

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: Paul Resnick - presnick@umich.edu

Course Assistant: Anthony Whyte - arwhyte@umich.edu

Communication Expectations

Contacting instructor and course assistant: Direct message via Slack

Email response time: N/A (please communicate via Slack)

Slack response time: within 24 hours

Grading response time: 4 days after assignments are due

Office hours: **see Course Schedule below**

Required Textbook (if relevant)

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 Tuesday, September 3, 2019** and **ends on Monday, September 30, 2019**.

Weekly assignments will be **due on Mondays at 11:59 pm** (Ann Arbor, Michigan time).

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

- **Sundays 11am-12pm** and **Thursdays 7pm-8pm**
- Begins on Thursday September 5th

Grading

Course Assignments	Percentage of Final Grade
Reading Response (drop 3 lowest of 23)	10%
Initial Draft of Plan Components: Application in Domain of Interest; Plan for Knowledge Acquisition (4 submissions); Maxims, Questions, and Ethical Commitments (4 submissions); Personal Project Idea; Sources for Data Science News	9%
Peer Feedback (3 submissions)	6%
Informational Interview: Planning	2%
Informational Interview: Reflection	8%
Final Plan for Being a Data Scientist:	65%
	100%

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

Letter Grades, Course Grades, and Late Submission Policy

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: 15% penalty per day.

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

- Coursera's Technical Support (24/7) - <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).