

# I590: Data Science for Drug Discovery, Health and Translational Medicine

## Assignment 2

### Instructions

Students should complete parts one and two and submit both as a single .pdf file to Canvas by midnight on Wednesday January 25, 2017.

### Part One: Exploring Heart Disease (60 pts)

Choose any two of the "processed" data sets from the Heart Disease Data Set (Available here: <http://archive.ics.uci.edu/ml/machine-learning-databases/heart-disease/>) and create three charts of your choosing for each dataset (six total). For each pair of charts, describe the charts and comment on the similarities and differences they expose in the data.

Points will be awarded for each correct chart and for each discussion.

### Part Two: Health Care Problems (40 pts)

Find a peer reviewed article that discusses a health care problem in the United States. Summarize the key findings of the article and discuss how data science could be used to help solve the problem discussed in the article. Consider a SWOT analysis for your proposed solution.

Points will be awarded based on the quality of the summary and the solution.

For information on SWOT, see:

[https://en.wikipedia.org/wiki/SWOT\\_analysis](https://en.wikipedia.org/wiki/SWOT_analysis)

[https://www.mindtools.com/pages/article/newTMC\\_05.htm](https://www.mindtools.com/pages/article/newTMC_05.htm)