# Course Syllabus for SIADS 501: Being a Data Scientist

## Course Overview and Prerequisites

This course introduces students to the process of data science, covering problem formulation, data acquisition, modeling and analysis, and presentation and integration into action. Students will be tasked with understanding what data scientists do, and reflecting on what special knowledge and skills, perspectives, and ethical commitments they want to bring to problems as data scientists.  Students will also be exposed, through interviews with practicing data scientists, to real problems they may also have to work around or avoid, so it lightly foreshadows the rest of the program and students' future in data science.

There are no course prerequisites.

## Instructor and Course Assistants

Instructor:  Aasakiran "Bobby" Madamanchi - amadaman@umich.edu
Instructional Staff:  Melissa Chalmers  - mechalms@umich.edu,

## Communication Expectations

Contacting instructor and course assistants: Direct message via Slack. Please include both @BobbyMadamanchi and @MelissaChalmers in these messages.
Email response time: N/A (please communicate via Slack)
Slack response time: within 24 hours
Office hours: see **Course Schedule** below

## Required Textbook

None

## Technology Requirements unique to this course

None

## Accessibility

Screen reader configuration for Jupyter Notebook Content

## Learning Outcomes

1. Competency - Explain the four project stages as a framework for data science problems and solutions, including the goals and desired outcomes of each stage.
2. Literacy - Describe the expertise, perspectives, and ethical commitments that data scientists may bring to each of the four stages.
3. Literacy - Articulate a set of maxims that apply to each of the four stages and to data science projects as a whole.
4. Competency - Create and maintain an environmental monitoring system for staying up to date on new developments in data science.

## Course Schedule

This session **begins on Monday August 30, 2021** and **ends on Sunday September 26, 2021.**

**Weekly assignments will be due on Sundays at 11:59 pm** (time zone = Ann Arbor, Eastern Time Zone, GMT-5).

Schedule of Weekly Office Hours via Zoom (time zone = Ann Arbor, Michigan):

- **Wednesdays (5:30-6:30pm) (See Live Events for weekly link)**
- **Sundays (12-1pm) (See Live Events for weekly link)**

Access via Live Events from the course menu

# Grading

| Course Assignments | Percentage of Final Grade |
| --- | --- |
| **Peer Feedback in weeks 2-4** | 5% total |
| **Initial Drafts of Plan (Manifesto) Components in weeks 1-3** | 5% each week |
| **Final Version of Plan (Manifesto)** | 80% |
| Total | 100% |

**NOTE:** All assignments are required to earn credit for this course.

# Letter Grades, Course Grades, and Late Submission Policy

For general information, refer to the MADS Assignment Submission and Grading Policies section of the UMSI Student Handbook (access to Student Orientation course required).

Our policy on grades for late submissions is a little simpler and works better with the mechanics of Gradescope: for each day that an assignment is late, a penalty of 10% of the assignment points will be assessed (not 10% of the points earned). For example, if an assignment has 20 points, the penalty will be two points per day.

Gradescope will not permit late submissions. Any submission after the deadline should be sent to Melissa Chalmers on slack. Letter grades are calculated within Coursera as follows: A+ (97+); A (93-96); A- (90-92); B+ (87-89); B (83-86); B- (80-82); C+ (77-79); C (73-76); C- (70-72); D+ (67-69); D (65-67); D- (60-62); E (59 or less). There is no rounding up or down (e.g. an 86.79 is a B).

# Regrade Requests Policy

Graders may make mistakes. Gradescope has a system for regrade requests; please use it to request review of something. Regrade requests will be handled by a different grader. The entire question will be regraded, applying all elements of the grading rubric. Your grade could go up or down.

# Academic Integrity / Code of Conduct

Refer to the Academic and Professional Integrity section of the UMSI Student Handbook (access to Student Orientation course required).

# Accommodations

Refer to the Accommodations for Students with Disabilities section of the UMSI Student Handbook (access to the Student Orientation course required).

Use the Student Intake Form to begin the process of working with the University's Office of Services for Students with Disabilities.

## Help Desk(s): How to get help

**Degree program questions or general help** - [umsimadshelp@umich.edu](mailto:umsimadshelp@umich.edu)
**Coursera's Technical Support (24/7)** - [https://learner.coursera.help/](https://learner.coursera.help/)

## Library Access

Refer to the [U-M Library's information sheet](#) on accessing library resources from off-campus. For more information regarding library support services, please refer to the [U-M Library Resources](#) section of the UMSI Student Handbook (access to the Student Orientation course required).

## Student Mental Health

Refer to the University's [Resources for Stress and Mental Health website](#) for a listing of resources for students.

## Student Services

Refer to the [Introduction to UMSI Student Life](#) section of the UMSI Student Handbook (access to the Student Orientation course required).

## Readings

*Note:* You need a free O'Reilly learning platform account to access many of the readings. Create an account using your <uniqname>@umich.edu email address by visiting: [https://www.oreilly.com/library/view/temporary-access/](https://www.oreilly.com/library/view/temporary-access/)

From the dropdown, select "Not listed? Click here." Then enter your <uniqname>@umich.edu email address. O'Reilly will send you an account activation email. Click the embedded red button to activate your account. You now have free access to hundreds of titles. Start reading.