

Introduction

Intermediate Microeconomics

I. Overview

This class is intermediate microeconomics. We will consider the theory of consumer choice and then turn to the theory of the firm under different assumptions on competition. Microeconomic models theorize how small, elementary units of the economy go about making decisions on consumption and production. The fundamental methodology we use is **constrained optimization**. For the consumer, we assume that individual households maximize utility, subject to a budget constraint. For individual firms, we assume they minimize cost and maximize profit. That is, for any constrained level of output, the firms will choose the least cost way of producing that output. They will then choose the output that maximizes profit. The behavior of consumers will give us the demand for a product, while the behavior of firms will give us the supply of the product. Putting these two tools together gives us supply and demand and equilibrium in the market.

Intermediate microeconomic differs from microeconomic principles by the rigor and detail we give to the process of deriving supply and demand. In some case (say monopoly) there is no supply curve. Intermediate microeconomic also spends more time to look at degenerate cases and pathological behavior of consumers and firms. It rigorously derives income and substitution effects for consumers from consumer utility maximization. It considers the movement from short run to long run in determining equilibrium in markets. Various government policies can be analyzed with definite results showing which policies are likely to be more successful than others.

Intermediate microeconomics does not consider the aggregation problem associated with combining the impact of millions of people and thousands of firms making decisions. It is not specifically worried with inflation, the national income, and unemployment. Microeconomic theory can help one understand macroeconomic theory better, but usually the opposite is not true – macroeconomic theory has little to add to microeconomic theory. To do well in microeconomics you must think logically and abstractly. This means the ideas are simple and fit together logically, but we don't typically think this way in everyday life. We behave very much like microeconomic theory would say, but we don't do the mathematics in our heads. Our behavior is more intuitive, but still logical and optimizing. Just as driving a car is very simple to do, describing the driving of a car mathematically can be extremely complicated. Think of how difficult it has been to create driverless cars.

An important aspect of microeconomics is risk assessments and behavior of consumers and firms under conditions of risk and uncertainty. We will not have much to say about this in the class, but I will be showing you how that behavior can be significantly affected when risks change. Another important aspect of intermediate microeconomics is choice over time. Whenever we have choice over time, it is important to model expectations and forward-looking behavior. Again, we will only touch on this briefly, but these dynamic choice models are extremely interesting and thought-

provoking. They give rise to certain problems of identity and the comparison of you today with you tomorrow. Modern dynamic choice theory treats you as a collection of people existing now and in the future. In a sense, you are a little society extending out over time and you are making plans today that affect the future members of your little society. Naturally, members of your personal society (made up of all future you) that extend very far in the future are not considered as important as members (made up of you) that exist in the coming few months. For one thing, you have time to change the constraints you live under far in the future, whereas you have little time to prepare your constraints for the next few months. Such decisions over time require us to radically think carefully how we make decisions on consumption and saving, etc.

II. Course Particulars

There will be two exams – a midterm (40%) and a final exam (40%) and attendance/worksheets (20%) students who miss more than three classes will have their grades reduced. The first period will be a lecture over the reading (available on the course webpage) while the second period will be mainly student writings on a selected number of questions dealing with the lecture. That day. There is no required text, only a collection of readings.