Notes on Exam 2:

1. The syllabus consists of all the material that we have covered since the first exam. However, there are some concepts that we learned prior to the first exam and continue to use.
2. There will be about 5 to 7 questions with subparts.
3. Please bring a calculator.
4. It will be in-person on Wednesday, April 30 during our usual class time in the usual room.
5. Please attempt all questions so that I can at least try to give you partial credit wherever necessary.
6. There will be no questions on Stata commands.
7. The statistical tables on AsULearn will be provided. There will be no formula sheet.
8. Although you are expected to study everything, please take a look at the outline below.
9. Answer questions concisely. Don't worry about writing out full sentences.

Outline:

1. Chapter 7
    a. Dummy independent variables
        i. Interactions among Dummy Variables
        ii. Allowing for Different Slopes
    b. Linear probability model

2. Chapter 8
    a. Heteroskedasticity
        i. Consequences
        ii. Heteroskedasticity-Robust Inference
        iii. Testing
        iv. Weighted Least Squares

    Note: I won't be asking questions on heteroskedasticity tests and weighted least squares.

3. Chapter 17
    a. Logit and Probit
        i. Latent variable framework
        ii. Maximum likelihood estimation
        iii. Interpretation of marginal effects

    Note: I won't be asking questions on setting up the likelihood function.

4. Matching
    a. Average treatment effects
    b. Propensity score estimation
    c. Difference between matching and linear regression

5. Chapter 13
    a. Pooling Independent Cross Sections across Time

b. Two-Period Panel Data Analysis – first differencing
c. More than Two Time Periods – first differencing

6. Chapter 14
    a. Fixed and random effects

7. Chapter 15
    a. Instrumental Variables – Simple Regression Model

    Note: Pay attention to the conditions required for an instrumental variables (IV) approach. Pay attention to the concepts of instrument exogeneity, instrument relevance, and weak instrument. Also, I won't expect you to memorize the formula for IV standard errors but may ask questions on its interpretation.