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, but I am more likely to ask questions that make you use the definitions rather than having you recite them. I may use a question or two from the book.

The review session will be Wednesday 4/30. I plan to have the review session at 7:00. The room will probably be the normal room, Richardson 104. The room and time will be confirmed later.

Chapter 8 starting on page 273: What is a monopoly? What is meant by monopoly power? How can a firm get monopoly power? How can economies of scale lead to a natural monopoly? What are economies of scope? Why is MR < P for monopolies? What is the relationship between the elasticity of demand and total revenue? Know how to calculate the MR and MC functions from TR and TC functions. Be able to show Q, P, and profits on the D/MR/MC/ATC diagram. Know how to show the deadweight loss on the monopoly diagram. Why don't monopolies have supply curves? The same argument applies to any firm with a downward sloping demand curve. What is a monopolistically competitive industry? Know how to find its profit-maximizing Q, P, and profits on the D/MR/MC/ATC diagram. Illustrate what will happen over time if the profits are not zero. How do niche marketing and green marketing affect firms' demand curves? Disregard the section on optimal advertising.

Chapter 9: Know how to derive the demand and marginal revenue curves for a firm in the Sweezy model. Know why they are not likely to change prices. Explain it in economic terms and using the graph. Know how to derive the Cournot firms' best response functions (BRF) using mathematics. Find the equilibrium levels of outputs, and show on the BRF/isoprofit diagram that the two firms are acting optimally even though they could improve their profits by cooperating. Why is the Cournot equilibrium also called Cournot-Nash? How does the Stakelberg model modify the Cournot model? How does that affect the BRF diagram? Note the book is incorrect to include the leader's BRF because it does not exist. They should indicate it with a dotted line so that they can show the Cournot equilibrium and compare the two equilibria. How did Bertrand model firm behavior? What was the end result? Why does the Bertrand model often have Nash appended to its name? What is a contestable market? How does that affect the D/MR/MC/ATC diagram? Remember, I drew a diagram for it that is not in the book.

Chapter 10: What do the following mean: simultaneous move game, sequential move game, one-shot game, and strategy? Know how to find the Nash equilibrium from the "normal form" a.k.a. "payoff matrix." If I gave you some payoffs, be able to fill in the payoff matrix. What is a dominant strategy? What is a secure strategy? When is the cooperative point not a Nash equilibrium? Know what a random strategy is, but you do not need to know how to find it. What is a trigger strategy? How can it be used to enforce cooperation in some circumstances? How can we tell if it will enforce cooperation? Ignore finitely repeated games, pages 368 - 374. What is the extensive form of a game? How can it be used to find the Nash equilibrium?

Non-graded assignment #9A   To be reviewed with assignment #9

1) (20 points) Suppose that the older sister does not want to be with the younger sister because she is just a kid. The older sister gets 100 units of utility if they are apart, but 0 if they are together. The younger sister admires the older sister and wants to hang with her cool older sister. She gets 120 units of utility if they are together and 5 if they are apart. Both can choose to watch TV or use the computer. Find the payoff matrix for this situation. Explain how you got the entries. Is there a one-shot Nash equilibrium? If yes, then find it and explain how you found it. If no, then explain why not.

2) (20 points) Suppose that a firm is deciding whether or not to enter a market. If they do not, then the incumbent gets profits of $100. If there is entry, then the incumbent can choose to keep her high price or to lower her price. If she keeps the high price, then the incumbent gets profits of $0 and the entrant gets profits of $75. If the incumbent lowers her price, then they both get loses of $10. Write the decision tree and explain how you got it. Find the equilibrium and explain how you chose it.

3) (15 points) Suppose the following is true. If you charge a high price and your competitor charges a high price, both of you make profits of $100. If you cheat one time, your profits are $300, but you will make only $50 from then on because of the trigger strategy. What interest rate will result in your indifference in choosing between cheating and cooperating? Show all work and explain how you got it.

4) (45 points) Use the table below to find the dominant strategies if they exist, the Nash equilibrium or equilibria, the cooperative equilibrium, and the two firms' secure strategies. Briefly explain how you got each of them.

		Mighty Mighty Bosstones		
		High Price	Medium Price	Low Price
Less Than Jake	High Price	1050 1000	888 1010	980 1020
	Medium Price	1080 999	900 950	600 105
	Low Price	1030 1001	950 1035	1040 1002