Wilfrid W. Csaplar Jr. Managerial Economics Review Sheet for Exam 3

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.

I expect that the review session for this class will be Sunday, 3/28, at **4:00**, in Weimer Lecture Hall (the normal room for class). The time change is due to an Economics Club showing of the movie, *A Beautiful Mind*, at 7:00 in Maxwells. All are invited.

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.

Chapter 7: What are implicit and explicit costs? How do economic costs differ from accounting costs? What is the difference between short-run and long-run? Be able to plot the SRTC, SRTVC, SRATC, SRAVC, and SRMC as we did before. Derive them from the isoquant/isocost diagram by holding K constant and drawing a horizontal line at that level. Also, be able to derive the LRATC, LRTC, and LRMC from the isoquant/isocost diagram using the expansion path. Understand why the LRATC curve is the envelope of the SRATC curves. Be able to draw them. Understand why the LRTC curve is the envelope of the SRTC curves. Be able to draw them. Understand why the LRATC may take each of the three different LRATC curves on page 287. What is the learning curve? Why does it take that shape? How can we keep costs down by outsourcing and having immigration of labor? Skip section 7-7. Understand breakeven analysis including the graph of straight-line TC and straight-line TR. How does the operating leverage affect the diagram? What is DOL? How do we calculate it? What does high DOL imply about the firm's profitability? Why is it acceptable to use the SRTC curve that is straight? Ignore pages 306 - 310.

This is the non-graded assignment #6A that will be covered with assignment #6.

1) (25 points) We drew two different diagrams that showed the LRATC curve and some SRATC curves. Draw the one that is relevant when there is a continuum of plant sizes. Explain how you got the LRATC curve from the SRATC curves and why your diagram show a continuum of plant sizes.

2A) (20 points) Draw the straight-line TC and TR diagram. Explain why we draw them as straight lines.
B) (5 points) Find the break-even point. Explain how you found it.
C) (15 points) Draw the new lines that correspond to an increase in capital. Explain why the lines moved as drawn.

3) (20 points) On page 300, the book says that AVC is the slope of the TVC. In general, that is a false statement. Why is that normally false? Why is it true in this case?

4) (15 points) Suppose a firm is selling 1000 units at a price of $2.00/unit. It has an average variable cost of $1.50/unit and a total fixed cost of $300. What is the DOL? Show all work.