

# Course Syllabus for SIADS 522: Information Visualization I

## Course Overview and Prerequisites

This course will introduce information visualization — visual representations of data through interactive systems. Specific focus will be on the role of visualization in understanding data and understanding how perception, cognition, and good design enhance visualization. The course will introduce APIs for visualization construction. Students will learn to construct and critique visualizations and visualization tools.

Students should have an understanding of the pandas library, which is covered in Data Manipulation, prior to this course.

## Instructor and Course Assistants

- Instructor: Eytan Adar - eadar@umich.edu
- Course Assistant: TBA

## Communication Expectations

**Contacting instructor and course assistants:** Course channel in Slack

**Email response time:** 24 - 48 hours

**Slack response time:** 24-48 hours

**Office hours:** see *Course Schedule* below

## Required Textbook

Visual Display of Quantitative Information. Edward. R. Tufte. One source for this text is Amazon:

<https://www.amazon.com/Visual-Display-Quantitative-Information/dp/1930824130>

## Technology Requirements (unique to this course)

*None*

## Accessibility

[Screen reader configuration for Jupyter Notebook Content](#)

## Course Outcomes

1. Enumerate the key reasons for creating and evaluating information visualizations
2. Be able to construct basic visualizations using Altair\
3. Be able to evaluate visualization designs on expressiveness/effectiveness by using cognitive/perceptual theories
4. Be able to critique and contrast different designs based on task frameworks (domain, abstract)
5. Be able to select appropriate encodings given data and task framework
6. Be able to define basic visualization types using Grammar of Graphics

## Course Schedule

This course begins on **Wednesday, February 5, 2020 and ends on Tuesday, March 3, 2020.**

Weekly assignments will be due on **Tuesdays at 11:59 pm** (time zone = Ann Arbor, Michigan - Eastern Standard Time).

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

- **Mondays 3pm - 4pm EST (Eytan Adar)**
- **Begins on Monday, February 10**

## Grading

Course Assignments	Percentage of Final Grade
Week 1 Assignment	25%
Week 2 Assignment	25%
Week 3 Assignment	25%
Week 4 Assignment	25%
	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)

For this course, assignments will be accepted 24 hours late with a 20% penalty.

## Academic Integrity / Code of Conduct

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

While we offer a number of discussion channels to support your work, if you are stuck **you may not share or receive complete solutions to the assignments**. We also encourage you to support your classmates, but again, without sharing completed code. (Pointing to resources, describing ideas in pseudo-code, etc. is fine.)

## 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/>

## 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).