This review sheet is intended to cover everything that could be on the exam. However, it is possible that I may have inadvertently overlooked something. You are still responsible for everything in the chapters covered except anything that I explicitly say you are not responsible for. Therefore, if I left something off of this sheet, it can still be on the exam. There will be no multiple-choice questions. Most of the questions will be like the ones on the homework assignments, and possibly a few definition questions. I am more likely to ask questions that make you use definitions rather than have you recite them. I will probably ask one of the questions from the book at the end of the chapters.

The review session for this test will be Tuesday, 3/1, at 7:30 in the normal room.
I slightly changed the syllabus so that for this test, we are doing sections 6.4 - 6.6 and the next test will be 6.1 - 6.3.

Chapter 3's appendix: Know the properties of indifference curves and why they have those properties. Know how to manipulate the indifference curve/budget constraint diagram to illustrate changes in price and/or income. Know what the slopes of the two types of curves are. Know how to find the income and substitution effects and how to derive the demand for a good. Hints: There are an infinite number of indifference curves and they do not move unless tastes change. Therefore, in this course, they will not be moving. **You will move to a different indifference curve, not move the indifference curve.** The income effect assumes the real income has changed. That is a parallel movement of the budget constraint because the relative price has not changed. The substitution effect assumes the real income is the same, so you must stay on the same indifference curve. When drawing the income and substitution effects, all three points, A, B, and C, must be on different budget constraints. Do not draw two of them on the same budget constraint. Do not have indifference curves cross or slope up. What is the equi-marginal principle? What are the slopes of the curves?

Chapter 4: Note that most of this chapter is thrown out because the topic would require more than two chapters to cover adequately, but you should know how to interpret results that are given to you. Therefore, if it is not listed here, you are not responsible for it. What is the identification problem? What are the advantages and disadvantages of consumer surveys, observational research, consumer clinics, and market experiments? Understand that a regression is trying to find the line with the equation $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots$ The X's are the data you are using to do the predictions and the Y is what you are trying to predict. So Y is usually Q_D and the X's are usually variables like price, income, other prices, etc. The equation is a straight line and the α and β's are the numbers that the computer calculates. Know what the *Adjusted R^2*, *Significance of F*, *t-statistic*, *P-value*, and what the *coefficients* mean and how to use them. Basically, know what we did on assignment #4, question #1.

Chapter 6: Start with section 6.4. Understand what isoquants and isocost lines are. We will ignore the area where the isoquants slope upwards because it is outside of the feasible area. They act just like indifference curves and budget constraints. The slope of the isoquant is the negative of the MRTS. Understand what that means. Be able to draw the isoquants for perfect substitutes and for perfect complements. Know what moves the isocost lines and be able to show those movements. Know how to find the expansion path. What is the equi-marginal principle as it applies to inputs in production. Know how to determine if there are increasing (IRTS), decreasing (DRTS), or constant returns to scale (CTRS). Ignore sections 6-7 and 6-8.

This is the non-graded assignment #4A that will be covered with assignment #4.

1) (30 points) Draw an isoquant/isocost diagram which is normally shaped. Illustrate an increase in the wage rate. Find the long-run changes in K and L. Explain why the curve(s) moved as drawn.

2) (30 points) Use an isoquant/isocost diagram which is normally shaped to derive the long-run total cost curve for the firm. Find four points on it. Explain how you determined it.

3) (30 points) Use an isoquant/isocost diagram which is normally shaped to derive the short-run total cost curve for the firm. Find four points on it. Explain how you determined it.

4) (10 points) Why is the profit maximizing output where $MP_L/w = MP_K/r$?