

# STAT 435: Homework 3

Due Nov. 5th

This homework should be done independently.

**Q1.** Question 1 of Chapter 4 of the ISLR book. (Page 168).

**Q2.** Question 2 of Chapter 4 of the ISLR book. (Page 168).

**Q3.** Question 5 of Chapter 4 of the ISLR book. (Page 169).

**Q4.** Question 6 of Chapter 4 of the ISLR book. (Page 170).

**Q5.** Question 7 of Chapter 4 of the ISLR book. (Page 170).

**Q6.** Question 10 of Chapter 4 of the ISLR book (Page 171) (all parts except part (g)). You may also consider using regularized logistic regression to select predictors.

**Q7.** Question 13 of Chapter 4 of the ISLR book. (Page 173). (Use LDA, QDA, logistic regression, regularized logistic regression, you may also consider linear regression).

**Q8.** Consider the data set provided with this homework assignment. Implement LDA and QDA classifiers on this data and compare the two classifiers using a ROC curve.