This review sheet is intended to cover everything that could be on the exam; however, it is possible that I will have accidentally left something off. 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 in 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 recite them. I will probably ask one of the questions from the book at the end of the chapters.

The review session will be at a time to be determined in class, probably Wednesday $2 / 23$.
Chapter 1: What are economics, macroeconomics, microeconomics, and wants? Know the difference between positive and normative statements. What is meant by incentives, models, theories, and ceteris paribus? What is important about them? From the appendix, know how to plot a straight line, calculate the slope of any line including curves, and know what we mean by direct and inverse relationships.

Chapter 2: What are scarcity, land, labor, physical capital, human capital, entrepreneurship, goods, and services? "Opportunity costs" is the first of the great ideas in this course that helps this course qualify for fulfilling the Contemporary Society and Institutions requirement for graduation from Bethany College. Therefore, it is one of the most important parts of this course. What are opportunity costs? How do we see them? Note that opportunity costs are what you would have done with the time and resources. What is the PPC (or as I prefer to call it, the PPF)? Why does it take its shape? How does it show the opportunity costs? Where do we see efficiency, inefficiency, and unattainable sections of the graph? What moves it? What explains the law of increasing relative costs? How does the trade off between current consumption and capital goods affect future output? What are absolute advantage and comparative advantage? What is the law of comparative advantage?

Chapter 3: "Supply and demand analysis" is the second of the great ideas in this course that help this course qualify for fulfilling the Contemporary Society and Institutions requirement for graduation. Therefore, it is one of the most important parts of this course. What determines demand? What is the "law of demand"? What do "demand schedule" (a.k.a. table) and "demand curve" represent? What moves the demand curve and what causes movements along the curve? Ignore inferior goods. Answer the above questions for supply. Note that one of the two most common errors students make on questions is to get confused between movements along a curve and movements of a curve. Price changes cause movements along the curve. Since the list of things that move supply and the list of things that move demand are almost mutually exclusive (excluding expected future prices), you should almost never move both curves. Move one and move along the other one. One note, the costs of production include the opportunity costs of producing another good. We called this the price of a substitute in production. For example, if the price of another good that they could produce goes up, then the cost of resources used to produce both go up and that reduces supply of the good you are analyzing. This is one way that the costs of inputs can go up. Also, a change in the selling price of a complement in production will encourage or discourage production of the good, thus will move supply. A complement in production is something that you produce with it. The other error common to students in this course, is to move the supply curve the wrong way. Note that because the graph has the dependent variable on the horizontal axis, it moves right and left. Know what equilibrium is and how it is achieved. What are shortages and surpluses?

Chapter 4: What is a price system? Ignore voluntary exchange, transaction costs, and terms of exchange. Like most things we skip in these early chapters, they are important for microeconomics but not for macroeconomics. Be able to show movements of supply and demand on the same diagram. If you do not draw both supply and demand, then I will take off points. Also, label all axes and lines. How do we ration goods? What are other methods of rationing? What are the economic effects of price ceilings, price floors, taxes, and quotas? Be able to show them on the supply and demand graph. Use the graphs to explain the problems they cause, how those problems are solved without government action, and what the government can do to relieve those problems.

Chapter 5: What are negative externalities and positive externalities? How are they seen on the graph? What is the best way to offset them? Show that on the supply and demand diagram. Know the economic reasons for providing a legal system, promoting competition, providing public goods, and income redistribution. Know what government sponsored and government deterred goods are. What is the difference between voting and spending?

Non-graded Homework Assignment \#3A to be reviewed with Assignment \#3.

1) ( 25 points) Draw the $S / D$ diagram for a product like oil which creates a negative externality. Use the diagram to prove that the market will not bring us to the most efficient point. How do economists propose solving this problem? Illustrate the effects of implementing that proposal. Explain how it achieves the most efficient point.
2) (15 points each) For each of the following, explain why it is an economic reason for government. At least one of these, the book says is a non-economic reason, but I say it is also an economic reason.
A) providing public goods
B) income redistribution
C) providing a legal system
3) (15 points) Suppose a project would help 1000 people $\$ 5$ each, but would cost $\$ 750$ and would cause a negative externality of $\$ 350$ damage to one person. Should the project be done? Would voting result in the project? Would the market provide it? Explain your logic for all three parts and show all calculations.
4) (15 points) Suppose a project would help 2 people $\$ 500$ each, but would cost $\$ 450$ and would cause a negative externality hurting 500 people $\$ 3$ each. Should the project be done? Would voting result in the project? Would the market provide it? Explain your logic for all three parts and show all calculations.
