Course Syllabus
Fall 2010

General

CS 486 – Special Topics: Information Visualization
Fall 2010 · Harney Science Center, Room 535
Tuesdays & Thursdays · 2:40pm – 4:25pm

Website:
http://www.cs.usfca.edu/~sjengle/courses/fall2010/cs486/
http://blackboard.usfca.edu/bin/common/course.pl?course_id=_36446_1

Mailing List:
cs486iv@cs.usfca.edu · https://cs.usfca.edu/mailman/listinfo/cs486iv

Description:
This course will introduce students to the field of information visualization. Students will learn basic design and evaluation principles, as well as utilize the Processing programming language and environment to explore existing information visualization techniques.

Instructor

Sophie Engle
sjengle@usfca.edu · http://www.cs.usfca.edu/~sjengle/

Office Hours:
Harney Science Center · Room 140B
Tuesdays & Thursdays 1:00pm–2:30pm *(and by appointment)*

Learning Outcomes

At the end of this course, students should be able to:

- Understand how to design and evaluate visualizations
- Gain familiarity with existing information visualization techniques
- Gain experience manipulating abstract data sets
- Rapidly prototype visualizations in Processing

Schedule & Topics

We will cover the following topics throughout the semester:

- Designing Visualizations
- Evaluating Visualizations
- Principles of Perception
- Acquiring, Parsing, and Analyzing Data
- Visualization Methods:
    - Geospatial Data
    - Time Series Data
    - Network and Graph Data
    - Multivariate Data

The order of these topics may change slightly, as well as the list of topics itself. A detailed schedule is available in the "Calendar" section.

Grading

The final grade will depend on a mix of programming labs, written homework, a final project and presentation, and participation. The specific breakdown is as follows:

20% Written Homework
30% Programming Labs
35% Final Project
15% Participation

Written homework and programming labs will alternate weekly. Students should anticipate between 4-5 written homeworks and 3-4 programming labs.

Students will have to complete a final project due at the end of the semester. Unlike the programming labs, students will choose their own dataset and visualization technique for this project. Students will be required to create a website for their project, and demo their project during the last week of class. Students will be critiquing each other's projects as part of their grade.

A large portion of your grade is dedicated to participation. This includes in-class discussion, quizzes, and surveys. Quizzes and surveys will be administered via Blackboard.

Letter grades will be assigned according to the following scale:*

Cutoff
A ≥ 90.0%
B ≥ 80.0%
C ≥ 70.0%
D ≥ 60.0%
F < 60.0%

Note that this scale is subject to change.

Resources

There are no required books for this class. Students may benefit from a Processing reference book for this course. Stop by my office or send me an email for recommendations.

Late Policy

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All deadlines are firm except in case of emergency.

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Students are responsible for meeting all homework and project deadlines. Extensions will not be granted and late homework will not be accepted except in case of verifiable medical emergency.

Academic Honesty

Simply put, do *not* cheat and do *not* plagiarize or copy (from other students *or* from the web). All work in this class is to be completed individually—not in groups. I expect all students to adhere to the academic honesty policies at USF. More information is available at http://www.usfca.edu/fogcutter/studentconduct/.

Students caught violating the academic honesty policy will face severe penalty. A first offense will result in a 0 on an assignment or exam, and a report to the Dean's office. Repeat offenses may result in an F for the course.