology, Surgery, Biomechanics, Sports Medicine and Pediatric Orthopedics.
- **Intellectual, Conceptual, Integrative and Quantitative Abilities:** These abilities include measurement, calculation, reasoning, analysis and synthesis. Problem-solving, the critical skill demanded of physicians, requires all of these intellectual abilities. In

addition, candidates and students should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Examples of courses and clinical experiences for which intellectual, conceptual, integrative and quantitative abilities are required include, but are not limited to, the following: courses in Structure and Function, Pharmacology, Biochemistry and all clinical courses and experiences.

- **Behavioral and Social Attributes:** Candidates and students must possess the emotional health, stability and maturity required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive and effective relationships with patients and other members of the healthcare team. Candidates and students must be able to tolerate physically-taxing workloads, adapt to changing environments, varying personalities, display flexibility and learn to function in the face of uncertainties inherent in the clinical problems of many patients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational processes. Examples of courses and clinical experiences for which behavioral and social attributes are required include, but are not limited to, the following: all courses with laboratory sessions; all clinical experiences.
- **Abilities to be Involved in Invasive and Exposure-Prone Procedures:** Candidates and students must be qualified to be personally and actively involved in invasive and exposure-prone procedures, without being a danger to patients, other health professionals and fellow students, while adhering to universal precautions as defined by the Centers for Disease Control and Prevention. Common procedures would include, but are not limited to, skin and nail debridement, skin and nail excision, as well as invasive and exposure-prone procedures such as soft tissue and osseous tissue surgical intervention. Examples of courses and clinical experiences for which abilities to be actively and personally involved in invasive and exposure-prone procedures are required include, but are not limited to, the following: general podiatric medicine, general internal medicine and general surgery, biomechanics and podiatric surgical clinical experiences.

Transfer Applicant Policy

Transfer applications will be considered from students who are currently enrolled in good standing at, or who were previously enrolled in and in good standing at, a U.S. college of podiatric medicine.

Transfer applicants must submit the AACPMAS application and include all application materials required of first-year applicants. Transfer applicants will follow the process for which first-time applicants are reviewed for admissions. Transfer students must also have earned a GPA of at least 3.0 on a 4.0 scale. Transfer applicants must submit a letter of good standing from the dean or other appropriate official of the school from which the applicant wishes to transfer.

Transfer students will have their placement and standing determined after the official notification of admission and deposit has been received. In no case may a transfer student register for classes prior to official notification of placement and standing.

Request for transfer credit will be evaluated by the course director of the requested course, in consultation with the department chair. At the recommendation of the department chair, transfer

students may be required to sit for a proficiency examination in order to receive transfer credit for certain courses or a certain number of credit hours. All proficiency exams must be completed at least two weeks prior to the start of classes for the next academic year.

Core Competencies

Upon completion of the Doctor of Podiatric Medicine program, the student will:

1. Students will demonstrate knowledge of the pre-clinical sciences which provide the foundations for podiatric clinical training, residency training and practice.
 - 1.1. Students will demonstrate knowledge of normal human anatomy, physiology, molecular biology and the biochemical structure and function of the human body and its organ systems.
 - 1.2. Students will demonstrate knowledge of the causes of disease and of altered structure and function of the human body and its organ systems.
 - 1.3. Students will demonstrate knowledge of pharmacological principles and pharmacological interventions.
 - 1.4. Students will demonstrate knowledge of microbes (bacteria, fungi, viruses and parasites) and the diseases that they cause.
 - 1.5. Students will demonstrate knowledge of the structure and function of the immune system.
2. Students will be able to prevent, diagnose and manage diseases and disorders of the lower extremity in a cost-effective manner.
 - 2.1. Students will be able to perform and interpret a history and physical examination as related to pathology of the systems of the lower extremity, with specific consideration given to gender, racial and ethnic background, social and cultural differences.
 - 2.2. Students will be able to perform and/or interpret the most frequent clinical, laboratory, imaging, gait and biomechanical analysis and other diagnostic studies used to detect and diagnose pathologies of the lower extremity.
 - 2.3. Students will demonstrate knowledge of the pathologic manifestations of common conditions of the lower extremity.
 - 2.4. Students will be able to formulate an appropriate differential diagnosis and management plan, which may include patient education, prevention programs and treatment strategies.
 - 2.5. Students will actively participate in the performance of treatment techniques using medical and surgical means, recognizing the need to refer to other healthcare providers when necessary.
 - 2.6. Students will perform specific technical procedures: Demonstrate the application of universal precautions, demonstrate the principles of sterile or aseptic technique, apply simple splints and casts, biomechanical examination and perform basic primary podiatric skills.
 - 2.7. Students will be able to assess treatment plans and revise as necessary.
3. Students will be able to assess medical conditions that affect the lower extremity and refer, as appropriate, those patients with conditions identified during the evaluation.
 - 3.1. Students will be able to perform a complete medical history and physical.
 - 3.2. Students will be able to recognize abnormal medical history and physical findings and formulate a differential diagnosis.

- 3.3. Students will demonstrate knowledge of the most frequent clinical, laboratory, imaging and pathological manifestations of common illness.
- 3.4. Students will be able to develop management plans incorporating health promotion and education, diagnostic modalities and appropriate referrals.
- 3.5. Students will be able to recognize patients with life-threatening emergencies and institute initial therapy.
4. Students will understand how to practice with professionalism, compassion and concern and in an ethical fashion regardless of the patient's social class, gender, racial or ethnic background.
 - 4.1. Students will demonstrate knowledge of the ethical and legal boundaries of the doctor-patient relationship.
 - 4.2. Students will demonstrate knowledge of state laws governing the practice of the profession.
 - 4.3. Students will demonstrate knowledge of the principles of bioethics including customary and accepted standards of professional practice.
 - 4.4. Students will demonstrate knowledge of the principles of self-regulation of the profession.
 - 4.5. Students will practice with honesty and integrity avoiding conflicts of interest.
 - 4.6. Students will recognize the need to deliver care in a caring, compassionate and humane way to meet the needs of patients regardless of their individual circumstances.
5. Students will demonstrate the ability to communicate and work collaboratively with others and to function in a professional manner in an interprofessional setting.
 - 5.1. Students will demonstrate proficient listening and interviewing skills.
 - 5.2. Students will communicate orally and in writing with patients, peers, other professionals and the public.
 - 5.3. Students will demonstrate knowledge of other healthcare providers and determine under what circumstances to refer to these providers.
 - 5.4. Students will demonstrate appropriate choice and method of referral to other healthcare providers and agencies.
6. Students will understand how to practice and manage patient care in a variety of communities, healthcare settings and living arrangements.
 - 6.1. Students will demonstrate interpersonal skills and an understanding of patient needs related to age, gender, racial and ethnic background, cultural and economic differences.
 - 6.2. Students will demonstrate knowledge of public health, health promotion, disease prevention and clinical epidemiology.
7. Students will demonstrate an understanding of podiatric practice in a multitude of health-delivery settings.
 - 7.1. Students will demonstrate familiarity with the principles of practice management and quality assurance.
 - 7.2. Students will demonstrate knowledge of healthcare insurance products, including fee for service, independent practice associations (IPA), preferred provider organizations (PPO), health maintenance organizations (HMO), capitation, etc.
 - 7.3. Students will demonstrate knowledge of insurance issues including professional and general liability, disability and worker's compensation.

- 7.4. Students will possess a basic understanding of third-party reimbursement.
- 7.5. Students will demonstrate knowledge of other systems and resources to properly manage a practice, including federal and state regulations of practice, STARK, DEA license requirements and scope of duties for podiatric assistants.
- 7.6. Students will demonstrate knowledge of medical-legal considerations.
- 8. Students will demonstrate the ability to understand research methodology and other scholarly activities.
 - 8.1. Students will be professionally inquisitive, lifelong learners.
 - 8.2. Students will understand how to retrieve and interpret medical and scientific literature.
 - 8.3. Students will demonstrate knowledge of the principles of research methodology.
 - 8.4. Students will demonstrate knowledge of the principles of evidence-based medicine.
 - 8.5. Students will perform ongoing self-assessment to optimize patient outcomes.
- 9. Values/Ethics for IP Practice – Work with individuals of other professions to maintain a climate of mutual respect and shared values.
- 10. Roles/Responsibilities – Use the knowledge of one’s own role and the roles of other professions to appropriately assess and address the healthcare needs of the patients and populations served.
- 11. Interprofessional Communication – Communicate with patients, families, communities and other health professionals in a responsive and responsible manner that supports a team approach to maintaining health and treatment of disease.
- 12. Teams and Teamwork – Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient/population-centered care that is safe, timely, efficient, effective and equitable.

Program Course Plan

Year 1 (67.5 QH)

HIPS 515A & B Foundations for Interprofessional Practice (2 QH)
 PBBS500A, B & C Clinical Anatomy (9 QH)
 PMED500A, B & C Introduction to Clinical Medicine (6.5 QH)
 PAPB 501 Understanding and Implementing Clinical Research (1.5 QH)
 PAPB 502A & B Biomechanics (6 QH)
 PBBS 502A & B Biochemistry (4 QH)
 PBBS 503A & B Structure and Function (11 QH)
 PBBS 504 Neuroscience (5 QH)
 PBBS 505A & B Microbiology and Immunology (7 QH)
 PBBS 506A & B Lower Extremity Anatomy (8 QH)
 PBBS 507 Genetics and Medicine (2 QH)
 PMED 502A & B Podiatric Medicine and Surgery (3.5 QH)
 PMED 503 Podiatric Clinical Skills and Reasoning I (2 QH)

Year 2 (68.5 QH)

MCUR 602D, E & F Essentials of Clinical Reasoning II (5 QH)
 PAPB 604 Orthotic Laboratory Workshop (.5 QH)
 PAPB 605 Sports Medicine (3 QH)

PAPB 606A, B & C Pediatric Orthopedics (4 QH)
PBBS 601A & B Pharmacology (8.5 QH)
PBBS 602A, B & C Pathology (10.5 QH)
PDPM 600 Basic Biomedical Science Comprehensive Exam (2 QH)
PMED 603A & B Dermatology (2.5 QH)
PMED 605A, B & C Podiatric Clinical Skills and Reasoning II – Workshop (4 QH)
PMED 606A, B & C Podiatric Clinical Skills and Reasoning II – Clinic (4 QH)
PMED 608A, B & C Medicine (8.5 QH)
PRAD 602A, B & C Podiatric Radiology (6 QH)
PSUR 602A, B & C General Surgical Principles and Anesthesiology (10 QH)

Year 3 (82.5 QH)

PAPB 705 Podiatric Orthopedics Capstone Clinical Experience – Workshop (6 QH)
PELE 700 Five electives and/or Core Clerkships (40 QH)
PMED 702 Peripheral Vascular Diseases (1.5 QH)
PMED 707 Podiatric Medicine Capstone Clinical Experience – Workshop (8.5 QH)
PMED 708 Podiatric Clinical Skills and Reasoning III – Clinic (7 QH)
PMED 709 Community Health, Ethics and Professional Responsibility (3 QH)
PRAD 702 Podiatric Radiology Capstone Clinical Experience – Workshop (9 QH)
PSUR 704 Podiatric Surgery Capstone Clinical Experience – Workshop (5.5 QH)
PSUR 706 Lower Extremity Traumatology (2 QH)

Year 4 (77 QH)

PACE 801 Stroger (Cook County) Hospital Core Podiatry Clerkship (8 QH)
PACE 802 James A. Lovell Federal Health Care Center Core Podiatry Clerkship (8 QH)
PACE 803 Jesse Brown VA Core Podiatry Clerkship (8 QH)
PACE 804 Hines VA Core Podiatry Clerkship (8 QH)
PACE 805 Scholl College of Podiatric Medicine Clerkship (4 QH)
PDPM 800 Clinical Competency Exam (1 QH)
PELE 800 Two Elective Podiatry Clerkships (16 QH)
PMED 801 Internal Medicine Clerkship (8 QH)
PMED 802 Emergency Medicine Clerkship (8 QH)
PSUR 802 General Surgery Clerkship (8 QH)

Bachelor's Degree in Biological Sciences

The Dr. William M. Scholl College of Podiatric Medicine at Rosalind Franklin University of Medicine and Science offers the degree of Bachelor of Science in Biological Sciences, which is issued upon successful completion of the Basic Science courses of the PM1 year to students who have fulfilled the General Education requirements as indicated below. The Bachelor of Science degree is issued during the second semester of the student's second year for enrolled students who have fulfilled the degree requirements and during the second semester of what would have been the student's second year for students meeting the degree requirements who no longer are enrolled.

Requirements of the Bachelor's Degree in Biological Sciences

The following coursework with a total of 135 transfer quarter hours from an accredited undergraduate institution is required to earn the BS:

- 18 QH (at least 12 QH in Humanities) from:
 - Humanities including:
 - English
 - Humanities
 - Foreign Language and Literature
 - Linguistics
 - Philosophy
 - Speech
 - Women's Studies
 - Fine Arts including:
 - Art
 - Music
 - Performing Arts
- 18 QH from:
 - Behavioral/Social Sciences including:
 - Anthropology
 - Economics
 - Geography
 - History
 - Political Science
 - Psychology
 - Sociology
- 58.5 QH from:
 - Natural/Physical Sciences (All with a laboratory component):
 - Biology: 18 QH
 - Inorganic Chemistry: 12 QH
 - Organic Chemistry: 12 QH
 - Physics: 12 QH
 - Mathematics (Math, Statistics, Calculus, etc.): 4.5 QH
- 40.5 QH from Miscellaneous Elective Courses

Courses for the Biology Major (all of which must be taken at Scholl College)

Scholl College 1st Year Courses, 46 QH of which count for Biology major:

PBBS 500A, B & C Clinical Anatomy (9 QH)

PBBS 502A & B Biochemistry (4 QH)

PBBS 503A & B Structure and Function (11 QH)

PBBS 504 Neuroscience (5 QH)

PBBS 505A & B Microbiology and Immunology (7 QH)

PBBS 506A & B Lower Extremity Anatomy (8 QH)

PBBS 507 Genetics and Medicine (2 QH)

Scholl College hours: 46 QH

Total Hours: 181 QH

Additional requirements for the Bachelor of Science degree:

- Satisfactory completion of at least 46 QH of Basic Biomedical Science courses from the PM1 year at Scholl College that will constitute the degree major.
- Minimum PM1 year grade-point average of 2.0 on a 4.0 scale and be in good academic standing at the conclusion of the first year at Scholl College.
- In addition to the above requirements, the Bachelor of Science recipient must have completed a minimum of 135 QH hours of accredited college work of which at least 45 QH must be at senior college level in addition to those hours taken at Scholl College. These 135 QH of accredited college work must meet General Education requirements as stipulated above.
(Students already holding a bachelor's degree in Biology or Biological Sciences are not eligible to receive the BS degree in Biological Sciences from Scholl College).
Students must formally apply to the Office of the Registrar for the bachelor's degree and pay the required fee.
- Not more than 90 QH from an accredited two-year institution will be accepted toward the BS degree.

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Depending on the course or clinical experience, students may be assessed in any and all of the following methods: multiple-choice exam, fill-in-the-blank exam, short answer questions, essay, lab exam, lab reports and oral presentation.

Graduation Requirements

The degree of Doctor of Podiatric Medicine (DPM) is conferred upon students who have successfully completed the following:

- Passed all 295.5 hours of instruction in didactic and clinical courses.
- Satisfactorily completed the DPM curriculum as prescribed by the college.
- American Podiatric Medical Licensing Examination (APMLE)
 - Taken the Part I and Part II examinations on the first date they are offered. Additionally, if the Part II CSPE examination is offered, it must be taken the first date it is offered.
 - Passed Part I

- Reported Part I, Part II and the Part II CSPE scores to the dean. In order to be eligible for residency placement, students must pass the APMLE, Parts I and II. However, passage of these examinations does not guarantee placement into a residency. (For more information on the board examinations, see <http://apmle.com>)
- Basic Biomedical Sciences Pre-Assessment and Comprehensive Examinations:
 - Taken both exams
- Clinical Comprehensive Examination (CCE)
 - Taken the CCE on the first offering
 - Passed the CCE
- Completed the Fourth Year Curriculum Survey and the Student Services Survey.
- Complied with all requirements and policies enacted by the college.
- Provided post-graduate training placement information to the Scholl College Clerkship and Residency Placement Office.

A student admitted to the Dr. William M. Scholl College of Podiatric Medicine is expected to graduate in four academic years. The four academic years will be consecutive except in cases of approved leaves of absence. All didactic course and clinical experience/clerkship requirements must be successfully completed before promotion to the next academic year can occur.

Students must complete the academic and clinical requirements and be eligible to earn their Doctor of Podiatric Medicine degree within six consecutive calendar years (72 months) from the date of first matriculation unless the student has been enrolled in the DPM/PhD program or on a medical leave of absence. A student enrolled in the DPM/PhD program must complete the podiatric medical degree requirements within six calendar years (72 months) exclusive of time spent in the graduate college portion of the program.

Continuing Education

The Dr. William M. Scholl College of Podiatric Medicine Office of Special Programs was created to develop programs to meet the continuing education needs of the podiatric physician. As part of an academic institution with a focus on interprofessional education, the Office of Special Programs is able to offer programs to other healthcare practitioners who also encounter foot and ankle conditions.

The focus of these programs is to increase knowledge and competence of podiatric physicians and other health professionals through lectures and workshops in order to address evidence-based medicine and practice gaps in the treatment of lower extremity disorders. Services include:

- Providing and developing continuing education opportunities for faculty, alumni and podiatric physicians
- Providing grand rounds sessions for students, residents and faculty
- Facilitating partnerships between Dr. William M. Scholl College of Podiatric Medicine programs and internal and external collaborators on continuing education programs in research or clinical areas
- Developing and promoting lectures and workshops that are sponsored by student organizations and clubs

The Dr. William M. Scholl College of Podiatric Medicine is approved by the Council on Podiatric Medical Education as a provider of continuing education in podiatric medicine. For questions, contact the Office of Special Programs at 847-578-8410.

School of Graduate and Postdoctoral Studies (SGPS)

Mission

To provide outstanding graduate education and postdoctoral training to meet the need for highly qualified researchers and educators in the life sciences and healthcare fields, and to advance knowledge through biomedical research.

Vision

To excel in all facets of the training of graduate students and postdoctoral fellows, and thereby gain national recognition for preparing outstanding biomedical scientists and educators whose contributions will advance knowledge in the life sciences.

Values

Diversity • Excellence • Innovation • Integrity • Mentorship • Scholarship • Scientific Curiosity

Programs of Study

The aim of the graduate training program is to develop scientists competent in critical thinking, scientific writing and the research skills and techniques of their respective fields. This training prepares students to pursue science-focused careers in research, academia, government, industry, communication and many others. Program mentorship, travel to scientific meetings, networking and career development events provide mechanisms in which trainees can explore this wide variety of careers.

Master of Science

Biochemistry and Molecular Biology
Cell Biology and Anatomy
Cellular and Molecular Pharmacology
Microbiology and Immunology
Neuroscience
Physiology and Biophysics

For the Master of Science (MS) degree, a research mentor, who has an MS thesis research project identified and communicated to the student, is determined at the time of acceptance. A research committee provides input on the student's research project. In addition to ethics, statistics, presentation, computer applications, and scientific writing core coursework required of students, advanced coursework in the individual discipline is custom designed for each student. There is great flexibility in this determination based on the educational background of the student.

The typical length of time required to complete the MS degree is two years.

Doctor of Philosophy

Biochemistry and Molecular Biology

Cell Biology and Anatomy
Cellular and Molecular Pharmacology
Microbiology and Immunology
Neuroscience
Physiology and Biophysics

First-year students in the Doctor of Philosophy (PhD) program enter the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS). This program consists of a small core curriculum and several elective courses. The core curriculum emphasizes both graduate-level coursework such as Molecular and Cell Biology and Systems Biology as well as graduate student career development in specific competencies such as scientific data presentation and ethics in research. Elective coursework is tailored to individual students to pursue additional knowledge in physiology, developmental and molecular biology, neuroscience, etc. All students attend monthly seminars organized by the graduate school, featuring internationally recognized scientists. Multiple advanced scientific seminars and journal clubs are also sponsored by the academic programs.

Students engage in research immediately upon entry into the program. These initial research experiences are coordinated through laboratory rotations that familiarize students with the diversity of research labs and experimental paradigms available for students to conduct their in-depth dissertation research. Each student progresses through a minimum of three distinct laboratory research experiences. By the end of the first year, students select a research mentor, enter the lab and begin their dissertation research.

The typical time to degree completion for the PhD degree averages 5.5 years.

Joint Degree Programs

Doctor of Medicine/Doctor of Philosophy (MD/PhD)

Doctor of Podiatric Medicine/Doctor of Philosophy (DPM/PhD)

Doctor of Pharmacy/Doctor of Philosophy (PharmD/PhD)

Admission Requirements

In addition to the university's minimum requirements, applicants must meet the following program requirements:

- **Prior Degree:** Bachelor's degree from a regionally accredited institution, or its international equivalent.
- **Prerequisite Courses:** No prerequisite courses are required.
- **Grade-Point Average (GPA):** A minimum grade-point average (GPA) of 3.0 on a 4.0 scale.
- Adequate preparation in science and research is recommended.
- **Tests:**
 - The Graduate Record Examination (GRE).
 - The Test of English as a Foreign Language (TOEFL) if applicable.
 - Scores of 50th percentile or higher are recommended for both tests.
- **Letters of Recommendation:** Three letters of recommendation, one of which must be from the primary research mentor.
- **Resume or Curriculum Vitae:** This program does require a resume or curriculum vitae.
- **Personal Statement:** This program does require a personal statement.
- **Transfer Applicant Policy:** This program evaluates transfer applicants on a case-by-case basis.
- **Non-Degree Applicant Policy:** Non-degree applicants will be evaluated on a case-by-case basis.
- **Supplemental Application:** This program does not have a supplemental application.
- **Early Decision Programs:** This program does not accept early decision applicants.

Technical Standards

A candidate for the MS or PhD degree must possess abilities and skills that include: observational, communicational, motor, intellectual-conceptual (integrative and quantitative) and behavioral and social. The use of a trained intermediary is not acceptable in laboratory situations; it implies that a candidate's judgment must be mediated by someone else's skill.

- **Observation:** The candidate must be able to acquire information as presented through demonstration and experiences in the basic sciences. This includes information conveyed through physiological and pharmacological demonstrations in animals, microbiological cultures and microscopic images of microorganisms and tissues in normal and pathological states. Furthermore, a candidate must be able to:
 - Observe experimental results or subjects accurately, acquire information from written documents and visualize information as presented in images from paper, films, slides, video or other forms of modern electronic media.

- Interpret graphic images and other forms of data readout (such as oscilloscopes, computer screens, gels, etc.) with or without the use of assistive devices.
- In any case, where a candidate's ability to observe or acquire information is compromised, the candidate must utilize alternate means to collect and convey the essential information. Obtaining and using such alternate means shall be the responsibility of the student. Costs should be reasonable and will be properly borne by the university if not otherwise funded.
- **Communication:** The candidate must be able to communicate effectively, efficiently and sensitively with research subjects, faculty, staff and colleagues.
- **Motor:** The candidate must possess the motor skills necessary to design and perform laboratory experiments and statistical analysis of collected data.
- **Intellectual-Conceptual (Integrative and Quantitative) Abilities:** The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize data, knowledge and concepts. The candidate must be able to perform these problem-solving skills in a timely fashion.
- **Behavioral and Social Attributes:** The candidate must work to their fullest potential while exercising good judgment. They must be able to function effectively in stressful situations and adapt to changing environments. Compassion, integrity, concern for others, interpersonal skills, interest, motivation and work ethic are all personal qualities required for a successful scientific career, and are assessed during the admissions and educational process.

The School of Graduate and Postdoctoral Studies recognizes the responsibility to provide educational training for the student's development as a responsible scientist. The faculty holds the responsibility for approving graduates who have achieved such development. In each case, the students will be judged on their achievements and behaviors, regardless of a disability. The faculty of the student's research committee will determine whether they have met the specified criteria.

If you have any questions about these standards or other policies as they pertain to the Americans with Disabilities Act, please contact the ADA Coordinator and Director, Academic Support at ADA.Coordinator@rosalindfranklin.edu.

Transfer Credits and Advanced Standing

The SGPS dean, in consultation with the appropriate Graduate Program Administrator, will consider accepting transfer credits from another institution. Determination will be made individually, based on available information concerning the coursework outside the institution.

Core Competencies

- Demonstrate a broad base of established and evolving knowledge within their discipline and detailed knowledge of their specific research area such that they can develop testable hypotheses
- Design sound research protocols, and safely perform the techniques necessary to conduct and analyze this research
- Demonstrate appropriate interpersonal and scientific communication skills
- Adhere to accepted professional standards and practices in the laboratory, office, institution and discipline

- Exercise responsible conduct of research and make ethical and legal choices related to the same
- Develop the skills and techniques needed to manage research projects, mentor junior lab members and pursue future leadership opportunities at the local and institutional levels

Assessment for Student Learning

Grading System

A	4.00 High Achievement
B	3.00 Above Average Achievement
C	2.00 Average Achievement
F	0.00 Failure

Grades without Associated Grade Points:

P	Pass
F	Fail

Assessment Methods

Master of Science Degrees

Students enrolled in the School of Graduate and Postdoctoral Studies Master of Science programs are evaluated using a variety of assessment methods for student learning.

- Course-level assessment includes unit assignments, quizzes, exams, laboratory exercises, laboratory and computer problem sets, paper discussions and oral presentations.
- Program milestone assessments include work-in-progress presentations and the six-month evaluative progress reports.
- The combination of the master degree thesis and oral exam is used to assess student learning and determine completion of the Master of Science programs.

Doctor of Philosophy Degrees

Students enrolled in the School of Graduate and Postdoctoral Studies Doctor of Philosophy programs are evaluated using a variety of assessment methods for student learning.

- Course-level assessment includes unit assignments, quizzes, exams, laboratory exercises, laboratory and computer problem sets, paper discussions and oral presentations.
- Program milestone assessments include work-in-progress presentations and the six-month evaluative progress reports.
- The candidacy exam's written R01 style grant application and oral examination is undertaken by the student, upon recommendation of the Research Committee.
 - Successful completion of this exam indicates the student's acquisition of progress-appropriate, discipline-specific knowledge and basic research skills such that they may move forward with further experiments in support of the dissertation without the need to complete additional didactic coursework.
- Composition of the doctoral degree dissertation, oral presentation and dissertation defense is used to assess student learning and determine completion of the Doctor of Philosophy programs.

Graduation Requirements

Master of Science Degrees

Master of Science students must meet the following program requirements:

- 45 total quarter hours required to complete the MS degree
- Minimum of one year required to complete degree
- Maximum of five years allowed to complete degree
- Satisfactory completion of all required courses
- Satisfactory completion of the oral exam
- Submission of research findings to a peer-reviewed journal
- Publication of thesis
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Doctor of Philosophy Degrees

Doctor of Philosophy students must meet the following program requirements:

- 135 total quarter hours required to complete the PhD degree
- Minimum of three years required to complete degree
- Maximum of seven years allowed to complete degree
- Satisfactory completion of all required courses
- Satisfactory completion of the candidacy exam
- Satisfactory completion of the dissertation defense
- Publication of dissertation
- A minimum grade-point average (GPA) of 3.0 on a 4.0 scale in all courses in the program curriculum

Program Course Plans

Biochemistry and Molecular Biology (MS)

Year 1 (48-60 QH)

Required Core Courses

GBCH 531 Master's Research in Biochemistry (24-36 QH)
GBCH 532 Biochemistry and Molecular Biology Journal Club (1 QH)
GBCH 533 Biochemistry and Molecular Biology Seminar (1 QH)
GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required Advanced BMB Courses

GBCH 543 Enzyme Structure and Mechanism (3 QH)

GBCH 544A & B Physical Biochemistry (3 QH)
GBCH 600A & B Biochemical Pathways (9 QH)

Years 2 and 3 (43-51 QH per year)

Required per year:

GBCH 532 Biochemistry and Molecular Biology Journal Club (1 QH)
GBCH 533 Biochemistry and Molecular Biology Seminar (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Students will choose between the following two options:

GBCH 530 Master's Thesis in Biochemistry (40-48 QH)

OR

GBCH 531 Master's Research in Biochemistry (40-48 QH)

Minimum total credits for the degree: 45 QH

Biochemistry and Molecular Biology (PhD)

Year 1 (53 QH)

GIGP 500 IGPBS 1st Year Research Rotations (32 QH)
GIGP 501 Molecular and Cellular Biology I (5 QH)
GIGP 502 Molecular and Cellular Biology II (5 QH)
GIGP 503B, C, D & E Systems Lectures (4 QH)
GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required Core Elective

GIGP 505 Cellular and Molecular Developmental Biology (4 QH)

Year 2 (66 QH)

GBCH 532 Biochemistry and Molecular Biology Journal Club (1 QH)
GBCH 533 Biochemistry and Molecular Biology Seminar (1 QH)
GBCH 599 Pre-Candidacy Research Activities (48 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required

GBCH 543 Enzyme Structure and Mechanism (3 QH)
GBCH 544A & B Physical Biochemistry (3 QH)
GBCH 600A & B Biochemical Pathways (9 QH)

Years 3 and 4 (43-51 QH)

Required per year:

GBCH 532 Biochemistry and Molecular Biology Journal Club (1 QH)

GBCH 533 Biochemistry and Molecular Biology Seminar (1 QH)

GMTD 709 MCS Seminar Series (1 QH)

Students will choose between the following two options:

GBCH 599 Pre-Candidacy Research Activities (40-48 QH)

OR

GBCH 699 Post-Candidacy Doctoral Research Activities (40-48 QH)

Minimum total credits for the degree: 135 QH

Cell Biology and Anatomy (MS)

Year 1 (49-57 QH)

Required Core Courses

GCBA 530 Master's Thesis Cell Biology and Anatomy (40-48 QH)

GCBA 532 Cell Biology and Anatomy Journal Club (1 QH)

GCBA 533 Cell Biology and Anatomy Seminar (1 QH)

GIGP 507 Art of Scientific Presentation (2 QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)

GIGP 509 Biostatistics (1 QH)

GIGP 510 Computer Applications in Biomedical Research (1 QH)

GIGP 518 Writing Skills (1 QH)

GMTD 709 MCS Seminar Series (1 QH)

Advanced coursework as indicated by the Research Committee

Years 2 and 3 (43-51 QH per year)

Required per year:

GCBA 532 Cell Biology and Anatomy Journal Club (1 QH)

GCBA 533 Cell Biology and Anatomy Seminar (1 QH)

GMTD 709 MCS Seminar Series (1 QH)

GCBA 530 Master's Thesis Cell Biology and Anatomy (40-48 QH per year)

Minimum total credits for the degree: 45 QH

Cell Biology and Anatomy (PhD)

Year 1 (57 QH)

Required Core Courses

GIGP 500 IGPBS 1st Year Research Rotations (32 QH)

GIGP 501 Molecular and Cellular Biology I (5 QH)

GIGP 502 Molecular and Cellular Biology II (5 QH)

GIGP 503B, C, D & E Systems Lectures (4 QH)

GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required Core Elective

GIGP 505 Cellular and Molecular Developmental Biology (4 QH)

Year 2 (54 QH)

Required Core Courses

GCBA 532 Cell Biology and Anatomy Journal Club (1 QH)
GCBA 533 Cell Biology and Anatomy Seminar (1 QH)
GCBA 599 Pre-Candidacy Research Activities (48 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required Advanced Cell Biology and Anatomy Courses

GCBA 600 Advanced Cell Biology (1 QH)
GCBA 604 Techniques in Cell Biology (2 QH)

Elective Cell Biology and Anatomy Courses

GCBA 500 Clinical Anatomy (11 QH)
GCBA 502 Histology (5QH)
GCBA 504 Embryology (3 QH)
GCBA 602 Special Topics in Cell Biology (1 QH)
GCBA 605 Special Topics in Developmental Biology (1QH)

Years 3 and 4 (43-51 QH per year)

Required per year:

GCBA 532 Cell Biology and Anatomy Journal Club (1 QH)
GCBA 533 Cell Biology and Anatomy Seminar (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Students will choose between the following two options:

GCBA 599 Pre-Candidacy Research Activities (40-48 QH)

OR

GCBA 699 Post-Candidacy Doctoral Research Activities (40-48 QH)

Minimum total credits for the degree: 135 QH

Cellular and Molecular Pharmacology (MS)

Year 1 (49-57 QH)

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1 QH)
GCMP 509 Seminars in Cellular and Molecular Pharmacology (1 QH)
GCMP 599 Pre-Candidacy Research Activities (40-48 QH)
GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)

GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)
Advanced coursework as indicated by the Research Committee

Years 2 and 3 (43-51 QH per year)

Required per year:

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1 QH)
GCMP 509 Seminars in Cellular and Molecular Pharmacology (1 QH)
GMTD 709 MCS Seminar Series (1 QH)
GCMP 599 Pre-Candidacy Research Activities (40-48 QH per year)

Minimum total credits for the degree: 45 QH

Cellular and Molecular Pharmacology (PhD)

Year 1 (61 QH)

Core Requirements

GIGP 500 IGPBS 1st Year Research Rotations (32 QH)
GIGP 501 Molecular and Cellular Biology I (5 QH)
GIGP 502 Molecular and Cellular Biology II (5 QH)
GIGP 503B, C, D & E Systems Lectures (4 QH)
GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required Core Electives (student must satisfactorily complete both)

GIGP 512 Neuroscience (5 QH)
GIGP 516 Physiology for Neuro-Pharm Research (3 QH)

Year 2 (54-62 QH)

Core Requirements

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1 QH)
GCMP 509 Seminars in Cellular and Molecular Pharmacology (1 QH)
GCMP 599 Pre-Candidacy Research Activities (48 QH)
GCMP 700 Teaching in Pharmacology (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Advanced CMP Requirements

GCMP 601 Neuropharmacology I (1 QH)
GCMP 602 Neuropharmacology II (1 QH)
GCMP 605 Pharmacology Core (6 QH)

Required Additional Courses (students must complete at least one)

GNSC 600 Neurophysiology (2 QH)

GNSC 606 Neurodegeneration (1 QH)

GNSC 607 Neuronal Signaling (2 QH)

Pharmacology Electives:

GCMP 545 Advanced Molecular Pharmacology (12 QH)

GNSC 505 Human Brain Dissection (1QH)

Years 3 and 4 (43-51 QH per year)

Required per year:

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1 QH)

GCMP 509 Seminars in Cellular and Molecular Pharmacology (1 QH)

GMTD 709 MCS Seminar Series (1 QH)

Students will choose between the following two options:

GCMP 599 Pre-Candidacy Research Activities (40-48 QH)

OR

GCMP 699 Post-Candidacy Doctoral Research Activities (40-48 QH)

Minimum total credits for the degree: 135 QH

Microbiology and Immunology (MS)

Year 1 (49-57 QH)

GIGP 507 Art of Scientific Presentation (2 QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)

GIGP 509 Biostatistics (1 QH)

GIGP 510 Computer Applications in Biomedical Research (1 QH)

GIGP 518 Writing Skills (1 QH)

GMIC 530 Master's Thesis in Microbiology and Immunology (40-48 QH)

GMIC 532 Journal Club (1 QH)

GMIC 533 Seminar in Microbiology and Immunology (1 QH)

GMTD 709 MCS Seminar Series (1 QH)

Advanced coursework as indicated by the Research Committee

Years 2 and 3 (43-51 QH per year)

Required per year:

GMIC 532 Journal Club (1 QH)

GMIC 533 Seminar in Microbiology and Immunology (1 QH)

GMTD 709 MCS Seminar Series (1 QH)

GMIC 530 Master's Thesis in Microbiology and Immunology (40-48 QH per year)

Minimum total credits for the degree: 45 QH

Microbiology and Immunology (PhD)

Year 1 (57 QH)

Required Core Courses

GIGP 500 IGPBS 1st Year Research Rotations (32 QH)

GIGP 501 Molecular and Cellular Biology I (5 QH)
GIGP 502 Molecular and Cellular Biology II (5 QH)
GIGP 503B, C, D & E Systems Lectures (4 QH)
GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required Core Elective

GIGP 505 Cellular and Molecular Developmental Biology (4 QH)

Year 2 (49-57 QH)

Required Core Courses

GMIC 532 Journal Club (1 QH)
GMIC 533 Seminar in Microbiology and Immunology (1 QH)
GMIC 599 Pre-Candidacy Research Activities (40-48 QH per year)
GMTD 709 MCS Seminar Series (1 QH)

Required MIC Courses

GMIC 600A & B Medical Microbiology and Immunology (5 QH)
GMIC 605 Molecular Biology Techniques (2 QH)

MIC Electives: Students must complete two (2) from the list

GMIC 503 Virology (4 QH)
GMIC 560 Advanced Immunology (3 QH)
GMIC 606 Cancer Biology and Signaling (1 QH)

Optional Advanced Courses

GMIC 520 Molecular Parasitology (3 QH)
GMIC 542 Selected Topics in Microbiology, Virology, Parasitology, Immunology and Molecular Biology (12 QH)

Years 3 and 4 (43-51QH per year)

Required per year:

GMIC 532 Journal Club (1 QH)
GMIC 533 Seminar in Microbiology and Immunology (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Students will choose between the following two options:

GMIC 599 Pre-Candidacy Research Activities (40-48 QH)

OR

GMIC 699 Post-Candidacy Doctoral Research Activities (40-48 QH)

Minimum total credits for the degree: 135 QH

Neuroscience (MS)

Year 1 (43-51 QH per year)

GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)
GNSC 504 Neuroscience Seminar (1 QH)
GNSC 553 Neuroscience Journal Club (1 QH)
GNSC 599 Pre-Candidacy Research Activities (40-48 QH per year)

Years 2 and 3 (43-51 QH per year)

Required per year:

GMTD 709 MCS Seminar Series (1 QH)
GNSC 504 Neuroscience Seminar (1 QH)
GNSC 553 Neuroscience Journal Club (1 QH)
GNSC 599 Pre-Candidacy Research Activities (40-48 QH per year)

Minimum total credits for the degree: 45 QH

Neuroscience (PhD)

Year 1 (61 QH)

Required Core Coursework

GIGP 500 IGPBS 1st Year Research Rotations (32 QH)
GIGP 501 Molecular and Cellular Biology I (5 QH)
GIGP 502 Molecular and Cellular Biology II (5 QH)
GIGP 503B, C, D & E Systems Lectures (4 QH)
GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)

Required Core Electives (Must successfully complete both courses)

GIGP 512 Neuroscience (5 QH)
GIGP 516 Physiology for Neuro-Pharm Research (3 QH)

Year 2 (67-75 QH)

Core Requirements

GMTD 709 MCS Seminar Series (1 QH)
GNSC 504 Neuroscience Seminar (1 QH)*
GNSC 553 Neuroscience Journal Club (1 QH)*

GNSC 570 Neuroscience Teaching Assist. (3 QH)*
GNSC 599 Pre-Candidacy Research Activities (48 QH)

Required Advanced NSC Coursework

GCMP 601 Neuropharmacology I (1 QH)
GCMP 602 Neuropharmacology II (1 QH)
GNSC 505 Human Brain Dissection (1 QH)*
GNSC 600 Neurophysiology (2 QH)
GNSC 605 Techniques in Microscopy (1 or 2 QH)*
GNSC 606 Neurodegeneration (1 QH)
GNSC 607 Neuronal Signaling (2 QH)

Neuropharmacology Courses - The following courses replace the courses indicated by an asterisk (*) for students in the Neuropharmacology Track. The original courses may be taken as electives by the Neuropharmacology students, and the courses below as electives by the traditional Neuroscience students, if desired:

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1 QH)
GCMP 509 Seminars in Cellular and Molecular Pharmacology (1 QH)
GCMP 605 Pharmacology Core (6 QH)
GCMP 700 Teaching in Pharmacology (1 QH)

Years 3 and 4 (43-51 QH per year)

Required per year:

GMTD 709 MCS Seminar Series (1 QH)
GNSC 504 Neuroscience Seminar (1 QH)*
GNSC 553 Neuroscience Journal Club (1 QH)*

Students will choose between the following two options:

GNSC 599 Pre-Candidacy Research Activities (40-48 QH)

OR

GNSC 699 Post-Candidacy Doctoral Research Activities (40-48 QH)

Minimum total credits for the degree: 135 QH

Physiology and Biophysics (MS)

Year 1 (55-63 QH)

Required Core Courses

GIGP 507 Art of Scientific Presentation (2 QH)
GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)
GIGP 509 Biostatistics (1 QH)
GIGP 510 Computer Applications in Biomedical Research (1 QH)
GIGP 518 Writing Skills (1 QH)
GMTD 709 MCS Seminar Series (1 QH)
GMTD 711 Physiology and Biophysics Journal Club (1 QH)
GPHY 505 Physiology and Biophysics Seminar (1 QH)
GPHY 620 Masters Research in Physiology (40-48 QH)

Required Advanced PHY Courses

GPHY 522A, B & C Topics in Physiology (6 QH)

Advanced coursework as indicated by the Research Committee

Years 2 and 3 (43-51 QH per year)

Required per year:

GMTD 709 Molecular and Cellular Sciences Seminar Series (1 QH)

GMTD 711 Physiology and Biophysics Journal Club (1 QH)

GPHY 505 Physiology and Biophysics Seminar (1 QH)

GPHY 620 Masters Research in Physiology (40-48 QH)

Minimum total credits for the degree: 45 QH

Physiology and Biophysics (PhD)

Year 1 (59 QH)

Core Course Requirements

GIGP 500 IGPBS 1st Year Research Rotations (32 QH)

GIGP 501 Molecular and Cellular Biology I (5 QH)

GIGP 502 Molecular and Cellular Biology II (5 QH)

GIGP 503B, C, D & E Systems Lectures (4 QH)

GIGP 507 Art of Scientific Presentation (2 QH)

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)

GIGP 509 Biostatistics (1 QH)

GIGP 510 Computer Applications in Biomedical Research (1 QH)

GIGP 518 Writing Skills (1 QH)

GMTD 709 MCS Seminar Series (1 QH)

Required Core Elective

GIGP 506 Systems Physiology (6 QH)

Year 2 (61-69 QH)

Core Course Requirements

GMTD 709 Molecular and Cellular Sciences Seminar Series (1 QH)

GMTD 711 Physiology and Biophysics Journal Club (1 QH)

GPHY 505 Physiology and Biophysics Seminar (1 QH)

GPHY 599 Pre-Candidacy Research Activities (48 QH)

Required Advanced Courses

GPHY 500A, B & C Medical Physiology (14 QH)

GPHY 534 Teaching Methods (4 QH)

Program Electives (Required, if advised by Research Committee)

GPHY 512 Physiology of the Autonomic Nervous System (2 QH)

GPHY 513 Pulmonary Pathophysiology (2 QH)

GPHY 514 Physiology of the Liver (2 QH)

GPHY 516 Cardiovascular Pathophysiology (2 QH)

GPHY 542 Electrogenic Ion Pumps (3 QH)
GPHY 618 Molecular Biophysics of Ion Channels (3 QH)

Years 3 and 4 (43-51 QH per year)

Required per year:

GMTD 709 Molecular and Cellular Sciences Seminar Series (1 QH)
GMTD 711 Physiology and Biophysics Journal Club (1 QH)
GPHY 505 Physiology and Biophysics Seminar (1 QH)

Students will choose between the following two options:

GPHY 599 Pre-Candidacy Research Activities (40-48 QH)

OR

GPHY 699 Post-Candidacy Doctoral Research Activities (40-48 QH)

Minimum total credits for the degree: 135 QH

Course Descriptions

GBCH 530 Master's Thesis in Biochemistry (1-12 QH)

After completing coursework, the student writes the research thesis.

GBCH 532 Biochemistry and Molecular Biology Journal Club (1 QH)

Presentations on current literature or personal research by faculty, staff and students.

GBCH 533 Biochemistry and Molecular Biology Seminar (1 QH)

Presentations on current research by invited speakers.

GBCH 543 Enzyme Structure and Mechanism (3 QH)

This is a course of lectures, student presentations and seminars by outside speakers on aspects of enzymology. The following subjects are covered: protein sequence methodology, X-ray crystallography, computer graphic modeling, chemical and enzyme kinetics including regulatory kinetics, enzyme mechanisms, chemical modification of enzymes and site-directed mutagenesis. Offered every other year, alternating with GBCH 544. Prerequisite: GBCH 600A

GBCH 544A & B Physical Biochemistry I & II (3 QH)

This course deals with the physical chemical properties of biological macromolecules and the techniques used for their characterization. Topics include: molecular weight, hydrodynamic properties and spectroscopic properties of proteins and nucleic acids; secondary structure, tertiary structure and conformational changes of proteins; dynamics of protein-protein and protein-DNA interactions; and kinetics and thermodynamics of protein folding. Offered every other year, alternating with GBCH 543. Prerequisite: GBCH 600A

GBCH 550 Medical Physiological Biochemistry (5 QH)

The fundamental physiological and biochemical properties that mediate reactions of the various compounds important to the normally functioning human organism are studied. Aberrations that lead to pathology and disease are focused upon in conjunction with the normal functioning. Many clinical vignettes illustrate the basic mechanisms of life processes at both the cellular and molecular levels. (Course Director permission required)

GBCH 599 Pre-Candidacy Research Activities (10-12 QH)

This course is for the PhD student who has chosen a laboratory but not yet passed the Candidacy Exam. Laboratory experience is geared toward learning techniques and obtaining preliminary data toward the student's dissertation proposal and Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GBCH 600A & B Biochemical Pathways I & II (9 QH)

The fundamental chemical properties and biological reactions of the various compounds important to the normally functioning human organism are studied. As far as possible, mechanisms of life processes at the cellular and molecular level are explained in terms of these properties.

GBCH 699 Post-Candidacy Doctoral Research Activities (10-12 QH)

This course is for the PhD student who has successfully passed the Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GCBA 500A & B Clinical Anatomy (11 QH)

In this course, human anatomy is studied by using a regional approach that also includes functional and clinical correlations. Laboratory time is devoted exclusively to the regional dissection of a human cadaver. Supplementary offerings within the course include computerized images, guides and videos, prosected cadavers and bone sets for individual study.

GCBA 502A & B Histology (5 QH)

The principal educational goal of this course is an understanding of cell, tissue, and organ structure and function through the detailed study of light microscopic preparations and electron micrographs.

GCBA 504 Embryology (3 QH)

The development of the human from conception to delivery is examined. Emphasis is placed on mechanisms of normal development and clinically-relevant abnormal development.

GCBA 530 Master's Thesis Cell Biology and Anatomy (1-12 QH)

After completing coursework, the student writes the research thesis.

GCBA 532 Cell Biology and Anatomy Journal Club (1 QH)

Presentations on current literature or personal research by faculty, staff and students. This is a required course for all Cell Biology and Anatomy doctoral students.

GCBA 533 Cell Biology and Anatomy Seminar (1 QH)

Presentations on current research by invited speakers. This is a required course for all Cell Biology and Anatomy doctoral students.

GCBA 599 Pre-Candidacy Research Activities (10-12 QH)

This course is for the PhD student who has chosen a laboratory but not yet passed the Candidacy Exam. Laboratory experience is geared toward learning techniques and obtaining preliminary data toward the student's dissertation proposal and Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GCBA 600 Advanced Cell Biology (1 QH)

Advanced treatment of key topic areas in modern cell biology. Course involves critical evaluation of primary literature and discussion with concentrations in nuclear organization, gene expression, cell trafficking, mitosis, meiosis, cell cycle, apoptosis, extracellular matrix, cancer and metastatic disease.

GCBA 602 Special Topics in Cell Biology (1 QH)

Topics of current interest in Cell Biology will be covered in a format that involves primary literature and discussion as well as a didactic component. (Course Director permission required)

GCBA 604 Techniques in Cell Biology (2 QH)

Theory and application of fundamental techniques used to visualize cells and cellular processes. Course is partly didactic and partly student participation/observation of techniques for: tissue cultures, live cell imaging, electron microscopy, immunocytochemistry, confocal microscopy and visualizing molecules.

GCBA 605 Special Topics in Developmental Biology (1 QH)

Current topics of particular interest in the field of developmental biology with emphasis on discussion of current literature and relevance to the conceptual framework of the field.

GCBA 699 Post-Candidacy Doctoral Research Activities (10-12 QH)

This course is for the PhD student who has successfully passed the Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GCMP 502 Journal Club in Cellular and Molecular Pharmacology (1 QH)

Consists of informal presentation and discussion of current and novel literature in pharmacology. May be repeated for credit.

GCMP 509 Seminars in Cellular and Molecular Pharmacology (1 QH)

Internationally-recognized scientists present their most recent research. Students meet for lunch with the speakers, allowing for informal interactions. May be repeated for credit.

GCMP 545 Advanced Molecular Pharmacology (1-4 QH)

Series of lectures focusing on (1) basic principles in pharmacokinetics and pharmacodynamics, including signal transduction and receptor pharmacology (2) pharmacogenomics and gene therapy and (3) drug structure/activity relationships, small molecule drug design, molecular mechanism and drug targets, and molecular basis of drug resistance. Problem-solving exercise and references will accompany discussion/lectures.

GCMP 599 Pre-Candidacy Research Activities (10-12 QH)

This course is for the PhD student who has chosen a laboratory but not yet passed the Candidacy Exam. Laboratory experience is geared toward learning techniques and obtaining preliminary data toward the student's dissertation proposal and Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GCMP 601 Neuropharmacology I (1 QH)

Lectures present a comprehensive overview of the cellular foundations of neuropharmacology, techniques used in neuropharmacology and experimental design. Principles of excitable membranes and ion channels will be discussed. Subject matters are covered in lectures and with interactive problem-solving approaches. These lectures will provide a background to the topics covered in GCMP 602 Neuropharmacology II.

GCMP 602 Neuropharmacology II (1 QH)

Lectures focus on neurotransmitter systems and how these participate on specific behaviors and disease states. Final lecture will integrate basic neuropharmacology research with the translational aspects of drug discovery. Scholarly publications will accompany discussion lectures.

GCMP 605 Pharmacology Core (6 QH)

This course will introduce students to the basic principles of drug action. The first quarter will cover basic principles of the autonomic drugs and the therapeutic uses, side effects, and interactions of prostaglandins, NSAIDs, and central nervous system agents. The second quarter will continue the study of selected drug categories, including antimicrobials, anti-cancer drugs, general and local anesthetics, cardiac drugs and sedative/hypnotics. The third quarter will continue with drug categories that include endocrine and metabolic modulators and treatment of asthma.

GCMP 699 Post-Candidacy Doctoral Research Activities (10-12 QH)

This course is for the PhD student who has successfully passed the Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GCMP 700 Teaching in Pharmacology (1 QH)

Part of our mission is to prepare students for academic and educational positions. Students will be trained in teaching strategies and will serve as facilitators in the Medical Pharmacology small-group problem-solving sessions, and as lecturers in the Basic Biomedical Science pharmacology review sessions. May be repeated for credit.

GIGP 500 First-Year Lab Rotations (8 QH)

Required core course for IGPBS. First-year IGPBS students complete four self-selected laboratory rotations with research faculty. These approximately eight-week rotations are designed to introduce student and mentor in the laboratory setting with the goal of determining student/mentor match. At the end of the rotations, the student will select their dissertation advisor from among those faculty members with whom the rotations were held.

GIGP 501 Molecular-Cell Biology I (5 QH)

Required core course for IGPBS. In this course, the molecular and cellular processes common to all eukaryotic cells are studied and, where appropriate, comparisons to prokaryotic cells are made. The molecular and cellular processes of specific cell types and tissue types are also considered and related to their morphological appearance.

GIGP 502 Molecular-Cell Biology II (5 QH)

Required core course for IGPBS. A continuation and expansion of the principles taught in Molecular-Cell Biology I, this course covers the following topics: protein structure and molecular recognition, enzyme action and adaptation principles of biomolecular action and regulation receptors, signal transduction, gene expression – pre-mRNA to targeted protein degradation, antibodies-structure and function, and current methods of cell biology.

GIGP 503, B, C, D & E Systems Lectures (4 QH)

Required core courses for IGPBS. The Systems Lectures are a series of weeklong modules, each focused on a particular disease and take the student from the disease's primary underlying mechanism (at the cellular level or gene level, if known) to the integrated, physiological systems level. The modules are a combination of lectures and/or directed paper discussions by faculty with expertise in a particular disease area.

GIGP 505 Cellular and Molecular Developmental Biology (4 QH)

Elective course for IGPBS. Students must take a minimum of one elective option in their first year. This course will introduce the students to the prominent experimental model systems used today by developmental biologists and then focus on particular underlying developmental control mechanisms that are important to the processes of cell differentiation and morphogenesis. The course is comprised of a combination of lectures and/or directed paper discussions by faculty with expertise in the various sub-topics of the course. This course is required for those students wishing to pursue studies in the Biochemistry and Molecular Biology, Cell Biology and Anatomy or Microbiology and Immunology Programs..

GIGP 506 Systems Physiology (4 QH)

Elective course for IGPBS. Students must take a minimum of one elective in their first year. The Systems Physiology elective includes the study of: cardiac, respiratory, renal, gastrointestinal and endocrine physiology. It is designed for graduate students who have successfully completed Molecular and Cell Biology I and II, but require a more complete understanding of organ-systems physiology. This course is required for those students wishing to pursue studies in the Physiology and Biophysics programs.. Those students studying toward the PhD degree with an advisor in Physiology and Biophysics will be required to complete the full course in Medical Physiology GPHY 500.

GIGP 507 The Art of Scientific Presentations (2 QH)

Required specialty course for IGPBS. Students learn to improve their oral presentation skills by weekly presentations and by giving and receiving peer evaluation. The successful scientific career requires clear communication of scientific results. Participants in this course practice giving and evaluating oral presentations of technical material. Topics to be covered include organization of a talk, targeting the material to the appropriate level of the audience, overcoming “stage fright,” effective visual aids, developing eye contact, effective use of voice, overcoming language barriers and handling question-and-answer sessions.

GIGP 508 Ethics and Regulatory Issues in Biomedical Research (1 QH)

Required specialty course for IGPBS. This course covers the major issues related to the responsible conduct of research in the biomedical sciences, including: overt falsification, fabrication, plagiarism (FFP); authorship and peer-review guidelines; conflict of interest; mentor/trainee responsibilities; research with animal subjects; and human subject research. Online components include certification for using radioisotopes and working with vertebrate animal and human subjects.

GIGP 509 Biostatistics (1 QH)

Required specialty course for IGPBS. Study of descriptive and inferential statistics with relevance to research will be included. Use of the computer for statistical analysis will be covered. There will be an opportunity to use statistics for a small pilot project.

GIGP 510 Computer Applications in Biomedical Research (1 QH)

Required specialty course for IGPBS. Combination of lecture and hands-on application of computer databases and tools to research problems.

GIGP 512 Neuroscience (5 QH)

Elective course for IGPBS. IGPBS students must take a minimum of one elective in their first year. This course, which is required for entry into both the Neuroscience and Pharmacology PhD programs, is divided into lecture and laboratory parts. Topics to be covered in the lecture portion include: the neurochemistry of transmitters, receptors and second messenger systems; developmental neurobiology; and the neural systems underlying sensory, motor, affect, memory, language and other high cognitive functions. The laboratory portion is focused on human neuroanatomy, and is taught through a combination of large-group lectures, wet labs and small discussion sessions, employing a mixture of atlases, brain models, cadaver brains and interactive computer programs. Students enrolled in this elective also must enroll in either the spring term Physiology for Neuro-Pharm Research (GIGP 516) or the Systems Physiology (GIGP 506) elective.

GIGP 516 Physiology for Neuro-Pharm Research (3 QH)

Elective supplement for IGPBS. This course must be taken in conjunction with GIGP 512 Neuroscience elective. The topics reviewed in this course provide a complementary body of knowledge for students pursuing research in biomedical sciences disciplines other than physiology and biophysics. Topics include a basic overview of both general and muscle physiology, the autonomic nervous system and calcium regulation. Select topics integral to general biomedical science study are also reviewed.

GIGP 518 Writing Skills (1 QH)

This course is designed as a workshop for graduate students to further develop their technical scientific writing skills. The goal of this workshop is to write a short manuscript based on an original dataset provided. The workshop is organized into six sessions over three weeks and includes a mixture of faculty presentations and in-class group writing assignments and discussion.

GIGP 700 SGPS Research Externship

Graduate research may be conducted, with Dean's Office, Departmental and Mentor approval, at a university or facility outside of RFU. Students remain enrolled in the School of Graduate and Postdoctoral Studies, while receiving credit for their work in an external research facility.

GMIC 503 Virology (4 QH)

This course covers fundamental animal virology including virus structure, classification, replication and genetics. Viruses of current interest that produce human disease (e.g., HIV) will be discussed. Other topics may include molecular mechanisms of viral latency, role of viruses in oncogenesis, emerging viral infections of man and viruses and gene transfer vectors in human gene therapy. The course is lecture-based and discussion of original research articles.

GMIC 520 Molecular Parasitology (3 QH)

This course involves theoretical and practical aspects of applying new biological technology to study parasites and parasitic mechanisms of major tropical diseases. Emphasis is on molecular biology (especially DNA and RNA interactions). The depth of coverage depends on the prior training of the participants. Students are expected to actively participate in discussing recent literature as well as in project-oriented research. Research topics may be directed to the background or training and interests of the students.

GMIC 530 Master's Thesis in Microbiology and Immunology – (1-12 QH)

After completing coursework, the student writes the research thesis.

GMIC 532 Journal Club (1 QH)

Faculty, postdoctoral fellows and students discuss current research efforts. Participants present their "work in progress" in an informal presentation, which includes an introduction to the field of interest. This series covers topics of research currently being pursued in the discipline, and is geared toward learning of each other's work and assisting one another in defining science and presentation skills.

GMIC 533 Seminar on Microbiology and Immunology (1 QH)

Presentations on current research in the field of Microbiology and Immunology by invited speakers, faculty and students. Required of all Microbiology and Immunology students.

GMIC 542 Selected Topics in Microbiology, Virology, Parasitology, Immunology and Molecular Biology (1-2 QH)

Selected topics: Microbiology, Virology, Parasitology, Immunology and Molecular Biology will be discussed. Topics for discussion will be announced three months in advance.

GMIC 560 Advanced Immunology (3 QH)

This course is intended for graduate students who have already taken GMIC 600A, Medical Microbiology and Immunology. The Advanced Immunology course will focus on issues related to host-pathogen interaction and response to infection. Particular emphasis will be given to innate immunity and inflammation. Aberrant immune responses that cause pathologies not related to infections (i.e., autoimmunity, allergy, etc.) will also be examined. Rather than analyzing each component of the immune response in isolation, the course's goal is to emphasize how several responses are simultaneously activated in the course of an infection and how they affect each other and the whole organism.

GMIC 599 Pre-Candidacy Research Activities (10-12 QH)

This course is for the PhD student who has chosen a laboratory but not yet passed the Candidacy Exam. Laboratory experience is geared toward learning techniques and obtaining preliminary data toward the student's dissertation proposal and Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GMIC 600A Medical Microbiology and Immunology (3 QH)

This course consists of two parts: (1) lectures in immunology, basic bacteriology and pathogenic bacteria and (2) student's review, presentation and discussion of latest articles related to subjects of the lectures.

GMIC 600B Medical Microbiology and Immunology (2 QH)

This course consists of two parts: (1) lectures in immunology, basic bacteriology and pathogenic bacteria and (2) student's review, presentation and discussion of latest articles related to subjects of the lectures.

GMIC 605 Molecular Biology Techniques (2 QH)

This course will give students a working knowledge of various molecular experimental approaches and to understand the advantages and limitations of each.

GMIC 606 Cancer Biology and Signaling (1 QH)

This course covers the basic biology of cancer at the cellular and molecular levels with special emphasis on aberrant signal transduction in cancer cells. The course involves lectures and discussion of original research/review articles.

GMIC 699 Post-Candidacy Doctoral Research Activities (10-12 QH)

This course is for the PhD student who has successfully passed the Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GMTD 709 Molecular and Cellular Sciences Seminar Series (1 QH)

Required course for IGPBS. Internationally known biomedical scientists provide exciting seminars for all who are interested in attending. Meets monthly on the 2nd Wednesday

(September through May). Graduate students are also invited to attend a lunch with these visiting speakers.

GMTD 711 Physiology and Biophysics Journal Club (1 QH)

Presentations on current literature or individual research projects by faculty and students.

GNSC 504 Neuroscience Seminar (1 QH)

Presentations on current research in the field of Neuroscience by invited speakers. Required of all Neuroscience PhD and Combined Degree students.

GNSC 505 Human Brain Dissection (1 QH)

An intensive short course where students will carry out a detailed dissection of a human cadaver brain. This dissection will expose them to all the major areas of the human forebrain, brainstem and cerebellum, including major fiber tracts, subcortical nuclei and their connections to brainstem and cortical structures. Special emphasis will be placed on human limbic structures and the circuitry underlying emotion, addiction and other psychiatric disorders.

GNSC 553 Neuroscience Journal Club (1 QH)

Presentations on current literature, personal research and newsworthy developments in neuroscience by faculty, staff and students. Required of all Neuroscience PhD and Combined Degree students.

GNSC 570 Neuroscience Teaching Assistant (3 QH)

Prepare and lead weekly small-group sessions to help teach neuroanatomy to first-year medical students in the Medical Neuroscience Course (MNSC 502). May be repeated for credit.

GNSC 599 Pre-Candidacy Research Activities (10-12 QH)

This course is for the PhD student who has chosen a laboratory but not yet passed the Candidacy Exam. Laboratory experience is geared toward learning techniques and obtaining preliminary data toward the student's dissertation proposal and Candidacy Exam. May be repeated for credit. Hours and units to be arranged.

GNSC 600 Neurophysiology (2 QH)

A thorough review of neurophysiological function, including the ionic basis of the neuronal membrane potential and action potentials, pre- and post-synaptic signaling, cable properties, integrative properties and synaptic plasticity.

GNSC 605 Techniques in Microscopy (1-2 QH)

A comprehensive "hands-on" instruction to state-of-the-art microscopy and design-based stereology. Lectures cover the fundamentals of tissue preparation and staining, microscopy, digital imaging and confocal stereology. Approximately half of the course time is spent using the equipment.

GNSC 606 Neurodegeneration (1 QH)

Mechanisms of brain death and neuronal degeneration resulting from chronic or acute diseases and their prospects for recovery. Topics include the clinical features and animal models of traumatic brain injury, stroke, spinal cord injury, Parkinson's, Alzheimer's and Huntington's diseases.

GNSC 607 Neuronal Signaling (2 QH)

This course covers intracellular signaling mechanisms including G proteins, phosphoinositides, cyclic nucleotides, calcium, serine and threonine phosphorylation, and tyrosine phosphorylation.

Faculty will present basic information on each topic. Students are responsible for leading discussions based on the text and journal articles.

GNSC 699 Post-Candidacy Doctoral Research Activities (10-12 QH)

This course is for the PhD student who has successfully passed the Candidacy Exam. May be repeated for credit. Hours and units to be arranged.

GPHY 500A, B & C Medical Physiology (14 QH)

The course offers the basic principles of organ system physiology. Through lectures, demonstrations, conferences and laboratory work, students receive a quantitative and integrated concept of subcellular, cellular and organ system function.

GPHY 505 Physiology and Biophysics Seminar (1 QH)

Students, staff and invited guests present their current research programs in physiology for discussion and analysis.

GPHY 512 Physiology of the Autonomic Nervous System (2 QH)

An advanced course with the material covering autonomic nervous regulation and integration of vital functions such as respiration, circulation and temperature regulation.

GPHY 513 Pulmonary Pathophysiology (2 QH)

The biophysics of pulmonary mechanics and gas transport are presented as a basis for evaluating pulmonary function. Modern pulmonary function-testing equipment is utilized in the laboratory, and an emphasis is placed on recognizing abnormal lung volumes and airflows.

GPHY 514 Physiology of the Liver (2 QH)

In addition to an in-depth discussion of the functions of the liver and experimental techniques used in studying the liver, the effects of complete and partial hepatectomy are described as well as the pathophysiology of the liver.

GPHY 516 Cardiovascular Pathophysiology (2 QH)

Clinical aspects of cardiovascular function are emphasized, e.g., heart sounds and murmurs, electrocardiogram, monitoring of central venous pressure and cardiac function curves.

GPHY 522A, B & C Topics in Physiology (6 QH)

Topics in Physiology provide state-of-the-art knowledge about the physiological basis for understanding numerous pathophysiological situations in humans. The subjects in this course encompass the basic aspects of cell physiology to complex and integrated clinical situations in which normal physiology has been altered.

GPHY 534 Teaching Methods (4 QH)

To provide graduate students with practical experience in teaching physiology, advanced students present lectures and assist in the planning and direction of laboratory and discussion sessions and in the presentation of technical material under the careful supervision of the staff. Hours and credit hours to be arranged.

GPHY 542 Electrogenic Ion Pumps (3 QH)

The objective of this course is to conduct an in-depth survey of the current state of knowledge of the mechanisms of electrogenic active transport of ions and of other substrates whose movement is coupled to the movement of a charged substrate. Topics to be discussed include: (1) basic principles of pump function, (2) electrogenic properties of ion pumps, (3) ion pumps and electrical properties of cell membranes, (4) bacteriorhodopsin, (5) proton pumps, (6) Na⁺/K⁺

ATPase, (7) Ca⁺⁺ ATPase of sarcoplasmic reticulum, (8) FoF₁ ATPase and (9) cytochrome oxidase.

GPHY 599 Pre-Candidacy Research Activities (10-12 QH)

This course is for the PhD student who has chosen a laboratory but not yet passed the Candidacy Exam. Laboratory experience is geared toward learning techniques and obtaining preliminary data toward the student's dissertation proposal and Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

GPHY 618 Molecular Biophysics of Ion Channels (3 QH)

This course will cover both experimental and theoretical aspects of ionic channels in biological membranes. Topics to be discussed include the following: (1) classical biophysics of the squid giant axon, (2) Na⁺ and K⁺ channels, (3) calcium channels, (4) K⁺ and chloride channels, (5) endplate channels, (6) properties of ions in solution, (7) properties of pores, (8) counting channels, (9) ionic selectivity, (10) ion saturation and binding, (11) mechanisms of drug block and (12) gating mechanisms.

GPHY 620 Masters Research in Physiology (1-12 QH)

Research hours performed following submission and approval of a research project by the candidate's Thesis Committee. Hours and units of credit to be arranged.

GPHY 699 Post-Candidacy Doctoral Research Activities (10 - 12 QH)

This course is for the PhD student who has successfully passed the Candidacy Exam. May be repeated for credit. Fall, Winter, Spring and Summer Quarters, hours and units to be arranged.

HAPA 535 Medical Terminology, Lecture (1 QH)

This course instructs the student in an advanced level of medical terminology pertinent to the practice of Pathologists' Assistants.

HAPA 540 Autopsy Pathology, Lecture (2 QH)

This course provides an introduction to autopsy pathology and includes instruction in evisceration techniques and perinatal and pediatric pathology.

HAPA 540A Autopsy Pathology Lab, Laboratory (2 QH)

This is the corresponding laboratory to complement the Autopsy Pathology lecture-based course, and provides the student with hands-on experience practicing autopsy techniques on cadavers.

HAPA 550 Seminar I, Lecture/Discussion (2 QH)

This is a four-course sequence designed to address special topics pertinent to Pathologists' Assistant students in the didactic year. The content includes topics such as history of the profession, professional development, pathology in literature, etc. In each course, students will examine current and emerging information relevant to the topic addressed as a means to help students develop an understanding of the commitment to continuous learning that is required of Pathologists' Assistants.

HAPA 551 Seminar II, Lecture/Discussion (2 QH)

Continuation of HAPA 550.

HAPA 552 Seminar III, Lecture/Discussion (2 QH)

Continuation of HAPA 551.

HAPA 553 Seminar IV, Lecture/Discussion (2 QH)

Continuation of HAPA 552.

HAPA 560 Clinical Correlations I, Lecture (3 QH)

This is a full-year sequence designed to provide a bridge between the didactic coursework of the first-year curriculum and its application to the practice of surgical and autopsy pathology by Pathologists' Assistants in the clinical setting. This course is taken in conjunction with the corresponding Clinical Correlations Laboratory sequence.

HAPA 560A Clinical Correlations I Lab, Laboratory (2 QH)

This is a full-year laboratory sequence designed to provide practical, hands-on experience to complement the didactic portion of the corresponding Clinical Correlations lecture sequence. This segment of the course provides an introduction to laboratory safety, ergonomics, specimen photography, radiology, tissue processing, embedding, cutting, staining, frozen sections and grossing.

HAPA 561 Clinical Correlations II, Lecture (3 QH)

This is a full-year sequence designed to provide a bridge between the didactic coursework of the first-year curriculum and its application to the practice of surgical and autopsy pathology by Pathologists' Assistants in the clinical setting. This course is taken in conjunction with the corresponding Clinical Correlations Laboratory sequence and provides an introduction to clinical medicine, microbiology, pharmacology, oncology and various aspects of general and systemic pathology, running parallel to MPAT 600A.

HAPA 561A Clinical Correlations II Lab, Laboratory (2 QH)

This is a full-year laboratory sequence designed to provide practical, hands-on experience to complement the didactic portion of the corresponding Clinical Correlations lecture sequence. This segment of the course provides an introduction to clinical medicine, microbiology, pharmacology, medical and surgical oncology, psychology, skin, hematology, vascular and heart.

HAPA 562 Clinical Correlations III, Lecture (3 QH)

This is the third segment in a full-year sequence designed to provide a bridge between the didactic coursework of the first-year curriculum and its application to the practice of surgical and autopsy pathology by Pathologists' Assistants in the clinical setting. This course is taken in conjunction with the corresponding Clinical Correlations Laboratory sequence. This portion of the course provides an introduction to laboratory management and emphasizes systemic pathology running parallel to MPAT 600B.

HAPA 562A Clinical Correlations III Lab, Laboratory (2 QH)

This is a full-year laboratory sequence designed to provide practical, hands-on experience to complement the didactic portion of the corresponding Clinical Correlations lecture sequence. This segment of the course provides an introduction to laboratory management, larynx, lung, central nervous system and eye, upper and lower gastrointestinal tract, hepatobiliary, oral cavity and pancreas.

HAPA 563 Clinical Correlations IV, Lecture (3 QH)

This is the fourth segment in a full-year sequence designed to provide a bridge between the didactic coursework of the first-year curriculum and its application to the practice of surgical and autopsy pathology by Pathologists' Assistants in the clinical setting. This course is taken in conjunction with the corresponding Clinical Correlations Laboratory sequence and emphasizes systemic pathology running parallel to MPAT 600C.

HAPA 563A Clinical Correlations IV Lab, Laboratory (2 QH)

This is a full-year laboratory sequence designed to provide practical, hands-on experience to complement the didactic portion of the corresponding Clinical Correlations lecture sequence. This segment of the course provides an introduction to genitourinary, endocrine, breast, male reproductive, female reproductive, bone and soft tissue, pediatrics and gross histology correlation.

HAPA 630 Anatomic Pathology Clerkship I (9 QH)

This is a ten-month practical course sequence that forms the curriculum for the second year. Students rotate through various clinical sites and departments and perform the duties of a Pathologists' Assistant under the guidance of a preceptor. Emphasis will be placed on developing the student's skills of gross tissue description, dissection and frozen section preparation in the surgical pathology. In autopsy pathology, emphasis will be placed on autopsy technique including evisceration and block dissection.

HAPA 631 Anatomic Pathology Clerkship II (13 QH)

Continuation of HAPA 630.

HAPA 632 Anatomic Pathology Clerkship III (15 QH)

Continuation of HAPA 631.

HAPA 633 Anatomic Pathology Clerkship IV (7 QH)

Continuation of HAPA 632.

HBMS 501 Introduction to Interprofessional Health Care (2.5 QH)

This course presents a general overview of health care in the United States with emphasis on the importance of collaboration among healthcare professionals. Students are given the opportunity to explore a variety of healthcare professions.

HBMS 502 Foundations of Clinical Medicine (3 QH)

This is a five-week course exploring the foundations of clinical medicine for future health care professionals.

HBMS 503 Clinical Molecular Cell Biology (3.5 QH) The content of this course is aligned with USMLE guidelines. Topics include cell membranes, cell adhesion, cell transport, cell signaling, cell architecture, cell cycle, mitosis, meiosis, prokaryotic vs eukaryotic cells, cytoskeleton, DNA/FNA structure, protein syntheses, gene regulation, and basic cancer biology. Students participate in two problem based learning modules and determine the cell biological foundation of a clinical case. In addition, there is a self-learning component for concepts that are too basic to be discussed in class.

HBMS 504 Medical Biochemistry (5 QH)

The medically important chemical properties and biological reactions in the normally functioning human organism are studied. The skill set to master is to relate knowledge of normal bio-molecular structure-function relationships, metabolic and regulatory processes, and defense mechanisms to the molecular basis, diagnosis and treatment of diseases. A focus is placed upon the regulation and integration of metabolic processes associated with function and dysfunction of cellular biochemistry. Examples of common or representative diseases, including their symptoms and treatments will be introduced. Students will come to understand and be able to evaluate potential advances of diagnostic and treatment modalities. The course makes use of lectures and on-line modules. This course utilizes the self-teaching program to provide the students with an initial foundation of knowledge.

HBMS 505 Topics in Physiology (5 QH)

Topics in Physiology provide state-of-the-art knowledge about the physiological basis for understanding numerous pathophysiological situations in humans. The subjects in this course encompass the basic aspects of cell physiology to complex and integrated clinical situations in which normal physiology has been altered.

HBMS 506 Physiological Basis of Medicine (8 QH)

This course includes the study of: muscle, cardiovascular, respiratory, renal, gastrointestinal and endocrine physiology. The course is designed for students who wish to have a more complete understanding of organ-systems physiology and its application to the practice of medicine.

HBMS 507 Medical Neuroscience (6 QH)

This course is designed for first-year students in graduate-level health profession programs. It will provide you with the foundational knowledge in neuroscience and neuroanatomy needed to understand how ongoing discovery is shaping the diagnosis and treatment of neurobehavioral disorders.

HHCM 507 Healthcare Informatics (3 QH)

This course will provide an overview of the management of data and information resources critical to effective and efficient healthcare delivery. Course concepts will include: ensuring accurate and complete data; coding for reimbursement; ensuring quality of data; analyzing data for decision support, research and public policy; and the protection of patient privacy and security. Interactions with healthcare entities such as patient care organizations, payers, research and policy agencies, etc. will also be discussed. Prerequisite: Enrollment in program or department approval

HHCM 508 Marketing Health Care (4 QH)

This course will examine critical aspects of marketing management including price, product, promotion and distribution of healthcare services as well as internal and external forces that impact marketing. The student will be introduced to strategies that provide competitive opportunities to create value for the healthcare organization and improve customer satisfaction. Prerequisite: Enrollment in program or department approval

HHCM 510 Global Health (3 QH)

The course is designed to introduce students to progress made in improving human health worldwide and understanding the challenges that remain. Students will focus on learning the principles and measures of health improvement, global health themes and diseases, the impact of disease on populations such as women and children, and how they can work as interprofessional team members to address these issues. Prerequisite: Enrollment in program or department approval

HHCM 511 Healthcare Management in Non-Hospital Settings (3 QH)

While the hospital is the centerpiece of the healthcare system, so much health care is delivered outside this setting. Students will be introduced to many healthcare services outside the traditional setting of the hospital and gain knowledge of the operations of such healthcare settings. The course will be divided into four parts: Traditional Care, Diagnosing, Acute-Care Treatment and Chronic Care, and within each area students will explore the basic operations of various healthcare settings such as outpatient clinics and surgical centers, pharmacies, outpatient laboratories, chiropractic centers, adult day care and hospice care. Prerequisite: Enrollment in program or department approval

HHCM 515 Healthcare Law (3 QH)

This course reviews the American legal system as the context within which to consider contemporary medico-legal issues. The course's intent is to provide a legal framework where healthcare administration and management issues can be explored in collaboration with legal counsel. The curriculum addresses such topics as: professional liability, corporate entity risk considerations and relevant legislative activities reshaping the healthcare industry and tort reform initiatives. Representative case law and studies will augment the legal theories presented in the course. Prerequisite: Enrollment in program or department approval

HHCM 516 Risk and Quality Management in Health Care (3 QH)

This course will explore the risk and quality management processes in depth. The student will be introduced to risk management strategies that reduce the likelihood of harm to people and financial loss in addition to quality management activities to ensure that standards are met and to optimize the quality of healthcare. As these functions are interwoven throughout the organization (e.g., information management, medical staff issues, insurance, claims administration, etc.), the concept of risk and quality management as "everyone's responsibility" will be emphasized. Prerequisite: Enrollment in program or department approval

HHCM 517 Management Ethics (3 QH)

The course will provide an overview of bioethics including a broad range of potential concerns in which the healthcare manager may become involved. This encompasses a familiarization with bioethics nomenclature, understanding the ethical decision-making process and developing an appreciation for the ethical challenges of administrators and clinical practitioners. Legal and risk management issues surrounding ethical dilemmas in healthcare organizations will be examined in addition to the roles of institutional ethics committees and consultants. Prerequisite: Enrollment in program or department approval

HHCM 518 Insurance Dimensions (3 QH)

This course is intended to provide the student with an understanding of the principles of insurance related to healthcare organizations. The curriculum focuses on insurance in the healthcare setting, risk financing considerations and insurance policy analysis. The impact of recent national and world events, changing economics and policies as they relate to the

healthcare insurance industry will also be explored. Prerequisite: Enrollment in program or department approval

HHCM 519 Practice Management (3 QH)

Practice Management offers the essential elements and support for a successful healthcare practice concentrating on facility management and organizational skills. Topics will include the organizational management landscape and management functions such as planning and decision-making, organizing, staffing and budgeting. This course will also address practical concerns such as committees and teams, and human resource management considerations such as training and development, retention and recruitment and communication. This elective course establishes a foundation for growth and professional opportunity for the health management professional. Prerequisite: Enrollment in program or department approval

HHCM 520 Cultural Diversity and the Management of Health Care (3 QH)

This course introduces the student to the importance of providing culturally appropriate health care for the diverse ethnic populations encountered in the U.S. healthcare system. The significance of family traditions, cultural heritage and health and healing traditions on the patient's interaction with the healthcare delivery system and providers will be explored. Students will develop interventions that providers and managers of health care can use to diminish the conflict that patients may experience between their traditions related to cultural heritage and the American healthcare system. Prerequisite: Enrollment in program or department approval

HHCM 521 Evidence-Based Management (3 QH)

This course provides an introduction to the utilization of best evidence in managing healthcare issues. The curriculum is intended to prepare the student to identify management problems and develop a related path of focused inquiry, evaluate reliable databases and searching strategies to find evidence, and base management decisions on the best evidence available. Prerequisite: Enrollment in program or department approval

HHCM 522 Healthcare Policy and Delivery Systems (4 QH)

The historical evolution of health services provides a backdrop for the core focus of this course: the study of the healthcare system. The curriculum includes an analysis of the current changes in the healthcare environment and the problems affecting the delivery of healthcare in the United States that create a demand for government action. A study of the process of policy formation underscores the complexity and difficulty of government action. Economic and political approaches to health policy analysis will be introduced with a particular focus on contrasting competitive and regulatory approaches to the resolution of health policy problems. Prerequisite: Enrollment in the program or department approval

HHCM 523 Current Topics in Healthcare (3 QH)

Healthcare administrators and managers must be knowledgeable about current topics that face their profession. Using critical inquiry and research skills, students will explore current topics and controversies in the field of healthcare administration and management. The ability to analyze, research and apply the findings to contemporary issues will be stressed. Prerequisite: Enrollment in program or department approval

HHCM 524 Organizational Behavior and Human Resources (3 QH)

This course in Organizational Behavior (OB) and Human Resources (HR) is designed to introduce students to organizational behavior theory, organizational communication and human resource management principles to effectively lead and manage an organization. The

Organizational Behavior students will apply management and leadership techniques garnered from successful healthcare organizations to understand and practice management functions, including: understanding employee behavior and motivation, assessing performance, employing groups and teams, operationalizing communication, evaluating conflict and making appropriate business decisions. The Human Resources functions of planning, recruiting, selecting, training and appraising will be emphasized. Realistic case studies, collaborative discussions, practical research and peer reviews will be used to develop students' skills in organizational behavior and human resource management. Other topics will include rights and responsibilities of employers and employees, and future trends. Prerequisite: Enrollment in program or department approval

HHCM 525 Strategic Planning and Leadership in Health Care (3 QH)

This course is intended to introduce the student to leadership skills and strategic planning in healthcare organizations. Creative, collaborative problem-solving within the context of current strategic issues in healthcare will be explored. The course content provides an overview of the strategic planning process including the elements required to successfully develop and implement short and long-term plans. The course focuses on leadership skills and qualities necessary to succeed and thrive in the healthcare industry as well as assist the students in applying theories of leadership, motivation, communication and conflict management. Students will learn the construction of a strategic plan and analyze the state of strategic planning in the healthcare industry. Additionally, students will have the opportunity to analyze their own leadership skills and create an action plan for leadership development by assessing their personal leadership strengths and weaknesses. Prerequisite: Enrollment in program or department approval

HHCM 530 Introduction to Public Health (4 QH)

This course provides an overview of the history, scope, and processes of public health since its beginning in the United States. Readings and course projects introduce the connection between public health and population health outcomes. Using conceptual foundations and applied solutions, students will use course readings and analyze case studies designed to improve their knowledge of the impact of the role of public health. Prerequisite: Enrollment in program or department approval

HHCM 551 Accounting and Financial Management in Health Care (4 QH)

The course is intended to prepare the student to effectively interact with financial management staff and participate in various aspects of financial control and planning. The curriculum provides a historical perspective of financial management in health care, identifying trends in the industry and the forces that influence the financing of healthcare organizations. Financial statements, the interpretation and analysis of financial reports, and topics such as cost-benefit analysis, budgeting and capital management will also be addressed. Consideration will be given to the cost effectiveness and financial future of healthcare organizations. Prerequisite: Enrollment in program or department approval

HHCM 552 Independent Study (1-6 QH)

The independent study is an individualized learning experience designed to meet specific educational needs of the student. Prerequisite: Approval from department chair

HHCM 560 Health Literacy (3 QH)

Health Literacy has become a public health priority. Many factors impact communication with patients and their families. This course explores how age, culture, language proficiency and

socioeconomic conditions significantly impact patient-provider communication. Readings and course projects introduce the connection between effective communication and health outcomes. Using conceptual foundations and applied solutions, students will use course readings and team discussions to prepare to conduct field research and analyze case studies designed to improve the ability to communicate with patients and overcome barriers related to patient compliance with treatment plans, and the appropriate use of healthcare resources. Traditional, social and electronic media will be addressed. Prerequisite: Enrollment in program or department approval

HHCM 570 Health and Family Communication (3 QH)

The course addresses health issues that families may experience with a theoretical context. Using theories such as Family Systems Theory and Communication Privacy Management Theory, this course will take a lifespan approach to better understand family health issues. Some of the topics covered may include caregiving responsibilities, long-term disease, disability, addiction, psychological disruption, sexual health and end of life issues as they affect the family system. Cultural and social norms, in addition to public and health policies are also addressed as they provide insight into the larger scope of understanding family and health communication. Ultimately, the health of family members impacts the functioning of the family system. Prerequisite: Enrollment in program or department approval

HHCM 571 Introduction to Health Communication (3 QH)

Because of the increasing degree of health consciousness in our society, individuals not only interact more frequently with healthcare providers, but healthcare organizations play more active roles in their surrounding communities. In addition, healthcare cultures are changing. Healthcare organizations play active social and political roles when responding to national health issues or crises. Hence, it is important that we, as consumers of health care, understand the communication challenges that are inherent within healthcare organizations as well as within the wider national and global socio-political contexts, and how those can impact the effectiveness of our communication as participants in healthcare systems. Prerequisite: Enrollment in program or department approval

HHCM 572 Health Care on the Big Screen: Issues, Images, Messages and Portrayal (3 QH)

This course explores and examines selected 20th and 21st century films that have played a substantial role in engaging society-at-large regarding a range of health issues, particularly in the context of media, health literacy and health disparities. Grounded in framing theory from a social construction perspective, students critique and analyze the manner in which these films' content aids the audience's understanding of and/or feeds misconceptions about health issues, and how healthcare professionals can use this medium in their communication toolkit. Prerequisite: Enrollment in program or department approval

HHCM 590 Final Portfolio (3 QH)

The purpose of the final portfolio is for the Health Administration student who has successfully completed all required courses in the program to demonstrate achievement of the program competencies. The intended outcome is to demonstrate the student's mastery of program and course goals and objectives, and to demonstrate proficiency of competencies learned. The student will make a formal PowerPoint presentation to faculty. Prerequisite: Successful completion of Health Administration courses or concurrent enrollment in course with final courses. All reflection papers must be completed prior to registration for the course.

HHCM 630 Public Health Epidemiology (4 QH)

This course explores the epidemiology of infectious and acute disease. Using conceptual foundations and applied solutions, students will use course readings and team discussions to prepare to examine the impact of infectious diseases involving various populations. The taxonomy and the chain of infection required for successful transmission of disease are included. Prerequisite: Enrollment in program or department approval.

HHCM 800 Teaching Healthcare Administration and Management (3-6 QH)

M4 students facilitate M2 students in HHCM 801. Topics include various healthcare delivery systems, healthcare law, risk and quality management, and leadership and management. Competency in communication, leadership, healthcare management, business knowledge and knowledge of the healthcare environment are discussed. M4s have earned a master's degree in Healthcare Administration from RFU College of Health Professions. If students with a master's degree are not available, students who hold a certificate in Healthcare Administration will be eligible to assist in moderating the course.

HHCM 801 Healthcare Administration and Management (3 QH)

Students are introduced to the fundamentals of the healthcare business industry. Topics include various healthcare delivery systems, healthcare law, risk and quality management, and leadership and management. Competency in communication, leadership, healthcare management, business knowledge and knowledge of the healthcare environment are discussed. Students collaboratively submit assignments in the first half of the week and respond to/discuss the work of other students in the second half of the week. At the end of the second week, students submit an individual paper to demonstrate competency in all topics and how this new knowledge will be implemented in their future medical practice. The course is facilitated by faculty and M4 students.

HHPE 510 Learning Theories (3 QH)

Students will examine domains of learning and adult learning theories and how they apply to health professions students. Topics include best practices for motivation, adapting to various learning styles, teaching models/strategies, instructional paradigms and interprofessional learning environments. The concept of lifelong learning is introduced and students will explore the role that higher education and corporate education/training play in instilling a desire for lifelong learning. In addition, students will develop statements of teaching philosophy and philosophy on interprofessional education. Prerequisite: Enrollment in program or department approval

HHPE 512 Instructional Presentation Skills (3 QH)

Students will acquire classroom presentation skills as they explore effective teaching and learning strategies. Topics include effective speaking, use of technology in the classroom, creation of PowerPoint presentations, effective communication through posters, creating dynamic learning environments, and adapting presentations to interprofessional groups of students. Prerequisite: HHPE 510 or department approval

HHPE 516 Clinical Instruction and Mentoring (3 QH)

Students will examine the process of clinical instruction and mentoring including defining learning and performance objectives, creating student evaluation tools, determining clinical site and mentor criteria, and creating positive clinical learning experiences. Students will also explore the incorporation of an interprofessional experience into students' clinical rotations. Prerequisite: HHPE 510, HHPE 535, HHPE 540 or department approval

HHPE 520 Educational Trends and Issues (3 QH)

Students will discuss changes in educational theories and practices as well as the incorporation of new ideas into educational models. Topics may include collaborative learning environments, virtual learning communities, generational concerns in education, cultural concerns in education, and the movement of education toward interprofessionalism. Prerequisite: HHPE 510 or department approval

HHPE 530 Curriculum Design (3 QH)

Students will work through the process of curriculum development. Topics include needs assessment, alignment with institution mission and vision, course sequencing and planning learning. Students will design needs assessment instruments which will identify needs that can be met with training interventions. Prerequisite: HHPE 510, HHPE 535, HHPE 540

HHPE 535 Instructional Design for Health Professions Education (4 QH)

Students will apply curriculum design techniques to design a course in an area of interest. Activities will include writing learning objectives, designing assessment tools and developing content. Students will also discuss how to adapt courses to include interprofessional students. Prerequisite: HHPE 510 or department approval

HHPE 540 Classroom Assessment (4 QH)

Students will examine various tools to assess student learning in the classroom setting. Topics include annotated portfolios, concept maps, memory matrix, process analysis, rubrics development and the use of reflective statements. Students will also discuss how to adapt assessment tools to include interprofessional students. Prerequisite: HHPE 510 or department approval

HHPE 545 Evaluating Clinical Competence (3 QH)

Students will develop appropriate tools to evaluate student performance in a clinical setting. In addition, students will develop a clinical rotation manual in their area of interest. Prerequisite: HHPE 510 or department approval

HHPE 560 Managing Change in Educational Organizations (3 QH)

Students will examine change and its impact on educational organizations. They will explore change management strategies, addressing the concerns of an interprofessional community, aligning change with institutional mission, becoming a change agent, counteracting resistance to change and influencing strategic planning. Prerequisite: HHPE 510 or department approval

HHPE 580 Research in Education (3 QH)

Students will review the process of research and its use in the educational setting. In addition, students will develop skills for critically evaluating research, and explore the possibilities of conducting educational research. Students will also suggest methods for investigating the impact of interprofessional education and/or multi-cultural concerns in health professions education. Prerequisite: HNUT 510 or department approval

HHPE 601 Creating Self-Instructional Units (3 QH)

Students will work through the process for and develop a self-instructional unit (SIU) in an area of their own interest. Areas of SIU development may include instruction of health professions students, new employee training and patient education. Prerequisite: HHPE 510, HHPE 535, HHPE 540

HHPE 602 Designing Simulated Learning Activities (3 QH)

In this course, the concepts of simulations and games will be explored along with their applications to education. Students will work through the process of designing a simulation in their area of interest. Prerequisite: HHPE 510 or department approval

HHPE 610 Teaching in the Virtual Classroom (3 QH)

Students will debate the benefits and drawbacks to online formats of education, explore the use of course management systems to develop virtual classrooms, practice facilitation skills for effective online teaching, and apply curriculum design strategies to online course development. Students will also discuss the use of the online environment in teaching interprofessional courses. Prerequisite: Enrollment in program or department approval

HHPE 611 Online Instructional Design and Technology (3 QH)

Students will develop basic skills in the technologies commonly used in online instructional design including HTML, Cascading Style Sheets, PowerPoint with voice-over, audio files, video files and images. Mobile technology, standard formats and quality will also be discussed. Students will learn how to efficiently develop transcripts and captions so instructional media meets ADA compliance guidelines. Design principles such as color, consistency, layout and contrast will be explored. Prerequisite: Enrollment in program or department approval

HHPE 612 Teaching in the Multi-Cultural Classroom (3 QH)

Students will examine the impact of culture on teaching and learning. Strategies to create and facilitate an effective multi-cultural classroom will be explored, along with discussion of best practices for teaching multi-cultural groups of students. Prerequisites: HHPE 510, HHPE 535, HHPE 540

HHPE 613 Building an Online Learning Community (3 QH)

Students will examine the unique world of online communication. Topics include the instructor's role, the learner's role, and challenges of communication in the online environment. Students will also discuss how learning activities can be constructed to foster communication and collaboration and how feedback can be used to help build student confidence and a relationship with their instructor. Developing an online community that fosters interprofessional collaboration will also be reviewed. Prerequisite: Enrollment in program or department approval

HHPE 614 Assessment and Evaluation in Online Education (3 QH)

Assessment and evaluation play a major role in determining the quality of learning in an online course. Students will explore various formative and summative assessment techniques and discuss how they can be combined to provide a greater overall representation of student performance. They will also discuss how assessment can be utilized to maximize student potential and identify "at-risk" students for early intervention. Course evaluations will be developed and reviewed to determine their ability to drive course improvement. Prerequisite: Enrollment in program or department approval

HHPE 620 Program Evaluation and Accreditation (3 QH)

In this course, students explore program assessment and evaluation methods used in organizations of higher learning. Various topics include institutional and program accreditation, outcomes-based assessment and staff and faculty evaluation. Prerequisite: HHPE 510, HHPE 535, HHPE 540, HHPE 530 or concurrent

HHPE 640 Funding Education (3 QH)

Students will examine the roles of federal, state and local governments in the funding of education. Topics include budget management, sources of revenue, grants and financial aid issues. Prerequisite: HHPE 510 or department approval

HHPE 645 Ethical Concerns in Education (3 QH)

Students will debate case studies that reflect values-based decisions with which educational leaders are faced. Topics may include accessibility of education, codes of conduct, diversity, confidentiality, plagiarism, technology, student-faculty relationships and interprofessional relationships. Prerequisite: HHPE 510 or department approval

HHPE 680 Teaching Practicum (3 QH)

Students will integrate knowledge and skills acquired from all coursework in this degree program to design, teach and evaluate a unit of study in an actual classroom, online or clinical setting. Students will first write a proposal detailing and justifying their chosen unit within the intended curriculum prior to engaging in the practicum experience. Students are responsible for securing their own practicum sites. The teaching practicum may be discipline-specific or may be conducted in an interprofessional setting. Prerequisite: HHPE 510, HHPE 512, HHPE 530, HHPE 535, HHPE 560, HHPE 580, electives

HHPE 685 Portfolio Presentation (1-3 QH)

Students will assemble and present their teaching portfolio. The portfolio documents student mastery of each core objective: facilitation of learning, curriculum design, student assessment and program evaluation, and educational leadership. Students will present an analysis of each item included in their portfolios along with reflections for each item. In addition, students will perform a self-evaluation regarding their teaching preparedness, including cultural competence and establishment of interprofessional relationships. Prerequisite: HHPE 510, HHPE 512, HHPE 530, HHPE 535, HHPE 560, HHPE 580, electives

HIPS 501 Introduction to Interprofessional Healthcare Studies (3 QH)

This course sets the stage for interprofessional study by covering the education, training licensure, roles and functions and history of a variety of health professions. It emphasizes the overlapping nature of the disciplines and stresses collaborative communication and action. Prerequisite: Enrollment in the program or department approval

HIPS 515A & B Foundations for Interprofessional Practice (2 QH)

Foundations for Interprofessional Practice is an experiential learning opportunity for students to engage in interprofessional healthcare teams. This interactive course is intended to help prepare the healthcare professional student to provide effective interprofessional patient-centered health care through small/large group discussion and problem-solving activities. The topics include: team structure and skills; instituting change; patient safety, healthcare professions; diversity and inclusion; culture of safety and respect; determinants of health; end of life; and bias awareness. An emphasis is placed on interprofessional communication, including communication across transitions in care, respectful communication and communicating across barriers such as language. Interprofessional teams of students will plan and participate in community-based service learning projects.

HIPS 560 -Research Design (4 QH)

This course is an introduction to the elements of thought and the logic of critical thinking. Measurement theory and principles are studied. The role of the research in professional practice

is examined. Principles and application of scientific inquiry are emphasized. Prerequisite: Enrollment in the program or department approval

HIPS 561 Statistics for Health Professions (4 QH)

This course covers fundamental concepts and methods of statistics for data analysis, presentation, reporting and interpretation. Students will develop practical knowledge and skills for application of basic statistical analyses. Prerequisite: Enrollment requires department approval.

HIPS 562 Measurement Principles (4 QH)

This course is designed to assist students to understand the principles of measurement theory. An opportunity is provided to explore the reliability and validity of measurement instruments of the student's choice. Prerequisite: HIPS 560

HIPS 563 Writing for Scholars (3 QH)

This course emphasizes the components of scientific and scholarly writing including writing style, word choice and construction of works. Utilization of support systems such as writing groups and resources such as electronic databases and research librarians will be covered. Use of appropriate grammar and punctuation as well as APA style in scholarly works will be reviewed. Editorial processes and review will also be introduced. Prerequisite: Enrollment in the program or department approval

HIPS570 Qualitative Research (2 QH)

This course addresses philosophical assumptions and approaches utilized in qualitative research studies. Qualitative methods of data collection and analysis, validation and evaluation and writing in qualitative research are covered. Prerequisite: HIPS563A&B

HIPS 600 Introduction to Doctoral Studies and Interprofessionalism (4 QH)

This course introduces the new graduate student to the importance of critical thinking and the strategies for independent inquiry necessary for doctoral-level study. It also sets the stage for interprofessional study by covering education, training, licensure, roles and functions, and history of a variety of health professions. It emphasizes the overlapping nature of the disciplines and stresses collaborative communication and action. Prerequisite: Enrollment in the program or department approval.

HIPS 601 Interprofessional Education Seminar (4 QH)

This course is a discussion-centered learning experience in which special topics in the area of Interprofessional Education are considered. Literature is identified and discussed with a recognized expert in the area. Prerequisite: HIPS600 or HIPS740

HIPS 602 Interprofessional Practice Seminar (3 QH)

This course provides an opportunity to explore, analyze and interrogate contemporary topics in interprofessional clinical practice through review of pertinent literature under the guidance of an expert in the area. Prerequisite: HIPS 600

HIPS 603 Interprofessional Theory Seminar (4 QH)

This course is a discussion-centered learning experience in which special topics in the area of Interprofessional Theory are considered. Literature is identified and discussed with a recognized expert in the area. Prerequisite: HIPS600

HIPS 605 Independent Study (3 QH)

This course allows an individual student to identify and investigate a current topic of interest in the field of interprofessionalism. Reading and research will result in a paper or formal presentation. Prerequisite: Approval of instructor

HIPS 631 Foundations in Interprofessional Research I – Emerging Topics (1 QH)

In this course students will identify a personal research topic of interest from a critical analysis of contemporary literature and prepare a well-organized written literature review for their research problem or scholarly project. Prerequisite: Enrollment in the Program

HIPS 632 Foundations in Interprofessional Research II – Methods (2 QH)

In this course, students will develop a hypothesis and the methods section of their research study/scholarly project proposal using either a theoretical or atheoretical approach to their research study/scholarly project depending on their focus. Instruments for data collection will also be addressed. Prerequisite: HIPS631

HIPS 633 Foundations in Interprofessional Research III – Project Design (2 QH)

In this course students will develop the design for their research study/scholarly project and conduct an evaluation of the appropriateness of the research study/scholarly project design. Prerequisite: HIPS632

HIPS 680 Proposal Development (3 QH)

This course guides students through the steps necessary for the development of their dissertation proposals. Each student identifies a research problem, develops a research design and suggests methodology for data collection and analysis. Overall, the course lays the groundwork for the completion of the research work and dissertation. Prerequisite: HIPS 560 and HIPS 561

HIPS 701 Practicum in Interprofessional Education (6 QH)

This course is an individualized learning experience in which a student participates in a class with an interprofessional student body. The student develops objectives for the experience, a learning plan and a measurement tool for outcomes. Prerequisite: HIPS 501

HIPS 702 Practicum in Interprofessional Service Learning (6 QH)

This course provides an individualized learning experience in which a student participates in an interprofessional service-learning activity. The student develops objectives for the experience, a learning plan and a measurement tool for outcomes. Prerequisite: HIPS 501

HIPS 703 Practicum in Interprofessional Health Care (6 QH)

This course provides an interprofessional learning experience in which a student plans and observes an interprofessional interaction. The student develops objectives for the experience, a learning plan and a measurement tool for outcomes. Prerequisite: HIPS 501

HIPS 710 Clinical Research (Min. 9 QH)

This course provides an individualized clinical research project which involves the identification of an interprofessional clinical problem, review of the literature, data collection and analysis followed by the preparation of a publishable paper. Oral defense is required. Prerequisite: Successful completion of all previous coursework

HIPS 711 Building Effective Interprofessional Teams (3 QH)

The course utilizes TeamSTEPPS as a framework for assessing what it means to have an effective interprofessional team. Students will develop a shared mental model with common

goals for patient safety and patient centeredness. Tools for working in teams and managing workloads will also be addressed. Prerequisite: Successful completion of all previous coursework

HIPS 723 Leadership in Interprofessional Health Professions Education (3 QH)

Throughout the course, aspects of leadership in higher education and interprofessional health professions education are analyzed. The course covers opportunities and challenges of leadership including: (1) managing conflict, (2) leading academic initiatives, (3) implementing change management, (4) applying legal issues in health professions education, (5) policy-making, (6) managing faculty workload, (7) developing and implementing curriculum assessment and evaluation and (8) developing and implementing interprofessional initiatives.

Prerequisite: HIPS 501, HIPS 560, HIPS 561, HIPS 600, HIPS 601, HIPS 721

HIPS 731 Interprofessional Research Practice I – Institutional Review Boards (3 QH)

During this course, students will address ethical issues in research and complete the Institutional Review Board (IRB) application and any necessary Informed Consent documents for their research study/scholarly project. Prerequisite: HIPS633

HIPS 732 Interprofessional Research Practice II – Conducting Research (6 or 8 QH)

During this course students will engage in the intervention and/or data collection phase of their research study/scholarly project. Prerequisite: HIPS731

HIPS 733 Interprofessional Research Practice III – Analyzing Data ((2 QH)

During this course, students will apply appropriate qualitative or quantitative data analysis techniques based on research methodology and design. An assessment of the reliability and validity of the data from their research study/scholarly project will also be performed as appropriate. Students will write the data analysis chapters of their dissertation or scholarly project. Prerequisite: HIPS732

HIPS734 Interprofessional Research Practice IV – Drawing Conclusions from Research (2QH)

During this course, students will interpret the data collected during their research study/scholarly project and employ standards typically used by evaluators to make judgements about their results. Students will write the summary, conclusions and recommendations sections of their dissertation or scholarly project. Prerequisite: HIPS733

HIPS735 Interprofessional Research Practice V – Disseminating Research (2 – 3 QH)

During this course, students will bring their research study/scholarly project to a conclusion by editing the final versions of a dissertation or scholarly report suitable for submission to a peer-reviewed publication or venue. Prerequisite or concurrent enrollment in: HIPS734

HIPS736 Interprofessional Research Practice VI – Defending Research (1)

During this course, students will develop a presentation, present and defend their doctoral research study/scholarly project. Prerequisite or concurrent enrollment in: HIPS735

HIPS740 Foundations in Simulation-Enhanced Health Professions Education (4 QH)

This course provides students an opportunity to discuss the transition from health professional to educator. The focus is on foundational knowledge and skills needed to design simulation-based educational experiences for the health professions. The course starts with a broad review of learning theories and domains, instructional design models and healthcare simulation. Students then explore best practices in using simulation-enhanced IP education to measure human performance as it relates to selection of modalities and methods, assessment and facilitation.

Students will have the opportunity to develop course goals and write learning objectives that promote collaboration through IP simulation. Prerequisite: Enrollment in the program or department approval.

HIPS741 Application of Simulation Design for Clinical Educators (4 QH)

This course builds on the concepts presented in Foundations in Simulation-Enhanced Health Professions Education. Students apply knowledge of learning theory, instructional design and simulation to design a complete simulation-based learning plan for healthcare and health professions education environments. Evidence-based methods to create an environment that values all members of the health care team will be explored. Through the use of research and instructional design students develop the skills needed to select the best simulation methods and modalities and assessment criteria to measure human performance in the areas of teamwork, communication and collaboration. Other areas of that will be addressed include evaluation using a logic model, assessment theory as well as content and physical fidelity. Prerequisite: HIPS740

HIPS742 Leadership in Healthcare Simulation (3 QH)

This course is designed to help students develop from the micro-level simulation educator (simulation activity design) to the macro-level through the analysis of simulation as it relates to overall curriculum, program evaluation and organizational quality improvements. The course covers topics related to leadership in healthcare simulation such as program evaluation, patient safety, quality improvement, simulation research, mentorship and simulation lab management. Budgeting, audio visual requirements, space allocation, workflow, simulation lab personnel management, return on investment (ROI) and grant writing will also be covered. Throughout the course students develop a plan to evaluate simulation program effectiveness and make recommendations for program improvement. Prerequisite: HIPS741

HIPS 810 Dissertation Research (Min. 12 QH)

This course provides an individualized theoretical research project addressing the integration of two professions performed in a laboratory setting. The student will identify an interprofessional problem, review literature, collect and analyze data and prepare a publishable paper. Oral defense is required. Prerequisite: Successful completion of all previous coursework

HNAS 698A & B Scholarly Writing (3 QH)

This course prepares the student for graduate-level writing by providing online training in five key areas: (1) grammar & punctuation, (2) APA formatting, (3) critical analysis of text, (4) scholarly writing and (5) business writing. Students complete a series of modules in each content area. In all, there are over 200 modules that teach, develop, and evaluate capacity for scholarly writing and business writing. This course prepares the student to achieve the level of writing scholarship established by the Nurse Anesthesia program for the capstone project.

HNAS 701 Principles of Anesthesia I (4 QH)

Basic principles of nurse anesthesia will be discussed, including: preoperative assessment; the anesthesia machine and breathing circuits; airway management; monitoring; positioning; introduction to monitored anesthesia care, general anesthesia, and regional anesthesia; quality and safety in anesthesia practice; and legal and historical aspects of nurse anesthesia practice. An overview of basic anesthesia pharmacology is presented through the integrated course content of HNAS 720. A hybrid approach of web-supported didactics augmented with weekly live review and case discussion sessions will be utilized. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 702 Principles of Anesthesia II (4 QH)

Building on content presented in HNAS 701, this course provides more advanced principles of anesthesia care. Content includes advanced monitoring, anesthetic considerations for cardiac patients having non-cardiac surgery and anesthesia management of specialty surgical areas such as neurological, thoracic, renal, general, gastrointestinal, orthopedic, ear/nose/throat and ophthalmic. Trauma and burns are reviewed. Physiology, pathophysiology, and anesthetic considerations for key disease states and patient populations are included: (1) disease states- pulmonary disease, endocrine disorders, immune compromise, neuromuscular disease, genetically determined diseases and hepatobiliary disease; (2) patient populations - geriatric, morbidly obese. Associated anesthesia pharmacology is integrated with this course through HNAS 721. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 703 Principles of Anesthesia III (4 QH)

In this course, anesthetic considerations for cardiac, obstetric and pediatric patients are discussed. Unique anatomic, physiologic and pathophysiologic considerations related to these patient populations will be reviewed. HNAS 722 provides integrated content regarding anesthesia pharmacology associated with this course. A hybrid approach of web-supported didactics augmented with weekly live review and case-discussion sessions will be utilized. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 706 Regional Anesthesia and Pain Pathways (3 QH)

This course reviews the anatomy and physiology of the spinal and peripheral nerves to include acute pain pathways; and teaches the student the administration and management of regional anesthetic techniques. The pharmacology of local anesthetics and additives are studied. Procedural techniques for the administration and management of regional anesthesia, to include spinal, epidural and peripheral nerve blocks, are discussed. Ultrasound-guided peripheral nerve block techniques are presented. Students participate in hands-on ultrasound scanning in order to identify appropriate sonoanatomy. Acute pain pathophysiology and treatment modalities are taught and discussed. Evaluation of the learning is accomplished by quizzes and return demonstration of skills. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 710 Chemistry and Physics in Anesthesia (4 QH)

In this course, nurse anesthesia students receive foundational requisites in chemistry and physics that enable them to apply concepts, laws and theory to anesthesia practice. Each topic is brought to life through examples of how it is applied in anesthesia practice. Content includes the physics of radiology and ultrasound, and principles of radiation safety.

HNAS 711 Clinical Correlations I (1 QH)

The content of this course is integrated with the topics being presented in the concurrent HNAS 701 Principles of Anesthesia I course. This course provides initial clinical correlation with didactic content through use of the human patient simulator. Students will review the steps in preoperative assessment, anesthesia care planning, implementation and evaluation. Checkout and troubleshooting of the anesthesia machine will also be reviewed. Preparation of an anesthesia setup will take place. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 712 Clinical Correlations II (1 QH)

The content of this course is integrated with the topics being presented in the concurrent HNAS 702 Principles of Anesthesia II course. During this experience, students will be introduced to the human patient simulator for routine and crisis management of anesthesia. Students will rotate to a preoperative clinic for an observational experience. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 713 Clinical Correlations III (2 QH)

The content of this course is integrated with the topics being presented in the concurrent HNAS 703 Principles of Anesthesia III course. Students will continue with high-fidelity simulation exercises in preparation for transition to clinical training. Content also includes the fundamentals of radiologic principles, various techniques, topographical anatomy, contrast agents; radiation safety, basic evaluation of normal and abnormal radiographs of the chest; evaluation of proper positioning of various tubes (e.g., endotracheal tubes, chest tubes) and lines (central venous catheters); and proper techniques of safe fluoroscopic equipment use. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 714 Clinical Seminar I (1 QH)

During the clinical practicum, students will return to campus one day per month for case discussions, professional presentations (provided by students and anesthesia experts), morbidity and mortality conferences, and board review activities. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 715 Clinical Seminar II (1 QH)

During the clinical practicum, students will return to campus one day per month for case discussions, professional presentations (provided by students and anesthesia experts), morbidity and mortality conferences, and board review activities. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 716 Clinical Seminar III (1 QH)

During the clinical practicum, students will return to campus one day per month for case discussions, professional presentations (provided by students and anesthesia experts), morbidity and mortality conferences, and board review activities. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 717 Clinical Seminar IV (1 QH)

During the clinical practicum, students will return to campus one day per month for case discussions, professional presentations (provided by students and anesthesia experts), morbidity and mortality conferences, and board review activities. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 718 Clinical Seminar V (1 QH)

During the clinical practicum, students will return to campus one day per month for case discussions, professional presentations (provided by students and anesthesia experts), morbidity and mortality conferences, and board review activities. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 719 Clinical Seminar VI (1 QH)

During the clinical practicum, students will return to campus one day per month for case discussions, professional presentations (provided by students and anesthesia experts), morbidity

and mortality conferences, and board review activities. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 720, 721, 722 Advanced Nurse Anesthesia Pharmacology I, II, III (4 QH)

This course, taken over three quarters, covers the pharmacokinetic and pharmacodynamic principles of drugs, which are most commonly utilized in an anesthetic practice. Content of this course is integrated with the topics being covered in the Principles of Anesthesia course series. Drug categories that are covered include intravenous induction agents, benzodiazepines, inhalational anesthetics, opioids and neuromuscular blockers. Also covered are other commonly prescribed drug categories that have significant implications to anesthesia practice, as well as alternative medications, and illegal drugs, with a focus on their anesthetic implications.

HNAS 725 Advanced Health Assessment (4 QH)

Advanced physical assessment builds upon the basic assessment techniques learned at the undergraduate level in order to prepare the nurse anesthesia student to perform a comprehensive history and physical exam as well as a routine preoperative anesthesia assessment. Instruction is also provided in critical thinking and differential diagnosis. This course utilizes weekly classroom instruction, classroom case study application and physical exam lab practicum. Students are required to satisfactorily complete a comprehensive, standardized preoperative physical exam demonstration at the culmination of the course.

HNAS 750 Advanced Physiology, Pathophysiology and Pharmacology I (6 QH)

In this course, nurse anesthesia students receive the foundational requisites in organ-specific physiology, pathophysiology, and the corresponding pharmacologic agents commonly used to treat organ-specific disease. Course instruction begins at the cellular level, including the genetic basis of disease, and advances to include a review of various organ system functions and disease states.

HNAS 751 Advanced Physiology, Pathophysiology and Pharmacology II (6 QH)

HNAS 750 is a prerequisite course for HNAS 751. HNAS 751 continues in the same format as HNAS 750, and builds to provide a comprehensive review of the physiology, pathophysiology and pharmacology of each organ system not covered in HNAS 750.

HNAS 810 Clinical Residency I (12 QH)

Students are supervised by CRNAs and anesthesiologists at a variety of clinical sites and have opportunities to synthesize and apply previous learning. Students must maintain professionalism and be open to various teaching styles and learning experiences. It is expected that the student will remain with cases in progress through their conclusion. There will be a monthly clinical correlation conference (HNAS 714) to review clinical experiences and conduct case discussions. Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 820 Clinical Residency II (12 QH)

During this quarter, students continue rotations contingent on documented progress in daily clinical evaluations. Students are supervised by CRNAs and anesthesiologists and have opportunities to synthesize and apply previous learning. Students must maintain professionalism and be open to various teaching styles and learning experiences. It is expected that the student will remain with cases in progress through their conclusion. There is a monthly clinical correlation conference (HNAS 715) to review clinical experiences and conduct case discussions.

Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 830 Clinical Residency III (10 QH)

Students continue rotations at clinical sites contingent on documented progress in daily clinical evaluations. Students will be supervised by CRNAs and anesthesiologists and have opportunities to synthesize and apply previous learning. Students must maintain professionalism and be open to various teaching styles and learning experiences. It is expected that the student will remain with cases in progress through their conclusion. There will be a monthly clinical correlation conference (HNAS 716) to review clinical experiences and conduct case discussions.

Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 840 Clinical Residency IV (12 QH)

Students continue rotations at clinical sites contingent on documented progress in daily clinical evaluations. Students will be supervised by CRNAs and anesthesiologists and have opportunities to synthesize and apply previous learning. Students must maintain professionalism and be open to various teaching styles and learning experiences. It is expected that the student will remain with cases in progress through their conclusion. There will be a monthly clinical correlation conference (HNAS 717) to review clinical experiences and conduct case discussions.

Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 850 Clinical Residency V (12 QH)

Students continue rotations at clinical sites contingent on documented progress in daily clinical evaluations. Students are supervised by CRNAs and anesthesiologists and will have opportunities to synthesize and apply previous learning. Students must maintain professionalism and be open to various teaching styles and learning experiences. It is expected that the student will remain with cases in progress through their conclusion. There will be a monthly clinical correlation conference (HNAS 718) to review clinical experiences and conduct case discussions.

Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 860 Clinical Residency VI (11 QH)

Students continue rotations at clinical sites contingent on documented progress in daily clinical evaluations. Students are supervised by CRNAs and anesthesiologists and will have opportunities to synthesize and apply previous learning. Students must maintain professionalism and be open to various teaching styles and learning experiences. It is expected that the student will remain with cases in progress through their conclusion. There will be a monthly clinical correlation conference (HNAS 719) to review clinical experiences and conduct case discussions.

Prerequisite: Satisfactory completion of all previous courses in the Nurse Anesthesia program or faculty approval

HNAS 901 Translational Research I (3 QH)

This course focuses on the scientific principles that underpin translational research, and provides students with the tools necessary for critical evaluation, synthesis, transference and application of appropriate evidence-based findings to nurse anesthesia practice. Students will critically appraise the nature of the evidence for potential inclusion in the capstone project. This course utilizes diverse quantitative and qualitative designs and analysis strategies used in the study of health

phenomena. Emphasis will be to critique existing research for implementation into nurse anesthesia practice. This course will also enable the student to acquire introductory knowledge and skills in quantitative and qualitative modes of investigation in order to better evaluate existing research.

HNAS 902 Translational Research II (3 QH)

Building upon the content provided in HNAS 901, this course is designed to develop student knowledge and skills regarding the evaluation, translation and integration of published research results into clinical practice. Students will learn how to: (1) conceptually frame clinical practice problems; (2) transform these identified problems into answerable research questions; (3) search for the best clinical evidence; (4) assess the clinical evidence utilizing scientific, biostatistical and epidemiologic principles; and (5) integrate the research results in a culturally competent manner. Knowledge and skills regarding the critical appraisal and synthesis of research will foster the student's understanding of models used for the evidence-based practice of nurse anesthesia. Prerequisite: Satisfactory completion of HNAS 901 or faculty approval

HNAS 903 Health Policy (3 QH)

The content in this course will equip the student with the knowledge and skills needed to evaluate how public policy-making strategies impact the financing and delivery of healthcare services. Group and individual course assignments, involving the use of informatics, will include: (1) examining current trends in healthcare policy and financing; (2) examining and analyzing the process of public policy-making within a systems framework; (3) analyzing the impact of public policy decisions (legislative and regulatory at the state and/or federal level) on healthcare cost, quality and access to care; (4) utilizing strategies for policy analysis and (5) analyzing proposed policy solutions for healthcare cost reduction. This course will prepare the student to advocate for health policy change to improve patient care and advance the specialty of nurse anesthesia. The student will learn to apply methods of policy analysis to policies of relevance to their practice setting, and to use the results to advocate for policy change. Strategies to evaluate the outcomes of policy change will be incorporated. Assignments will involve designing and implementing interventions to influence policy-making.

HNAS 905A, B, C & D Doctoral Project Planning (1 QH each, Total 4 QH)

These four courses focus on specific aspects of the planning of a significant doctoral project. Guided by faculty and their doctoral project advisor, key activities may include (depending on project type): development of a project problem statement or PICO question, literature review, needs assessment, formal planning models, necessary resource identification, change management and project evaluation. Upon completion of the four courses (4 hours), the student will have developed a formal doctoral project proposal, and will have secured required approvals needed to move forward with project implementation (including Institutional Review Board approval at each involved facility if needed).

HNAS 906 Organizational Theory/Leadership and Management in Health Care (3 QH)

This course focuses on acquiring, and demonstrating the application of major theories of organizational structure and function. Content includes organizational elements/features, culture, human resources and their respective impact on outcomes/organizational effectiveness. Leadership theories and principles are analyzed and applied to the management of complex leadership situations in health care. Students will participate in assessing and improving the effectiveness of their leadership style and emotional intelligence.

HNAS 907 Quality and Safety-Outcomes Management (3 QH)

This course explores the theoretical basis of human error, patient safety and quality assurance in patient care. It introduces the systems approach framework to error investigation and analysis, and integrates concepts of teamwork, crisis management, simulation and monitoring systems in anesthesia practice. Principles of a culture of safety and quality will be analyzed. An emphasis is placed on acquiring and demonstrating the skills needed to utilize data for ethical healthcare decision-making through the process of outcomes management. Students will demonstrate the ability to: (1) assess and evaluate health outcomes in a variety of populations, clinical settings and systems; (2) effectively use data; (3) develop and assess strategies to improve healthcare environments, patient outcomes and quality of care and (4) formulate an outcomes management plan. Course content will also include integration of informatics to support culturally sensitive, evidence-based practice at a leadership level. Selected informatics topics relevant to evidence-based practice with varied populations include: (1) data capture, analysis, and application for quality and safety improvement and (2) informatics as a fundamental tool for the creation of evidence.

HNAS 908A, B & C Doctoral Immersion Residency (Total 10 QH - minimum of 400 contact hours)

The immersion residency involves those hours of practice associated with completion of the doctoral project. These practice hours may be within the domain of patient care, leadership/management, education or health care/public policy advocacy. The student will complete a minimum of 400 clock/contact hours of practicum to complete the requirements of this course. Prerequisite: HNAS 905A, B, C & D Doctoral Project Planning

HNAS 909 Economics and Finance in Health Care (3 QH)

This course is designed to provide the knowledge and skills needed for students to analyze business practices encountered in the nurse anesthesia delivery setting. Content includes: (1) basic economic theory; (2) market driving and restraining forces in healthcare and industry trends; (3) healthcare finance and reimbursement; (4) financial statements and interpretation and analysis of financial reports; (5) anesthesia billing strategies and (6) healthcare entrepreneurship. Theory and application are integrated throughout the course, particularly related to development of cost/benefit analysis and the long-term financial impact of practice changes.

HNAS 911 Professional Dissemination Skills (2 QH)

This course is designed to provide content necessary for professional presentation and scholarly dissemination of knowledge. Students will demonstrate the ability to inform the public of the role and practice of the doctoral-prepared CRNA and represent themselves in accordance with the Code of Ethics for CRNAs.

HNAS 912A & B Doctoral Project (6 QH)

The doctoral program culminates with the completion of a scholarly work that demonstrates the ability to translate research findings into practice. This is an opportunity for the student to prepare a substantial final written work product that reflects the breadth of skills and knowledge the student has gained throughout the program of study. The project should serve as a foundation for future scholarship; the student's program of study (Entry-level versus Completion-level) will assist in determining the level of practice change appropriate for the project. The Doctoral Project Guide provides information for students regarding the project, as well as key deadlines associated with each project. Following project approval by the Department of Nurse Anesthesia administrators and the doctoral project advisor, the doctoral candidate will complete the doctoral

project as evidenced by presentation of a scholarly written paper. Dissemination of the results of the project through submission for professional publication or poster session presentation is expected. Students will present their work during the final on-campus session. Prerequisite: HNAS 905A, B, C & D Doctoral Project Planning

HNAS 913 Professional Role Transition (1 QH)

This course provides the entry-level nurse anesthesia student with information critical to their successful transition into practice. Content includes: (1) professional etiquette and professional responsibilities related to interviews/offers of employment/references/ credentialing; (2) negotiation of employment contracts; (3) legal, ethical and professional implications of common employment relationships and (4) workplace culture. In addition, by the end of this course, students will provide evidence of completion of all six modules of the AANA Learn student curriculum “Wellness and Chemical Dependency in the Nurse Anesthesia Profession.”

HNUT 504 Information and Health Literacy (3 QH)

This course introduces students to the skills and techniques needed to become an information-literate individual. Students will have the opportunity to acquire and practice the following: identifying the topic of interest or developing a research question; acquiring knowledge through the efficient use of current technologies, such as online and electronic resources; establishing evaluation criteria for information resources; evaluating and integrating the acquired information to answer the original query/research question, while complying with copyright laws/guidelines and effectively communicating this information, through an appropriate medium, to the target audience in an ethical and legal manner. In addition, students will explore the impact of health literacy on patient care and health outcomes and will acquire the skills needed to assist them in translating information about diseases and their treatments into a language that healthcare consumers can understand. Prerequisite: Enrollment in the program or department approval

HNUT 505 Communication Strategies, Methods and Techniques (3 QH)

This course targets strategies, methods and techniques to enhance the effectiveness of professional and client-centered communications. Translation of evidence-based science into layman’s terms will be emphasized. Use of social media, media training and how to promote oneself as a nutrition professional will be included. Prerequisite: Enrollment in the program or department approval

HNUT 506 Health Education Teaching Experience (1 QH)

The purpose of this course is to give the student the opportunity to experience a teaching role. Students will plan, deliver and evaluate a learning module in a prevention, health and/or wellness area of their choice. Prerequisite: HNUT 532 or permission of instructor. Approval of a learning module and proposal is required prior to registration for this course.

HNUT 508 Cultural Dimensions of Health (3 QH)

The Academy of Nutrition and Dietetics recommends that nutrition professionals be prepared to address the issues of culture and health disparities in their practice. This course will explore the various food, nutrition and health habits of different cultural and ethnic groups. It will cover the effect that culture and religion play in health and health disparities. The changing demographics of the U.S. population will be reviewed with a goal of meeting healthcare and nutritional needs for all. Prerequisite: Enrollment in the program or department approval

HNUT 510 Modern Nutrition (3 QH)

This course provides an in-depth overview of human nutrition including the processes of digestion, absorption, transportation and excretion of food and nutrients; the structure, function, metabolism, requirements, deficiencies, and toxicities of protein, carbohydrate, fat, vitamins, minerals, trace minerals and ultra-trace minerals; and the fundamental principles of energy metabolism and fluid, electrolyte and acid-base balance. Prerequisite: Enrollment in Nutrition Certificate for Healthcare Professionals or permission of instructor

HNUT 511 Nutrition in Chronic Disease (4 QH)

This course gives a clinical analysis of the pathophysiological and metabolic basis for nutritional management in the prevention and treatment of chronic diseases impacting the population, including diabetes, heart disease, obesity, cancer and osteoporosis. Prerequisite: Enrollment in the program

HNUT 512 Leadership (3 QH)

This course offers the essential elements in developing leadership skills, strategic planning and team performance to support career development and professional leadership activity in health and wellness organizations. The essential elements will be explored within the dynamic evolving landscape of the U.S. healthcare delivery system. Prerequisite: Enrollment in the program or department approval

HNUT 513 Health and Wellness Coaching (3 QH)

This course builds on basic counseling skills to include health coaching techniques. The student will learn how to take a guiding role in empowering clients to choose a healthy lifestyle. Acting as a client-centered health coach and empowering the clients to become the expert in determining their own wellness goals and plans, the student will practice motivational interviewing and other techniques to reach these ends. Prerequisite: Enrollment in the program or department approval

HNUT 525 Assessment and Evaluation in Education (3 QH)

This course is designed to provide skills and tools for the evaluation of a variety of structures, processes and outcomes of education and other evaluands. The course will enable the student to effectively develop the appropriate skills and apply the theories, concepts and models related to evaluation and assessment in a variety of settings and situations. Prerequisite: HNUT 532 or permission of instructor

HNUT 526 Evaluating Research and Health Recommendations (4 QH)

This course introduces the fundamentals of the research process through the evaluation of published clinical research studies with the desired end result being the ability to critically analyze and interpret research findings and health recommendations. From an evidence-based perspective, students will select, interpret, analyze, synthesize and then summarize relevant research studies using peer-reviewed articles, write a brief literature review and develop a hypothesis for future investigation. A process for evidence-based review and analysis of current recommendations for management, treatment and prevention of disease will be introduced. This course also includes a journal club discussion in which weekly learning objectives are reinforced with practical and applicable examples from current scientific literature. Prerequisite: HNUT 585 or HIPS 561

HNUT 532 Instructional Design for Health Education (3 QH)

This course is designed to provide the healthcare professional with educational skills and techniques for the classroom, the individual client and for continuing education programs. The

skills and techniques addressed are: developing teaching materials to include learner assessment, creating learning objectives, designing student-focused teaching methods, assessing learning outcomes and evaluating the educational experience. This course will primarily focus on learning theories for the adult learner. The student will design a complete educational offering (teaching module). Prerequisite: Enrollment in the program or department approval

HNUT 541 Prevention, Health Promotion and Wellness (3 QH)

This course explores health promotion for the individual and the community. This will be accomplished through implementing basic community health concepts of epidemiology, levels of prevention and risk assessment within the context of health promotion activities. Students will analyze their own personal health promotion needs and selected needs within a chosen community. Based on the standards outlined in Healthy People 2020, students will develop health promotion activities for community health problems of their choice based on an assessment of need. Students will develop, track and analyze an individual health promotion plan for themselves. Prerequisite: Enrollment in the program or department approval

HNUT 542 Complementary Medicine and Dietary Supplements (3 QH)

This course is an overview of complementary and alternative medicine (CAM) that includes alternative medical systems, holistic, integrative, mind-body interventions and biologically based therapies including a variety of herbs and dietary supplements such as botanicals, vitamins and minerals. The regulatory policies relating to safety of the therapies will be discussed. An evidence-based process will be used to analyze associated benefits and regulatory concerns. Prerequisite: Enrollment in the program or department approval

HNUT 554 Nutrition in Critical Care (3 QH)

This course offers an in-depth review of the theory and application of the forms and components of specialized nutrition support in the treatment of various disease conditions. Prerequisite: HNUT 526, HNUT 585 and RD credential or permission of instructor

HNUT 555 Nutrition in the Lifecycle (3 QH)

This course is an overview of the nutritional requirements and concerns specific to the different stages of the lifecycle. Scientific evidence relating to nutritional recommendations will be applied to prevention, health promotion and wellness activities. Prerequisite: Enrollment in Nutrition Certificate for Healthcare Professionals program or permission of instructor

HNUT 576 Nutrition in Human Physical Performance (3 QH)

This course focuses on the role of nutrition in the physiological and metabolic responses of the body to a wide range of physical activity. Macronutrient, micronutrient and fluid needs associated with physical activity and the nutritional needs of special athletic populations will be addressed. Topics such as the role of physical activity in the prevention of disease and the promotion of health and wellness, the use of supplements in athletes and exercise prescription for health conditions will also be discussed. Prerequisite: Enrollment in the program or department approval

HNUT 582 Independent Study (3 QH)

The independent study is an individualized learning experience designed to meet the specific educational needs of the student. Prerequisite: Approval from department chair

HNUT 596 Portfolio Evaluation (2-3 QH)

The Master of Science in Nutrition degree focuses on five competency areas: nutrition and health promotion knowledge, education, critical thinking and research evaluation, professional communication and leadership. Achievement of specific learning objectives in these areas of competency will be demonstrated by the student through development of artifacts during the course of their degree program. These artifacts will be part of a required portfolio that will be evaluated by the student and a faculty committee. By the end of the course, students will have compiled a final collection of artifacts with analysis and reflections for each. Portfolio Evaluation is the final degree requirement for all students in the Master of Science in Nutrition program. Students will enroll in this course after all other course requirements are completed. A modified portfolio will be prepared by students who did not prepare artifacts as part of the required coursework. Prerequisite: Successful completion of all core and elective courses required for the MS in Nutrition Education or MS in Clinical Nutrition

HNUT 801 Fundamentals of Clinical Nutrition (1 QH)

This course provides an in-depth overview of human clinical nutrition including the components and measurement techniques of a nutritional assessment. The etiology and medical nutrition therapy of various disease conditions such as obesity, cardiovascular disease, hypertension, osteoporosis, diabetes mellitus, gastrointestinal, renal, neurological, pulmonary diseases, anemia, sepsis, trauma, cancer and other metabolic diseases are discussed. Students will be able to discuss medical nutrition therapies for various medical conditions with other members of the healthcare team and to implement the appropriate medical nutrition therapy for their patients and clients.

HNUT 802 Fundamentals of Human Nutrition (.5 QH)

This course provides an in-depth overview of human clinical nutrition including the components and measurement techniques of a nutritional assessment as well as the etiology and medical nutrition therapy of various disease conditions such as obesity, cardiovascular disease, hypertension, osteoporosis, diabetes mellitus, gastrointestinal, renal, neurological, pulmonary diseases, anemia, sepsis, trauma, cancer and other metabolic diseases. Students will gain a nutritional perspective of the macronutrients (carbohydrates, proteins and fats) and micronutrients (vitamins and minerals) to understand the physiological and psychosocial factors associated with obtaining and maintaining a healthy weight, and identify and implement the components of a healthy diet.

HPAS 500 Physician Assistant Professional Issues and Ethics (2 QH)

This course is designed to familiarize the student with the history and traditions of the Physician Assistant profession. The student will also appreciate how PAs function in various healthcare settings. This is complemented by a focused review of current philosophies, policies and ethical issues in contemporary healthcare targeted at healthcare professionals.

HPAS 501 General Medicine and Infectious Disease I (9 QH)

This course is the first in the series of three courses studying principles of patient clinical care. Using an organ-system based approach, lectures discuss the etiology, pathophysiology, diagnosis and treatment of various disease syndromes in the areas of dermatology, neurology, psychiatry, and cardiology. The course incorporates principles of diagnostic imaging study interpretation and surgical principles into the discussion of diseases. Infectious disease topics relevant to each system are also discussed. Prerequisite: HPAS 538

HPAS 502 Introduction to EKG (2 QH)

This course provides students with a systematic method of interpreting a 12-lead EKG with respect to rate, rhythm and blocks, electrical axis determination, hypertrophy, ischemia, injury, infarction, and miscellaneous drug, electrolyte, disease and pacemaker effects.

HPAS 510 General Medicine and Infectious Disease II (9 QH)

This course is the second in the series of General Medicine and Infectious Disease courses as described above. Topic areas are: endocrinology, hematology/oncology, immunology and HIV disorders, urology/nephrology, pulmonology, as well as clinical aspects of fluids and electrolytes and acid-base disorders. Prerequisite: HPAS 501

HPAS 512 Clinical Decision-Making I (1 QH)

This course will provide the PA student with the proper techniques for obtaining a medical interview and for documenting the medical record. Utilizing case studies, this course teaches the systematic approach to the assessment and management of clinical problems, including ordering appropriate diagnostic studies, developing a differential diagnosis, formulating a treatment plan, and describing disease prognosis. This is the first of four clinical problem-solving courses. Whenever possible, this course is integrated with the lecture content of the General Medicine and Infectious Disease and Pharmacotherapy I and II courses.

HPAS 513 Physical Assessment, Lecture/Lab (4 QH)

This interprofessional course will teach nurse anesthesia and physician students the skills required to perform and document a complete adult physical examination (PE). The course will also cover the assessment of special populations (pediatrics, geriatrics, pregnant patients, etc.). The course is presented on an organ-system basis with emphasis placed on recognizing normal PE findings as the basis for discerning and identifying pathologic findings. The course will also discuss the correlation between abnormal PE findings to causative disorders. Students will learn to accurately record PE findings as part of a complete history and physical document. Students also complete a standardized Head to Toe Physical Examination at the conclusion of the course.

HPAS 515 Psychosocial Aspects of Patient Care (1 QH)

This course aims to expand the student's awareness of psychological and sociological aspects that operate in the relationship of patient and physician assistant. The student investigates the contextual setting of medical practice, the patient as a person and the professional physician assistant's psychosocial considerations during patient assessment and treatment.

HPAS 518 Emergency Medicine (2 QH)

This course introduces the PA student to the principles of Emergency Medicine, including the PA's role in triage, assessment and emergency management. A range of neonatal, pediatric and adult emergencies will be covered including etiology, pathophysiology, diagnosis and treatment.

HPAS 519 Obstetrics and Gynecology (3 QH)

This course is designed to introduce and familiarize the student with the principles of Obstetrics and Gynecology. The student will be taught the etiology, pathophysiology, diagnosis and treatment of gynecological and obstetric conditions.

HPAS 520 General Medicine and Infectious Disease III (8 QH)

This course is the third in the series of General Medicine and Infectious Disease courses as described above. This final quarter focuses on disorders commonly seen in specialty practice. Topic areas are: gastroenterology, biliary disease, otolaryngology, ophthalmology, orthopedics

and rheumatology. This course also includes a series of lectures and activities that provide an introduction to the clinical year. Prerequisite: HPAS 510

HPAS 522 Clinical Decision-Making II (2 QH)

This course will provide the PA student with the proper techniques for obtaining a medical interview and for documenting the medical record. Utilizing case studies, this course teaches the systematic approach to the assessment and management of clinical problems, including ordering appropriate diagnostic studies, developing a differential diagnosis, formulating a treatment plan, and describing disease prognosis. This is the second of four clinical problem-solving courses as described above. Whenever possible, this course is integrated with the lecture content of the General Medicine courses. Prerequisite: HPAS 512

HPAS 523 Clinical Procedures, Lecture/Lab (3 QH)

This course covers the indications, contraindications, step-by-step procedures, and potential complications of multiple hands-on skills that are commonly performed by physician assistants in clinical practice. Examples of skills include: phlebotomy, injections, intravenous therapy, urethral and nasogastric catheterization, suturing, casting/splinting, and practice scrubbing, gowning and gloving for surgery. In addition, students will be required to successfully complete the Basic Life Support and Advanced Cardiac Life Support (BLS & ACLS) training course.

HPAS 525 Geriatrics (2 QH)

This course introduces the student to the principles of geriatric medicine with an emphasis on the normal changes of aging, clinical implications of the aging process, and recognizing, assessing and treating medical problems common to the geriatric population.

HPAS 528 Research and Statistics (2 QH)

This interprofessional course introduces students to research and statistics in medicine. Topics include principles of research, ethics, information retrieval, the literature review and critical examination of articles. Students begin their work on group research projects and research competencies. In the statistics portion, descriptive and inferential statistics are taught with relevance to research in medicine. Use of computers for statistical analysis is included, and students will have the opportunity to analyze data for their Master's Project.

HPAS 532 Interprofessional Case Collaborations (3 QH)

The purpose of this credit course is to prepare students to work together in collaborative interprofessional teams while understanding the concepts of pathophysiology, clinical presentation, diagnostic techniques and medical management and treatments as they apply to physician assistants and pharmacists. This course is a supplemental case-based course to the General Medicine and Pharmacotherapy courses. This course will also provide reinforcement of key concepts relevant to patient care as students work interprofessionally to solve case-based, patient-centered issues. Relevant interprofessional topics will be addressed throughout the course.

HPAS 537 Population Medicine (2 QH)

This course introduces the concepts of population medicine such as public health, epidemiology, health education, community-oriented primary care, prevention, advocacy and disparities in health care. The student will explore the connections between clinical and population medicine with emphasis on disease prevention and health promotion.

HPAS 538 Introduction to Clinical Medicine for the Physician Assistant (2 QH)

This course will provide basic concepts of general medicine, surgery, infectious disease and pharmacy that will provide the foundational knowledge necessary to understand the physician assistant clinical medicine curriculum. The course will cover the history of medicine as applied to current practice, the nature of disease and illness, clinical decision-making, the basics of microbiology and clinical laboratory medicine as applied to patient evaluation and management.

HPAS 539 Introduction to Pharmacotherapy (1 QH)

This course will provide the foundational knowledge necessary to understand general pharmacotherapy principles and practice. The course will cover pharmacodynamics, pharmacokinetics, medication safety, as well as the drug approval process used by the Federal Drug Administration. This course will also cover clinical pharmacokinetics and an overview of antibiotic therapy.

HPAS 540 Pediatrics (2 QH)

This course will introduce the student to the fundamentals of pediatric medicine, covering the age span from neonate through adolescent. The student will learn basic principles of pediatric clinical care including etiology, pathophysiology, diagnosis, and treatment of various disease syndromes, as well as child care, growth and development.

HPAS 542 Clinical Decision-Making III (2 QH)

This course will provide the PA student with the proper techniques for obtaining a medical interview and for documenting the medical record. Utilizing case studies, this course teaches the systematic approach to the assessment and management of clinical problems, including ordering appropriate diagnostic studies, developing a differential diagnosis, formulating a treatment plan, and describing disease prognosis. This is the third of four clinical problem-solving courses as described above.

HPAS 551 Leadership in the Healthcare Environment, Lecture/Discussion (2 QH)

This interprofessional course is designed to introduce the student to the concept of leadership within the healthcare environment. Leadership skills learned as part of previous service activities, sports or academic study will be applied to the healthcare setting using case studies and small group discussion. The course begins with an overview of leadership styles, and then continues with more specific topics such as building teams, evaluating others, managing finances, managing risk, marketing of healthcare and healthcare policy.

Clinical Year Clerkships/Courses

Course #	Course Name	Quarter	Credit Hours
HPAS 550	Internal Medicine		6
HPAS 560	General Surgery		6
HPAS 565	Family Medicine		6
HPAS 570	Women's Health		6
HPAS 575	Pediatrics		6
HPAS 580	Emergency Medicine		6
HPAS 591	Elective I Rotation		6
HPAS 592	Elective II Rotation		6
HPAS 690	Master's Project		8

Course Descriptions

The clerkships are designed to provide a wide range of clinical- and hospital-based experiences with emphasis on history-taking, performing the physical examination, ordering diagnostic studies, developing a diagnosis, and elaborating a management plan, as well as performing clinical and medical procedures and assisting in surgeries. These clerkships can be located in the greater Chicago area, adjacent states, distant states and in other countries depending on availability, appropriateness and student preference. Students should expect to travel to one or more clerkships at locations distant from RFU. Students are responsible for arranging their own housing during their clerkships, although some clinical sites have housing available.

HPAS 550 Internal Medicine (6 QH)

Six-week clerkship in an Internal Medicine setting.

HPAS 560 General Surgery (6 QH)

Six-week clerkship in a General Surgery setting.

HPAS 565 Family Medicine (6 QH)

Six-week clerkship in a Family Medicine setting.

HPAS 570 Women's Health (6 QH)

Six-week clerkship in an Obstetrics/Gynecology setting.

HPAS 575 Pediatrics (6 QH)

Six-week clerkship in a Pediatric setting.

HPAS 580 Emergency Medicine (6 QH)

Six-week clerkship in an Emergency Medicine setting.

HPAS 591 and HPAS 592 Elective Rotation (6 QH each)

Two, six-week clerkships in a core curriculum specialty, or a variety of subspecialties. The sites are subject to availability and approval by the department.

HPAS 600 Pharmacotherapy I (4 QH)

This course is a study of the principles of drug therapy essential to the practice of primary care medicine. The course is structured using a systems-based educational approach correlating with topics in the General Medicine & Infectious Disease course series. Essential pharmacology concepts are incorporated within each drug class unit to integrate clinical and basic science education. Prerequisite: HPAS 538.

HPAS 610 Pharmacotherapy II (4 QH)

This course is a continuation of the principles of drug therapy introduced in HPAS 600 Pharmacotherapy I. The course is structured using a systems-based educational approach correlating with topics in the General Medicine & Infectious Disease course series. Essential pharmacology concepts are incorporated within each drug class unit to integrate clinical and basic science education. Prerequisite: HPAS 600

HPAS 620 Pharmacotherapy III (4 QH)

This course is a study of the principles of drug therapy essential to the practice of primary care medicine. The course is structured using a systems-based educational approach correlating with topics in the General Medicine & Infectious Disease course series. Essential pharmacology concepts are incorporated within each drug class unit to integrate clinical and basic science education. Prerequisite: HPAS 610

HPAS 646 Advanced Physical Examination Lecture/Lab (2 QH)

This course expands upon the HPAS 513 Physical Examination course. The student will learn to perform focused physical examinations, as well as specialty exams, that are typically performed by physician assistants in clinical practice.

HPAS 650 Complementary Medicine (1 QH)

This course covers the fundamentals of numerous complementary and alternative health modalities by highlighting how the physician assistant can make appropriate referrals and educate their patients on the cultural and historical backgrounds of these therapies. The student will be given the opportunity to interact with specialists in various fields of complementary medicine.

HPAS 690 Master's Project (8 QH)

This is a research course in which students develop and execute a research project under the supervision of a faculty research advisor. There are three research content tracks available to students for the Master's Project: (1) evidence-based medicine research (EBMR), (2) educational research (ER) and (3) clinical research (CR). The research is compiled into a comprehensive thesis, i.e., paper, that is based on published guidelines. In addition, students are required to present their Master's Project to fellow students, the faculty and interested clinicians in one of two ways an oral presentation using appropriate multi-media or participation in the All School Research Consortium (ASRC) with a poster presentation. Within the ER and CR tracks students can engage in either experiential or literature-based research, while the EBMR track can be pursued only by literature-based research. Experiential research is a group project, while literature-based research is an individual project. Prerequisite: HPAS 528

HPCC 500 Research Methods for Counselors (4.5 QH)

This course provides an overview of research design issues for the counselor. A particular emphasis will be placed on the evaluation of research and applying findings to the field of professional counseling. Specific topics will include: the scientific process, reliability, validity, test construction, as well as experimental, quasi-experimental and non-experimental designs. Case studies will be used to assist the student in learning how to apply theoretical concepts to real-world research publications including research articles and test manuals.

HPCC 501 Ethical Issues and Standards for Professional Counselors (4.5 QH)

This course reviews practice standards and ethics codes as well as state and federal laws applicable to counselors. Ways to identify and resolve ethical and legal dilemmas the counselor might encounter are explored. The American Counseling Association Code of Ethics is emphasized as are the State of Illinois Counselor Licensing Act and Rules. The concept of risk management is introduced.

HPCC 502 Diagnostic Interviewing and Report Writing (3 QH)

This course reviews clinically relevant techniques for information gathering, effective listening, rapport building and the formal assessment of mental status and behavior observed during the interview process. Students will learn clinically appropriate methods of documenting information gained from the interview process. Students will learn to prepare written reports appropriate for clinical and forensic purposes.

HPCC 503 Cognitive and Behavioral Therapy-Child and Adolescent (4.5 QH)

This course will emphasize the use of empirically supported therapeutic methodologies to facilitate behavior change for a variety of clinical problems in children and adolescents. The

application of different learning principles and specific techniques of therapeutic change will be covered including parent-training interventions. The student will learn to solve problems encountered in practical application of cognitive and behavioral techniques. Emphasis will be placed on methods and procedures effective in the elimination of inappropriate behaviors and the acquisition and maintenance of appropriate behaviors.

HPCC 505 Personality Assessment for Counselors (4.5 QH)

This course provides an overview of testing theory and the application of objective psychological tests for the assessment of personality and personality development. Students will learn to administer and interpret common personality inventories. Test selection and interpretation in varied clinical situations and with diverse clinical populations will be reviewed.

HPCC 600 Substance Abuse Assessment and Treatment (4.5 QH)

This course examines substance use and abuse as clinical problems. The psychological and physical effects of drug use and abuse will be examined and the process of addiction development will be explored. The role of socio-cultural factors in substance abuse and addiction will be discussed. Diagnostic criteria and empirically-based treatment approaches will be reviewed.

HPCC 601 Group Dynamics and Counseling (4.5 QH)

This course reviews the primary theoretical approaches to group therapy/counseling. Students will learn when to apply different group therapy techniques and how to address individual differences within the group therapy context.

HPCC 602 Career Counseling and Development (4.5 QH)

This course reviews career development theories and decision-making models across the lifespan. Assessment instruments and techniques will be reviewed. Emphasis will be placed on client engagement, exploration of potential, decision strategies, preparation and implementation strategies. Sources of occupational information and career guidance programs will be evaluated.

HPCC 603A & B Practicum/Internship and Seminar I & II (5 QH each quarter for two successive quarters for a total of 10 QH)

The practicum/internship is an applied professional experience in clinical counseling. The student will have the opportunity to engage in a wide variety of clinical counseling activities at approved training sites in the community. Students will engage in clinical activities that may include, but are not limited to, performing intake assessment, conducting diagnostic interviews, providing psychotherapy or group counseling services and conducting objective cognitive, personality or career assessments. The student will work at their practicum/internship site for a minimum of 700 hours and all clinical work will be supervised on-site by a licensed mental health professional. Each semester the student is enrolled in this course, he/she must attend a one-hour seminar held on campus. During the seminar, students will present case material from their practicum/internship experience using a clinical case presentation model. This experience will allow the students to participate in the process of giving and receiving feedback in a collegial fashion. This experience will also prepare the student to successfully complete their capstone experience that will occur in the last quarter of study before graduation.

HPHW 583 Independent Study in Health Promotion and Wellness (4 QH)

Students will apply concepts and skills gained through their coursework to the professional wellness environment in an approved, interprofessional leadership experience located within a business, institution or agency. The student is expected to complete a minimum of 120 hours

within the setting, including the time needed for preliminary planning, implementing and reporting on the completed project. The final report of the completed project will be presented as part of the final Portfolio Evaluation. Prerequisite: Completion of all core and elective course requirements for the MS in Prevention, Health Promotion and Wellness degree, approval of an independent study proposal completed by the student and completion of the TeamSTEPPS credentialing process as a course component of HNUT 512

HPHW 596 Portfolio Evaluation for Health Promotion and Wellness (3 QH)

The Master of Science in Health Promotion and Wellness degree focuses on five competency areas: application of prevention, health promotion and wellness knowledge; educating the individual, family and community on health issues; leadership in an interprofessional health and wellness environment; communicating effectively as a health professional; and demonstration of critical thinking and research evaluation. Achievement of specific learning objectives in these areas of competency will be demonstrated by the student through completion of course projects. These projects will become part of an e-portfolio that will be evaluated by the student and a faculty committee. The portfolio course is the final degree requirement and capstone experience for all students in the Master of Science in Health Promotion and Wellness program.

Prerequisite: Completion of all core course requirements for the MS in Health Promotion and Wellness

HPOP 508 Health Program Planning and Evaluation (3 QH)

This course provides the theoretical foundations of public health program planning and evaluation for defined populations. Evaluation findings will be used to make recommendations for future programming or program revisions. Prerequisite: Enrollment in program or department approval.

HPOP 509 – Maternal and Child Health (3QH)

This course addresses health issues related to maternal and child health in order to provide the skills required to delineate health status and design appropriate interventions and ongoing evaluation strategies for improved health of defined communities. Socio-economic and cultural considerations as they relate to infant mortality rates and pre-natal health, will also be addressed in this course. The student will use evidence to identify health-related needs, collect appropriate data to support those defined needs, determine health disparities and identify resources to meet a set of priorities.

HPOP 510 – Rural Health (3QH)

Rural Health and Medicine defines the complexities of health in rural America. The student will be introduced to concepts of public health challenges, and health disparities unique to rural communities, and discuss contemporary interventions to improve the health to their residents.

HPOP 511 – Geriatric Health (3QH)

This course addresses the special health issues of a growing population within the continental United States. As a significant majority of our population persists and utilizes our healthcare system, policies and healthcare agencies must rally to ensure that specialized care is made available to our aging population. The student will use evidence to identify health-related needs, collect appropriate data to support those defined needs, determine health disparities and identify resources to meet a set of priorities.

HPOP 530 Research Methodology 1 (3 QH)

This course exposes students to both quantitative and qualitative foundations of research methods. Students engage in projects where they apply theoretical principles in applied settings. Real-life limitations to traditional research when methods are utilized in applied settings are discussed. Students will be prepared to ask and answer basic research questions. Prerequisite: Enrollment in program or department approval.

HPOP 535 Health Economics, Policy and Advocacy (3 QH)

This course addresses community health topics in order to provide the skills required to delineate health status and design appropriate interventions and ongoing evaluation strategies for improved health of a defined community. The student will use evidence to identify health-related needs, collect appropriate data to support those defined needs, determine health disparities and identify resources to meet a set of priorities. Prerequisite: Enrollment in program or department approval.

HPOP 540 Essentials of Population Health (3 QH)

This course is designed as an overview of the essentials of population health practices to address the prioritized healthcare needs of populations with a goal of making recommendations to improve access to care, improve quality of care and reduce cost of care. Prerequisite: Enrollment in program or department approval.

HPOP 541 Community Health Assessment (3 QH)

This course is designed as an overview of the essentials of population health practices to address the prioritized healthcare needs of populations with a goal of making recommendations to improve access to care, improve quality of care and reduce cost of care. Prerequisite: Enrollment in program or department approval

HPOP 552 – Independent Study in Population Health (3QH)

The independent study is an individualized learning experience designed to meet specific educational needs of the student. This elective course is offered all quarters. Students may enroll only with approval from the department chair.

HPOP 590 Population Health Field Research Capstone Course (3 QH)

Population Health students will demonstrate their achievement of course goals and objectives as well as proficiency of program competencies by preparing a final e-portfolio in the capstone course. The student will give a formal Power Point presentation about their portfolio to the program faculty. Prerequisite: Completion of all core courses, a field-based research project, e-portfolio, and reflection papers are also required prior to enrollment in the capstone course.

HPPT 506 Evidence-Based Practice (3 QH)

This course is an introduction to the utilization of best evidence in the practice of physical therapy. After covering the development of clinical questions, the course moves into how to identify databases and use searching strategies to find evidence. Finally, it covers the application of the evidence in the clinical practices setting. Prerequisite: Enrollment in program

HPPT 720 Physical Therapy Examination: Screening for Disease (3 QH)

This course introduces the students to screening patients for medical disease. The students will learn screening methods for identifying possible general health and/or system dysfunctions. Students will interpret and evaluate information gathered and decide whether physical therapy intervention is appropriate and/or the need for further referral is necessary. Prerequisite: Enrollment in the program or department approval

HPPT 722 Advanced Clinical Practice (3 QH)

This course is a required experience in the curriculum. It deals with best practices as identified in the Guide to Physical Therapy Practice. Specific sections include physical therapy practice and management of patients with impairments in the cardiovascular and pulmonary, neurological, musculoskeletal and integumentary system. In addition, cutting-edge wound care and lymphedema interventions are presented. The culmination of the course is an on-campus weekend in which students present their independent studies and practicum. Emphasis is on the integration of research and evidence in the area of study. The core faculty present seminar sessions, go to the Anatomy Lab and facilitate hands-on practice in the lab setting geared toward each class. Prerequisite: Enrollment in the program or department approval

HPPT 730 Pharmacology for Physical Therapists (3 QH)

This online course utilizes multiple formats to enable the student to gain an understanding of the general principles of pharmacokinetics and pharmacodynamics. The student will be able to identify medications related to specific diagnoses and drug categories common to physical therapy. The student will develop skills to screen patient medications upon initial visit. PowerPoint, text and journal readings, case studies and assignments, and discussion boards will be used. Prerequisite: Enrollment in the program or department approval

HPPT 732 Anatomical Imaging (3 QH)

This course covers basic principles and interpretation of imaging modalities as they apply to the field of physical therapy. The emphasis is on plain film radiography and how you can benefit as a physical therapist from an increased understanding of these images. Other types of imaging such as magnetic resonance imaging (MRI) and computed tomography will also be introduced, but the scope of this course will be directed toward plain film radiography. Prerequisite: Enrollment in the program or department approval

HPPT 870 Independent Study (3 QH)

This is an individualized independent learning experience with faculty support that may include but not be limited to the following:

1. Summary of the literature on a special topic
2. Specialized study of clinical techniques in an area of special emphasis
3. Special objectives and treatment of a particular patient group

Prerequisite: Enrollment in the program or department approval

HPPT 880 Practicum (6 QH)

The Practicum experience combines an independent study topic with a project that may be clinical research, administrative or education in nature. This is done with faculty support and/or a supervisor in the area of expertise needed for the practicum. It must be approved by the program director. Prerequisite: Enrollment in the program or department approval

HPSC 500, 610, 810 Clinical Practicum Supervision (1 QH)

Students from each of the first four years in the doctoral program in the psychology department will meet twice a month with their same-year peers and the Director of Clinical Training. Meetings will be held twice a month for two-hour periods. During these meetings students will discuss their clinical practicum experiences and share their experiences via group case presentations. Particular attention will be paid to helping students develop conceptualization, case formulation and treatment skills. Students will develop a greater breadth of knowledge through vicarious experiences since they will be exposed to different types of cases. Students

will also be able to present any issues they need clarification with or any difficulties they are experiencing in their clinical practicums. Students will receive help with any difficulties they are encountering in their practicum placement. In year three, students participate in an advanced specialty track clinical practicum supervision seminar. In year four, they participate in a consultation and supervision course where they are exposed to didactic sessions on this topic and the practice of supervision.

HPSC 501 Advanced Specialty Seminar: Psychopathology (1 QH)

The course is designed as an advanced seminar to give students additional exposure to selected research in psychopathology with clinical implications and to improve students' clinical skills by strengthening their case analysis abilities. Course objectives include learning current knowledge about evidence-based treatment for specific conditions and a recognition of the limitations of current knowledge.

HPSC 502 Advanced Specialty Seminar: Health Psychology (1 QH)

This course is designed as an advanced seminar for students with interest in health psychology. The course will address applied clinical and research issues in the field of health psychology, using a combination of readings, student presentations and faculty presentations. Course objectives include improving student case conceptualization skills in health psychology treatment and assisting students in developing an advanced understanding of evidenced-based approaches to assessment and treatment in health psychology.

HPSC 503 Advanced Specialty Seminar: Neuropsychology (1 QH)

This course is designed as an advanced seminar for students with interest in neuropsychology. It covers a broad range of topics including professional development, issues relevant to the changing dynamics of clinical neuropsychology in clinical practice and research, use of tests and procedures in clinical practice, and neuropsychological features of both pediatrics and adult populations.

HPSC 510 Psychological Statistics I (5 QH)

This course is an introduction to the methods of modern statistical analysis and its use in drawing conclusions from data collected in surveys and in the laboratory. Topics covered include descriptive statistics, probabilities, confidence interval estimation of population parameters, tests of significance, correlation and regression, and analysis of variance.

HPSC 511 Psychological Statistics II (4 QH)

This course covers correlational techniques, partial correlation, regression analysis, analysis of variance, simple and complex experimental design, analysis of covariance and multivariate analysis.

HPSC 515 Experimental Design and Program Evaluation (4 QH)

This course provides an overview of research design in psychology with emphasis both on the implementation and the evaluation of psychological research studies. Specific topics include: the scientific process, external validity, construct validity, internal validity, experimental, quasi-experimental and non-experimental designs and conclusion validity. The goal is to establish a firm foundation in the fundamentals of research design that will allow students to both design their own research projects as well as critically evaluate studies in the psychological literature.

HPSC 520 Descriptive Psychopathology (4.5 QH)

This course presents an in-depth analysis of the DSM-V diagnostic criteria for major categories of psychopathology. The concepts of mental illness in general, as well as specific categories of mental illness such as schizophrenia, affective disorders, anxiety disorders, organic brain disease and personality disorders are covered. This course also introduces the concept of the role of mental status and behavioral observations as part of the diagnostic formulation.

HPSC 521 Theoretical Psychopathology (3 QH)

In-depth analysis of contemporary, psychosocial, cognitive and biological theories concerning the major forms of psychopathology. Emphasis is placed on recent empirical findings regarding the etiology of mental disorders.

HPSC 541 History and Systems (2 QH)

Historical antecedents through contemporary positions involving philosophy and clinical developments are analyzed and critiqued in the framework of current knowledge, problems and future directions.

HPSC 560 Cognition and Cognitive Assessment and Lab (4 QH)

Theoretical and practical issues of test construction and measurement are considered in-depth along with issues of development, standardization and validation of psychological tests. Theory of assessment of adult intellectual functioning and practical application of the Wechsler Scales are included.

HPSC 567 Neuropsychological Assessment (4 QH)

The course explores the use of psychological tests in the evaluation of the relationship between brain and behavior. The goal of this course is to acquaint students with modern neuropsychological approaches to normal and abnormal behavior along with methods of assessing the neurological basis of behavioral problems.

HPSC 571 Independent Study (1-3 QH)

This is an independent study course, which would involve students to typically work one-on-one with an instructor. This course would typically involve the reading of articles, meeting with the instructor to gain more knowledge in a certain area and possibly mini quizzes, etc.

HPSC 573 Health Psychology: Psychological Comorbidities of Physical Illness (4 QH)

This course is an introduction to the psychological disorders that are frequently comorbid with physical health conditions. The etiology of select physical conditions, their psychological correlates, assessment and specific interventions will be discussed.

HPSC 574 Neuropsychological Models of Cognition and Emotion (3 QH)

This course provides a survey of the current theories on the neurological basis of human behavior, normal and pathological. Evidence relevant to these models will be examined including traditional clinical lesion approach and more recent neuroimaging findings. Discussion of these models is framed in the context of selected clinical syndromes. The importance of individual differences (e.g., sex, culture) genetic factors and environmental context will be integrated with the neurological perspective in the examination of the cognition and emotion over the lifespan.

HPSC 575 Social Psychology (3 QH)

This course provides an in-depth discussion of theory and research contribution to social functioning, development and organizational issues. The utilization of social psychological principles in applied settings will be examined.

HPSC 576 Essentials of Physiological Psychology and Behavioral Neuroscience (3 QH)

This course provides an overview of how the nervous system controls behavior. It begins by examining the intrinsic properties of neurons and how these cells enable information to flow through the nervous system. Topics include organization of the nervous system, structure and function of neurons, and neural communication. It then examines relevant methods for investigating the nervous system including relevant anatomical, behavioral, cellular, imaging and neurophysiological approaches in animal and human behavior. The course concludes with an overview of how neurons work together regionally and as part of the system or circuit to support higher-order phenomena such as sensory perception, motor control, emotion and cognition.

HPSC 577 Socio and Cultural Foundations of Behavior (4.5 QH)

Using a systems approach, this course will examine the impact of privilege on students' perception of culture, diversity, and identity. Students will explore their own culture, and their reactions to and perception of persons who are different. The course specifically examines class, ability, gender roles, ethnicity and sexual orientation, and the interaction between those statuses and clinical issues. Strong emphasis will be placed on the constructions, meaning and experiences of difference in an effort to prepare students to function as culturally responsive, ethical psychologists, plus some social foundations of behavior curriculum.

HPSC 620 Psychopharmacology Essentials (1 QH)

The class will review common medications used to treat existing mental health conditions such as depression, anxiety, bipolar conditions, psychotic conditions, schizophrenia, PTSD, etc. Students will learn the underlying pharmacodynamics and common side effects associated with use of these medications. Students will be able to describe the various neurotransmitter roles and mechanisms of actions of the psychotropic medication, be knowledgeable of the different therapeutic dosages of commonly used psychotropic medications and common combinations of medications. Students will be able to compare and contrast common adverse side effects among the different medications used to treat the aforementioned conditions.

HPSC 664 Personality Assessment (4 QH)

This course encompasses the theory and application of objective psychological tests for the assessment of personality and personality development.

HPSC 668 Theories of Personality and Emotion (3 QH)

Major personality theories are covered, with an emphasis on current approaches and empirical bases. In addition, this course will review different approaches to the study of emotion. The course will cover research methodology, current controversies and implications for clinical practice. Current research on the impact of personality traits and emotional responses on behavior and relationships between normal and abnormal personality traits is reviewed.

HPSC 669 Theories of Counseling and Psychotherapy (4.5 QH)

This course provides an introduction to the major systems of psychotherapy and counseling. The implications of psychotherapy systems for case formulation and the similarities and differences between different psychotherapy systems are reviewed. The course places special emphasis on the key assumptions of various applied theories, the role and basic methods of clinical assessment, the stages of therapy, the role of the therapeutic relationship and the goals and strategies to effect change. Credit hours on gender-sensitive psychotherapy and culture-sensitive psychotherapy are included. Research bearing on and based on these systems is considered.

HPSC 690 Cognitive and Behavior Interventions (5 QH)

This course will emphasize the use of empirically supported therapeutic methodologies to facilitate behavior change for a variety of clinical problems in adults. The application of different learning principles and specific techniques of therapeutic change will be covered. The student will learn to solve problems encountered in practical application of cognitive and behavioral techniques. Emphasis will be placed on methods and procedures effective in the elimination of inappropriate behaviors and the acquisition and maintenance of appropriate behaviors.

HPSC 750 Advanced Physiological Research Seminar (lab for HPSC576 Essentials of Physiological Psychology and Behavioral Neuroscience) (1 QH)

This introduction to human neuroanatomy involves examination of the gross brain, sections, and slides. Students will learn to identify structures and their function, especially those pertaining to the course content of HPSC 576 Essentials of Physiological Psychology and Behavioral Neuroscience.

HPSC 751 Health Psychology: Cognitive, Affective and Physiological Bases for Behavior (4 QH)

This course provides an overview of representative content areas and conceptual approaches to health psychology/behavioral medicine. It considers the concepts of stress and coping; autonomic and immune function; endocrine parameters and epidemiological approaches to outcomes in cardiovascular disease, cancer, diabetes, obesity and the addictions.

HPSC 754 Lifespan Developmental Psychology (4.5 QH)

The course is a basic developmental course covering the entire lifespan from biological, social and cognitive perspectives. Special emphasis will be placed on the unique methodological features of developmental research and the application of developmental research in the clinical setting.

HPSC 755 Ethical Issues and Professional Standards in Clinical Psychology I (1 QH)

The course is designed to introduce the doctoral student to professional training in clinical psychology. A broad range of topics is reviewed including professional training, specialization within clinical psychology, professional ethics and career development. Emphasis is placed on the student's development of a comprehensive understanding of ethical principles and issues affecting the practice of contemporary clinical psychology.

HPSC 756 Ethical Issues and Professional Standards in Clinical Psychology II (3 QH)

The course examines practice guidelines including the Clinical Psychologist Licensing Act. It also examines ethical and legal guidelines for advertising, confidentiality, custody, malpractice and other forensic issues.

HPSC 783 Family Systems and Therapy (4.5 QH)

In this course students are introduced to the major models of family therapy. Primary theorists and techniques of each model will be considered. Students will explore a variety of family systems with an emphasis on understanding cultural, gender and sexual orientation differences as they relate to family therapy. Students will understand and complete assessment procedures with a particular emphasis on genogram construction and interpretation.

HPSC 784 Professional Seminar in Clinical Fundamentals-Therapy (3 QH)

Objectives: Prepare for therapy practicum in the second year. Through practice, discover basic clinical strengths and areas of growth; learn specific systemic issues relevant to particular practicum sites; increase knowledge, awareness and skill in working with diverse populations.

Understand the importance of professionalism, such as boundaries, limits of competence and limits of confidentiality. Learn the fundamentals of interviewing. Develop an understanding of formulations based on cognitive behavior therapy.

HPSC 785 Professional Issues Seminar (3 QH)

This course will review the foundations and contextual dimensions of mental health counseling. Emphasis will be placed on understanding the roles, functions and identity of mental health counselors. The organization and structure of the professions including professional organizations and regulation of the profession will also be studied. Professional issues related to the practice of counseling will be reviewed including insurance reimbursement and regulations, private and group practices as well as employment in a variety of settings. Assessment and design of mental health systems will be reviewed. Principles, theories and practices that pertain to a variety of programs and facilities for treatment will be analyzed. Finally, approaches to practice organization including finance and budgeting, management policies and procedures, accounting, legal organization of practices and cost containment procedures will be discussed.

HPSC 788 Forensic Psychology (2 QH)

This course will offer a survey of the history of forensic psychology, landmark cases, relevant American law, frequently used statutes and guidelines in criminal cases (e.g., sanity, competency and diminished capacity), civil cases (e.g., competency, commitment, disability and child custody) and hybrid criminal/civil matters (e.g., sex offender commitment), ethical guidelines and professional issues.

HPSC 800 Clinical Practicum (variable credit)

This is a clerkship in clinical inpatient and outpatient psychiatric, psychological and medical settings. Under direct supervision of psychologists (or in selected instances psychiatrists), this typically takes place throughout the student curriculum.

HPSC 850 Research Practicum (variable credit)

This is an individual research practicum with faculty members of the department of psychology along with research experiences with clinical faculty and affiliated institutions. The duration of these experiences typically encompasses the entire year.

HPSC 890 Dissertation Research (12 QH)

This designation is utilized for students who have completed all course and research requirements but are continuing with thesis/dissertation work.

HPSC 891 Internship (12 QH)

This designation is utilized for students who have completed all course and research requirements but are continuing with thesis/dissertation work while on internship.

HPTH 500 Zero Hour Registration (0 QH)

A course designation for students pursuing individual academic activities.

HPTH 501 Practical Statistics (3 QH)

Practical Statistics is an introduction graduate course covering basic principles of biometry and applied statistical methods utilizing current computer software. Prerequisite: Enrollment in the program or department approval

HPTH 618 Orientation to Physical Therapy (3 QH)

This course will explore the healthcare delivery system in general as well as the history of physical therapy; professional, ethical and legal aspects of practice; the current practice of

physical therapy; and the physical therapist's roles as a practitioner, leader, educator, researcher and critical thinker in a variety of settings and in wellness and prevention. Medical terminology will be also introduced. Prerequisite: Enrollment in DPT program

HPTH 619 Principles of Education (1 QH)

This course introduces students to the teaching and learning process. Students will have the opportunity to write learning objectives, develop content, select teaching methods and develop and evaluate a learning experience for classmates. Prerequisite: Enrollment in DPT program

HPTH 620 Clinical Skills I (5 QH)

The emphasis of Clinical Skills I is on the management of the total patient, including the patient's direct needs and related physical therapy responsibilities. Topics include written and verbal communication, referral services, emergency care, infection control; physical therapy evaluation, physical assessment, and screening; patient handling skills, positioning, bed mobility, transfers, gait training, selected CV and P topics, bandaging, thermotherapy and cryotherapy. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 622 Critical Inquiry I (4 QH)

Students are introduced to the elements of thought and the logic of critical thinking. Measurement theory and principles as applied to clinical practice and research are studied. The role of the researcher in professional practice is examined. Principles and application of scientific inquiry are emphasized. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 623 Practice Issues I (1 QH)

This course is an introduction and orientation of the clinical education process and philosophy within the entire curriculum. Requirements and expectations from clinical faculty are discussed. Professional behaviors and clinical decision-making are introduced. Evaluation of self, the clinical setting, and clinical faculty is defined. Effective professional communication skills are practiced. Investigation, negotiating, planning and selection of Summer Quarter Module 5 clinical experience Clerkship I is initiated. Prerequisite: Satisfactory completion of all previous courses in DPT program and/or approval of faculty

HPTH 630 Clinical Skills II (3 QH)

This course introduces basic physical therapy examination, evaluation and intervention skills. The student will begin to formulate goals and an intervention plan based on examination results. Clinical examination, evaluation and intervention principles including range of motion and muscle testing, neurologic assessment, orthopedic special tests, therapeutic exercise, manual therapy, soft tissue mobilization, documentation and posture will be studied. Specific examination, evaluation and intervention skills for the joints of the upper extremity will be presented. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 631 Clinical Skills III (3 QH)

This course continues with the examination, evaluation and intervention principles introduced in Clinical Skills II. Specific examination, evaluation, and intervention skills for the joints of the lower extremity and spine will be presented. The student will also study electromagnetic radiation, lasers, hydrotherapy, ultrasound and pathological gait. This course emphasizes comprehensive physical therapy case management including integration of previous Clinical

Skills courses. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 634 Orthopedic Clinical Medicine (3 QH)

This course is a study of musculoskeletal and orthopedic conditions commonly treated by physical therapists. Course material includes etiology, pathology, clinical manifestations and medical and surgical treatment. This medical course is presented in sequence with clinical evaluation and treatment planning coursework. Case studies will be used to integrate material from these courses. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 635 Kinesiology/Motor Control I (3 QH)

Principles of tissue mechanics, muscle mechanics and principles and theories of motor control and motor learning are presented, along with methodology for static and dynamic analysis of movement. This information is applied to the prevention and rehabilitation of neuromusculoskeletal disorders. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 636 Kinesiology/Motor Control II (4 QH)

Principles and concepts of kinesiology are applied to the study of normal human movement, osteokinematic and arthrokinematic joint motion, surface anatomy and muscular control of limb segment motion. These concepts are integrated with principles and theories of motor development, motor learning and motor control within the context of simple and complex motion analysis for joints of the extremities and spine. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 640 Clinical Skills IV (5 QH)

This course covers the physical therapy examination, evaluation and intervention of persons with neurological disorders. Emphasis is on the development of clinical decision-making and reasoning for the treatment of persons with neurological disorders. Basic concepts and clinical application of electrotherapy are introduced. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 642 Critical Inquiry II (3 QH)

Descriptive and inferential statistics with relevance to physical therapy and clinical research will be discussed. Instruction includes the use of the computer for statistical analysis. The students will have the opportunity to use statistics for a small pilot study. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 643 Practice Issues II (2 QH)

This course continues the investigation of clinical education issues and processes. Final plans and requirements for the first clinical experience Clerkship I are defined. Professional behaviors are further explored. Evaluation requirements of self, clinical setting and clinical faculty are explored. Effective professional communication skills are practiced. Investigation, planning and selection of Winter Quarter Module 7 Clerkship II is initiated. Prerequisite: Satisfactory completion of all previous courses in DPT program and/or approval of faculty

HPTH 644 Neurological Clinical Medicine and Pharmacology (3 QH)

This course is a problem-based introduction to the medical and pharmacological treatment of neurological conditions commonly treated by physical therapists. This course is coordinated with

neuroscience and clinical skills to enable students to examine the structural and functional aspects of the neurological system in tandem with discussion of neurological disorders such as multiple sclerosis, Parkinson's syndrome and cerebral vascular accident. Topics include etiology, pathology, clinical manifestations and prognosis, as well as medical, surgical and pharmacological treatments with application to physical therapy. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 645 Clinical Physiology (6 QH)

This course will examine theory and application of physiological concepts as related to exercise, physical therapy and rehabilitation. Areas of study include physiology of the connective tissue, integumentary, nervous system, bioenergetics, energy substrate metabolism, endocrinology, cardiovascular physiology, respiratory physiology, chronic disease and exercise, and principles of exercise training. Emphasis will be on human performance and exercise physiology through the lifespan in health, common associated pathologies and lifestyle-related disease processes. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 646 Fundamentals of Physiology (4 QH)

The fundamentals of human physiology relating to basic cellular function, embryology, the cardiovascular system, respiration, the endocrine system (including reproduction), the gastrointestinal system, the renal system and hematology (including the function of white blood cells) will be presented. Physiological concepts and mechanisms will be organized according to five themes: homeostasis and control systems; biological energy use; structure/function relationships; communication and pathophysiology. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 717 Clerkship I (6 QH)

This is a six-week, full-time (240 hour) clinical experience in which the student will participate in a clinical setting. It is a supervised experience with the opportunity for the application of previous didactic learning and professional socialization. This is an orientation to the clinical practice of physical therapy with participation in patient care activities, professional collaboration, professional operations and communication skill development. Students will practice the principles of case reporting and case documentation. Prerequisite: Satisfactory completion of all previous courses in DPT program and approval of faculty

HPTH 720 Clinical Skills V (4 QH)

In this course, students integrate and apply various evaluation and treatment approaches for the patient who exhibits neuromusculoskeletal dysfunction. Students will evaluate evidence for evaluation and treatment approaches for this population of patients. Advanced exercise and manual therapy evaluation and intervention techniques are presented. Students also study electrotherapeutic principles and application for pain, wounds, edema and iontophoresis. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 721 Clinical Skills VI (3 QH)

In this course, students integrate, apply and justify various examination and intervention approaches for the patient who exhibits neuromuscular dysfunction. Synthesis of knowledge is emphasized for refinement and modification of assessment and intervention of the complex

patient through case studies. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 722 Critical Inquiry III (1 QH)

This course prepares students for dissemination and use of research. Students will have the opportunity to present their group research project in both written and platform form, and to critically evaluate case report research. In addition, students will learn to present research in a scientific poster. Students will use concepts of evidence-based practice to evaluate and use empirical evidence in clinical decision-making. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 724 Advanced Clinical Medicine and Pharmacology (5 QH)

Clinical medicine topics are integrated with neuromusculoskeletal treatment. The student learns to differentiate between those conditions appropriate for physical therapy intervention and those that require referral to other medical specialists. Pharmacological interventions begun in Quarter Module 4 are continued. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 725 Advanced Regional Anatomy (2 QH)

Students will examine in-depth the anatomy of various joint regions of the human body. Anatomical views of pathology via plain film radiographs, MRI and CT scan will be analyzed. Discussions and integration of previous coursework with skeletal models, dissections and/or projections will be used to improve understanding of normal and abnormal function. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 737 Clerkship II (12 QH)

This is a 10-week, full-time (400 hour) clinical experience in one or more selected clinical practice settings. It is a supervised experience with the opportunities to synthesize and apply previous learning. Time management skills, ethical decision-making, and integration of assessment and goal-setting will be emphasized. Incorporation of increasingly varied and adaptable approaches to treatment will be employed. The student is expected to project and predict outcomes of intervention, and determine the value of various healthcare services for the existing or potential problems of the patient. A patient-centered case study project will be designed and conducted. Presentation of this research activity will be in Quarter Module 8. The student will begin to explore healthcare arenas and begin to define interests for culminating clinical experiences. Prerequisite: Satisfactory completion of all previous courses in DPT program and approval of faculty

HPTH 740 Clinical Skills VII (3 QH)

The student will further synthesize and analyze the rehabilitation of clients with complex disorders integrating divergent practice areas into clinical decision-making processes. Topics include geriatrics, pelvic health, lymphedema, oncology, abuse, preventive behaviors and aquatic therapy. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 741 Pediatric Physical Therapy (4 QH)

This course builds on the knowledge of typical and atypical development from birth through adolescence received in other courses to explore the effects of atypical development on movement acquisition. Physical therapy examination, evaluation and intervention planning and

implementation are discussed in reference to infants, children and adolescents across different settings. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 742 Physical Therapy in the Critical Care Sector (2 QH)

This course presents a focus on patients with illnesses requiring critical care, who often have multi-system impairments. It will cover the examination, evaluation, interventions and outcome strategies in different environments throughout the continuum of care for this population of patients. Topics covered include: OSHA's Bloodborne Pathogens and Hazardous Communication Standards, Clinical Emergencies, Patient Care in the ICU, Organ Transplantation, Lab Values, Burn and Wound Care, Grieving and Loss as well as Hospice Care. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 743 Practice Issues III (1 QH)

This course analyzes clinical experiences from Clerkship I. Clinical problems and solutions will be discussed. Ethical situations and dilemmas are addressed. Students will practice effective verbal and non-verbal communication skills. Investigation, design, and selection of Winter Quarter Module 7 clinical experience Clerkship II are completed. Prerequisite: Satisfactory completion of all previous courses in DPT program and/or approval of faculty

HPTH 744 Prosthetics/Orthotics (3 QH)

The principles of prosthetic and orthotic management will be discussed with emphasis on examination, evaluation, intervention and interprofessional collaboration and referral. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 747 Cardiovascular and Pulmonary Physical Therapy I (2 QH)

This is the first of a two-course series focusing on Physical Therapy management of cardiovascular and pulmonary health. This course covers the physical therapy examination, evaluation and intervention planning for individuals with cardiovascular and pulmonary disorders or dysfunction in different care environments throughout the continuum of care. Prerequisite: Satisfactory completion of all previous courses in DPT program and/or approval of faculty

HPTH 748 Cardiovascular and Pulmonary Physical Therapy II (2QH)

This is the second of a two-course series focusing on Physical Therapy management of cardiovascular and pulmonary health. This course covers physical therapy intervention strategies for individuals with primary or secondary cardiovascular and pulmonary disorder or dysfunction. Intervention strategies covered include mobilization, breathing control, ventilatory strategies, airway clearance, patient education and self-management, as well as exercise prescription focused on functional outcomes, strength and endurance components. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 749 Critical Inquiry IV (1 QH)

This course completes the Critical Inquiry sequence. Advanced measurement principles and topics in research and statistics will be introduced. Students will have the opportunity to present their group research project and a case report as a poster presentation, and propose an intervention research study. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 823 Practice Issues IV (2 QH)

This course analyzes clinical experiences in Clerkship II. Clinical problems and solutions will be discussed. Students will practice effective verbal and non-verbal communication skills. Investigation, design and selection of Fall Quarter Module 10 clinical experience Clerkship III are completed. Planning, design and selection of Winter or Spring Quarter Modules 11 or 12 clinical experience Clerkship IV is initiated. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

HPTH 827 Clerkship III (10 QH)

This is a 10-week, full-time (400 hour) first culminating experience in one or more selected clinical practice settings. It is a supervised experience with the opportunities to synthesize and apply previous learning. The student is expected to be a mature, self-directed learner and demonstrate increasingly competent behaviors in professional interaction, communication, consultation, and management. Time management, ethical decision-making, and integration of assessment and goal-setting will be emphasized. Prerequisite: Satisfactory completion of all previous courses in DPT program and approval of faculty

HPTH 837 Clerkship IV (12 QH)

This is a 12-week, full-time (480 hour) experience in one or more selected clinical practice settings. It is a supervised experience with the opportunities to synthesize and apply previous learning. The student is expected to be a mature, self-directed learner and demonstrate increasingly competent behaviors in professional interaction, communication, consultation, and management. Time management, ethical decision-making and integration of assessment and goal-setting will be emphasized. The student may have negotiated and designed this clinical experience. The clinical work will be conducted and/or monitored by an experienced physical therapy clinician, or perhaps a Certified Clinical Specialist, in the area of interest of the student. The student will be expected to complete all assignments of the clinical site, and to complete all previous research competencies. Prerequisite: Satisfactory completion of all previous courses in DPT program and approval of faculty

HPTH 843 Practice Issues V (1 QH)

This two-week on-campus seminar includes guest presentations, student presentations, faculty panels and university awards, and concludes with the graduation ceremony. It occurs at the end of Spring Quarter, Year 3. Students will present their experiences and activities from HPTH 848 Professional Practicum. Students will correlate and assemble all documents required for the faculty to approve their completion of degree requirements. Faculty advisors must be consulted on an individual basis for exit information. Students will also meet with their research portfolio adviser to finalize the portfolio's components. The students will also meet with representatives from the financial aid office to discuss necessary procedures and topics prior to graduation. Guest lecturers discussing current professional and legislative issues and practice trends in rehabilitation will be presented. Students will participate in the National Physical Therapy Examination preparation course. Students will evaluate the curriculum at this culminating point. Prerequisite: Satisfactory completion of all previous courses in DPT program and/or approval of faculty

HPTH 848 Professional Practicum (12 QH)

The Professional Practicum is a 12-credit, independent study that the student completes in the final year of the Doctor of Physical Therapy program. The purpose of the practicum is for the student to pursue an individual interest within the areas of administration, critical inquiry,

education or healthcare policy. Although the focus is in one area, the student must integrate objectives from the other areas. The student, with input from their advisor, designs the project, develops the objectives to guide the experience and is responsible for timely completion of the practicum project. At the end of the 12th quarter, each student will be responsible for an oral and written summary of their project. Prerequisite: Satisfactory completion of all previous courses in DPT program or approval of faculty

MBCH 616 Crystallization of Membrane Proteins (3 QH)

This course will teach the student cutting-edge approaches used in the over-expression and crystallization of clinically relevant membrane proteins. Techniques include vapor diffusion approaches, lipid cubic phase methodology, crystal manipulation and manipulation and monitoring of detergent levels. The student will be actively involved in experimental design, execution and data analysis.

MBCH 630 Protein Structure and Mechanism (3 QH)

This is a course of lectures, student presentations and seminars by outside speakers on aspects of medically relevant proteins and enzymes. The following subjects are covered: protein sequence methodology, disease states and drug design considerations, X-ray crystallography, computer graphic modeling, chemical and enzyme kinetics including regulatory kinetics, enzyme mechanisms and chemical modification of enzymes.

MCBA 500 Clinical Anatomy (8.5QH)

Clinical Anatomy is an interprofessional course in which students learn the gross structure and function of the human body. The course includes a comprehensive series of lectures, a clinical correlation conference, an introduction to medical imaging, and complete dissections of human cadavers in the laboratory.

MCBA 501 Clinical Anatomy (10 QH)

Both gross anatomy and developmental anatomy are studied in this course. Laboratory time is devoted exclusively to the regional dissection of human cadavers. Supplementary offerings within the course include films, prosected cadavers and bone sets for individual study.

MCBA 802 Dissection-Based Anatomy (6 QH)

This course is designed to enable students pursuing surgical careers to review anatomy in a regional area of their choice. The elective will be available Winter and Spring quarters. Students must submit a proposal to their course director and a sponsoring faculty member, and keep a detailed dissection log. A project should be completed within a quarter but could be extended by petition.

MCBA 808 Prosection and Laboratory Instruction (2-6 QH)

Students will prepare prosection (outside of regularly scheduled student lab time) and teach M1 and P1 students in the laboratory section of the Clinical Anatomy course. Students will attend all scheduled lecture and laboratory sessions in the assigned week(s), in addition to providing individual or small-group supplemental instruction and review sessions. Students will keep a log of the time spent on each activity, to total a minimum of 35 hours per week for one week of Senior Intramural Elective Credit. This elective is offered Fall and Winter quarters only when Gross Anatomy is in session.

MCMP 600A, B & C Foundations of Medical Pharmacology (11 QH)

The subject matter is covered in lectures, conferences and tutorials. The mechanism of actions of drugs at molecular, cellular and biochemical levels, and factors affecting drug absorption, distribution, metabolism and excretion are discussed. Pharmacogenetics, gene therapy, drug interactions, therapeutic uses, contraindications and side effects, and the toxicology of selected compounds are presented.

MCMP 610 Molecular and Biochemical Bases of Neuropsychiatric Disorders (1 QH)

This course takes a multidisciplinary approach to present various neurochemical correlates of normal and abnormal behavior. Current biochemical theories of different neuropsychiatric disorders are presented in some detail; the rationale underlying use of different classes for the treatment is presented. Discussion of addiction-causing drugs and relationship to their suggested mechanism of action is presented.

MCMP 612 Neuropharmacology (1 QH)

This course focuses on the biochemistry of neurotransmitters in the CNS and factors regulating their activity. Chemical structure-pharmacological activity relationships of psychotropic drugs and the rationale behind their chemical modification that guide drug design are presented.

MCMP 613 Principles of Drug Action and Therapeutics (1 QH)

The purpose of this course is to present a comprehensive and coherent explanation of the science of pharmacology in terms of its basic concepts and principles. It will cover various ethics, moral and legal aspects of drug development. It will follow the path of various classes of drugs from their administration to their absorption, distribution, biotransformation and elimination. Dose-response relationship and host factors influencing drug reactions and interactions will be discussed.

MCMP 615 Regulation of Gene Expression by Drugs of Abuse (1 QH)

Drugs of abuse, such as cocaine, cause altered expression of genes in neurons of brain systems that are involved in the generation of motivated behavior. Such changes in gene regulation are part of the neuronal basis for drug addiction and dependence. Our research focuses on the effects of drugs of abuse on gene regulation in the basal ganglia and related forebrain systems. We mainly investigate how psychostimulant drugs affect the expression of genes that encode peptide neurotransmitters, transmitter-related enzymes, receptors, ion channels and transcription factors, and how such neuronal changes alter basal ganglia output and behavior. These studies contribute to our understanding of the molecular and cellular changes underlying drug addiction. The offered course is part of this research.

MCMS 500 Clinical Foundations of Medicine-EMT (6QH)

Foundations of Medicine-EMT is a course designed to develop standardized clinical performance skills and an initial approach to the patient, providing patient care that is safe, effective and efficient through accurate initial data collection and screening, application of appropriate stabilization protocols, transport and turnover of the patient at the receiving hospital site. Standardized, established protocols and clinical skills expected at the National Registry Certification EMT-B level will be taught.

MCMS 505 a/b Infection-Immunology-Hematology (9.5QH)

This course focuses on the development and function of the hematological and immune systems, and the basic properties of microbes. In addition, the clinical presentation, diagnosis, treatment, and prevention of infectious disease and disorders of the immune and hematologic systems will be described with an emphasis on pathophysiological mechanisms.

MCMS 510 Scientific Foundations of Medicine (10.5QH)

This course presents the scientific foundations of evidence-based medicine. The bases of the biochemical, molecular and cell biological, histological, genetic, embryological, pathological and physiological underpinnings of human health and disease are provided. Emphasis is placed on the regulation and integration of processes by comparing the normal and pathological states associated with function and dysfunction of humans from the molecule to the whole patient.

MCMS 515 Gastroenterology (8QH)

The focus of this course is the recognition and understanding of health and disease in gastroenterology. Clinical data, along with an understanding of normal structure and function, pathophysiology and epidemiology, will be used to construct differential diagnoses for common clinical presentations. Diagnostic testing and treatment will be covered. Health maintenance, disease prevention and interprofessional collaboration will be emphasized.

MCMS 520 Skin (3.5QH)

This course focuses on the basic science and clinical aspects of skin using a combination of large and small group learning sessions, online modules, laboratories, and case studies.

MCMS 525 Cardiovascular-Pulmonary-Renal (15QH)

This course provides the student with an overview of the basic science and clinical aspects of the normal and pathophysiological functions of the cardiovascular, pulmonary and renal systems that will enable the student to recognize, understand, diagnose and treat the common clinical cardiovascular, pulmonary and renal system conditions/diseases and to promote preventive interventions relevant to those common conditions.

MCMS 600 Musculoskeletal (4QH)

This course focuses on the basic science and clinical aspects of the musculoskeletal system using a combination of lectures, large and small group learning sessions, online modules, laboratories, and case studies.

MCMS 605 Neurobehavioral Health (19.5QH)

Neurobehavioral Health covers the structure and function of the nervous system from biochemical to behavioral levels and the relationship of this biology to major neurological, psychiatric and special sense disorders including their presentations, differential diagnoses, and modes of treatment.

MCMS 610 Endocrine-Reproductive (13QH)

This course provides the student with an overview of the basic science, the diagnosis and the management of common endocrine and reproductive diseases. Clinical cases will illustrate common endocrine and reproductive disorders.

MCMS 615 Multisystem (6.5QH)

The multisystem course provides an overview of important multisystem pathologies, their prevention and management. This is achieved through integration of multiple threads of previously taught organ-based clinical and basic science concepts.

MCSC 801 Patient Safety and Leadership (3 QH)

In this online course, students will review patient safety concepts, apply quality improvement methods and develop leadership skills to address patient safety.

MCUR 502 and MCUR 602 Essentials of Clinical Reasoning (13QH)

ECR is an interprofessional course that serves as the entry point to the student's clinical experience. Within the context of this course, students will be expected to develop proficiency in history taking, communication, and clinical exam skills. Developing the language and understanding the format of effective and professional medical communication will be emphasized while also learning the art of history taking.

MCUR 605 Academic Peer Tutoring and Teaching (1-3 QH)

This elective provides M2 students with the opportunity to provide academic assistance to M1 students. The tutor gains a better conceptual understanding of the material as they explain it to others and learns about methods and principles of education that enhance learning. The peer tutor's primary role will be to engage the student in active inquiry about the subject matter being reviewed. The first session will involve training and discussion about the appropriate facilitation skills, how to effectively communicate the material, when to stop and listen, and how to enhance learning. After the training session, students will either be assigned to work one-on-one or in small-group review sessions held at predetermined times for specific first-year course material. Additional sessions will involve discussion and preparation of tutoring material and how to maximize its usefulness. Specific skills to be acquired include learning how to ask higher-order questions, teaching group learning skills and practicing helping behaviors.

MCUR 606 Clinical Skills (2QH)

Students will apply basic science and clinical knowledge in preparation for their clerkship rotations. Learning activities will include reading EKGs and radiological imaging, virtual, mannequin and standardized patient experiences, writing progress notes, practicing clinical procedures such as NG intubation, oxygen delivery, sterile scrubbing and gowning, foley catheterization; large group discussions and a small group evidence-based medicine presentation.

MCUR 608 Sophomore Independent Project (1-3 QH)

The Sophomore Independent Project elective permits M2 students to pursue, under the supervision of a CMS faculty member, additional study in a specific area of interest. Arrangements for this elective are made between the student and faculty member.

MCUR 610 Cultural Diversity and the Management of Healthcare Services (3 QH)

This elective introduces the importance of providing culturally appropriate healthcare services for the diverse ethnic populations encountered in the United States. The significance of family traditions, cultural heritage, health and healing traditions on the patient's interactions with the healthcare delivery system and providers will be explored. Students will develop interventions that managers of healthcare facilities and providers can use to diminish the conflict patients and staff may experience when traditions related to the patient's cultural heritage are at odds with the norms in the American healthcare delivery system.

MCUR 611 Practice Management (3 QH)

Practice Management offers the essential elements and support for a successful private practice concentrating on facility management and organizational skills. Topics will include the organizational management landscape and management functions such as planning and decision-making, organizing, staffing and budgeting. This course addresses practical concerns such as committees and teams, and human resource management considerations such as training and development, retention and recruitment, and communication.

MCUR 618 Summer Research Credit (1-2 QH)

The student identifies the research opportunity that may be conducted on-site (CMS/RFU) or off-site. A research proposal is written describing the project with the help of the principal investigator/mentor. The proposal is approved by the course director. The deadline June 1 of each year. The student will sign the appropriate paperwork stating compliance with all research oversight regulations, i.e., IRB, use of radiochemicals, animals, etc. The student spends at least eight weeks in the summer on the project. No stipend is allowed since academic credit is being obtained. The student writes a 1-2 page summary of research efforts for the course director by the deadline of Sept. 1 each year. The student then presents a poster in the CMS summer research poster session in October. Credit obtained for Fall Term.

MCUR 619 Epidemiology Course Facilitator (1 QH)

During the Clinical Epidemiology course, small groups work together to develop and present a PICO (Population, Intervention, Comparison, Outcome) research question. A course facilitator will be responsible for approving the group's PICO question. Each student in the group will conduct a literature search to find one peer-reviewed research article that addresses the group's topic. Students will critique an article using a specific format provided for them on the D2L course site (Randomized Control Trial, Systematic Review, Cohort or Case-Control Study) and submit their report to the facilitator for review and formative feedback. The facilitator will evaluate the group's PowerPoint presentation according to a standardized rubric.

MCUR 705 Clinical Skills Exam (0 QH)

This mandatory exam assesses M3 students' clinical skills. Five different cases are presented. Students must take a history and physical, then write their findings, determine a differential diagnosis and generate a patient management plan. Students must pass this exam in order to graduate.

MCUR 805 Academic Peer Tutoring and Teaching (3-6 QH)

This elective provides M4 students with the opportunity to provide academic assistance to M1, M2, and M3 students. The tutor gains a better conceptual understanding of the material as they explain it to others and learns about methods and principles of education that enhance learning. The peer tutor's primary role will be to engage the student in active inquiry about the subject matter being reviewed. The first session will involve training and discussion about the appropriate facilitation skills, how to effectively communicate the material, when to stop and listen, and how to enhance learning. After the training session, students will either be assigned to work one-on-one or in small-group review sessions held at predetermined times for specific course material. Additional sessions will involve discussion and preparation of tutoring material and how to maximize its usefulness. Specific skills to be acquired include learning how to ask higher-order questions, teaching group learning skills and practicing helping behaviors.

MCUR 808 Clinical Skills (3 QH)

Clinical instruction of M2 students, facilitation of small groups and review of clinical experiences with individual students occur in this elective. M4 students review M2 performance in the OSCE experience, assist in writing SOAP notes, writing orders, presenting patients, suturing, and reading X-rays and EKGs. This elective is offered only during June for two weeks.

MCUR 850 Essentials of Clinical Reasoning (2-6 QH)

This is an opportunity for the fourth-year student to improve upon their history, physical examination and clinical reasoning skills by teaching and mentoring Year 1 and Year 2 medical and podiatry students. Senior students will receive training to teach in small-group settings, learn

appropriate evaluation methods, contribute to curriculum development and learn to write exam questions. This elective will foster peer-to-peer communication and learning and prepare students for their teaching role as residents and faculty.

MCUR 851 Senior Independent (non-clinical) Project (2-9 QH)

MCUR 852 Senior Independent (clinical) Project (2-6 QH)

The Senior Independent Project elective permits M4 students to pursue, under the supervision of a CMS faculty member, additional study in a specific area of interest. Arrangements for these electives are made between the student and faculty member.

MCUR 896 Literature in Medicine (3 QH)

Small student groups select two books to read (one about being/becoming a doctor, and one about the experience of being a patient) from a suggested reading list. M4 students participate in online discussions about the reading and submit a reflective paper about each book. Each student submits a one-page “autobiography” during the first week and a critical incident report during the second week. Each group has a faculty facilitator. Students reflect on their own evolving identities as physicians and discover the role that literature plays in shaping one’s professional identity as a physician and connecting to the patient’s experience.

MCUR 898 Transition to Internship (1QH)

This one-week course uses high-fidelity simulation, interactive small group discussion, role play, and standardized patients to teach and assess many of the skills necessary to transition from M4 student to first-year resident.

MDGH 600 Clinical Experience in Low-Resource Local Communities (1 QH)

Students will work in a local clinical setting to gain exposure to clinical and cultural practices in underserved populations. Under the direction of healthcare professionals, students will take and observe the history and physical exam, and provide healthcare screening including hypertension, diabetes and vision. Students must complete 15 clinical hours, or 10 clinical hours and 5 hours developing educational materials during the school year. These hours can be done at different clinics. Clinical sites that qualify are low-resource sites such as the Interprofessional Community Clinic, New Life Volunteering Society, the Health Care Project PADS clinic, Salud Ofrecida a Latinos (SOL) and the Community Care Coach.

MDGH 601 Clinical Experience in Low-Resource Communities within High-Resource Countries (2 QH)

Students will work in a local clinical setting to gain exposure to clinical and cultural practices in underserved populations. Students must complete 60 clinical hours; these hours can be done at different clinics. Clinical sites that qualify are low-resource sites such as the Interprofessional Community Clinic, New Life Volunteering Society, the Health Care Project PADS clinic, Salud Ofrecida a Latinos (SOL) and the Community Care Coach. This elective is also offered in the summer between the first and second year of medical school.

MDGH 602 Emerging Issues in Global Health (1 QH)

An introduction to the major competencies for responsible participation in global health initiatives. Students will learn to distinguish issues in providing medical care in different cultures, in under-resourced areas, and with language groups other than their own. Students will develop techniques for assessing their attitudes toward different cultures and language groups, and evaluate the competencies, skills and strengths they can bring to global health initiatives.

MDGH 607 Clinical Experiences in a Developing Country (2 QH)

This sophomore elective facilitates the development of the qualities and abilities necessary to work globally as a physician. This elective is offered in the summer between the first and second year of medical school. A patient log, an essay and a presentation are required.

MDGH 625 Interprofessional Clinic Initiative: Executive Officer Administration and Clinical Fellowship (2-3QH)

The Interprofessional Clinic Initiative (“ICI”) is a student organization dedicated to running the Interprofessional Community Clinic (“ICC”), the first interprofessional student-run free clinic that serves the community of Lake County in the full capacities of interdisciplinary primary care. The Executive Officers of ICI participate in clinical experiences and/or administrative projects benefiting the clinic, ICC. Students would be required to complete at minimum 20 hours of *either* administrative or clinical services for 2 credits. A maximum of 30 hours of *either* administrative or clinical services may be completed for a total of 3 credits.

MDGH 800 Global Health Elective (2-12 QH)

This elective facilitates development of qualities and abilities necessary to work globally as a physician. Students have the opportunity to refine and develop educational, professional and personal goals and objectives that will support: (1) pursuit of their vision in global health and (2) acquisition of the abilities necessary to address the health needs of the people of the world, especially the poor, with compassion, integrity, high ethical standards and a high level of competence. Students may arrange any combination of clinical, development or research experience for one to 12 weeks outside the borders of the United States and Canada under the direction of the course director.

MDGH 801 Clinical Experience in Low-Resource Local Communities (2-9 QH)

This senior elective facilitates the development of the qualities and abilities necessary to work in low-resource settings as a physician. Through this elective, students are provided with opportunities to refine and develop educational, professional and personal goals and objectives that will support: (1) pursuit of their vision in serving underserved communities and (2) acquisition of the abilities necessary to address the health needs of underserved populations with compassion, integrity, high ethical standards and a high level of competence. Students identify and develop a clinical, research or program/project development experience for a medically underserved area or population in the United States.

MDGH 802 Innsbruck Austria Exchange (6 QH)

The Chicago Medical School and the Innsbruck Medical University, Austria, have an exchange program where fourth-year CMS students can spend up to four weeks at the Innsbruck Medical University. Students choose from internal medicine and surgical sub-specialties to develop a two- to four-week clinical experience at this university, tertiary care hospital.

MDGH 803 - International Health Care (various approved locations) (6 QH)

This elective is designed to expose students to health systems and physicians of high resource countries other than United States. These physicians and systems would serve as role models and we expect that future physicians adapt some of their decision-making process from these international role models. At the end of this elective, students will be able to clinically evaluate the strengths and weakness of the American Health Care System in comparison to country visited.

MDGH 806 International Clinical Experience-China (3 QH)

This senior elective is offered in China at one or more hospitals. It will provide exposure to a different set of healthcare/social issues. Supervision is provided by Dr. Sulayman and/or his pediatric residents.

MEIH 805 Medical Regulation, Ethics & Professionalism-Illinois Department of Financial and Professional Regulation (IDFPR) (3-6 QH)

The goal of this elective is to further the student's knowledge regarding medical regulation especially as it relates to the standards of ethics and professionalism to which they will be held during their medical careers. At the completion of this elective, students will be able to describe the medical licensing system in Illinois and how it compares to that in other states; describe the medical regulatory/disciplinary system in Illinois and how it compares to that in other states; discuss how this system accomplishes its dual responsibilities of protecting the public while remaining fair to the licensee (physician); identify the roles "standard of care" and "professionalism" play in the medical disciplinary process; explain how this rotation will influence the participant's future practice of medicine.

MELE 800-899 Extramural Elective

M4 elective opportunities are designed to supplement the required learning activities of the curriculum by allowing students to deepen their understanding of medical specialties, function at a more advanced level in preparation for residency training, care for a diverse patient population, and learn how health care is delivered in a variety of settings. Extramural electives offer students the opportunity to gain training and experience at another medical school or healthcare organization. Learning activities and assessment methods are specified by the host institution. Arrangements for an extramural elective are made between the student and host institution. Students must obtain administrative approval from the host institution and the Office of Student Affairs and Education.

MEMG 601 Research in Emergency Medicine-Stroger Hospital of Cook County (1-3 QH)

With the faculty mentor, students will select a topic from the broad areas of clinical or health services research.

MEMG 702 Emergency Medicine (6 QH)

Students learn the principles of prioritization of potentially life- or limb-threatening conditions and how to approach the acutely ill or injured patient with a focused history and physical exam. Procedures taught in Year 2 are performed in the Emergency Department setting with attention to universal precautions and personal safety. A series of lecture/discussion group sessions are conducted by the faculty from Emergency Medicine addressing the major clinical presentations.

MEMG 800 Emergency Medicine SUBI (6QH)

Under direct faculty supervision, fourth year students are given primary responsibility for patient care in the Emergency Department. During this rotation, students expand their ability to think critically, assess their own knowledge, and skills, and make decisions affecting patient care in the acute setting. The student will be scheduled to work 40 hours weekly (including overnight shifts and weekends). MEMG 702 is a prerequisite for this course.

MEMG 824 Emergency Medicine-Stroger Hospital of Cook County (6 QH)

The fourth-year student is given the opportunity for increased responsibility in the independent evaluation of patients with urgent or emergent problems. Cases are presented directly to the attending faculty and one-on-one teaching occurs. The experience is divided among the asthma/sickle cell, gynecologic/obstetric, fast track and general acute treatment areas. An

emphasis is placed on acquiring skills in prioritizing, rapid assessment, formulating a working differential diagnosis, cost/quality-effective decision-making in the work-up, management and disposition of acutely ill and injured patients. The student acquires the ability to manage multiple patients simultaneously during the rotation.

MEMG 829 Simulation in Health Care-Stroger Hospital of Cook County Simulation Laboratory (5-6 QH)

The student will have the opportunity to work in the simulation lab and to help facilitate the labs for the various medical groups. There is a heavy emphasis on teaching and applying resuscitation skills. There will be an opportunity to develop a case, to incorporate it into a medical education curriculum and to apply debriefing skills to access the population of students.

MFPM 600 Lesbian, Gay, Bisexual, Transgender, Queer and Intersex Health Care (1 QH)

This course covers Lesbian, Gay, Bisexual, Transgender, Queer and Intersex (LGBTQI) healthcare disparities and clinical strategies to address those disparities in order to promote better care for LGBTQI people. Beginning with terminology, demographics and discrimination against LGBTQI patients in health care, topics include LGBTQI healthcare disparities in youth, adults and older people and issues unique to the transgender community. We will discuss how to get to know your patient's orientation and gender identity, how to provide a safe and welcoming environment and strategies to address LGBTQI disparities and promote health in LGBTQI people and their families. The course will employ faculty lectures, student discussion, case studies and student presentations.

MFPM 701 Family Medicine/Primary Care Clerkship (9QH)

Students master the core content of Family Medicine as determined by The Society of Teachers of Family Medicine during this six-week clerkship. The experience is ambulatory in nature. Students will become familiar with presentations of signs and symptoms of different diagnoses through their clinical experiences and management of issues common in a Family Medicine practice. Students will practice presentation and documentation of patient encounters, information mastery, and topics related patient safety, chronic diseases, preventive medicine, geriatrics and sports medicine. Feedback is given by the Clerkship Director, and by supervising physicians at each site. Students complete a midterm self-assessment which is reviewed with a supervising physician in which students reflect on their own practice of medicine, and seek and receive feedback. Students demonstrate competence in reading basic EKGs by successfully passing an online EKG quiz. Students write a reflection on an ethical situation from their clinic including review of literature addressing that issue, and they review and comment on a peer's ethical reflection. There are 40 online cases, i.e., *fmCases*, cover the spectrum of family medicine. The *fmCases* were developed by The Society of Teachers of Family Medicine for use in medical school clerkships. The final examination is given at the end of the rotation and is derived from the family medicine cases.

MFPM 800 Outpatient Family Medicine – Advocate Lutheran General Hospital (3-6QH)

This elective focuses on the outpatient care of adult family medicine patients at the Advocate Nessel Family Medicine Center. Students will present and document comprehensive histories and physical examinations, develop differential diagnoses, initiate orders, observe common outpatient procedures, and manage patients according to standard clinical practices.

MFPM 802 Sports Medicine Lovell FHCC (3-6 QH)

Students will examine patients and diagnose sports activity related injuries, understand how the

mechanism of injury causes specific musculoskeletal injury, appreciate treatment of common musculoskeletal complaints, recall common causes of knee, shoulder, and ankle pain, and describe the ways to diagnose and treat knee, shoulder, and ankle complaints.

MFPM 803 Sports Medicine-Resurrection Family Practice Center (6 QH)

This course consists of a combination of a Sports Injury Clinic and traditional family practice at Resurrection Family Practice Center as well as training room clinics at Loyola Academy, New Trier High School, Niles West High School and North Park University. Additional time may be available at various rehabilitation centers and orthopedic offices in the area.

MFPM 805 Family Medicine SUBI (6 QH)

On this rotation, students are part of the adult family medicine inpatient care team. Students present and document comprehensive histories and physical examinations, manage patients according to standard clinical practices, develop differential diagnoses, and initiate orders for testing and treatment of patients.

MFPM 810 Inpatient Family Medicine-Advocate Christ Hospital (3-6QH)

This elective is organized along the lines of the family medicine clerkship but with greater effort to have students examine patients independently and form a differential diagnosis.

MFPM 812 Preventive Medicine and Wellness-Private Practice (3-6QH)

Further exposure to Family Medicine with an emphasis on preventive care, addiction medicine, musculoskeletal pathology, wellness evaluations and training, exposure to exercise/kinesiology treatments and chronic disease management towards minimizing long-term morbidity. Student must demonstrate understanding of the above evaluations and a familiarity with the treatment modalities. Student participation in diagnosis and treatment of wellness-related issues. Objectives include didactic work and hands-on training.

MFPM 815 Sports Medicine-Advocate Christ Hospital (6 QH)

Students will be under the supervision of primary care physicians with a sports medicine interest as well as orthopedic surgeons and trainers. Students will evaluate patients independently and present their differential diagnoses and treatment plans to their supervising physicians. Students will also see patients (traditional family practice and sports medicine) at the ACH Family Practice Center. There will be one hour per week of formal lecture on sports medicine topics at Advocate Christ Hospital. Clinics at the ACH Family Practice Center will be a mixture of sports medicine and traditional family practice. Clinics will also be in the Parkview Orthopedics Clinic in Palos Heights and Orland Park, IL, as well as game time and site visits at high schools in Chicago's south side and southern suburbs.

MFPM 835 Headache Diagnosis and Management-Diamond Headache Clinic/Columbus Hospital (3 QH)

Students will work under the direct supervision of physicians specializing in headache as well as working with ancillary staff for methods of assessment of headache via history and physical examination and in the use of alternative medicine techniques, such as biofeedback, for headache management. Students will spend additional time with a clinical pharmacologist to further learn the role of drug therapies in headache management. Satisfactory progression of the student in the program will include demonstration of the ability to assess headache patients and develop treatment plans that will be reviewed and discussed with one of the physicians responsible for the program. The educational program will be conducted primarily at the Diamond Headache

Clinic with additional time spent at the Diamond Headache Inpatient Treatment Unit at Columbus Hospital.

MFPM 837 Family Medicine/Geriatrics – Billings Clinic (6 QH)

The student will evaluate outpatient patient complaints, monitor chronic illness, identify preventative care in geriatric and non-geriatric populations.

MFPM 895 Inpatient Family Medicine - MacNeal Hospitals (6 QH)

Students will evaluate and treat patients on the MacNeal Family Medicine residency program's inpatient service. Students will have responsibilities as a PG-I resident managing inpatients and will perform history and physicals, develop assessments and plans and interpret labs and x-ray data. At the end of this elective, student will perform medication reconciliation at discharge, demonstrate patient hand offs, do current treatment plans, and present cases succinctly to residents and faculty.

MMED 614 Research in Clinical Diabetes (2-3 QH)

This elective addresses healthcare outcomes of patients with diabetes in relation to evaluation of current and innovative therapies and complications.

MMED 627 Research in Cardiovascular Disease-Lovell Federal Health Care Center (3 QH)

This course is intended to introduce the student to the process of clinical research, including the scientific method, the formulation of hypothesis, data acquisition by use of publication database (i.e., PubMed), statistical analysis, reporting of data for poster or oral presentation at national scientific conferences and ultimately preparation of scientific manuscripts for journal submission. Specifically, the student will participate in the formulation of a meta-analysis dealing with the efficacy of statins (HMG-CoA reductase inhibitors) in patients with coronary artery disease and renal insufficiency.

MMED 630 Public Health Disparities in Medicine (1 QH)

This 10-week course will provide students with a general overview and understanding of public health disparities and their social determinants. Students will also learn about specific interventions to address disparities and explore ways in which they can address public health issues as future physicians.

MMED 700 Medicine Clerkship (12QH)

This eight-week required clerkship presents the student with a basic core of information in internal medicine. The student is provided with practical experience at the bedside, and formal work and teaching rounds. Techniques of clinical diagnosis and management, including diagnostic and therapeutic medical procedures, are demonstrated and, in appropriate instances, performed by the clinical clerks with faculty guidance. Subspecialty rounds, clinical conference, clinical-pathological conference and medical grand rounds complement the clerkship experience. Case seminar series provide a core curriculum supplemented by specific assignments, reference to current medical literature and supplementary sources of written and audiovisual instruction. At the end of the clerkship, students take the National Board of Medical Examiner's subject exam in Internal Medicine.

MMED 800 Internal Medicine SUBI (6QH)

The sub-internship in Internal Medicine provides an opportunity to serve as an active member of a resident-intern-student team, intimately involved in the acute care of adult patients on the

inpatient medical service. The clerkship permits the student to serve as an “acting intern” as a means of improving his or her understanding of the pathophysiology of disease, clinical skills, physical and laboratory examinations, and knowledge and judgment in clinical medicine. The full teaching program includes attending rounds, subspecialty conferences and weekly medical grand rounds.

MMED 801 Gastroenterology-Advocate Christ Medical Center (6 QH)

During this rotation, live “in action” endoscopy will be viewed and correlated with the patient’s symptoms, radiology findings and lab tests. Dynamic discussions will help integrate the significance of the pathology seen, and illuminate a clear understanding of GI disease and management. The student can expect to walk away with an incredible knowledge and understanding of gastrointestinal disease.

MMED 802 Palliative Care-Stroger Hospital of Cook County (3 QH)

Students will primarily participate in the outpatient consultation service. They may also see patients in clinic and do home visits with team staff, as schedule permits. Students will learn how to screen the symptoms at end of life; manage common symptoms including pain, dyspnea, constipation, nausea, vomiting and delirium; and develop effective communication skills in working with patients with advanced or life-limiting illness, including addressing advance care planning. The student will conclude the elective by writing a self-reflection narrative on one patient with a serious illness. This elective is available September through May of coordinating academic year.

MMED 804 Gastroenterology/Hepatology - Little Company of Mary Hospital (6 QH)

This rotation in clinical Gastroenterology and Hepatology includes supervised patient care and didactic sessions. Students will gain knowledge of diagnosis and treatment of common digestive and liver conditions, including indications of endoscopy, and how to perform a focused H&P on patient for GI or liver conditions.

MMED 806 Infectious Disease-Advocate Christ Medical Center (6 QH)

Students will see inpatients and outpatients with a broad range of infectious diseases and will be expected to read articles relevant to the patients they see.

MMED 807 Endocrinology-Advocate Christ Medical Center (6 QH)

Students will see outpatients with a broad spectrum of endocrine problems. Commonly encountered patients will be those with Graves’ disease, toxic multinodular goiter, thyroid nodules, thyroiditis, hypothyroidism, thyroid cancer, primary hyperparathyroidism, type 1 and type 2 diabetes (often with degenerative complications), obesity, hirsutism, secondary amenorrhea and osteoporosis. Students will also act as endocrine consultants to inpatients, in which capacity they are likely to see pregnant patients with diabetes or hyperthyroidism; patients with coronary disease and hyperlipidemia, diabetes mellitus, hypercalcemia, hyperthyroidism or hypothyroidism and, less commonly, patients with SIADH or diabetes insipidus, Cushing’s syndrome, adrenal insufficiency or hypoglycemia. Typically, the student will see and present three or four outpatients per session and will listen to others presenting as well; on the inpatient service, the student will follow two or three patients and will listen to other presentations as well. Each student will receive an extensive packet of articles on the major endocrinologic disease entities.

MMED 808 Primary Care-Advocate Lutheran General Hospital (3-6 QH)

Students will learn principles of ambulatory medicine while seeing patients in a busy general Internal Medicine Clinic at the Nessel Pavilion. Morning inpatient rounds are followed by outpatient visits averaging 30-40 per week. Students will see new and established patients. Students have the primary responsibility for evaluating the patient, formulating and assessment, and implementing management under the close supervision of an attending internist. Daily mid-day general medicine and sub-specialty conferences provide didactic instruction. A broad perspective on ambulatory medicine is obtained by visiting a nursing home, geriatric day care center and the office of an occupational medicine physician.

MMED 809 Internal Medicine Inpatient Service - MacNeal Hospital (6 QH)

Students will evaluate and treat patients on the inpatient internal medicine residency program. Students will perform history and physicals, develop assessments and plans and interpret labs and x-ray data, learn to perform medication reconciliation at discharge, demonstrate patient hand offs, do current treatment plans, and present cases succinctly to residents and faculty.

MMED 814 Cardiology-Stroger Hospital of Cook County (6 QH)

This rotation consists of two weeks of CCU and two weeks of inpatient cardiology consults, or four weeks of CCU. Typical hours are 7 a.m. to 7 p.m. This elective will allow the student to increase their knowledge of cardiovascular pathophysiology through involvement in all aspects of clinical cardiology. Participation in daily consult and coronary care rounds will allow exposure to patients with arteriosclerotic, hypertensive, valvular and congenital heart disease. Students are encouraged to improve their ECG interpretation skills as well as gain an understanding of echo, stress testing and cardiac catheterization.

MMED 816 Medical Intensive Care Unit-Advocate Illinois Masonic Medical Center (6 QH)

The student will work closely with interns, residents and fellows in taking care of all patients admitted to medical intensive care units. During this elective, the student should become familiar with the basic principles of diagnosing and treating acutely ill patients. Problems commonly encountered include: (1) acute respiratory failure and ventilatory management; (2) myocardial infarction, congestive heart failure, cardiac arrhythmias, hypotension and hypertension; (3) acute neurological problems (CVAs, drug overdose, change in mental status); (4) diabetic emergencies such as diabetic ketoacidosis; (5) uncontrolled upper and lower gastrointestinal bleeding and (6) acute renal failure, peritoneal dialysis and hemodialysis. In addition, students will perform simple invasive procedures such as arterial line insertion, thoracentesis, paracentesis and lumbar puncture. Three to four times per week there is an informal lecture on topics of interest. Students will be expected to participate in preparing these lectures. Emphasis is given to case presentations with discussion of differential diagnosis, approach to diagnostic work-up and treatment rationale.

MMED 819 Medical Intensive Care Unit-Stroger Hospital of Cook County (6-12 QH)

The objective of this elective is to enable senior medical students to learn the basic clinical skills, knowledge and procedures to treat patients in the Medical Intensive Care Unit. This will be accomplished through a core curriculum of lectures, hands-on experience with ventilators and monitors, learning indications for the complications of procedures in the ICU and having the opportunity to do selected procedures under supervision. In addition, students will be expected to be an integral part of the unit, taking calls with their assigned team every fourth night, working up one patient each night and following that patient through their course in the ICU. Students' primary relationship will be with their assigned intern-resident team, with interaction with the attending during ICU rounds and lectures.

MMED 820 Medical Intensive Care Unit-Lovell Federal Health Care Center (6-12 QH)

The objective of this elective is to enable senior medical students to learn the basic clinical skills, knowledge and procedures to treat patients in the Medical Intensive Care Unit. This will be accomplished through a core curriculum of lectures, hands-on experience with ventilators and monitors, learning indications for the complications of procedures in the ICU and having the opportunity to do selected procedures under supervision. In addition, students will be expected to be an integral part of the unit, taking calls with their assigned team every fourth night, working up one patient each night and following that patient through their course in the ICU. Students' primary relationship will be with their assigned intern-resident team, with interaction with the attending during ICU rounds and lectures.

MMED 821 Dermatology - Stroger Hospital of Cook County (6 QH)

During this elective, students will learn the principles of dermatologic diagnosis and treatment by actively participating in the care of patients. The student will work with an attending physician and a faculty member in the Department of Clinical Dermatology.

MMED 823 Dermatology – Private Practice (4.5-6 QH)

Student will participate in patient care, get a full H&P, develop an assessment plan and discuss findings and plan with provider..

MMED 827 Endocrinology-Lovell Federal Health Care Center (6-22 QH)

The student will examine 3-5 patients weekly on the inpatient endocrine-metabolic service at the Lovell Federal Health Care Center, as well as patients referred for endocrine-metabolic consultation. In addition, students will attend two weekly outpatient clinics (Endocrine and Diabetes) operated by the Endocrinology/Metabolism (E/M) division. The student will be under the supervision of E/M faculty members. Students will take part in clinical conferences, ward rounds and a journal club. A study schedule will be provided to facilitate the student's reading in the field of endocrinology and metabolism. Students may take part in ongoing research projects related to endocrinology and metabolic diseases. Students will learn endocrine-metabolic diagnostic procedures by participation in the endocrine radioimmunoassay laboratory.

MMED 830 Endocrinology-Stroger Hospital of Cook County (6 QH)

The student will examine 3-5 patients weekly on the inpatient endocrine-metabolic service, as well as patients referred for endocrine-metabolic consultation. In addition, students will attend outpatient clinics operated by the Endocrinology/Metabolism (E/M) division. The student will be under the supervision of E/M faculty members. Students will take part in clinical conferences, ward rounds and journal club of the division. A study schedule will be provided. Students may take part in ongoing research projects related to endocrine and metabolic diseases. The student will learn endocrine-metabolic diagnostic procedures by participation in the endocrine radioimmunoassay laboratory.

MMED 832 Gastroenterology-Lovell Federal Health Care Center (3-6 QH)

The student will improve their knowledge and skill in the diagnostic and therapeutic approach to common digestive-system diseases. The student will respond to consultations, participate in outpatient visits and assist in procedures, under such supervision appropriate to their demonstrated knowledge and skills. The student will get experience with diagnostic X-rays, scans, ultrasounds, histopathology of biopsies, laboratory data and esophageal manometric traces, and receive instruction on their interpretation. The student may observe such procedures as upper endoscopy, sigmoidoscopy, colonoscopy and liver biopsy, and is instructed regarding the uses of these procedures and interpretations or evaluation of results. In addition, the student

will participate in an informal seminar with a gastroenterology physician twice weekly on digestive-system pathophysiology and selected clinical topics, and will attend sub-specialty and medical-surgical conferences in which patients are presented and therapeutic options are discussed.

MMED 833 Gastroenterology-Stroger Hospital of Cook County (6 QH)

The student will work directly with the attending physician and a gastroenterology fellow approximately two-thirds of the time; the remainder of the time will be spent under their direction. The student will respond to several inpatient consultations and outpatient visits per week, will recommend diagnostic procedures and therapy for approval by the attending, and will assist in procedures under such supervision appropriate to their demonstrated knowledge and skills. The student will observe such procedures as upper endoscopy, sigmoidoscopy, colonoscopy, liver biopsy and esophageal bouginage, and will be instructed regarding the uses of these procedures and interpretation or evaluation of results. The student will also participate in an informal seminar with a gastroenterology fellow twice weekly on digestive-system pathophysiology and selected clinical topics, and will attend sub-specialty and medical-surgical conferences in which patients are presented and therapeutic options are discussed.

MMED 834 Gastroenterology-Advocate Illinois Masonic Medical Center (6 QH)

The student will be exposed to the entire field of gastroenterologic services, both diagnostic and therapeutic, as well as ongoing clinical research activities. All medical imaging studies and pathology specimens will be reviewed with the radiology and pathology services. The student will review basic pathophysiology of gastrointestinal diseases, common diseases of the tubular gut, gallbladder, pancreas and liver, along with appropriate diagnostic and therapeutic plans. The gastroenterology teaching service consists of three geographic, full-time gastroenterologists, a GI fellow and one or two more residents, with an active inpatient service of 30-55 patients with rapid turnover.

MMED 835 Hematology/Oncology - (Lovell Federal Health Care Center) (3-6 QH)

This elective rotation is a structured clinical experience under direct supervision designed to provide experience diagnosing, treating, and caring for adult patients with hematologic and oncologic diseases, including lymphoma, myeloma, leukemia, lung cancer, and colon cancer.

MMED 839 Infectious Disease-Lovell Federal Health Care Center (3-6 QH)

The student will function as an extern, performing Infectious Disease consultations on five to 10 patients weekly while working closely with the Infectious Disease fellow. Occasionally, consultations at Great Lakes Naval Hospital may also be utilized. The student will learn the signs and symptoms of common infectious diseases occurring in the setting of a general hospital; will learn to take a complete history and to perform an appropriate physical exam relevant to disease caused by biologic agents, including detailed analysis of epidemiologic factors and will be able to provide an appropriate differential diagnosis concerning the infectious disease problem he/she is evaluating. In addition, the student will become familiar with laboratory methods in clinical infectious diseases and microbiology and will learn the clinical pharmacology of the antimicrobial agents in common use, their indications, dosing, side effects and mechanisms of action.

MMED 841 Infectious Disease-Stroger Hospital of Cook County (6 QH)

The student will be assigned to the Infectious Disease Service. While serving as a member of the consultation service, the student will perform at least three histories and physicals per week. There will be daily rounds with the Infectious Disease attending, which will include seeing and

discussing all of the patients on the service, as well as reviewing current X-rays, cultures and microscopic specimens. Students will become familiar with the pathophysiology and clinical presentation of various infectious diseases, such as meningitis, pneumonia, endocarditis, enteritis, abdominal abscess, urinary tract infection, pelvic inflammatory diseases, osteomyelitis and sepsis. The student will be responsible for the close follow-up of his/her patients and will have an opportunity to observe or assist in diagnostic procedures. The student will have a daily general medical lecture series, as well as weekly specialty conferences at Cook County.

MMED 847 Nephrology-Stroger Hospital of Cook County (6 QH)

This course emphasizes clinical evaluation and management of commonly encountered problems in nephrology. The management of acute and chronic renal failure is both conservative and dialytic, necessitating some background nutrition technical information. The immunopathology of glomerular disease is central to full appreciation of the field but may not be emphasized if appropriate patients are not in-house. Electrolyte disturbances are dealt with practically. The student will be responsible for patient work-up and is expected to participate in management under supervision. Students will learn the inter-relationship between nephrology and other areas of medicine.

MMED 852 Hematology/Oncology - Clinics in Gurnee and Lindenhurst; Inpatient Hematology/Oncology at Vista Medical Center (3-6 QH)

Students will work with a community-based hematologist/oncologist in several different hospitals and outpatient settings caring for patients with common hematologic problems, solid tumors and oncologic emergencies. Students will participate in all aspects of patient care, including history and physical examination and discussion of management, including chemotherapy. Students can expect to see patients with the following clinical conditions: colon, breast, lung, prostate, head and neck cancers; benign blood disorders; leukemia and lymphoma.

MMED 855 Pulmonary Medicine-Lovell Federal Health Care Center (6 QH)

The student will work under the direct supervision of the pulmonary fellow, with daily review and collateral supervision by the attending physician. The student will function as a pulmonary consultant, making the first evaluation of a reasonable number of selected patients. These will be reviewed along with pertinent radiograms daily with the attending physician. The student will review each day's pulmonary function test results and formulate an interpretation for review and discussion with the attending physician.

MMED 857 Pulmonary Medicine-Stroger Hospital of Cook County (6 QH)

The student will work under the direct supervision of the pulmonary fellow, with daily review and collateral supervision by the attending physician. The student will function as a pulmonary consultant, making the first evaluation of a reasonable number of selected patients. These will be reviewed along with pertinent radiograms daily with the attending physician. The student will review each day's pulmonary function test results and formulate an interpretation for review and discussion with the attending physician.

MMED 859 Pulmonary Medicine-Advocate Christ Medical Center (6 QH)

The students will see patients in consultation and will follow them with the consulting pulmonologist. As a part of daily rounds with the consulting pulmonologist, they will present patients, review pertinent articles or topics, verify historical and physical findings at the bedside, re-evaluate diagnostic and therapeutic decisions, and write progress notes. In the office, they will

have the opportunity to examine patients with common bronchopulmonary disorders. The student will see five new inpatients a week and two patients per week in the office setting.

MMED 864 Cardiology-Advocate Lutheran General Hospital (6 QH)

This elective will allow the student to increase his/her knowledge of cardiovascular pathophysiology through involvement in all aspects of clinical cardiology. Participation in daily consult and coronary care rounds will allow exposure to patients with arteriosclerotic, hypertensive, valvular and congenital heart disease. Students are encouraged to improve their ECG interpretation skills as well as gain an understanding of echo, stress testing and cardiac catheterization.

MMED 865 Endocrinology-Advocate Lutheran General Hospital (6 QH)

This four-week rotation is designed to expose the student to the common and, at times, the rare endocrine and metabolic disorders through both in-hospital consultations and office practice. Through this clinical exposure, the student will be able to expand upon his/her knowledge of the actions of specific hormones and their role in normal body functions and disease states. The student will develop the ability to perform a complete endocrinologic evaluation and interpret the results of both physical examination and laboratory findings. In addition, there will be endocrinology conferences, nuclear medicine/thyroid conferences and impromptu didactic sessions for the student to attend.

MMED 866 Gastroenterology-Advocate Lutheran General Hospital (2-6 QH)

The student will see 10 to 15 patients in consultation each week with a variety of gastrointestinal and liver diseases. The student is expected to write a complete consultation, learn the indication and contraindication of diagnostic tests and therapeutic procedures, and present the patient to the resident and attending physicians. The student will participate in an active endoscopy service. In addition, the Nutritional Support Service is part of the Gastroenterology rotation. The student will spend two afternoons a week at the Nessel Pavilion where outpatients with a variety of GI diseases are managed. These patients will be discussed with the attending physician.

MMED 867 Mature Adult Medicine-Advocate Lutheran General Hospital (6 QH)

The objective of this rotation is to gain knowledge and skills in the following areas: biology of aging; social and economic issues concerning the elderly in various settings; clinical pharmacology in the aged; the ability to perform a geriatric evaluation, including cognitive and gait assessments; evaluation and management of depression and dementia; and management of urinary incontinence. Instructional methods include direct patient care, lectures and seminars. Various sites consisting of ambulatory office; acute care-general medical unit; geriatric, psychiatric and geriatric rehab wards; and long-term care will be utilized. The student will see approximately five new patients per week.

MMED 868 Hematology/Oncology - Advocate Lutheran General Hospital (6 QH)

This elective provides a four-week inpatient consultation experience in hematology/oncology. The emphasis will be on patient evaluation, pathophysiology of hematologic disorders and oncology, appropriate diagnostic studies and treatment. Students will participate in daily consultation rounds with the instructor on an inpatient and outpatient service, didactic teaching, conferences and reading of bone marrow specimens.

MMED 869 Medical Intensive Care Unit-Advocate Lutheran General Hospital (6 QH)

This one-month rotation will be a closed-unit experience in the ALGH ICU. The student will be assigned to two of the teams that currently take care of patients in the ICU. A team consists of

one senior resident, two interns and one student. The student will see patients of either intern on their team to allow for a greater patient mix. Students will be expected to work up approximately four new patients per week and carry no more than eight patients on this service. Students will be allowed to follow their patients from the ICU to the step-down units located on the same floor. Core lectures and case discussions will take place throughout the rotation.

MMED 870 Infectious Disease-Advocate Lutheran General Hospital (6 QH)

This elective is designed to provide the student with a broad experience in clinical infectious disease. The student will actively participate in the hospital consult service, as well as attend scheduled teaching conferences, the outpatient office and the weekly ID conference. The student will gain experience in common bacterial, viral, fungal and parasitic diseases, as well as nosocomial infections and the appropriate use of antibiotics.

MMED 871 Nephrology-Advocate Lutheran General Hospital (6 QH)

The goal of this elective is to provide a perspective into various aspects of renal pathophysiology including acute and chronic renal failure, glomerular and tubulointerstitial diseases, nephrolithiasis and hypertension, as well as acid-base, fluid and electrolyte disturbances. The student will see patients both in the hospital and in an ambulatory setting, approximately three hospital consults and three new outpatients per week. Ample opportunity will be provided for discussion of patients on daily inpatient rounds, radiology review sessions and in renal clinics. Didactic sessions including problem-solving exercises, computer-based tutorials and student-prepared reviews will focus on major topics in nephrology and will supplement a monthly renal/urology conference.

MMED 872 Pulmonary Medicine-Advocate Lutheran General Hospital (6 QH)

The student will improve skills in the diagnosis and treatment of pulmonary disease and in the interpretation of pulmonary function tests. Students will participate in inpatient pulmonary consultation, management of mechanical ventilation and diagnostic techniques, including endotracheal intubation, fiberoptic bronchoscopy and thoracentesis. The Outpatient Pulmonary Medicine Clinic will meet twice a week. A brief didactic seminar on a pulmonary topic of interest will be completed. The student will be supervised by two pulmonary physicians.

MMED 873 Rheumatology-Advocate Lutheran General Hospital (3-9 QH)

This elective emphasizes direct patient contact, extending the lessons learned from patient evaluation into the pathophysiology and treatment of rheumatic diseases. Students function at the level of a house staff member in providing evaluation and care for patients. Inpatient rounds and office hours are made daily with an attending rheumatologist. Unique aspects of the rotation include osteoporosis detection and therapy, arthroscopic surgery, joint irrigation and muscle biopsy techniques. Formal teaching conferences complement bedside teaching. Written core curriculum is provided.

MMED 874 Rheumatology-Stroger Hospital of Cook County (6 QH)

This elective emphasizes direct patient contact, extending the lessons learned from patient evaluation into the pathophysiology and treatment of rheumatic diseases. Students function at the level of a house staff member in providing evaluation and care for patients. Inpatient rounds and office hours are made daily with an attending rheumatologist. Unique aspects of the rotation include osteoporosis detection and therapy, arthroscopic surgery, joint irrigation and muscle biopsy techniques. Formal teaching conferences complement bedside teaching. Written core curriculum is provided..

MMED 876 Hospital Medicine - Centegra (6 QH)

Student will work with a hospitalist group, functioning at level of Sub-Intern. At the end of this elective, students will be able to diagnose and treat common inpatient internal medicine conditions.

MMED 877 Hospital Medicine - Edward Hospital (6 QH)

Student will work with a hospitalist group, functioning at level of Sub-Intern. At the end of this elective, students will be able to diagnose and treat common inpatient internal medicine conditions.

MMED 878 Dermatology - Illinois Dermatology Institute (6 QH)

During this elective, the will have direct patient (clinical) contact. There will be several clinical goals and duties: The student will learn to take appropriate and thorough dermatologic histories and subsequently complete a full physical exam noting pre-malignancies, cutaneous malignant lesions, as well as identify patterns of common inflammatory skin disorders. The student will then be evaluated on his or her ability to develop a differential diagnosis and options for treatment regimens. The student will also learn to perform basic procedures in an outpatient dermatology office including: shave and punch biopsies, suturing, intralesional injections, and assisting in cutaneous surgery.

MMED 880 HIV/AIDS Primary Care - Stroger Hospital of Cook County (3-6 QH)

Students will learn about HIV primary care including HIV counseling and testing; prevention, diagnosis and treatment of opportunistic infections; and antiretroviral therapy. Experiences include adult and adolescent HIV clinics; brief exposure to a walk-in sexually transmitted disease clinic; and specialists in HIV eye, cancer and hematology specialty care, as well as mental health, social work and chemical dependency support services. Didactic sessions include one-hour weekly Infectious Diseases conferences at the CORE Center and two-hour clinical conferences at Rush.

MMED 887 Nephrology – Advocate Christ Medical Center (6 QH)

The goal of this elective is to provide a perspective into various aspects of renal pathophysiology including acute and chronic renal failure, glomerular and tubulointerstitial diseases, nephrolithiasis and hypertension, in addition to acid-base, fluid and electrolyte disturbances. The student will work with Nephrology attendings and/or fellows. The student is responsible for patient workup (both inpatient and clinic) and is expected to fully participate in patient management under supervision. Daily floor rounds are made on all patients followed by the service - both consultative and primary.

MMED 890 Hematology/Oncology - Stroger Hospital of Cook County (6 QH)

This course is designed to train students in applying the skills of history-taking and physical examination. Students will also acquire the skill of morphologic interpretation of blood and bone marrow aspirates to the diagnosis and treatment of hematologic problems.

MMED 891 Clinical Toxicology-Stroger Hospital of Cook County (6 QH)

The student will attend and participate in lectures and conferences given by toxicology fellows and attendings board-certified in medical toxicology. These will include student lectures in basic toxicology and a core lecture series describing the most commonly encountered poisons. The student will also participate in clinical inpatient rounds and discuss the management of about 25 patients per week. Some afternoons will be spent at the Illinois Poison Control Center, where the

student will respond to routine calls. At the end of the elective, the student will present a formal lecture on a toxicology topic approved by the fellows.

MMED 892 Primary Care-Advocate Illinois Masonic Medical Center (6 QH)

The goal of this elective is to provide a perspective into various aspects of the primary care internal medicine outpatient clinic. The student will learn to diagnose and care for acute and chronic medical problems in an ambulatory setting. Students will become familiar with screening guidelines based on a patient's age and gender. Students will begin to implement primary prevention during most patient encounters. They will become familiar with the policies and protocols of managed care. They should be able to perform a MEDLINE search efficiently and apply the information to the practice.

MMED 893 Infectious Disease-Advocate Illinois Masonic Medical Center (6 QH)

Students will spend the majority of their time performing inpatient consultations in general infectious disease, seeing a variety of illnesses. Students will work closely with house staff and will attend daily rounds with infectious disease faculty. Additionally, students will be active participants in didactic and clinical case conferences twice monthly.

MMED 895 Physical Medicine and Rehabilitation - Advocate Lutheran General Hospital (3-6 QH)

The student will rotate in PM&R with admission and follow-up inpatients on the rehab unit. A variety of patients, including those with strokes, brain injuries, amputations, etc., will be seen. There will be an opportunity to be involved in consults, lymphedema clinic and pain clinic. The student will become familiar with main diagnoses on the inpatient rehab unit and gain experience with team conferences and treatment plans. Lectures will be tailored to student's areas of interest.

MMED 896 Outpatient Hematology/Oncology - Centegra Health System (6 QH)

To gain knowledge and skills in diagnosis and treatment of common hematology/ oncology diseases. Specifically, the student will compile a list of the 3 types of anemia for preceptor review; document the staging of stage 1 and 2 malignancies of the breast, lung, colon, and prostate for preceptor review; document standard treatment protocols for stage 1 and 2 breast, lung, colon, and prostate malignancies for preceptor review; explain the initial evaluation of the 4 cases presented in the terminal objectives to the satisfaction of the preceptor.

MMED 898 Hematology - Advocate Christ Medical Center (6 QH)

The students will see patients in consultation or as primary patients of the Hematology Service and will follow them throughout their hospital course. During daily rounds with the attending hematologist, they will present patients, review pertinent articles or topics, verify historical and physical findings at the bedside, examine blood smears and marrow smears, formulate and reassess diagnostic and management decisions and write progress notes. In the office, they will have the opportunity to examine patients with a variety of hematologic disorders.

MMIC 600A, B & C Medical Microbiology and Immunology (15.5 QH)

This course focuses on the fundamental molecular biology, genetics, metabolism, immunology and morphology of microorganisms. The first quarter is directed toward principles and concepts of microbiology and immunology; the second and third quarters to infectious disease processes with an emphasis on clinical presentation, diagnosis and treatment.

MMIC 630 Research in Microbiology: Role of KSHV in Oncogenes-Microbiology and Immunology Laboratory Settings (2 QH)

The student will be learning important basic science research techniques that are in high demand in the laboratory settings. Some of the techniques include, but are not limited to, real-time reverse transcription polymerase chain reaction, western blots, immunofluorescence assays, etc. Most important, however, the student will be applying these techniques to address a particular scientific hypothesis on a particular aspect of the biology behind Kaposi sarcoma-associated herpes virus and the host cell.

MMIC 643 Advanced Immunology (3 QH)

This elective is designed for students seeking an in-depth knowledge of contemporary immunology.

MMIC 652 Parasite Immunology (1 QH)

This course trains students to become familiar with aspects of molecular biology and immunology of medically important parasites with particular reference to leishmaniasis. Emphasis will be placed on the mechanisms of host-parasite interactions in vitro and evasion of host immunity.

MMIC 653 Biology of Intracellular Parasitism (1-2 QH)

This elective familiarizes students with mechanisms and regulation of infection with particular reference to intracellular parasites. The course teaches students to evaluate literature and research reports, plan and conduct laboratory research in molecular parasitology, utilize some biochemical and molecular biology techniques in a research program, and analyze and report lab data in a style consistent with journal publication.

MMIC 660 Molecular Biology and Immunochemistry of the Immune System (1 QH)

Students learn research methodologies, perform experiments, write up results and participate in discussions. Cell culture, isolation of nucleic acids, mapping and manipulating of cloned genes, SDS-PAGE of proteins, radioimmunoassays and ELISA and flow cytometry are included. Students have actual laboratory research experience in studies in molecular biology of the immune system.

MMIC 808 Research in Drug Resistance in Leishmania (1-20 QH)

Students develop research experience in establishing cultures of Leishmania, develop drug resistance and attempt to initially correlate molecular mechanisms of drug resistance.

MMTD 509 Epidemiology (1.5QH)

Clinical Epidemiology will introduce students to the basic principles of public health and epidemiology, including their application to the problem of healthcare disparities and development of activities that benefit the health status of populations. This course covers the principles and methods of epidemiologic investigation including epidemiologic study designs for investigating the etiology of disease. Students will also learn basic quantitative measures to determine association and risk. Topics will include probability, correlation & regression, incidence & prevalence, along with various sources of bias and confounding. Students will be required to develop a research question using the PICO method (Population, Intervention, Comparison, Outcome), to evaluate the evidence in the literature, and to present their findings to their peers.

MMTD 510 Bioethics (2.5QH)

Bioethics is a course designed to show that moral theories and social political frameworks are necessary for the advancement of social healthcare policy and patient centered decision-making. Topics covered will include: Deontological and Utilitarian Theories; Social Political Philosophy,

Codes of Ethics, Principlism, Informed Consent, Competency, Types of Information Disclosures, Institutional Review Boards (IRBs), CITI Clinical Certification and mastery of: USMLE Ethics Guidelines and Accreditation Council for Pharmacy Education (ACPE) Standards.

MMTD 601 Patient Safety (2QH)

The three main themes of the course are Prevention and Screening, Healthcare Law, and Patient Safety. The course includes lectures, conferences, online modules, reading assignments, and a simulated hospital experience.

MNEU 700 Neurology Clerkship (6 QH)

This four-week required clerkship prepares students to recognize and begin the management of patients with neurologic conditions, to demonstrate the ability to perform a complete and reliable neurologic history and examination, and to continue their progress toward achieving the school's educational competencies. The student is provided with practical experience at the bedside, clinics and teaching rounds, as well as varied learning environments including online quizzes, essay assignments and simulated patient experiences. The clerkship begins with a half-day orientation and includes an introduction to neuroradiology, neurological disorders review and a neurologic exam practicum. On the final day, students will take the NBME Clinical Neurology Subject Examination to successfully complete their neurology clerkship. Students in this clerkship receive their clinical instruction at James A. Lovell Federal Health Care Center, Advocate Christ Medical Center, Advocate Lutheran General Hospital, Advocate Condell Medical Center, Advocate Illinois Masonic Medical Center and John H. Stroger, Jr. Hospital of Cook County. Students interact with patients with a wide variety of neurological conditions on both outpatient and inpatient services under the preceptorship of neurology attendings and residents. Students' participation in small- and large-group discussions, didactic presentations, workshops and conferences is required, facilitated and supervised by preceptors at specific training sites. These activities ensure continued learning and application of the principles and practice of neuroscience and clinical neurology, and ensure that students' learning experiences in neurology are an integral contribution to progress in becoming competent physicians.

MNEU 801 Neurology Clerkship (6QH)

This four-week required clerkship prepares students to recognize and begin the management of patients with neurologic conditions, to demonstrate the ability to perform a complete and reliable neurologic history and examination, and to continue their progress toward achieving the school's educational competencies. The student is provided with practical experience at the bedside, clinics, and teaching rounds, as well as varied learning environments including online quizzes, essay assignments, and simulated patient experiences. The clerkship begins with a half-day orientation and includes an introduction to neuroradiology, neurological disorders review, and a neurologic exam practicum. During the clerkship, students interact with patients with a wide variety of neurological conditions on both outpatient and inpatient services under the preceptorship of faculty and residents. Students also participate in small and large group discussions, didactic presentations, workshops, and conferences. At the end of the clerkship, students take the National Board of Medical Examiner's subject exam in Neurology.

MNEU 803 Clinical Neurology Preceptorship – Private Practice and Highland Park Hospital (6 QH)

Clinical neurology is a fourth-year course in which the medical student expands upon earlier training in the required clerkship in the diagnosis and management of patients with neurologic

disease. The student presents to the precepting neurologist those patients “worked up” in both an inpatient and outpatient setting. In addition, the student sees selected consultations that are presented to the precepting neurologist for discussion. Opportunities are afforded the student to participate in various neurologic diagnostic studies, including electroencephalography, electromyography, nerve conduction and evoked response neurophysiology. The importance of these diagnostic studies in the neurologic diagnosis is emphasized. The elective occurs in private practice and at Highland Park Hospital.

MNEU 855 Neurology-Advocate Lutheran General Hospital(6 QH)

The student will closely observe, in inpatient and outpatient care. The student will be using all of the tools available for diagnostic and therapeutic modalities including current neurologic serum antibody testing, advanced CT/CTA imaging, lumbar punctures, advanced MRI techniques and evaluating neurointerventional studies (coiling, stenting, gluing, etc.).

MNEU 860 Neurology-Advocate Christ Medical Center-Oak Lawn, IL and Neurological Associates-Palos Heights, IL (6 QH)

The student will closely observe, in inpatient and outpatient care. The student will be using all of the tools available for diagnostic and therapeutic modalities including current neurologic serum antibody testing, advanced CT/CTA imaging, lumbar punctures, advanced MRI techniques and evaluating neurointerventional studies (coiling, stenting, gluing, etc.).

MNEU 862 Neurology Advocate Christ Medical Center (6 QH)

This rotation is for students who have decided upon Neurology as a career and are interested in spending more time specifically in both inpatient and outpatient settings. Students will learn to perform a comprehensive neurologic examination, and a brief, screening neurologic examination; deliver a clear, concise, and thorough oral presentation of a patient's history and examination; recognize symptoms that may signify neurologic disease (including disturbances of consciousness, cognition, language, vision, hearing, equilibrium, motor function, somatic sensation, and autonomic function).

MNEU 866 - Neurology Advocate Lutheran General Hospital (6 QH)

This 4 week fourth year elective is designed for medical students interested in or actively pursuing neurology as a career. Two weeks will be dedicated to inpatient adult neurology service, where the medical student will function as a sub-intern, taking full responsibility in examining patients and formulating a competent assessment and plan with the supervising faculty. The second two-week block will be dedicated to outpatient adult neurology, in both general and specialty clinics. The medical student will rotate through general neurology clinics, as well as sleep, behavioral neurology clinics, and participate in reading electroencephalography and performing electromyography. The student will be expected to complete an academic project (presentation of a clinical topic or case presentation on the inpatient or outpatient service) during their elective.

MNSC 603 Research in Neuroscience (1-2 QH)

The Department of Neuroscience offers student research training opportunities in a number of disciplines, to be arranged by the faculty advisors.

MNSC 605 Human Brain Dissection (1 QH)

This course offers advanced dissection of human brain specimens to reveal the major gray matter structures and white matter pathways involved in reward, language, emotion, learning and other

higher cognitive functions, with an emphasis on structures involved in neurologic and psychiatric disorders.

MNSC 800 Intramural Non-clinical Research (3-12 QH)

This elective provides students the opportunity to participate in research during the M4 year that is complementary to the student's overall medical school experience. Students who choose to do this elective are responsible for identifying a research advisor to provide guidance and supervision. The elective director will work with the research advisor to ensure that all relevant CMS policies and procedures (duty hours, student treatment, secure storage, exposure, etc.) are upheld. At the end of this elective, the m4 student will demonstrate knowledge of fundamental concepts of research, including ethics, literature review, obtaining data, and preparing or submitting for publication.

MOBG 700 Obstetrics/Gynecology Clerkship (9QH)

This six-week required clerkship provides the student with experience in all aspects of obstetrics and gynecology. This includes general obstetrics and gynecology and the subspecialties of endocrinology, oncology and perinatology. In addition to the department's regular conference schedule and rounds, there are specific didactic sessions for students. These sessions include a lecture series covering the core curriculum. Student/faculty interaction is enhanced through small preceptor group meetings. At the end of the clerkship, students take the National Board of Medical Examiner's subject exam in Obstetrics/Gynecology.

MOBG 820 Urogynecology-Advocate Lutheran General Hospital (3-6 QH)

This elective offers an introduction to diagnosis and treatment of incontinence and pelvic organ prolapse. The student will be involved in the office evaluation of patients and participate in surgical procedures. Observation of urodynamic testing is also included.

MOBG 840 Maternal-Fetal Medicine-Advocate Lutheran General Hospital (6-9 QH)

In the inpatient area, the student will follow cases of antepartum patients with pregnancy complications with the supervision of a senior resident and perinatologist. There are daily teaching rounds on these patients. The student will also be involved with delivery of high-risk patients. In the outpatient perinatal center, the student will be able to work with a senior resident and attending. They will be exposed to ultrasound studies, NST and outpatient management of high-risk conditions (diabetes, hypertension, congenital anomalies, etc.).

MOBG 850 Gynecologic Oncology-Advocate Lutheran General Hospital (6 QH)

This is a senior elective that focuses on the diagnosis, treatment and follow-up of gynecologic malignancies. Participation in surgery is required. Experience in benign breast disease is included.

MOBG 875 Obstetrics/Gynecology - Private Practice Clinic (6 QH)

An intense clinical experience with a busy private Practitioner. Students will learn to independently perform a complete and thorough H&P. Students will perform basic procedures in the clinic setting, including Pap smears, Ultrasound, etc.

MOPH 608 Clinical Ophthalmology Lecture Series - CMS (1 QH)

Clinically based lectures on ophthalmology will focus on glaucoma, retina, cataracts, corneal nerve, refractive surgery and oculoplastics.

MOPH 805 Clinical Ophthalmology-Stroger Hospital of Cook County (3-6 QH)

Students will examine and evaluate patients in the Eye Clinic. Students may write their findings in the chart. Only residents and attendings will have “sign-off” authority for disposition. Students will be expected to attend regular lectures and conferences and may be asked to give a brief (20 minute) presentation on a clinical topic.

MOPH 808 Clinical Ophthalmology-Eye Specialists of Illinois (Park Ridge, IL) (3-6 QH)

The student will actively participate in the clinical setting (general, glaucoma, retina, cornea, plastics). The student will be expected to examine patients and formulate a diagnosis and treatment plan.

MOSA 500 Clinical Reflections I (1.5QH)

This course aims to apply topics covered elsewhere in the M1 curriculum to clinical settings. By meeting regularly in learning communities, students will develop familiarity with a group of colleagues and help one another to reflect on their personal values as they begin to incorporate these values into their professional values.

MOSA 600 Clinical Reflections II (1QH)

This course aims to apply topics covered elsewhere in the M2 curriculum to clinical settings. By meeting regularly in learning communities, students will develop familiarity with a group of colleagues and help one another to reflect on their personal values as they incorporate these values into their professional values.

MOSA 700 Clinical Reflections III (1QH)

This course aims to develop students’ “sense of story” in medicine with exercises in writing and telling stories based on clinical experience. It will develop their ability to discern and describe human experience in narrative form. Students will reflect on their own experiences as well as on those of patients and others in healthcare. By meeting regularly in learning communities, students will maintain familiarity with a group of colleagues and support one another as they incorporate their personal values into their professional values.

MOSA 800 Clinical Reflections IV (1QH)

This course continues the Clinical Reflections series through M4 year by addressing acculturation to the medical profession, focusing on economics of the health system and on personal adaptation. Exercises in writing and telling stories about clinical experiences continue to serve as the focal point for group discussions. Students will reflect on their own experiences as well as on those of patients and others in healthcare. By meeting regularly in learning communities, students will maintain familiarity with a group of colleagues and support one another as they incorporate their personal values into their professional values.

MPAT 600A, B & C General and Systemic Pathology (12.5 QH)

This course covers the biologic bases and mechanisms of disease, including inflammation and repair, and cell injury by infectious, immunologic, vascular, genetic, physical, chemical and neoplastic mechanisms, followed by a beginning survey of disease with emphasis on clinical pathologic correlations.

MPAT 601 Honors Pathology (2 QH)

This course is offered by invitation to a limited number of students who are enrolled in the M2 pathology course. Invitations are extended to students who are “high achievers” in the first several segments of the regular course and to other students at the option of the course director as availability of preceptors allows. The objectives of this elective are: (1) apply basic principles

learned in the sophomore pathology course in evaluating patient specimens submitted to a pathology department, (2) provide more detailed histopathological analytical experience, (3) gain understanding of the work-up of surgical pathology and autopsy specimens and (4) better understand a pathologist's role in clinical diagnosis and patient care.

MPED 700 Pediatrics Clerkship (9QH)

On this required six-week clerkship, students rotate through ambulatory and inpatient pediatric units, neonatology and the emergency room. Didactic teaching is presented in the form of lectures, seminars, individual presentations, ward rounds and student bedside rounds. At the end of the clerkship, students take the National Board of Medical Examiner's subject exam in Pediatrics.

MPED 805 Pediatric SUBI (6QH)

The pediatric sub-internship provides the senior medical student an opportunity to function, with supervision, as the primary caretaker of inpatients on pediatric and adolescent units. During the rotation, the student will be expected to improve clinical skills by performing history and physical examinations, developing problem lists of differential diagnoses, forming final physiological assessments, and outlining appropriate diagnostic and therapeutic plans.

MPED 836 Pediatric Endocrinology-Advocate Children's Hospital (Park Ridge, IL) (6-9 QH)

This elective will introduce the student to the endocrinology of infants, children and adolescents. The application of basic endocrine physiology in the diagnosis and treatment of these disorders will be emphasized. There will also be exposure to comprehensive diabetes management.

MPED 837 Pediatric Gastroenterology/Nutrition/Hepatology-Advocate Children's Hospital (Park Ridge, IL) (6 QH)

This elective will familiarize the student with the evaluation, diagnosis, and treatment of pediatric gastrointestinal, hepatic, and nutritional disorders. Special emphasis will be placed on methodology of history-taking, problem list formation, use of laboratory investigations and interpretation of radiographs. Adequate exposure to GI procedures will be provided.

MPED 838 Pediatric Hematology/Oncology-Advocate Children's Hospital (Park Ridge, IL) (6-12 QH)

This elective provides intensive multidisciplinary clinical/clinical research in pediatric hematology/oncology that will involve students in daily inpatient rounds and ongoing care, conferences, outpatient clinic sessions and inpatient consultations. Students will have the opportunity to follow patients in-depth, be involved in procedures and be exposed to peripheral blood and bone marrow morphology and ongoing clinical research in pediatric hematology/oncology. There are regular didactic teaching conferences covering a broad spectrum of pediatric hematology/oncology topics. The students are required to review textbook and pertinent review journal articles in pediatric hematology/oncology.

MPED 840 Genetics-Advocate Lutheran General Hospital (6 QH)

This is a busy clinical consultation service with emphasis on prenatal diagnosis, genetic counseling, and dysmorphology and heritable metabolic disease evaluations. The student will also attend multidisciplinary clinics for children with handicapping conditions and craniofacial anomalies, prepare karyotypes in the Cytogenetics Laboratory and present at least one short report at weekly Journal Club sessions.

MPED 841 Pediatric Infectious Disease-Advocate Children's Hospital (Park Ridge, IL) (3-6 QH)

The student on service evaluates approximately seven new inpatients and five new outpatients per week, in addition to assessing hospitalized patients once daily on rounds. Rounds are always with the attending who has a minimum of four hours daily contact with the student. Outpatient clinic is held three half-days per week. The student is expected to spend a minimum of two hours daily reading and researching cases in the library or using the attending physician's personal library.

MPED 842 Pediatric Critical Care-Advocate Children's Hospital (Park Ridge, IL) (6-12 QH)

The Advocate Children's Hospital (Park Ridge) PICU is the nucleus of a certified Level-1 pediatric trauma center, the Midwest Pediatric Brain Tumor Center and a congenital cardiac surgical program. Patients are very high acuity, ranging in age from one day to 19 years, and usually require sophisticated monitoring and interventions. Children with multisystem trauma, severe traumatic brain injury, seizures, respiratory failure, congenital heart disease and cardiac failure, cancer, septic shock and other overwhelming infections, renal failure and more are cared for. As part of the PICU team, the student will gain experience with invasive hemodynamic monitoring, resuscitation and management of shock, conventional and high-frequency mechanical ventilation, the use of nitric oxide for pulmonary hypertension, renal replacement therapies, intracranial pressure monitoring and management, extracorporeal membrane oxygenation, procedural sedation and care of the postoperative cardiac patient. The majority of teaching, which is substantial, happens at the bedside. The PICU is staffed by two second-year pediatric residents and a pediatric critical care fellow, and supervised by four full-time pediatric intensivists with additional expertise in neonatology, cardiac intensive care, pulmonology and complementary medicine. The PICU also has an established pediatric critical care medicine fellowship program and a pediatric critical care transport team.

MPED 843 Pediatric Nephrology-Advocate Children's Hospital (Park Ridge, IL) (6 QH)

The student will participate in the evaluation and management of inpatient consultations and outpatient visits to the Pediatric Nephrology service. Typical problems include electrolyte abnormalities, hypertension, nephrotic syndrome, enuresis, urinary tract infection and acute renal failure.

MPED 844 Pediatric Cardiology-Advocate Children's Hospital (Park Ridge, IL) (6-12 QH)

The major goal of this elective is to help the student develop problem-solving skills in pediatric cardiology, based on clinical pathologic and physiologic principles. The student will actively participate in daily care of inpatients (ward, ICU, pre/post-op, consultations) and outpatients; interpretation of exercise testing and cardiac catheterization; review of pathology specimens and formal teaching sessions (didactic and Socratic).

MPED 845 Neonatology-Advocate Children's Hospital (Park Ridge, IL) (6 QH)

This program, a rotation through the NICU, is intended to acquaint the student with the current management of the high-risk newborn during the immediate perinatal period, including the delivery room and the neonatal ICU. This is a clinical experience, which will expose the student to the diagnosis and management of a broad spectrum of neonatal disorders.

MPED 847 Pediatric Pulmonology/Cystic Fibrosis-Advocate Children's Hospital (Park Ridge, IL) (6 QH)

This elective will provide the student with an understanding of the pathophysiology, differential diagnosis, management and prognosis of acute and chronic respiratory disorders in infants, children and adolescents. This includes the appropriateness and risks of various diagnostic and therapeutic procedures, interpretation of test results and assessment of response to therapy. The student will spend time in the pediatric pulmonary function lab, radiology and may observe other laboratory tests or procedures such as bronchoscopy. Daily teaching rounds are held in the pediatric and adolescent units. The student will be expected to evaluate all new consultations first, then present to the attending physician for discussion and management. The student will attend outpatient pulmonology clinics three times a week and the cystic fibrosis center clinic once a week, where a multi-disciplinary team participates in the care of a large cystic fibrosis population. A brief oral presentation will be expected at the end of this rotation.

MPED 849 Pediatric Neurology-Advocate Children's Hospital (Park Ridge, IL) (6 QH)

Senior medical students may spend a one-month elective on the pediatric neurology service at ALGH. The curriculum for the pediatric neurology elective includes such topics as epilepsy, cerebral palsy, developmental disorders, learning disabilities, attention deficit disorder, infectious diseases of the central nervous system and neuromuscular disorders.

MPED 854 Pediatric Critical Care-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

The PICU provides definitive intensive therapy and maximum surveillance for the critically ill or injured child. It is supervised by full-time pediatric intensivists who act as consultants to all of the patients and as teachers to the house staff. During this rotation, the medical student will follow only inpatient cases. The student will become familiar with common critical care procedures, such as intubation and line placement. The student will develop a working knowledge base, understanding the differential diagnoses, management and treatment of common conditions involving critically ill newborns/children.

MPED 857 Pediatric Pulmonology-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation, the medical student will follow patients, both inpatient and outpatient. The student will become familiar with various procedures, including surgical and office procedures. The student will develop a working knowledge base, understanding the differential diagnoses, management and treatment plans of the specifics of pulmonary medicine involving children.

MPED 858 Pediatric Hematology/Oncology-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation, the medical student will follow patients, both inpatient and outpatient. The student will become familiar with various procedures, including surgical and office procedures. The student will develop a working knowledge base, understanding the differential diagnoses, management and treatment plans of the specifics of hematology/oncology involving children..

MPED 859 Pediatric Development-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation, the medical student will follow patients, both inpatient and outpatient. The student will become familiar with various procedures, including surgical and office procedures. The student will develop a working knowledge of the specifics of developmental issues involving children, including understanding of differential diagnoses, management, and treatment plans.

MPED 860 Pediatric Gastroenterology-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation, the medical student will follow patients, both inpatient and outpatient. The student will become familiar with various procedures, including surgical and office procedures. The student will develop a working knowledge of the specifics of GI and nutrition involving children.

MPED 862 Pediatric Emergency Medicine-Advocate Children's Hospital (Park Ridge, IL) (3-6 QH)

The student will be responsible for taking history from child or parent(s), doing a complete examination and making a preliminary working diagnosis with a plan to work up and manage. The student will discuss the child's care with the attending physician. The student learns emergency department procedures, minor suturing, I&D, splinting, etc., under the attending physician's supervision. The student is closely supervised by the attending physician and has a very close working relationship.

MPED 864 Pediatric Otolaryngology-Advocate Children's Hospital (Park Ridge, IL) (3-6 QH)

This elective will expose the medical student to Pediatric Otolaryngology clinically. This elective also serves to augment the medical student's foundation in pediatric and surgical medicine. The student will participate with the instructor on a one-on-one basis and experience all clinical activities such as inpatient and outpatient procedures, office visits, case presentations and consultations. Throughout the course, topics in Pediatric Otolaryngology will be assigned and discussed.

MPED 866 Pediatric Emergency Medicine-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation, the medical student will learn to work up and generate differential diagnoses and treatment plans for children of all ages in the pediatric emergency room setting. The student will become familiar with various procedures, including lumbar punctures and incision/drainages. The student will develop a working knowledge of the specifics of pediatric emergency medicine involving all children from neonates to adolescents.

MPED 868 Cardiology-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation, the medical student will follow inpatient and outpatient cardiology patients. The student will have the opportunity to become familiar with pediatric EKG interpretation, evaluation of common pediatric cardiologic conditions such as chest pain, HTN, syncope, complex congenital heart disease, electrophysiology, and arrhythmias. The student will develop a working knowledge of pediatric cardiology, current diagnostic and therapeutic modalities for several conditions including CHF, infective endocarditis, myocarditis, transposition of the great vessels, hypoplastic left heart syndrome, tetralogy of Fallot, tricuspid atresia, AV canal, PDA, VSD, ASD and rhythm issues such as SVT, prolonged QT and WPW.

MPED 870 Neonatology-Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation, the medical student will follow critically ill newborn patients. The student will become familiar with various procedures, including central lines and intubations. The student will develop a working knowledge of the specifics of critical care involving neonates.

MPED 875 Inpatient Pediatrics - Adventist Hospital (6 QH)

Students will care for pediatric patients in the nursery, neonatal (unit), pediatric floor, and pediatric ICU. Students will learn to assess patients and make diagnostic and therapeutic decisions regarding patient care, communicate the plans to the patients and families, and apply

evidence based information to patient care, learn the ways to examine children, and make diagnostic and management decisions concerning pediatric patients.

MPED 891 Endocrinology -Advocate Children's Hospital (Oak Lawn, IL) (6 QH)

During this rotation the student will develop an understanding of pediatric endocrine disorders by actively participating in the care of patients in hospital and ambulatory settings. Student will learn to perform an accurate and complete history and physical exam with a focus on pediatric endocrinology. Students will become familiar with various procedures, develop diagnostic evaluations, and execute management plans for common pediatric endocrine conditions.

MPHY 609 Cardiovascular Pathophysiology (2 QH)

Clinical aspects of cardiovascular function are emphasized, e.g., heart sounds and murmurs, electrocardiogram, monitoring of central venous pressure and cardiac function curves.

MPHY 610 Renal Pathophysiology in preparation for USMLE Step 1 (2 QH)

Students are taught fundamental processes of renal physiology and pathophysiology at a cellular level. An examination of recent literature and student presentations are emphasized.

MPHY 615 Physiology of the Liver (2 QH)

The normal functions of the liver are discussed as well as the experimental techniques used in the study of the liver. Various pathologies of the liver are presented and related to the disturbances of the normal physiology.

MPHY 620 Integrative Physiology (2 QH)

Students increase their capabilities to think through complex, integrative-type, physiological clinical situations, improve performance on data interpretation problems and better understand the physiological rationale for appropriate corrective measures, as well as the pathophysiology involved in many disease states.

MPHY 624 Pulmonary Pathophysiology (2 QH)

The biophysics of pulmonary mechanics and gas transport are presented as a basis for evaluating pulmonary function. Modern pulmonary function testing equipment is utilized in the laboratory, and an emphasis is placed on recognizing abnormal lung volumes and airflows.

MPHY 626 Research in Physiology (2-3 QH)

Students are given the opportunity to become involved in significant physiological research. In doing so, the student gains experience in designing experiments, operating modern research equipment, gathering meaningful data, evaluating experimental results and preparing the results for publication.

MPHY 627 Factors Influencing Fertility (1 QH)

The following topics will be covered in a series of one-hour weekly lectures: normal female reproductive cycle; the major causes of infertility; major methods of contraception; two of the major causes of infertility, endometriosis and polycystic ovaries (PCO); sperm physiology and in-vitro fertilization. Specific readings will be required, and there will be class discussion.

MPSY 601A & B Clinical Neuroscience (8 QH)

This multi-disciplinary course focuses on brain structure and function and their clinical manifestations of disease. This course covers: (1) brain organization strategies for the diagnosis of central nervous system disease, including the mental status and cognitive assessment examinations, psychological testing, routine (blood count) and specialized (lumbar puncture, magnetic resonance imaging) laboratory testing, and normal and abnormal personality; (2)

disorders of the CNS encompassing psychopathology, for these disorders, prevalence, pathophysiology, clinical manifestations, diagnosis, treatment and prevention are covered and (3) traditional behavioral science topics such as psychological testing and healthcare delivery.

MPSY 700 Psychiatry Clerkship (9QH)

This is a required six-week experience where students work as part of the psychiatric team where they participate in interviews and history taking, charting, triage and referral decisions. Students learn the treatment and care of psychiatric patients in the hospital and ambulatory setting. They also gain experience in consultation/liaison psychiatry. The classroom work consists of seminars on psychiatric emergencies, psychotherapy, behavior modification, liaison/consultation psychiatry, pediatric psychiatry, forensic and ethical psychiatry. Case conferences, grand rounds, and professor rounds are held regularly. At the end of the clerkship, students take the National Board of Medical Examiner's subject exam in Psychiatry.

MPSY 819 Child Psychiatry – Rosalind Franklin University Health System (3-6 QH)

This is an intensive two week experience focused on diagnosis and treatment of common and uncommon syndromes with onset before ten years of age.

MPSY 850 Psychiatry – Union Health (3-6 QH)

This private practice elective will provide students with exposure to Community psychiatry, social psychiatry, and refugee mental health. Adaptation to a new culture and PTSD can be prominent in the refugee populations seen in this community , urban setting..

MPSY 891 Psychotherapy Elective-Lovell Federal Health Care Center (3-6 QH)

This elective will expose senior medical students to the basics of psychotherapy theory and practice through required readings and patient care in inpatient and outpatient settings.

MRAD 600 Diagnostic Radiological Imaging (1 QH)

This elective helps students develop skills in understanding the radiographic appearance of normal anatomical structures and variations of the normal and the contrast with common abnormalities encountered in clinical conditions. The course also deals with augmentation of the student's skills in physical diagnosis and patient examination, demonstrating visually the normal and abnormal findings in simulated physical examination situations. Teaching is done in semiformal lecture format with radiographs selected from the teaching files of the department.

MRAD 801 General Diagnostic Radiology-Lovell Federal Health Care Center (6 QH)

In this four week course students work with faculty at the FHCC to develop skills in interpreting radiographic anatomy, physiology and pathology. Students will learn and understand routine procedures and augment skills in differential diagnosis of radiographic manifestations of common clinical situations. Students attend scheduled supplemental, didactic lectures and interdisciplinary conferences given by faculty. Students may also be assigned independent work and are required to complete a paper with images and bibliography on which they will give an oral presentation by the end of rotation.

MRAD 806 Introduction to Neuroradiology-Advocate Lutheran General Hospital (3-6 QH)

This course, a two-week specialty rotation, is an introduction to the clinical problems and imaging modalities involved in neuroradiology, including neuro-interventional techniques.

MRAD 809 General Diagnostic Radiology-Advocate Illinois Masonic Medical Center (6 QH)

This four-week course is designed to introduce students to diagnostic radiology in the community hospital, including: (1) basic radiographic interpretation, i.e., general radiology; (2) cross-sectional imaging, i.e., general radiology; (3) neuroradiology, special procedures and interventional radiology and (4) utilization of imaging and the role of the radiologist as a consultant. Requirements include an oral, clinically oriented presentation at the end of the rotation. Students are expected to participate in all conferences, both radiology teaching conferences and interdisciplinary conferences.

MRAD 812 Interventional Radiology – Advocate Good Shepherd Hospital (3 QH)

During this elective, the student will develop an awareness of the indications, risks, benefits, and potential complications of various interventional procedures. The student will perform pre- and post-intervention examinations, assist with procedures, and discuss findings and treatment plans with the supervising interventional radiologist.

MRAD 817 Radiation Oncology-Midwestern Regional Medical Center (Zion, IL) (3 QH)

This two-week clinical rotation will help students develop an understanding of the role of radiation oncology for the care of cancer patients and gain an understanding of therapeutic radiation.

MRAD 818 Diagnostic Radiology-Stroger Hospital of Cook County (6 QH)

This four-week elective acts as an introduction to the field of radiology. The student can choose up to four one-week rotations in different areas of radiology, including body CT, MSK, ER radiology, neuroradiology, ultrasound, and interventional radiology. At the end of the rotation, the student will be required to take a quiz based on CCH Attending Teaching Files of interesting cases. At the end of this elective, the student will be able to incorporate imaging into the evaluation of common disease processes.

MRHM 801 Clinical Rehabilitation Medicine for Primary Physicians-Lovell Federal Health Care Center (2-9 QH)

Students work under the direct supervision of the instructional staff at various affiliated hospitals to obtain an overview of rehabilitation. Techniques include evaluation, goal-setting, discharge planning, team approach and therapeutic procedures for inpatients and outpatients. Opportunities to pursue special interests in neurologic diseases, spinal cord injury, geriatrics, electrodiagnosis, surgical, cardiac or other conditions are available. A term paper on a related subject of interest is suggested.

MRHM 803 Physical Medicine and Rehabilitation-Edward Hines, Jr. VA Hospital (3-6 QH)

In this elective, the student works directly with the instructors and under their direct supervision, the student is expected to take responsibility for a limited number of patients, review the medical problem with the instructor and define rehabilitation goals after listing the problems at hand, and follow patients at various therapies. Special laboratory training includes electrodiagnosis of neuromuscular diseases, including EMG, exercise electrocardiography and exercises for cardiac patients, basic psychological testing and administration of tests including the interpretation.

MRHM 804 Physical Medicine and Rehabilitation-Schwab Rehabilitation Hospital (6 QH)

In this elective, students are expected to participate in medical and rehabilitation care provided to inpatients and outpatients. They perform history and physical examinations and monitor patients' progress through the rehabilitation program. Students document this progress in the clinical

record. All of these activities are under the supervision of the Physical Medicine and Rehabilitation residents and the attending staff.

MRHM 817 Physical Medicine and Rehabilitation-Private Practice (3-6 QH)

This elective exposes students to private practice outpatient musculoskeletal/pain medicine. Spinal injections, joint injections and electromyography are included. Students will be exposed to the field of PM&R and observe musculoskeletal history and physical exams and as well as spinal injection procedures. Students will understand and become proficient at a musculoskeletal history and, especially, a musculoskeletal physical exam.

MRHM 820 Physical Medicine and Rehabilitation – Marianjoy Rehabilitation Hospital(3-6 QH)

Students will assess patients for acute rehabilitation from their injuries, medical conditions, and deconditioned states. They will suggest appropriate treatment plans utilizing an inter-professional team approach.

MRHM 895 Physical Medicine and Rehabilitation - Advocate Lutheran General Hospital (3-6 QH)

During this elective, the student will become familiar with common diagnoses seen on the inpatient rehabilitation unit. Students will see a variety of patients, including those with strokes, brain injuries, and amputations, and gain experience with team conferences and treatment plans. There will be an opportunity to be involved in consults, lymphedema clinic, and pain clinic. Lectures will be tailored to student's areas of interest.

MRIM 601 Reproductive Medicine-RFU Health System (3 QH)

The Reproductive Medicine elective course is designed for the second-year student who wants to study clinical and laboratory research in reproductive medicine. The student will perform duties in the reproductive medicine clinic and the clinical immunology laboratory. Students will be asked to learn basic elements and concepts of pregnancy and immunology, immunological treatment for recurrent pregnancy losses and infertility and basic infertility work-ups. Students will be involved in an ongoing study or may participate in setting up a clinical or laboratory study. In the latter case, the student will be actively involved in writing the study proposal and conducting the actual study. At the end of their elective, an abstract can be generated. If a manuscript is generated, the student will be involved in the actual manuscript preparation. Although the elective is 10 weeks in length, this may not be sufficient time to complete the study. If the student is willing to continue, he/she will be allowed to continue their study for a maximum one-year period.

MSUR 601 Elective in Orthopedics-Private Practice (1 QH)

The student, under the direction of the orthopedic surgeon in private practice, will observe history, exam and surgery. Fractured bones, osteoarthritis, rheumatoid arthritis, strains, low back discomfort and carpal tunnel syndrome are examples of some of the conditions that will be observed. Relevant clinical correlations to basic science courses will be evident. The student will arrange scheduled visits to the orthopedic office in Long Grove, IL, not to conflict with the academic schedule.

MSUR 700 Surgery Clerkship (12QH)

During this required eight-week rotation, students function as an integral member of the surgical team. Students learn to care for patients by participating in clinics, rounds, operative procedures, and on-call duties. In addition to the core lecture series and case-based discussion sessions,

students attend the following regularly scheduled surgical conferences: radiology, pathology, tumor, morbidity and mortality, grand rounds, surgical GI conference, vascular, journal club, critical care, surgical indications, basic science, cardiothoracic, orthopedic, surgical nutrition and trauma. At the end of the clerkship, students take the National Board of Medical Examiner's subject exam in Surgery.

MSUR 803 Anesthesiology-Lovell Federal Health Care Center (3-6 QH)

Students will follow an attending anesthesiologist during the course of the elective and learn the basis of anesthesia, its purpose, the fundamentals, some basic and clinical pharmacology, physiology and anatomy. Students also will have some exposure to pain management.

MSUR 805 Main Operating Room Anesthesiology-Advocate Illinois Masonic Medical Center (6 QH)

Visiting students rotate through the Department of Anesthesiology for a period of four weeks. During this time they are given a general introduction to what an anesthesiologist does professionally. Their rotations cover a wide variety of sub-specialties including ENT, ophthalmology, general surgery, gynecology, orthopedics and urology. In addition, depending upon the student's interest, they may spend a day in labor and delivery.

MSUR 807 Pain Management-Advocate Illinois Masonic Medical Center (3-6 QH)

The student will be exposed to a multi-disciplinary pain management clinic and see patients from hospital services in acute and chronic pain environments. At the completion of this rotation, students should be able to perform a neurologic exam, lumbar epidural steroid injections, lumbar facet joint injections and trigger point injections. They should also be able to create a differential diagnosis for back pain, and be able to read and evaluate radiographic studies to diagnose the source of back pain.

MSUR 824 Trauma and Critical Care Surgery-Advocate Illinois Masonic Medical Center (6 QH)

This is a four-week clinical rotation on an inpatient service. The exposure is to the acutely traumatized patient and the critical care, follow-up and management of these patients. The student functions at an extern level with close observation by the attending staff. Two full-time trauma faculty members make rounds seven days a week. Conferences and lectures are primarily clinically-based on topics relating to the patient load.

MSUR 845 Orthopedic Surgery-Advocate Lutheran General Hospital (6-12 QH)

A senior elective in Orthopedic Surgery includes exposure to an active emergency room and patients with variable degrees of orthopedic trauma, preoperative patient evaluation, and intense postoperative care experiences in patients following orthopedic trauma and reconstructive surgery. Two formal teaching conferences are held weekly, and some exposure to orthopedics in an office setting is also included. The student will work closely with an orthopedic resident staff under the guidance of an active faculty of attending orthopedists. Appropriate readings and references will be suggested.

MSUR 848 Trauma/Critical Care-Advocate Lutheran General Hospital (6-12 QH)

The student will participate as a sub-intern on the Trauma Service, and will be responsible for the implementation of diagnostic and therapeutic decisions regarding seriously ill trauma victims, to include those requiring ventilatory support, nutritional therapy and optimization of hemodynamic parameters. The student will participate in daily morning conferences, weekly trauma conferences, grand rounds and M&M conferences as they relate to trauma patients and

critically ill surgical patients. The student will provide formal presentations of patients to the Trauma academic group on a frequent and regular basis and will attend daily SICU rounds.

MSUR 849 Neurosurgery-Advocate Lutheran General Hospital (6-12 QH)

The student will act as a sub-intern on the academic Neurosurgery Service. The student will be exposed to a broad spectrum of general neurologic diseases involving surgical intervention as a therapeutic modality. The spectrum of patients includes those with neurotrauma, neurooncology, congenital neurologic disease and disease of the spine and peripheral nerves. The student will focus on neuroanatomy, neurophysiology, preoperative and operative decision-making, and the management of neurologic patients pre- and postoperatively.

MSUR 850 Breast Disease and Gynecologic Oncology-Advocate Lutheran General Hospital (6 QH)

The fourth-year elective student will report and have a relationship with the general surgery attendings who participate in clinical sessions at the Caldwell Breast Cancer Center, Monday through Friday mornings. The student will also interact with Dr. J. Dolan, Director of the Breast Center on Monday afternoons. The fourth-year student will be actively involved in all clinical activities regarding the Breast Cancer Center. The student will be expected to attend morning surgical rounds, all 7 a.m. surgical conferences, all breast conferences, as well as the Gynecology-Oncology Tumor Conference. The student would also view the diagnostic work-ups for patients who are being seen and evaluated in the Caldwell Breast Center with the attending surgeon, resident staff and attending radiologists. The student will participate in assisting with breast as well as gynecology-oncology surgical procedures in the main operating room as well as observing the minimally invasive biopsy techniques that are undertaken in the Caldwell Breast Center. All of the activities take place at Advocate Lutheran General Hospital.

MSUR 851 Breast Health-Stroger Hospital of Cook County (3-6 QH)

This elective teaches students to assess breast health and become expert on breast examination through screening clinics, oncology consultations, mammograms, ultrasounds and breast surgery. Students will learn the subtleties of identifying both pathologic and benign breast lesions through physical examinations and explore where breast health fits into the larger topic of women's health.

MSUR 858 Aesthetic Plastic Surgery-Private Office (3-6 QH)

The student will be exposed to the full spectrum of general plastic surgery in outpatient and inpatient services. The spectrum of disease will include both reconstructive and cosmetic. However, there will be an emphasis on cosmetic procedures (surgical and non-surgical). The student will see patients in the plastic surgeon's office, and will be involved in diagnostic and therapeutic decisions prior to surgical intervention. The student will also see patients in the plastic surgeon's office postoperatively. The office hours will be arranged with the attending physician.

MSUR 862 Otolaryngology, Head and Neck Surgery Research-Advocate Illinois Masonic Medical Center (6 QH)

The student will be a member of the otolaryngology research team. The student will learn the principles of evidence-based medicine (EBM) and clinical research, including critical review of scientific papers. The student will learn how to design a clinical research study, will participate in data collection and will learn the essentials of writing a research paper and preparing and giving a scientific presentation. The student will have the opportunity to observe and/or

participate in surgical procedures related to research projects. The student should attend weekly research meetings (taking place on Sundays at 8 a.m.) as well as meeting daily during the week with research fellows.

MSUR 865 CV Thoracic Surgery and Anesthesia Combined-Centegra Hospital (McHenry, IL) (6 QH)

This elective offers a two-week exposure to intraoperative repair of cardiac maladies and pulmonary abnormalities, as well as two weeks of anesthesiology experience. Students will study appropriate patient preparation and anesthesia administration with special attention to CV-thoracic procedures.

MSUR 868 Otolaryngology-Lovell Federal Health Care Center (3-6 QH)

Under the supervision of a practicing otolaryngologist, the student will perform examinations on otolaryngology patients and discuss findings and treatment plans with the supervising physician.

MSUR 870 Orthopedic Surgery-Lovell Federal Health Care Center (3-6 QH)

The focus of this course is the management of acute injuries, such as fractures, dislocations and tendinous injuries. Students will function under the supervision of a practicing orthopedic surgeon while performing examinations on orthopedic patients. Students will participate in the pre- and postoperative care of patients, as well as the principles of rehabilitation, will learn the proper techniques of fracture immobilization (casting, traction, internal fixation) and will discuss findings and treatment plans with the supervising physician. They are expected to perform an in-depth examination and evaluation of the extremities and spinal column. Some exposure to orthopedics in an office setting is also included.

MSUR 875 - Plastic, Reconstructive & Aesthetic Surgery - Centegra Health System (3 QH)

Two week exposure to Plastics, Reconstructive and Aesthetic surgery with emphasis on the entire life-cycle of patient care. Focus will be on routine pre-operative preparation (including patient and procedure selection), inter-operative participation (including understanding of relevant anatomy and proficiency in suturing) and post-operative care (including appropriate patient / family communications and understanding of wound healing). Students will participate in patient interactions with Centegra clinic and OR staff and observe clinic and OR operations. Students will also explore the indications for plastic surgery working with a Plastic Surgeon, understand patient selection, observe procedures and learn about post op care. Students will be expected to prepare in advance for procedures by familiarizing themselves with the indication, relevant anatomy and general components of the procedure.

MSUR 880 Urology – Stroger Hospital (3-6 QH)

Two to four week rotation offered to medical students interested in learning more about urology. Rotation would encompass inpatient/outpatient/surgery as well as office procedures. Students will be able to follow a patient from clinic, to MOR, to inpatient stay, and post-operative. Urologic areas covered include: Geriatrics, Oncology, Pediatrics, Voiding Dysfunction, Calculous Disease with General Urology including BPH and male sexual dysfunction.

PACE 801 Stroger Hospital (Cook County) Core Podiatry Clerkship (8 QH)

The Stroger Hospital Core Podiatry Clerkship is a required four- to five-week clinical experience that combines pediatric, adult, and geriatric podiatric medical/orthopedic/surgical, ambulatory and inpatient experiences in the diagnosis and management of patients with diverse pathology of the foot and ankle. The structure of the total experience allows the student, over multiple

clerkships, to cumulatively increase and enhance their clinical skills under supervision of the clinical site faculty.

PACE 802 James A. Lovell Federal Health Care Center Core Podiatry Clerkship (8 QH)

The James A. Lovell FHCC Core Podiatry Clerkship is a required clinical experience of four- to five-week duration. The clerkship is one of the multiple-site comprehensive clinical experiences that combine pediatric, adult and geriatric podiatric medical/orthopedic/surgical, ambulatory (including office) and inpatient experiences in the diagnosis and management of patients with diverse pathology of the foot and ankle. The structure of the total experience allows the student, over multiple clerkships, to cumulatively increase and enhance their clinical skills under supervision of the clinical site faculty.

PACE 803 Jesse Brown VA Core Podiatry Clerkship (8 QH)

The Jesse Brown VA Clerkship is a required clinical experience of four- to five-week duration. The Podiatric Clerkship is one of the multiple-site comprehensive clinical experiences that combine pediatric, adult and geriatric podiatric medical/orthopedic/surgical, ambulatory (including office) and inpatient experiences in the diagnosis and management of patients with diverse pathology of the foot and ankle. The structure of the total experience allows the student, over multiple weeks, to cumulatively increase and enhance their clinical skills under supervision of the clinical site faculty.

PACE 804 Hines VA Core Podiatry Clerkship (8 QH)

The Podiatric Clinical Clerkship at the Hines Veterans Affairs Medical Center is a required four- to five-week comprehensive ambulatory and inpatient clinical experience. The experience encompasses aspects of diagnosis and management of patients with diverse pathology of the foot and ankle. The broad nature of the clerkship allows the student to enhance skills and knowledge in the areas of podiatric medicine, podiatric orthopedics, podiatric surgery, and medical imaging under the supervision of the clinical faculty. This Podiatric Clinical Clerkship consists of supervised diagnosis and management of patients, independent study, clinical pathologic conferences and grand rounds. The student is expected to participate in the evaluation and management of patients. They will gain experience in obtaining the medical history and performing podiatric physical examinations.

PACE 805 SCPM Clerkship (4 QH)

The Scholl Clerkship includes participation in required activities in addition to clinical assignments at an assigned hospital. As part of this experience, the student will be assigned to board review lectures and mock interviews as well as taking the Clinical Competency written examination. While on campus, the students will schedule their graduation pictures. The hospital clerkship portion of the experience may provide pediatric, adult and geriatric podiatric medical/orthopedic/surgical, ambulatory (including office) and inpatient experiences in the diagnosis and management of patients with diverse pathology of the foot and ankle.

PAPB 501 Understanding and Implementing Clinical Research (1.5 QH)

This course is designed to impart and develop skills in critical review of the literature for enhancing lifelong learning. To this end, the course will encompass research design, commonly used statistical analysis techniques in medicine, evidence-based medicine (EBM) and medical writing. A small-group participatory journal club format will also be used to drive home key concepts.

PAPB 502A & B Biomechanics (6 QH)

This course is designed to provide a comprehensive, in-depth foundation for the understanding of biomechanics, locomotion and function. The normal structure and function of the lower extremity will be analyzed in detail and compared to symptoms and pathological conditions arising from deviations of normal structure and function. Although the material is presented in a lecture setting, considerable emphasis will be placed on self-study through the use of learning assignments.

PAPB 604 Orthotic Laboratory Workshop (.5 QH)

Students will spend five, three-hour sessions in the orthotic lab to learn about accommodative orthoses, grinding techniques, orthotic materials and hands-on shoe fitting.

PAPB 605 Sports Medicine (3 QH)

This course is designed to provide an introductory understanding of Sports Medicine. Focus will be on evaluation of the athlete as well as common sports medicine pathology. Although the material will be presented in a lecture setting, considerable emphasis will be placed on self-study through the use of reading assignments and audiovisual materials.

PAPB 606 Pediatric Orthopedics (4 QH)

Pediatric Orthopedics is a required course offered in the second year. This course is designed to integrate the biomechanics and orthopedic knowledge problem-solving techniques learned in the core courses to a more advanced setting.

PAPB 705 Podiatric Orthopedics Capstone Clinical Experience-Workshop (6 QH)

This capstone workshop experience is composed of six weeks of hands-on biomechanics examinations, pediatric and orthopedic clinical cases utilizing problem-based learning, workshops to practice strapping and padding, casting and physio taping techniques, computer and visual gait analysis, orthoses prescribing and manufacturing, shoe gear modification, rehabilitative medicine modalities, athletic bracing, gait assistive devices and gait abnormalities.

PAPB 801 Applied Biomechanics Elective Clerkship (8 QH)

This is a four- to five-week elective clerkship offered in February, March or April of the fourth year that offers the student additional experience with various aspects of applied biomechanics obtained in clinical, research and laboratory components. The student will participate in the following: adult and pediatric patient care, a research project with the gait lab, the orthotic lab on campus as well as visit off-site orthotic and prosthetic locations, offsite physical therapy rotations, an off-site wound care clinic, EMG/NCV studies at an off-site location and participate in the care of sports medicine patients at off-site locations.

PBBS 500 Clinical Anatomy (9 QH)

Clinical Anatomy is a comprehensive series of lectures on the gross structure and function of the human body. The lectures are complemented by a clinical correlation lecture and a medical imaging lecture in each major region. The course includes complete dissections of human cadavers in the laboratory.

PBBS 502A & B Biochemistry (4 QH)

This course provides a comprehensive series of lectures on medical biochemistry and genetics, presenting the physiochemical aspects in the human being. The biosynthesis and energy yielding transformations of biomolecules (proteins, nucleic acids, lipids, carbohydrates and small-molecular weight compounds) will be detailed and their relationship to health will be illustrated through examining disease states and case studies.

PBBS 503A & B Structure and Function (11 QH)

This 11 credit-hour lecture and laboratory course presents the principles of medical histology and physiology. Normal organ systems will be examined at the ultrastructural, microscopic and whole-organ levels. The course is an important prerequisite for Pathology, Pharmacology and Medicine.

PBBS 504 Neuroscience (5 QH)

Neuroscience is a comprehensive series of lectures on the structure, neurophysiology, function and neurological disorders of the human nervous system. The lectures are complemented by PowerPoint presentations, laboratory demonstrations, and clinical correlations.

PBBS 505A & B Microbiology and Immunology (7 QH)

Microbiology and Immunology is a comprehensive series of lectures, case studies and small-group exercises on fundamental microbiological and immunological principles emphasizing their applications to podiatric medicine. Chemical, physical and biological properties of microorganisms are used to explain how microorganisms cause disease, and how the human host defenses combat disease-causing agents. Case studies are presented throughout the course. Symptoms of infectious diseases and immunologic disorders are emphasized.

PBBS 506A & B Lower Extremity Anatomy (8 QH)

Lower Extremity Anatomy is a comprehensive lecture and laboratory series covering the gross anatomy of the lower extremity. PowerPoint presentations, demonstrations and clinical correlations are presented in lectures to enhance the students' knowledge of this region of human anatomy. The laboratory provides a complete regional dissection of the gluteal, thigh, popliteal, leg, and foot regions of the lower extremity.

PBBS 507 Genetics and Medicine (2 QH)

This course will present the major cellular and molecular aspects that underlie the transmission of genetic information. Students will apply this knowledge to define the genetic bases of common or representative diseases, including their symptoms and treatments. Additionally, they will come to understand and be able to evaluate potential advances of diagnostics and treatment modalities.

PBBS 601A & B Pharmacology (8.5 QH)

This course is a comprehensive presentation of medical pharmacology. The general principles of drug disposition including drug absorption, distribution, metabolism, elimination and pharmacokinetics are covered, as well as the pharmacodynamics of major drug groups. Emphasis is on the mechanism of drug action, uses, adverse effects, contraindications and clinically important drug interactions. Dosage is not emphasized unless specifically stated by the instructor.

PBBS 602A, B & C Pathology (10.5 QH)

This course is a comprehensive lecture series covering the fundamental concepts of general and organ pathology. General pathology is concerned with abnormal cellular phenomena, reactions to injury and pathologic mechanisms. Specific diseases and their pathologic consequences are considered in organ system pathology. The course comprises the lectures and examinations in the medical school pathology course, General and Systemic Pathology MPAT 600A, B, C.

PDPM 600 Basic Biomedical Science Comprehensive Examination (2 QH)

This course is composed of a comprehensive examination covering all Basic Biomedical Science courses and mandatory review sessions. The examination is intended to assess student progress in their Basic Biomedical Science courses over the first two years. The examination also provides feedback to the students regarding their board preparedness and is used along with the review sessions to help prepare students for the American Podiatric Medical Licensing Examination (APMLE) Part I.

PDPM 800 Clinical Competency Exam (1 QH)

The Clinical Competency Exam (CCE) is an internal benchmark of students' clinical skills and knowledge to assess clinical competency before graduating from the college. Passing the CCE is a graduation requirement. The exam consists of two parts. The first part is a comprehensive standardized, patient-based performance exam that is offered in the third year before students begin clerkship rotation and before students take the national clinical skills exam. The second part is a comprehensive written exam that covers clinically oriented knowledge domain. This exam is given to fourth-year students before taking a national written exam.

PELE 700 & 800 Elective and Core Podiatry Clerkship (8 QH)

The Elective and Affiliated Podiatric Clerkships are four to five weeks each, multiple site, comprehensive clinical experiences that combine pediatric, adult and geriatric podiatric medical/orthopedic/surgical, ambulatory (including office) and inpatient experiences in the diagnosis and management of patients with diverse pathology of the foot and ankle. The structure of the total experience allows the student, over multiple clerkships, to cumulatively increase and enhance their clinical skills under supervision of the clinical site faculty. The experiences include a total of four core podiatry clerkships and eight elective clerkships.

PMED 500 Introduction to Clinical Medicine (6.5 QH)

Introductory clinical medicine is an interprofessional course that serves as the entry point to the student's clinical experience. Students will be introduced to the fundamentals of performing a physical exam and a systematic approach to medical interviewing and obtaining a medical history from a patient. A combination of lectures, demonstrations, lab sessions, small-group discussions, patient day experiences and independent projects will be used to explain and develop skills necessary for performing a medical history and physical exam. These skills will be applied to basic concepts and approaches of clinical reasoning and problem solving.

PMED 502A & B Podiatric Medicine and Surgery (3.5 QH)

The Podiatric Medicine and Surgery course is presented in the first year. This course encompasses many aspects of clinical podiatric medicine and will serve as a foundation to enhance the understanding of the basic science and future clinical courses. Starting with an introduction to medical ethics, it will provide the student with knowledge of the scope of podiatry including podiatric medicine, podiatric surgery, biomechanics and podiatric radiology.

PMED 503 Podiatric Clinical Skills and Reasoning I (2 QH)

This introductory clinical course is a combination of didactic lectures, hands-on workshops and clinical experience. This course is designed to enhance and reinforce the didactic material presented in PMED 502A & B Podiatric Medicine and Surgery.

PMED 603A & B Dermatology (2.5 QH)

This course in skin diseases is comprised of the study of the anatomy and physiology of the skin and its appendages, general etiology of skin diseases, general symptoms and classifications of

skin diseases and their treatment. The diagnosis and treatment of the major dermatological conditions common to podiatry are presented through the use of visuals and case presentations.

PMED 605A, B & C Podiatric Clinical Skills and Reasoning II-Workshop (4 QH)

This workshop is designed to provide the second-year podiatric student with skills and cognitive ability to function in the advanced clinical experiences. During the second year, the student will begin to develop proficiency in obtaining a podiatric history, performing a podiatric physical examination, performing palliative care and applying padding and taping to the foot and ankle.

PMED 606A, B & C Podiatric Clinical Skills and Reasoning II-Clinic (4 QH)

The clinic rotation is designed to develop and enhance manual skills required for palliative care, increase students' confidence and competence with patient interaction and to provide experience in performing history and physical exams. The Community Service Podiatry Clinical Experience component of this course is a comprehensive outpatient/ambulatory clinical experience. The broad nature of the clinical experience allows the student to enhance skills and knowledge in the areas of podiatric medicine, podiatric orthopedics and podiatric surgery. The podiatric clinical experience builds upon previous clinical experiences. All student activities are under the supervision of the clinical faculty.

PMED 608 A, B & C Medicine (8.5 QH)

This course is devoted to the pathophysiology, signs and symptoms, diagnosis and treatment of commonly encountered medical illnesses. Special emphasis is placed on systemic disorders affecting the lower extremity. A balanced view of the range of problems encountered by the primary care physician is discussed, allowing the student to recognize and be well informed about major medical problems outside of podiatric medicine, so that appropriate referrals can be made.

PMED 702 Peripheral Vascular Diseases (1.5 QH)

This course investigates the structure and dynamics of the peripheral vascular system, arterial and venous, general pathological considerations, non-invasive vascular testing and special methods of investigations performed in the office or the hospital. The complications of peripheral vascular diseases are included. The student is expected to gain appropriate knowledge to recognize early signs, symptoms and complications of peripheral vascular disorders and to determine whether a disorder is local or general, becoming skilled in providing appropriate podiatric care.

PMED 707 Podiatric Medicine Capstone Clinical Experience-Workshop (8.5 QH)

This Capstone Clinical Workshop Experience is a continuation of the experiences provided in the second year. The additional experiences allow the student to develop proficiency in all aspects of podiatric care, evaluation and treatment of patients as well as further development of critical thinking skills. The cognitive aspect of the experience is heavily focused on problem-based learning designed to incorporate knowledge of basic and clinical sciences for learning diagnostic and treatment skills. The experience encompasses aspects of diagnosis and management of patients with diverse pathology. The student is expected to efficiently employ evaluative and management skills.

PMED 708 Podiatric Clinical Skills and Reasoning III - Clinic (7 QH)

The P3 clinic rotation builds upon the P2 clinic rotation experience and is designed to further enhance the students' skill sets in palliative care, performing history and physical examinations and formulating appropriate differential diagnoses and treatment plans.

PMED 709 Community Health, Ethics and Professional Responsibility (3 QH)

In today's world many principles of everyday law, as well as sound business management, are entwined in a medical practice. The physician of today should be versed in the practical aspects of business and be aware of the legal responsibility he/she has to patients. This course will present the fundamental aspects of law, business and public health in a setting of medical practice.

PMED 801 Internal Medicine Clerkship (8 QH)

This clinical rotation in internal or family medicine is a four- to five-week, hands-on required clerkship that introduces the student to all aspects of inpatient hospital care utilizing patient rounds, with bedside teaching, observing special studies, performing histories and physicals, working in the emergency department and monitoring patient progress. To enhance patient care and student experience, on-call duty may be a part of the student's responsibilities.

PMED 802 Emergency Medicine Clerkship (8 QH)

This clinical rotation is a four- to five-week required clerkship at one of three area hospitals. It will introduce the student to emergency medicine and enhance history and physical skills. Actual participation in treatments will vary with circumstances.

PRAD 602A, B & C Podiatric Radiology (6 QH)

This course consists of didactic lectures and clinical presentations. Material presented in this course pertains to radiographic anatomy, cardinal radiographic features of disease and orthopedic radiology typically encountered in clinical practice. Because the majority of podiatric physicians will expose, process and interpret their own X-ray images, it is extremely important that each student understand the basics of X-ray production, radiographic quality and radiation safety for the patient and operator. Emphasis is placed on understanding and evaluating normal radiographic anatomy, alterations in bone density, arthropathies and both bone and soft tissue tumors. Descriptions and visual presentations of these and other pathological processes are presented in class. Presentations demonstrate both the normal and abnormal. Case studies emphasizing the lecture material will be presented at intervals throughout the course. Though the lower extremity is emphasized, the course may use radiographs of other anatomic regions which may best illustrate a particular pathology.

PRAD 702 Podiatric Radiology Capstone Clinical Experience-Workshop (9 QH)

This clinical experience/workshop is a six-week program actively utilizing and building upon the knowledge obtained in PRAD 602A, B & C Podiatric Radiology, through the use of clinical exercises in diagnostic radiology. Students will gain hands-on experience in radiographic safety, positioning and processing with emphasis on digital imaging. The student will gain practical experience in the interpretation and evaluation of radiographs, both normal and pathological. Normal radiographic anatomy and normal variants encountered in the lower extremity as well as the radiographic appearance of soft tissue and osseous pathology are also emphasized. Practical clinical radiography is also reviewed. This clinical experience will utilize case presentations, lectures and workshop formats. Read out loud sessions will also be scheduled at regular intervals with faculty in various modalities such as plain and digital radiographs, magnetic resonance imaging, computed tomography and ultrasound. A variety of instructional media are employed including the internet and computer CDs. The student will be allowed ample time for independent study and will be expected to make beneficial use of that time either on-site or remotely. It is anticipated that the student will require minimal supervision and formal scheduling. In addition, a hospital-based radiology experience may be provided to allow first-

hand knowledge of advanced imaging modalities and assist in further sharpening the interpretive skills of the student in these techniques and environment.

PRAD 802 Radiology Elective Clerkship (4 QH)

The Radiology Elective Clerkship at the University of Chicago is a unique opportunity consisting of approximately 90 hours over a two-week period offered in February, March or April of the fourth year. During this time, the student will receive in-depth and advanced exposure to all facets of musculoskeletal imaging including plain film radiographs, computed tomography, magnetic resonance imaging, orthography, bone biopsies and other interventional radiographic techniques. Students are expected to interact professionally with other medical students, residents and radiologists, and will take an active role in discussions as part of this learning experience. In order to make this unique rotation a very special experience, a very limited number of months are available, and each elective will only accommodate two students. Students participating in this clerkship are required to complete the remaining two weeks of the rotation at another clinical site.

PSUR 602A, B & C General Surgical Principles and Anesthesiology (10 QH)

This comprehensive surgery course provides the student with the basic concepts and principles of surgery, wound healing, surgical problems/complications, and emphasis is also placed upon the fundamentals of podiatric surgery. In addition to the surgery component, local, regional and general anesthesia relevant to the practice of contemporary foot and ankle surgery is covered. Complications of anesthesia and drug interactions are emphasized. This course has a workshop portion which presents the student with a general understanding of the basic principles of operating room procedures and protocol, and will allow the student to be able to function in a safe, efficient manner in the operating room environment. This portion of the clinical experience makes the student knowledgeable and skilled in the activities of a non-sterile person in the operating room, the knowledge of surgical equipment and the proper skills in the handling and use of this equipment. Also the skills needed in activities dealing with assisting in surgery. This course is a prerequisite for the Podiatric Surgery Capstone.

PSUR 704 Podiatric Surgery Capstone Clinical Experience-Workshop (5.5 QH)

This course completes the student's introduction to the subject at a didactic level, and is supplemented with workshops that demonstrate the theories and concepts presented during PSUR 602 lectures. It represents the "Capstone" experience in surgery before clerkships begin. This course builds on the general principles presented in PSUR 602 General Surgical Principles and Anesthesiology; it exposes the students to the subject of podiatric surgery, and presents common operative techniques employed in the treatment and correction of foot and ankle deformities. A concurrent workshop experience will afford the student the opportunity to see some of the techniques discussed in lecture and workshops.

PSUR 706 Lower Extremity Traumatology (2 QH)

This comprehensive Lower Extremity Traumatology course of lectures provides the student with the basic concepts and principles of traumatology, including surgical problems/complications and emphasis is also placed upon the fundamentals of trauma evaluation and treatment. Lectures are augmented with audiovisual aids. In addition to the surgery component, this course also provides the student with the basics of patient evaluation, radiology, medicine and biomechanics as it pertains to trauma. Complications of trauma care are emphasized.

PSUR 802 General Surgery Clerkship (8 QH)

This experience is a four- to five-week required experience occurring at one of three area hospitals that will introduce the podiatric medical student to hospital-based general surgery. The student will have preoperative, intraoperative, and/or postoperative patient encounters on a daily basis. The intent of the General Surgery Clerkship is to provide the podiatric medical student with the basic concepts of perioperative care, thus broadening the student's understanding of the principles of surgery. To enhance patient care and student experience, on-call duty may be a part of the student's responsibilities.

PSUR 805 Vascular Surgery Elective Clerkship (8 QH)

This clerkship is offered in February, March or April of the fourth year after successful completion of PSUR 802, General Surgery Clerkship. The clerkship is designed to expose the fourth-year student to various aspects of the surgical management of peripheral vascular disease affecting the arterial and venous components of the vascular tree. While not exclusively focusing on peripheral vascular diseases affecting the foot, many of the services provided by the Vascular Service will involve lower extremity peripheral vascular cases. The aim of the rotation is to enhance the theoretical knowledge gained in the Peripheral Vascular Diseases course in the second year and to apply this in a practical setting. The rotation will take place at John H. Stroger, Jr. Hospital of Cook County. The rotation will be limited to one or two students per month.

YELP 700 Deconstructing Landmark Clinical Trials (2 QH)

This course will introduce students to a wide variety of controversial landmark clinical trials that have significantly impacted the practice of medicine. In addition to identifying pivotal trials that have shaped treatment guidelines for a variety of diseases, students will learn to deconstruct the trial design, results and conclusions to become appropriately skeptical, critical-thinking pharmacists. Each week, students will be required to read one or more pivotal clinical trials prior to class and be prepared for a weekly quiz over the required reading. Class time will primarily be devoted to discussion-based learning regarding the trial methodology, analysis and impact on clinical practice.

YELP 701 Critical Care and Medical Emergencies (2 QH)

This course will introduce students to a wide variety of topics related to critical care and acute medical emergencies. Topics and content will focus on drug therapy and the role of the pharmacist within an interprofessional critical care team. The course format will include didactic lectures, hands-on activities and class-based discussions.

YELP 702 Toxicology (2 QH)

Pharmacists play an important role in the treatment of drug overdose. This course will address the provision of care in the "poisoned patient," including clinical presentation, assessment and treatment of common drug, chemical and biologic agent overdoses. The format includes lectures by faculty and case discussions.

YELP 703 Advanced Diabetes Management (1 QH)

This elective course is designed to provide concentrated and in-depth knowledge of management of diabetes through hands-on learning in lecture and small group settings. Students will learn concepts required to provide comprehensive diabetes management including but not limited to medical nutrition, behavioral health, various electronic apps, complementary and alternative medicine. As part of the course, students will be required to participate in a week long

experience as a patient with diabetes, in which they will self-administer “insulin” injections and monitor blood glucose using a glucometer.

YELP 704 Mental Health (1 QH)

This course will address advanced topics in mental health and neuropsychiatry as it relates to pharmacotherapeutic intervention. The specialized role of the pharmacist in the treatment of patients with psychiatric conditions will be discussed, including contributions to mental health advocacy. Students will gain an historical perspective on the treatment of psychiatric patients, evaluate key clinical drug trials as they relate to current treatment guidelines and advancements in psychiatric treatment, and discuss management of psychiatric conditions not covered in the pharmacotherapy series. Examples of topics discussed in this elective that are not covered in the core curriculum include mental health in the media, post-traumatic stress disorder (PTSD), personality disorders, child psychiatry, geriatric psychiatry, forensic psychiatry or others based on the interest of each class. This course will utilize a combination of lecture, small-group activities, case-based learning, discussion and student presentation.

YELP 705 Advanced Pharmacoeconomics (2 QH)

This course is designed to provide the student with the advanced concepts of economics and market forces in general. A detailed discussion on pharmacoeconomics as it relates to patient care and an overview of economic principles, which should enhance the understanding of the theory underlying pharmacoeconomic analysis, will be integrated in this course. A special emphasis will also be placed on applying the economic evaluations and quality of life concept to improve the allocation of limited healthcare resources. Upon completion of the course, the student should be able to apply the basic economic and pharmacoeconomic principles to make therapeutic and resources allocation decisions.

YELP 706 Community Pharmacy Practice and Management (2 QH)

This course is designed for student pharmacists with an interest in community pharmacy. Students will learn about the business and management aspects of community pharmacy, as well as opportunities for clinical services. Incorporating sustainable business models for the pharmacy and services offered will be a common theme. Communication skills will be emphasized throughout the course.

YELP 900 Pharmacy Practice Teaching Elective (1 - 2 QH)

This course is considered an independent study elective. As such, much of the information varies and is collected for approval by the Office of Academic Affairs.

YELP 901 Pharmacy Practice Research Elective (1 - 2 QH)

This course is considered an independent study elective. As such, much of the information varies and is collected for approval by the Office of Academic Affairs.

YELS 700 Marijuana: Pharmacology, Politics and Medical Uses (1 QH)

Marijuana is being approved for medical use in an increasing number of states. This course will examine the history, chemistry, pharmacology and medical aspects of this drug, along with the politics which are an inherent part of any drug with recreational properties.

YELS 701 Structure-Activity Relationships of Drugs (1 QH)

This course will examine how systematic alterations of chemical structure can be used to design and optimize drug molecules. Following a series of introductory lectures, students will select a

class of drugs, investigate published structure-activity relationships and give a presentation summarizing their findings.

YELS 702 Advanced Topics in Infectious Diseases and Microbiology (2 QH)

This infectious diseases course will utilize primary literature and case studies to discuss emerging antimicrobial resistance and its management. The course will also expose the students more in depth to the role of pharmacists on infectious diseases and antimicrobial stewardship teams, and debate a therapeutic controversy in the area of infectious diseases therapeutics. Prerequisite: Successful completion of Pharmacotherapy V is required for enrollment

YELS 704 Basic Medical Spanish (1 QH)

This is a self-paced online course available through www.canopyapps.com. The Basic Spanish component consists of the Beginner (Level 1) modules. Completion of these modules is a prerequisite for the Advanced Spanish component. The credit from Basic Spanish does not apply to the six required COP electives.

YELS 705 Advanced Medical Spanish (2 QH)

This is a self-paced online course available through www.canopyapps.com. The Advanced Spanish component consists of the Intermediate (Level 2) and Advanced (Level 3) modules. Completion of the Basic (Level 1) modules is a prerequisite for the Advanced Spanish component. The credit from Advanced Spanish will count toward the six required COP electives.

YELS 900 Pharmaceutical Science Teaching Elective (1 - 2 QH)

This course is considered an independent study elective. As such, much of the information varies and is collected for approval by the Office of Academic Affairs.

YELS 901 Pharmaceutical Science Research Elective (1 - 2 QH)

This course is considered an independent study elective. As such, much of the information varies and is collected for approval by the Office of Academic Affairs.

YPHP 500 Introduction to Pharmacy Practice (1 QH)

This course provides an orientation to the profession of pharmacy. The history and development along with the scope of the practice of pharmacy will be discussed. The ethical and regulatory foundation for pharmacy, contemporary issues, healthcare policy and career opportunities (licensure requirements, residency/fellowship options, etc.) will be introduced and examined in an open forum of discussion with students and faculty. Prerequisites: Pre-pharmacy curriculum and admission to program

YPHP 502 Introduction to Drug Information Resources (1 QH)

YPHP 502 is the first in a two-course Drug Information series. It is designed as a foundational course to provide students with the knowledge of the basic principles of drug information as they pertain to resource identification, information retrieval and appropriate referencing. In addition, career opportunities with a focus on drug information will be examined. Prerequisites: Pre-pharmacy curriculum and admission to program

YPHP 504 Healthcare Systems (2 QH)

This course will discuss the complexities, features and challenges of the U.S. healthcare delivery system. Emphasis will be placed on the many roles of the pharmacist. The regulation and financing of health care, including methods for providing care (private vs. public plans, single payer, etc.) will be considered. The course also includes an intermediate discussion of ethics pertinent to the pharmacist's role in healthcare delivery.

YPHP 505 Research and Statistics (3 QH)

The purpose of this course is to provide broad introduction to research and statistics, with the goal of promoting understanding of published research whereby students can practice evidence-based medicine. Students will learn how to identify and design high-quality research projects, as well as how to correctly analyze the results and draw appropriate conclusions. Students will also practice reviewing and critiquing recent research articles that are relevant to their profession.

Prerequisites: Pre-pharmacy curriculum and admission to program

YPHP 506 Pharmacy Skills Laboratory I (3 QH)

This course is an orientation to the practical skills utilized in community pharmacy settings. Students will engage in a hands-on approach in learning the appropriate and safe delivery of immunizations through the American Pharmacist Association's Pharmacist-Based Immunization Delivery Certificate Program. Students will also gain experience in the management of pharmacy workflow and application of selected pharmacy laws and regulations. The Top 200 drug products will be emphasized. Prerequisites: Pre-pharmacy curriculum and admission to program

YPHP 507 Pharmacy Skills Laboratory II (3 QH)

This course expands on practical skills in the community pharmacy setting. Building on Pharmacy Skills Laboratory I, students will gain additional practical skills in this course including procurement of appropriate drug information resources, application of public health principles, communication with patients of varying health literacy levels and advocacy for the safe and appropriate use of medications. Students will become oriented to patient physical assessment through obtaining vital signs including pulse and blood pressure. Students will also learn fundamental microbiologic tests and their application to pharmacy practice. The Top 200 drug products will be emphasized.

YPHP 508 Pharmacy Skills Laboratory III (1 QH)

This course is an introduction to fundamental pharmacy calculations and expansion on patient counseling and communication. Students will use various practice and simulation devices to understand and be able to communicate effectively with patients about the appropriate and safe use of medication products including inhalers, transdermal patches, otic and ophthalmic products, and self-administered subcutaneous medications. The Top 200 drug products will be emphasized.

YPHP 510 Self-Care and Non-Prescription Medications (3 QH)

The student pharmacist will learn to assist patients with the appropriate selection and use of nonprescription, as well as non-pharmacologic, treatment options for commonly encountered disease states and patient complaints. Patient assessment and education are key components to this course. Additional emphasis will be placed on patient self-monitoring, referrals, and follow-up. Prerequisite: Pre-pharmacy curriculum and admission to program.

YPHP 511 Pharmacy-Based Immunization Delivery (1 QH)

This course is the method in which the American Pharmacists Association (APhA) immunization certificate training program is offered to P1 students and is designed to ensure that all P1 students have an understanding of vaccine-preventable diseases and the role of pharmacists and students as vaccine advocates and administrators. Students will gain an understanding of the immunology, practice implementation, emergency management and legal and regulatory issues that pertain to immunization services.

The self-study program includes a self-assessment test and real-life case studies that are designed to help reinforce and evaluate students' understanding of key information and concepts. Weekly lectures will reinforce and expand on the self-study program and address areas such as immunization needs, legal and regulatory issues and injection-technique training. Students will be expected to demonstrate vaccine administration proficiency by giving intramuscular and subcutaneous injections. Completion of this course results in a certificate of completion issued by APhA.

YPHP 515A-C Introductory Pharmacy Practice Experience I (1 QH)

The Introductory Pharmacy Practice Experiences (IPPEs) are designed to provide the foundation for the student pharmacists in preparation for their Advanced Pharmacy Practice Experiences (APPEs). This course is a structured introduction to pharmacy practice in a community pharmacy setting. The community IPPE spans the P1 year, during which the students will engage in basic distributive and administrative processes in community pharmacies and gain initial experience interacting directly with patients, preceptors, technicians and other healthcare providers and pharmacy personnel. The community pharmacy IPPE is a longitudinal rotation experience, during which the students will complete at least 100 hours in a community pharmacy. Simulation activities are also incorporated into this course. Prerequisite: Pre-pharmacy curriculum and admission to program

YPHP 604 Clinical Pharmacokinetics and Pharmacodynamics (2 QH)

This course expands upon the theoretical concepts explored in YPHS 600 Basic Pharmacokinetics and Pharmacodynamics. This course will focus on common clinical pharmacokinetics/pharmacodynamic principles and their application to specific drug therapy regimen design, monitoring, and management.

YPHP 606 Pharmacy Skills Lab IV (3 QH)

This course provides an orientation to physical assessment, clinical laboratory testing, and health-systems pharmacy. Students will learn appropriate technique in physical assessment including proper reporting of findings. Illustrative case discussions will emphasize the importance of the interpretation and application of the physical exam and chemistry tests in order to monitor and adjust medication therapy. Students will be introduced to home diagnostics and point-of-care testing.

YPHP 607 Pharmacy Skills Lab V (3 QH)

This course is a continuation of practical applications in health-systems pharmacy. Sterile technique and IV compounding will be introduced. Students will also use the hands-on approach to learn about key aspects of health-systems pharmacy including distribution of drug products, formulary management, pharmacy and therapeutics committees, electronic medical records and medication reconciliation. Laws, regulations and accrediting agencies for health-systems will be discussed. Students will continue to learn and apply chemistry and physical exam findings in the management of drug therapies.

YPHP 608 Pharmacy Skills Lab VI (3 QH)

This course is designed to be a continuation of the material covered in YPHP 606 and YPHP 607. Students will continue to learn appropriate technique and application of laboratory and physical assessment findings in the management of drug therapies.

YPHP 615A-C Introductory Pharmacy Practice Experience V (2 QH)

The Introductory Pharmacy Practice Experiences (IPPEs) are designed to provide the foundation for student pharmacists in preparation for their Advanced Pharmacy Practice Experiences (APPEs). This course is a structured introduction to pharmacy practice in a health-system setting. The health-system IPPE spans the P2 year, during which the students will engage in basic distributive and administrative processes in health-system pharmacies and gain initial experience interacting directly with patients, preceptors, technicians and other healthcare providers and pharmacy personnel. The health-system IPPE is a longitudinal rotation experience, during which the students will complete at least 104 hours in a health-system pharmacy. Simulation activities are also incorporated into this course. Prerequisite: Successful completion of previous year

YPHP 620 Pharmacotherapy I (4 QH)

This course is a study of the principles of drug therapy essential to the clinical practice of pharmacy integrating both basic and clinical science applications. Major topics covered include cardiovascular and pulmonary diseases. Topics presented include an overview of pertinent epidemiology, pathophysiology, diagnostics, clinical presentation and general management of disease states. Each topic will focus on using evidence-based medicine for the appropriate selection of drug therapy and monitoring in order to optimize patient outcomes in a safe, cost-conscious manner. Prerequisite: Successful completion of first academic year

YPHP 621 Pharmacotherapy II (4 QH)

This course is a study of drug therapy essential to the clinical practice of pharmacy integrating both basic and clinical science applications. Major topics covered include endocrinology, neurology, nephrology, electrolytes and acid-base disorders. Topics presented include an overview of pertinent epidemiology, pathophysiology, clinical presentation, diagnostics and general pharmacotherapeutic management of covered diseases. Each topic will focus on using evidence-based medicine for the appropriate selection of drug therapy and monitoring in order to optimize patient outcomes in a safe and cost-conscious manner. Prerequisite: Successful completion first academic year

YPHP 622 Pharmacotherapy III (4 QH)

This course is a study of the principles of drug therapy essential to the clinical practice of pharmacy integrating both basic and clinical science applications. Major topics covered include mental health, gastrointestinal disorders, pain management and rheumatology. Topics presented include an overview of pertinent epidemiology, pathophysiology, diagnostics, clinical presentation and general management of disease states. Each topic will focus on using evidence-based medicine for the appropriate selection of drug therapy and monitoring in order to optimize patient outcomes in a safe, cost-conscious manner. Prerequisite: Successful completion of first academic year

YPHP 625 Applications of Drug Information (1 QH)

The purpose of this course is to educate students how to research, collate and disseminate drug information. Appropriate search techniques, approach to scientific writing and classifying and answering drug information questions will be addressed in this course. Additional applications of drug information, including pharmacy and therapeutics committees, quality and adverse drug reaction reporting will also be discussed. Prerequisite: Successful completion of YPHP 502

YPHP 703 Pharmacy Management (2 QH)

This course will provide a foundation to management and leadership in all settings of pharmacy practice. This course presents factors and issues involved in day-to-day operations of pharmacy

management. Topics include but are not limited to: pharmacy-specific organizational structure/management/leadership, communication, conflict management, negotiations, recruitment, hiring/firing, employee law, performance management, feedback delivery, financial management, inventory/purchasing, justifying/developing clinical care services, risk management, quality, innovation, entrepreneurship and business planning. Prerequisite: YPHP 504

YPHP 706 Pharmacy Skills Lab VII (2 QH)

This course provides an integration and application of skills into pharmacy practice. Students will improve their skills in writing SOAP notes, developing patient-care plans and providing successful drug therapy-related presentations to peers. Students will begin to evaluate and apply evidence-based medical literature to clinical practice. Development of skills that will be vital for successful completion of advanced pharmacy practice experiences (APPEs) will be a focus of this course.

YPHP 707 Pharmacy Skills Lab VIII (2 QH)

This course will focus on continued development of skills learned in Pharmacy Skills Lab VII with a focus on advanced and complicated case studies. Students will continue to develop medical literature evaluation skills.

YPHP 708 Pharmacy Skills Lab IX (1 QH)

This course will continue to allow students to develop their pharmacy skills in order to prepare them for their advanced pharmacy practice experience. Students will have the opportunity to discuss ethical dilemmas commonly seen in clinical practice as well as discussing the importance of cultural competency.

YPHP 709 Health Care and Pharmacy Law (3 QH)

This course will begin with an overview of the federal and state systems of government with an emphasis on how laws are made and executed as well as cases adjudicated within those two systems. The course will then provide a more detailed analysis of various federal and state laws that impact the practice of pharmacy in the United States along with a discussion of the public policy reasons and debates underlying those laws. The laws and practices of the states of Illinois and Wisconsin will be used as the primary examples of the types of laws and practices that generally exist within the individual states. Prerequisite: YPHP 504

YPHP 710 Pharmacotherapy IV (3 QH)

The clinical application of drug therapy is discussed at an advanced level using a systems-based approach. Topics presented include an overview of pertinent epidemiology, pathophysiology, diagnostics, clinical presentation and general management of disease states. Each topic will focus on using evidence-based medicine for the appropriate selection of drug therapy and monitoring in order to optimize patient outcomes in a safe, cost-conscious manner. Prerequisite: YPHP 620, YPHP 621, YPHP 622

YPHP 711 Pharmacotherapy V (4 QH)

The clinical application of drug therapy is discussed at an advanced level using a systems-based approach. Topics presented include an overview of pertinent epidemiology, pathophysiology, diagnostics, clinical presentation and general management of disease states. Each topic will focus on using evidence-based medicine for the appropriate selection of drug therapy and monitoring in order to optimize patient outcomes in a safe, cost-conscious manner. Prerequisite: YPHP 620, YPHP 621, YPHP 622

YPHP 712 Pharmacotherapy VI (3 QH)

This course is a study of the principles of drug therapy essential to the clinical practice of pharmacy integrating both basic and clinical science applications. Major topics covered include nutrition, women's health, geriatrics and pediatrics. Discussion may also include epidemiology, pathophysiology, clinical presentation, diagnostics and general management of cover diseases. Prerequisite: Successful completion of first and second professional years

YPHP 713 Pharmacogenomics (1 QH)

This course will explore the application of pharmacogenomics to the practice of pharmacy and medicine. Topics include clinical applications in key therapeutic areas with a focus on drugs with pharmacogenomics-based labeling, common genetic alterations involved in drug metabolism and drug transport, ethical concepts in practice and research, and social/legal implications. This course will emphasize the importance of genetics on variability in patient response to drug therapy in the context of other relevant sources of variability. Prerequisite: YPHS 609

YPHP 714 Pharmacoeconomics (2 QH)

This course explores the factors underlying the pricing of drugs (development, testing, licensing, manufacturing, marketing, etc.) and the translation to healthcare costs. The macro/micro-economics of various aspects of pharmacy practice are discussed, including the impact of such pricing on hospital, retail and other environments. Financial aspects of pharmacy management are presented, including personnel and insurance costs, fixed and recurring expenses, etc. The course also includes drug reimbursement, Medicare-Medicaid, managed care organizations (insurance, formularies, etc.), formulary management and investments. Prerequisite: YPHP 504 and YPHP 500

YPHP 715A-D Introductory Pharmacy Practice Experience VIII (3.5 QH credit given in P3 Spring)

The P3 IPPE elective will satisfy 40 hours of the 300 hours allocated to IPPEs. Elective opportunities are offered in a variety of pharmacy practice settings. Students will complete these hours over the course of one week. Students will be scheduled during one of four allocated blocks of time during the P3 year, either prior to the commencement of the P3 year or during an intersession break. Students will complete a service learning project prior to the close of the P3 year as a component of this course. Simulation activities are also included in this IPPE course. During the spring quarter (Q3) of the P3 year, students will participate in an eight-hour workshop that will serve to transition students from introductory to advanced pharmacy practice experiences. Prerequisite: Successful completion of the P2 year

YPHP 716 A-C Interprofessional Case Collaborations (3 QH)

The purpose of this one-credit course is to prepare students to work together in collaborative interprofessional teams while understanding the concepts of pathophysiology, clinical presentation, diagnostic techniques and medical management and treatments as they apply to physician assistants and pharmacists. This course is a supplemental case-based course to the General Medicine (physician assistant) and Pharmacotherapy (pharmacy) courses. This course will also provide reinforcement of key concepts relevant to patient care as students work interprofessionally to solve case-based, patient-centered issues. Relevant interprofessional topics will be addressed throughout the course. Prerequisite: Enrollment in YPHP 710, 711, and 712, respectively.

YPHP 719 Gateway to Clinical Practice (2 QH)

Designed as a reinforcing course to provide students with an opportunity to demonstrate APPE readiness by application and synthesis of materials presented in the didactic curriculum, including relevant skills.

YPHP 801-806 Advanced Pharmacy Practice Experience (9 QH each; 54 QH total)

Each student will have six, six-week experiences throughout the fourth year that satisfy 1,440 hours of the experiential curriculum. Each experience is allotted nine credit hours and provides students an opportunity to apply and advance the knowledge, skills and attitudes attained throughout their first three years of the program. These experiences include:

- Community Pharmacy
- Health-System Pharmacy
- Inpatient/Acute Care
- Ambulatory Care
- Two elective experiences

Interprofessional simulation activities are incorporated into the APPE year. Prerequisite: Successful completion of all didactic coursework and all introductory pharmacy practice experience requirements

YPHS 501 Pharmaceutics I: Introduction to Pharmaceutical Sciences (3 QH)

This course deals with the science of drug delivery and the chemical and physical properties of a drug and its excipients that allow it to be a medicinal. Physical pharmacy, dosage forms that enable the drug delivery, and the principles of absorption, distribution, metabolism and excretion (ADME) of drugs will be discussed. Prerequisite: Pre-pharmacy curriculum and admission to program

YPHS 502 Pharmaceutics II: Dosage Forms (2 QH)

Pharmaceutics II is the second in the series of courses that describes the science of drug delivery and the dosage forms that enable the drug delivery. An introduction to pharmacokinetics will be provided as it relates to drug delivery and dosage forms. In addition, the main emphasis will be on drug delivery systems for a number of routes of administration, including novel or complex systems. The drug development process will also be discussed. Clinical correlations will be provided during the course to reinforce the use of this information in pharmacy practice. Clinical correlations will be comprised of various teaching methodologies including cases, problem-solving exercises and other student-based active learning exercises.

YPHS 503 Pharmaceutics III: Calculations (3 QH)

Pharmaceutics III is the third in the series of courses. This course develops knowledge and skills and covers all aspects of pharmaceutical calculations including fundamentals of measurement and calculation, measurement systems, dosage and concentration units, isotonic solutions, electrolyte solutions, parenteral admixtures and calculations related to extemporaneous compounding. It also develops knowledge of sterile dosage form and delivery systems, products of biotechnology and radiopharmaceuticals. Accurate and effective pharmaceutical formulation is a key skill which must be mastered by all student pharmacists. The laboratory portion of this course will introduce students to practical aspects of extemporaneous compounding. This module teaches the basics of non-sterile compounding in the pharmacy setting. Students will be practicing exercises relating to the key dosage forms encountered during pharmacy practice.

YPHS 504 Biochemical Principles for Pharmacy (1 QH)

This course explores basic biochemistry as it relates to organ systems and disease. This includes the principles of the thermodynamics, kinetics, structure and regulation of biochemically significant molecules and their building blocks. Biochemical constructs (such as energy production, enzymes, membranes, DNA, RNA, proteins, anabolic and catabolic pathways, etc.) are discussed with respect to pharmaceutical treatment of human disease. Prerequisite: Pre-pharmacy curriculum and admission to program

YPHS 504B Biochemical Principles for Pharmacy (3 QH)

This course explores basic biochemistry as it relates to organ systems and disease. This includes the principles of the thermodynamics, kinetics, structure and regulation of biochemically significant molecules and their building blocks. Biochemical constructs (such as energy production, enzymes, membranes, DNA, RNA, proteins, anabolic and catabolic pathways, etc.) are discussed with respect to pharmaceutical treatment of human disease. Prerequisite: Pre-pharmacy curriculum and admission to program

YPHS 506 Medicinal Chemistry (2 QH)

This course covers selected principles of physical chemistry as related to the pharmaceutical sciences including structure-activity relationships, functional groups, drug stability and solubility, acid-base chemistry, metabolic reactions and drug allergenicity.

YPHS 509 Pharmaceutics Non-Sterile Compounding (1 QH)

Accurate and effective preparation of pharmaceutical formulations is a key skill, which must be mastered by all student pharmacists. This laboratory will introduce students to practical aspects of extemporaneous compounding. This module teaches the basics of non-sterile compounding in the pharmacy setting. Students will be practicing exercises relating to the key dosage forms encountered during pharmacy practice.

YPHS 510 Fundamentals of Physiology I (4 QH)

The fundamentals of human physiology relating to basic cellular function, embryology, the cardiovascular system, respiration, the endocrine system (including reproduction), the gastrointestinal system, the renal system and hematology (including the function of white blood cells) will be presented. Physiological concepts and mechanisms will be organized according to five themes: homeostasis and control systems, biological energy use (metabolism), structure/function relationships, communication and pathophysiology. Prerequisite: Pre-pharmacy curriculum and admission to program

YPHS 511 Fundamentals of Physiology II (3 QH)

This course is a continuation of YPHS 510 Fundamentals of Physiology I, and will focus on the fundamentals of human physiology relating to the nervous system and muscle physiology. Physiological concepts and mechanisms will be organized according to five themes: homeostasis and control systems, biological energy use (metabolism), structure/function relationships, communication and pathophysiology.

YPHS 600 Basic Pharmacokinetics and Pharmacodynamics (3 QH)

This course presents the basic fundamental principles underlying drug action in the body. Pharmacokinetics describes the relationship of drug dose and the time course of drug presence in the body, including the concepts of drug half-life, steady-state concentration, absorption, distribution, metabolism and excretion. Processes that influence the pharmacokinetics of drugs, including formulation, physicochemical, physiological, pharmacological and pathological factors, will be discussed. Pharmacodynamics presents the effects of drug action at the receptor

site and includes the concepts of agonist, antagonist, competitive and non-competitive inhibition, and therapeutic effect. The use of mathematical equations to describe the pharmacokinetic concepts and principles of drug action is introduced and applied to dosage regimen determinations. The course teaches the fundamentals of calculations necessary to determine drug loading dose, maintenance dose and dosing interval, and prepares the student for YPHP 604 Clinical Pharmacokinetics and Pharmacodynamics. Prerequisite: YPHS 504A, B

YPHS 609 Introduction to Pharmacogenomics and Molecular Biology (2 QH)

This course will introduce students to important principles of human genetics and molecular biology that apply to contemporary and future pharmaceutical practice. Topics covered include basic concepts in human genetics and genomics, information flow in biological systems, including the structure of DNA, RNA, an overview of state-of-the-art technologies including cloning, recombinant DNA, PCR and microchips. The course will include some classical case studies as well as discussions of ethical challenges in the rapidly growing area of personalized drug therapy based on molecular genetic information. Prerequisite: YPHS 504A, B

YPHS 610A Advanced Medicinal Chemistry (2 QH)

This course will run concurrently with the Pharmacology courses (PBBS 601A & B) to present the underlying chemistry of the active pharmacological ingredients of medications used to treat patients. Prerequisite: Enrollment in PBBS 601A

YPHS 610B Advanced Medicinal Chemistry (2 QH)

See Advanced Medicinal Chemistry (YPHS 610A), Fall Quarter, Year 2
Prerequisite: Enrollment in PBBS 601B

YPHS 620A, B, & C Lifelong Learning (1 QH)

This course will introduce students to the process of learning about new developments in science, medicine and pharmacy that happens outside of the classroom or their immediate practice environment. Prerequisite: Successful completion of P1 courses

YPHS 704 Pharmaceutical Biotechnology (2 QH)

This course will cover the use of various technologies in the development of biological therapies. The discussion includes current and future approaches, including monoclonal antibodies, novel pharmaceutical administration (e.g., stents), genetic modification, nanotechnologies, therapeutic proteins and biological response modifiers, etc.

YPHS 709 Epidemiology (2 QH)

This course acquaints the student with the basic concepts of biostatistics and introductory clinical epidemiology. Elements of research design are stressed so that the student is able to critically evaluate research literature. Practice in simple statistical skills and analysis is included.
Prerequisite: YPHP 505

YPHS 720A, B & C Lifelong Learning (1 QH)

This course introduces students to the process of learning about new developments in science, medicine and pharmacy that happens outside of the classroom or their immediate practice environment. Prerequisite: Successful completion of P2 year

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PhD and MS, Karnatak University

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Associate Professor of Pharmacy Practice
PhD, University of Louisiana; MBA, Northeast Louisiana University

Jolee Rosenkranz, MPH
Instructor of Pharmacy Practice
MPH, Columbia University

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Assistant Professor of Pharmacy Practice
PharmD, University of Kentucky

D. Eric Walters, PhD
Professor of Pharmaceutical Sciences and Associate Dean for Research
PhD, University of Kansas

Janeen Winnike, RPh
Assistant Professor of Pharmacy Practice and Assistant Dean for Student Affairs
BS, University of Iowa

Dr. William M. Scholl College of Podiatric Medicine

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Professor of Basic Biomedical Sciences
PhD, University of Illinois-Urbana-Champaign

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Assistant Professor of Podiatric Surgery and Applied Biomechanics
MS, University of Massachusetts-Amherst

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Barry University College of Podiatric Medicine

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DPM, Rosalind Franklin University of Medicine and Science, formerly known as Dr. William M. Scholl College of Podiatric Medicine

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DC, National University of Health Sciences

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DPM, Kent State University College of Podiatric Medicine; MS, SUNY-Brockport

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Vice Dean and Associate Professor of Basic Biomedical Sciences
PhD, University of Guelph

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Assistant Professor of Podiatric Medicine and Radiology
DPM, Kent State University College of Podiatric Medicine

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DPM, Rosalind Franklin University of Medicine and Science, formerly known as Dr. William
M. Scholl College of Podiatric Medicine; PhD, Rush University

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MS, Brigham Young University

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M. Scholl College of Podiatric Medicine

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Assistant Professor of Podiatric Surgery and Applied Biomechanics
DSc, The University of Science and Technology of China-Hefei, China

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DPM, Temple University School of Podiatric Medicine; MA, Central Michigan University

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M. Scholl College of Podiatric Medicine; MHPE, University of Illinois-Chicago

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DPM, Rosalind Franklin University of Medicine and Science, formerly known as Dr. William
M. Scholl College of Podiatric Medicine

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PhD, Boston University

Derek Talbot, DC, CNS
Assistant Professor of Basic Biomedical Sciences
DC, National University of Health Sciences

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DPM and MS, Barry University School of Graduate Medical Sciences

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PhD and MS, University of Louisville

Sydney K. Yau, DPM
Assistant Professor of Podiatric Surgery and Applied Biomechanics
DPM, Temple University School of Podiatric Medicine

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School of Graduate and Postdoctoral Studies

Joseph DiMario, PhD
Dean and Professor PhD, University of California-Berkeley; MS, Marquette University

Evan Hill, PhD
Research Assistant Professor
PhD, University of Puerto Rico

Patricia Loomis, PhD
Research Assistant Professor
PhD, University of Alabama-Birmingham

Hyun Oh, PhD
Research Assistant Professor
PhD, The State University of New York-Buffalo; MS, Korea University

Jindrich Symersky, PhD
Research Assistant Professor
PhD, Czech Academic Sciences; MSc University Pardubice, Czech

Xinli Yang, PhD
Research Assistant Professor
PhD, Chinese Academy of Science; MS Henan Normal University

RFU Clinical Partnerships

by Academic Program, Site and Site Location

Name of Clinical Site	Location of Clinical Site	
Pathologists' Assistant		
Advocate Condell Medical Center	Libertyville	Illinois
Advocate Illinois Masonic Medical Center	Chicago	Illinois
Allied Health Hospital Pathologists, P.C. and Fort Wayne Medical Laboratory	Fort Wayne	Indiana
Anderson Hospital	Maryville	Illinois
Barnes-Jewish Hospital	St. Louis	Missouri
Bexar County University Health System	San Antonio	Texas
Borgess Medical Center	Kalamazoo	Michigan
Boyce & Bynum Pathology Laboratories, P.C.	Columbia	Missouri
California Pacific Medical Center	San Francisco	California
Carl R. Darnall Army Medical Center	Ft. Hood	Texas
Chicago Area Autopsy Service, Inc.	Matteson	Illinois
City of Hope National Medical Center	Chicago	Illinois
Cook County Medical Examiner's Office	Chicago	Illinois
Dupont Hospital, LLC.	Fort Wayne	Indiana
Emory Healthcare, Inc.	Atlanta	Georgia
Houston Methodist Hospital	Houston	Texas
Jackson Memorial Hospital	Miami	Florida
John H. Stroger, Jr Hospital of Cook County	Chicago	Illinois
Kaiser Foundation Hospitals	San Jose	California
Keck School of Medicine of USC	Los Angeles	California
Ketchum, Wood and Burgert Chartered	Tallahassee	Florida
MedStar Georgetown Medical Center, Inc.	Washington	Washington D.C.
Memorial Regional Health Services, Inc.	Belleville	Illinois
Mercy Hospital and Medical Center	Chicago	Illinois
Mount Sinai Hospital Medical Center	Chicago	Illinois
NorthShore University HealthSystem	Evanston	Illinois
Northwestern Memorial Hospital	Chicago	Illinois
Oklahoma University Medical Center	Oklahoma City	Oklahoma
Oregon Health and Science University	Portland	Oregon

Parkview Health System	Fort Wayne	Indiana
Presbyterian Healthcare Services	Albuquerque	New Mexico
Regions Healthcare	St. Paul	Minnesota
Rush University Medical Center	Chicago	Illinois
Saint Louis University	St Louis	Missouri
Sanford Health	Fargo	North Dakota
Scott and White Memorial Hospital of Temple, Texas	Temple	Texas
Swedish Covenant Hospital	Chicago	Illinois
The Cleveland Clinic Foundation	Cleveland	Ohio
The Ohio State University Medical Center	Columbus	Ohio
The University of Chicago Medical Center	Chicago	Illinois
The University of Iowa Hospitals and Clinics	Iowa City	Iowa
The University of Kansas Hospital	Kansas City	Kansas
Tulane University School of Medicine	New Orleans	Louisiana
University of California Irvine Health School of Medicine	Irvine	California
University of Minnesota, Fairview	Minneapolis	Minnesota
University of Mississippi Medical Center	Jackson	Mississippi
University of Texas Southwestern Medical Center	Dallas	Texas
University of Wisconsin-Madison Hospital	Madison	Wisconsin
Vanderbilt University Medical Center	Nashville	Tennessee
Zablocki VA Medical Center	Milwaukee	Wisconsin
Nursing Practice		
Aurora Medical Center of Washington County	Hartford	Wisconsin
ThedaCare Berlin Memorial Hospital	Berlin	Wisconsin
Captain James A. Lovell Federal Health Care Center (FHCC)	North Chicago	Illinois
Centegra Health System	Crystal Lake	Illinois
Clement J. Zablocki Medical Center	Milwaukee	Wisconsin
Columbus Community Hospital	Columbus	Wisconsin
Edward Hines, Jr. VA Hospital	Hines	Illinois
FHN Memorial Hospital	Freeport	Illinois
Franciscan St. James Hospital and Medical Centers	Chicago Heights	Illinois
Froedtert Memorial Lutheran Hospital	Milwaukee	Wisconsin
Gottlieb Memorial Hospital	Melrose Park	Illinois
Illinois Valley Community Hospital	Peru	Illinois

Kishwaukee Community Hospital	DeKalb	Illinois
Little Company of Mary Hospital	Evergreen Park	Illinois
Marshfield Clinic, Inc.	Marshfield	Wisconsin
OSF Saint Anthony Medical Center	Rockford	Illinois
Presence Resurrection Medical Center	Chicago	Illinois
Presence Saint Francis Hospital	Evanston	Illinois
Presence St. Mary's Hospital	Kankakee	Illinois
Saint Anthony Hospital	Chicago	Illinois
Shriners Hospital for Children	Chicago	Illinois
Swedish American Health System	Rockford	Illinois
The Methodist Hospital	Gary	Indiana
Wheaton Franciscan Healthcare	Milwaukee	Wisconsin
Wheaton Franciscan Healthcare	Racine	Wisconsin

Allopathic Medicine

The Chicago Medical School provides students with clinical experiences that encompass a variety of sites in the Chicagoland area, southeastern Wisconsin, and in Billings, Montana. Many of these sites provide both inpatient and outpatient exposure. Private preceptors also contribute to student education especially in the pediatric and family medicine/primary care clerkships. There are mandatory sub-internships during the fourth year one of which is required. These include emergency medicine, family medicine, internal medicine, and pediatrics. Fourth year electives are available locally and throughout the United States at health systems, residency programs, medical schools, and private practices.

Allopathic Medicine

Adventist Health Partners	Arlington Heights	Illinois
Advocate Christ Hospital and Medical Center	Oak Lawn	Illinois
Advocate Condell Medical Center	Libertyville	Illinois
Advocate Good Shepherd Hospital	Barrington	Illinois
Advocate Illinois Masonic Medical Center	Chicago	Illinois
Advocate Lutheran General Hospital	Park Ridge	Illinois
Aurora Health Care, Inc.	Milwaukee	Wisconsin
Billings Clinic	Billings	Montana
Captain James A. Lovell Federal Health Care Center (FHCC)	North Chicago	Illinois
Centegra Health System	Crystal Lake	Illinois
Edward Memorial Hospital	Naperville	Illinois
Elgin Mental Health Center	Elgin	Illinois
Elmhurst Memorial Hospital	Elmhurst	Illinois
Innsbruck Medical University	Innsbruck	* International *
John H. Stroger, Jr. Hospital of Cook County	Chicago	Illinois

Little Company of Mary	Evergreen Park	Illinois
Mercy Hospital and Medical Center	Chicago	Illinois
Midwestern Regional Medical Center/CTCA	Zion	Illinois
Mount Sinai Hospital Health System	Chicago	Illinois
Pediatric Associates of Barrington/ PediaTrust LLC	Fox River Grove	Illinois
Presence Saint Joseph Hospital, Chicago	Chicago	Illinois
Presence Saints Mary and Elizabeth Medical Center	Chicago	Illinois
RFU Health Clinics	Vernon Hills	Illinois
St. Anthony Hospital	Chicago	Illinois
Vista Medical Center East	Waukegan	Illinois
Weiss Memorial Hospital	Chicago	Illinois
Podiatric Medicine		
Captain James A. Lovell Federal Health Care Center (FHCC)	North Chicago	Illinois
Carl T. Hayden VA Medical Center	Phoenix	Arizona
DVA-New Mexico Healthcare System	Albuquerque	New Mexico
Edward Hines Jr. Veterans Administration Hospital	Hines	Illinois
Henry Ford Macomb Hospital	Clinton Township	Michigan
Jesse Brown VA Medical Center	Chicago	Illinois
John H. Stroger Jr. Hospital of Cook County	Chicago	Illinois
Presence Saint Francis Hospital	Evanston	Illinois
Provident Hospital	Chicago	Illinois
University of Chicago	Chicago	Illinois
University of Illinois-Chicago	Chicago	Illinois
VA Greater Los Angeles Healthcare System (GLA)	Los Angeles	California
Electives may be done across the nation. To find a list of available sites please visit www.aacpm.org/wp-content/uploads/2017Handbook.pdf		
Physician Assistant		
The clinical year clerkships are designed to provide a wide range of supervised clinical practice experiences, and to expand upon knowledge and skills gained during the didactic year. The department provides these experiences through a variety of clinical affiliations from private, single provider practices to large, multi-state health systems. Clinical affiliate locations may range from near the RFU campus, throughout the greater Chicagoland area, to adjacent or distant states. Students are responsible for arranging their own housing and transportation during clerkships.		
Psychology		

The Department of Psychology maintains a database of more than 100 clinical training site opportunities with locations throughout Chicagoland and southeastern Wisconsin. The Director of Clinical Training ensures placements for both first- and second-year students. Advanced students within the doctoral program are guided to apply to sites that fit well with their clinical and research interests and prepare them for competitive local and national Psychology internship sites. Clinical training placements build in frequency, duration and specialization throughout the course of each student's enrollment. Additional questions regarding clinical training opportunities should be directed to the Director of Clinical Training within the Department of Psychology.

Physical Therapy

Clinical education in the DPT curriculum consists of four full-time clerkships in a variety of practice settings ranging from single-provider practices to large medical systems. Clerkships are designed to provide a range of supervised clinical practice experiences, and to apply, integrate and expand knowledge and skills acquired during the didactic curriculum. Clerkship affiliations are located throughout the country with the majority located in the Chicagoland area. Availability of specific sites may vary from year to year. Students are responsible for arranging their own housing and transportation during clerkships.

Pharmacy

The College of Pharmacy is committed to ensuring that all clinical sites provide the scope, intensity and duration necessary to support the achievement of the profession's standards. Prior to incorporation into our curriculum, all clinical sites are evaluated for their ability to promote a continuity of care between inpatient and outpatient settings, provide exposure to a diverse patient population and provide an opportunity for students to provide direct patient care as a member of an Interprofessional team. At this time, the RFU College of Pharmacy has more than 400 active sites and 80 established affiliation agreements with a variety of institutions across the United States and internationally. The following list includes a sample of sites which host our students.

ASSOCIATION

APhA American Pharmacists Association	Washington	Washington, D.C.
Food and Drug Administration (FDA) - Controlled Substance Staff (CSS)	Silver Springs	Maryland
Food and Drug Administration (FDA) - Division of Nonrx Drug Products (DNDP)	Silver Springs	Maryland
Food and Drug Administration (FDA) - Office of Program & Regulatory Ops (OPRO)	Silver Springs	Maryland
Illinois Pharmacist Association	Springfield	Illinois

CLINIC

SSM Health Care - Specialty Pharmacy	Madison	Wisconsin
SSM Health Care - St. Mary's Hospital	Madison	Wisconsin

COMMUNITY

2010 Pharmacy	Los Angeles	California
Abbvie	North Chicago	Illinois

altScripts Specialty Pharmacy	West Milwaukee	Wisconsin
Alwan Pharmacy and Compounding Center	Morton	Illinois
Alwan Pharmacy and Compounding Center	West Peoria	Illinois
Aurora Pharmacy #1060	West Allis	Wisconsin
Aurora Pharmacy #1143	Burlington	Wisconsin
Catamaran	Lisle	Illinois
Cub Foods #1652	Blaine, MN	Minnesota
Cub Foods Pharmacy #SV 031684	Brooklyn Park	Minnesota
Custom Med Plus	New Lenox	Illinois
CTCA - Cancer Treatment Centers of America – Outpatient	Zion	Illinois
CVS		
Deliver Care Rx Pharmacy	Mount Prospect	Illinois
Diplomat Specialty Pharmacy	Flint	Michigan
Evergreen Park Pharmacy	Evergreen Park	Illinois
Evergreen Pharmacy	West Allis	Wisconsin
Fairview Specialty Services Pharmacy	Minneapolis	Minnesota
FHCC - Captain James A Lovell Federal Health Care Center - Outpatient	McHenry	Illinois
FHCC - Captain James A. Lovell Federal Healthcare Center - Outpatient	North Chicago	Illinois
Georgia Tech Stamps Health Services	Atlanta	Georgia
Glen Ellyn Pharmacy	Glen Ellyn	Illinois
Golden Gate Pharmacy	San Francisco	California
Hayat Pharmacy	Milwaukee	Wisconsin
Hy-Vee Pharmacy	Peru	Illinois
Iverson Corner Drug	Bemidji	Minnesota
Kings Pharmacy	Dearborn	Michigan
Kmart		
Knight Drugs	Grand Blanc	Michigan
Kroger Pharmacy #L355	Middlesboro	Kentucky
Lakes Apothecary	Mundelein	Illinois
Marc's Pharmacy	Cleveland	Ohio
Mariano's		
Mark Drugs		
Meadowbrook Pharmacy	Charlottesville	Virginia
Morton LTC	Neenah	Wisconsin
Moye's Pharmacy	Locust Grove	Georgia
Neenah Hometown Pharmacy	Neenah	Wisconsin
NorthShore University HealthSystem - Glenbrook Outpatient Pharmacy	Glenbrook	Illinois

NorthShore University HealthSystem - Skokie Outpatient Pharmacy	Skokie	Illinois
NorthShore University HealthSystem- Evanston Outpatient Pharmacy	Evanston	Illinois
Oscor		
Park Nicollet Health Services Pharmacy 1 Express	St. Louis Park	Minnesota
Pharmacy Plus, Inc.	Bloomington	Indiana
Pharmacy Solutions an AbbVie Company	Carrollton	Illinois
Pick n Save	Abbott Park	Illinois
Roundy's - Pick-n-Save	Milwaukee	Wisconsin
Roundy's	Kenosha	Wisconsin
Rush Specialty Pharmacy	Milwaukee	Wisconsin
Sam's Club	Chicago	Illinois
Specialty Care RX	Chicago	Illinois
Spring Green Pharmacy	Spring Green	Wisconsin
SSM Health Pharmacy		
Topco Associates, LLC	Elk Grove Village	Illinois
Union Medical Center Pharmacy	Chicago	Illinois
Walgreens		
Walmart		
Wauconda Pharmacy, Inc.	Wauconda	Illinois
Well Future Pharmacy	Chicago	Illinois
West Side Community Health Services	St. Paul	Minnesota
Williams Brothers Long Term Care Pharmacy	Fishers	Indiana
HOSPITAL		
Advocate Christ Medical Center	Oak Lawn	Illinois
Advocate Condell Medical Center	Libertyville	Illinois
Advocate Lutheran General Hospital	Park Ridge	Illinois
Ascension/Wheaton Franciscan - Elmbrook Memorial Hospital	Brookfield	Wisconsin
Ascension/Wheaton Franciscan - Midwest Spine & Orthopedic Hospital fka Heart Hospital	Wauwatosa	Wisconsin
Ascension/Wheaton Franciscan - St. Joseph Outpatient Campus	Wauwatosa	Wisconsin
Ascension/Wheaton Franciscan - St. Joseph's Hospital Campus	Milwaukee	Wisconsin
Ascension/Wheaton Franciscan -Franklin Campus	Franklin	Wisconsin
Aurora - Medical Center- Burlington	Burlington	Wisconsin

Aurora Bluemound Business Center	Elm Grove	Wisconsin
Aurora Cancer Center - Kenosha	Kenosha	Wisconsin
Aurora Cancer Center - Southern Lakes	Burlington	Wisconsin
Aurora Lakeland Medical Center (ALMC)	Elkhorn	Wisconsin
Aurora Medical Center – Kenosha	Kenosha	Wisconsin
Aurora Medical Center in Manitowoc	Two Rivers	Wisconsin
Aurora Sinai Medical Center (ASMC)	Milwaukee	Wisconsin
Aurora St. Luke's Medical Center (ASLMC)	Milwaukee	Wisconsin
Aurora St. Luke's South Shore (ASLSS)	Cudahy	Wisconsin
Aurora West Allis Medical Center (AWAMC)	West Allis	Wisconsin
Baptist Pharmacy Nassau	Fernandina Beach	Florida
Barton Health	Lake Tahoe	California
Cass Lake Indian Health Services Pharmacy	Cass Lake	Minnesota
Centigram Hospital-Huntley	Huntley	Illinois
Centigram-McHenry	McHenry	Illinois
CGH Medical Center	Sterling	Illinois
Clement J Zablocki VA Medical Center	Milwaukee	Wisconsin
CTCA - Cancer Treatment Centers of America	Zion	Illinois
FHCC - Captain James A. Lovell Federal Health Care Center	North Chicago	Illinois
FHCC - Captain James A. Lovell Federal Health Care Center Clinic_CBOC	Kenosha	Wisconsin
Gundersen Health System	LaCrosse	Wisconsin
Kindred Hospital Northwest Indiana	Hammond	Indiana
NorthShore - Kellogg Cancer Center - Evanston Hospital	Evanston	Illinois
NorthShore - Kellogg Cancer Center - Glenbrook Hospital	Glenbrook	Illinois
NorthShore - Kellogg Cancer Center - Highland Park Hospital	Highland Park	Illinois
NorthShore University HealthSystem - Evanston Hospital	Evanston	Illinois
NorthShore University HealthSystem - Glenbrook Hospital	Glenbrook	Illinois
NorthShore University HealthSystem - Skokie Hospital	Skokie	Illinois
NorthShore University HealthSystem- Highland Park Hospital	Highland Park	Illinois
Northwestern Memorial Hospital	Chicago	Illinois
Northwestern Memorial Hospital	Lake Forest	Illinois

Northwestern Memorial Prentice Women's Hospital	Chicago	Illinois
Presence Resurrection Medical Center	Chicago	Illinois
Rush Oak Park Hospital – ROPH	Oak Park	Illinois
Rush University Medical Center	Chicago	Illinois
Saint Cloud Hospital (St. Cloud, MN)		Minnesota
Sentara Martha Jefferson Hospital	Charlottesville	Virginia
St. Francis Regional Medical Center	Shakopee	Minnesota
St. John's Hospital	Springfield	Illinois
Vista Health System (Vista East Medical Center)	Waukegan	Illinois
Fall River Hospital Services	Hot Springs	South Dakota
Health South Desert Canyon Rehabilitation Hospital	Las Vegas	Nevada
IN HOME PHARMACY		
Critical Care Systems	Chicago	Illinois
INTERNATIONAL		
Hope of Children and Women Victims of Violence (HOCW)	Uganda	East Africa
PHARMACY LAW		
Law Office of Joseph J. Bogdan, LLC	Oak Brook	Illinois
MANAGED CARE		
CIGNA-HealthSpring	Nashville	Tennessee
Independent Care Health Plan (iCare)	Milwaukee	Wisconsin
NUCLEAR		
Zevacor Molecular	Decatur	Illinois
PHARMACEUTICAL INDUSTRY		
AbbVie Endocrinology, Inc. DBA Pharmacy Solutions	North Chicago	Illinois
AKORN Sterile Ophthalmics and Injectables	Lake Forest	Illinois
Astra Zeneca	Chicago	Illinois
Basinger's Pharmacy	Joliet	Illinois
Baxter Healthcare International	Round Lake	Illinois
Horizon Pharma Inc.	Lake Forest	Illinois
Lundbeck Pharmaceuticals Services, LLC	Deerfield	Illinois
Mallinckrodt Pharmaceuticals	Hayward	California
Norvartis Pharmaceuticals Corporation	Schaumburg	Illinois
Sanofi	Palatine	Illinois
Shire fka Baxalta	Bannockburn	Illinois
Takeda	Deerfield	Illinois
POISON		

Illinois Poison Center	Chicago	Illinois
DermaCare Plus Ltd. Specialty Pharmacy	Arlington Heights	Illinois
Northwestern Memorial Hospital-Galter Pavilion Specialty Pharmacy Room 12-130	Chicago	Illinois
Circassia Pharmaceuticals, Inc. Bio Pharmaceutical		
PRISON		
Federal Detention Center	Philadelphia	Pennsylvania