

MIS 6380

Data Visualization

Summer, 2016

Meeting Times: Mon 6:00 – 9:45 PM

Classroom: JSOM 2.115

Instructor: Kelly Slaughter, PhD

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Office: JSOM 2.703

Office Hours: Mon 5:00 to 6:00 PM and by appt.

Course Description

The growth in the volume of data collected by organizations has resulted in the need for a broad range of data analysis techniques through which an organization's goals can be advanced. In this data visualization class we examine data presentation and exploration through such visualization tools as Tableau, R, and d3.

Learning Goals

- To equip the students with an understanding of general data visualization principles
- To prepare the students to support data visualization efforts through the application of user-based, analytic, and general programming tools
- To provide the students an appropriate business-oriented perspective of the application of data visualization within organizations

Evaluation

Student grades will be determined through three categories of work as listed below. There are no opportunities for earning extra credit.

Homework Assignments (5)	40%
Exams (2)	40%
Presentations	20%

Descriptions of the homework assignments will be posted as they are assigned. Homework can be turned in one day late for 50% credit.

Each of the two exams is worth 20% of the final grade. The exams may be a combination of questions about the techniques, the tools, and class readings as well as hands-on exercises. If an exam is missed due to an *excused* absence, a 'real time' exam (oral questions to be answered on a white board or laptop) will be provided if requested within 24 hours of the scheduled exam.

The presentation will involve a team project applying visualization tools to a context of the team's interest (approved by the instructor in advance).

Materials

Laptop required

No textbooks are required

Milestones

Homework

HW #1 due June 12th (assigned June 6th)

HW #2 due June 26th (assigned June 20th)

HW #3 due July 10th (assigned June 27th)

HW #4 due July 17th (assigned July 11th)

HW #5 due July 24th (assigned July 18th)

Exams

Exam #1: June 13th

Exam #2: July 11th

Presentations

August 1st

Grading Policy

≥ 93.3%	A
≥ 90.0%	A-
≥ 86.7%	B+
≥ 83.3%	B
≥ 80.0%	B-
≥ 76.7%	C+
≥ 73.3%	C
≥ 70.0%	C-
≥ 66.7%	D+
≥ 63.3%	D
≥ 60.0%	D-
< 60.0%	F

Grades will be rounded to the tenth, thus an 89.94 is a B+ and an 89.95 is an A-

Class Administration

eLearning will be used for class content (e.g., class slides and assignment descriptions) and the recording of grades. Slides will be posted in PDF format before class is held (or shortly after in some cases where having the slides in advance may not be consistent with the lesson of a particular day).

Class announcements (e.g., change in assignment dates) will be posted in eLearning. It is the students' responsibility to track these announcements.

We will conduct many hands-on exercises in the classroom. Students should have a laptop for use in the classroom. Instructions for installing tools will be provided.

General Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The class specific policies and dates are subject to change at the discretion of the instructor.

Schedule of Topics

Date	Description
23-May	Intro to Visualization & best practices
30-May	Holiday
6-Jun	Tableau
13-Jun	Exam, no class
20-Jun	R's ggplot2
27-Jun	R's ggplot2
11-Jul	Exam; R's shiny
18-Jul	d3
25-Jul	Open (class will select tool to discuss)
1-Aug	Presentations