# Lab #9

Logistic Regression

Copy and paste any results and write out your answers in the space provided.

## SPSS

1. Open “**dispss.sa**v”.

1.a. Using bivariate logistic regression predict disoi by everything else in a direct analysis (make sure to declare gender and ethn as categorical leaving them as indicator). Save probabilities, group membership and standardized residuals. Include classification plots and the Hosmer-Lemeshow Goodness-of-fit test.

1.a.i. Copy, paste, annotate, and interpret.

1.a.ii. Create a predicted probability table and paste below.

**HIGHLIGHT HERE AND CPAI OUTPUT FOR #1.a**

**HIGHLIGHT HERE AND PASTE PREDICTED PROBABILITY TABLE**

**1.b.** Write an APA style results section for this analysis. Include an APA style figure and chart.

**1.**c. Are there any outliers? If so, which subjects?

**1.**d. Changing the cutoff criterion.

**1.**d.i. Repeat “a” using .6 as the cutoff value. Does this make the classification better or worse? Explain.

**1.**d.ii. Repeat “a” using .4 as the cutoff value. Does this make the classification better or worse? Explain.

**1.**e. Still using “dispss.sav” run a sequential analysis using sos, a, and c (in that order) predicting disoi. Use the same selections as in #2. Copy, paste, annotate and interpret.

1. Logistic regression is a difficult topic so I want you to follow all of the steps in the complete sample analysis using the “logregc.sav” data set. Mimic all of the same steps they use and complete both the direct logistic regression with binary outcome and the sequential analysis with multinomial outcome. Copy, paste, annotate and interpret.

**HIGHLIGHT HERE AND CPAI OUTPUT FOR #2**