ECON 303 – Intermediate Microeconomic Theory

Week 1
Preliminaries
Intermediate Microeconomic Theory

In economics, explanation and prediction are based on theories. Theories are developed to explain observed phenomena in terms of a set of basic rules and assumptions.

Economics uses theory to explain actions and predict future actions.

A model is a mathematical representation, based on economic theory, of a firm, a market, or some other entity.

Theory does not work well all the time. The market test of theory is how well it does in comparison to another theory. A theory must have the possibility to being proved wrong.
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Theory: Price is determined by supply and demand interaction

A general model: linear supply and demand

\[ Q_D = a + bp \]
\[ Q_S = c + dp \]

Equilibrium \[ Q_D = Q_S \]

\[ a + bp = c + dp \]

Testable prediction:

\[ p = \frac{a-c}{d-b} \]
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Economics:

οἴκονομία

οἶκος (oikos, "house")

νόμος (nomos, "custom" or "law")
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Economics:

The social science concerned with:

How to allocate scarce resource, with alternative uses between unlimited and competing wants
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"Economics is the science of choice. It began with Aristotle but got mixed up with ethics in the Middle Ages. Adam Smith separated it from ethics, and Walrus mathematized it. Alfred Marshall tried to narrow it, and Keynes made it fashionable. Robbins widened it, and Samuelson dynamized it, but modern science made it statistical and tried to confine it again.

But the science won't stay put. It keeps cropping up all over the place. There is an economics of money and trade, of production and consumption, of distribution and development. There is also an economics of welfare, manners, language, industry, music, and art. There is an economics of war and an economics of power. There is even an economics of love.

Economics seems to apply to every nook and cranny of human experience. It is an aspect of all conscious action. Whenever decisions are made, the law of economy is called into play. Whenever alternatives exist, life takes on an economic aspect. It has always been so. But how can it be?

It can be because economics is more than just the most developed of the sciences of control. It is a way of looking at things, an ordering principle, a complete part of everything. It is a system of thought, a life game, an element of pure knowledge.

Robert Mundell
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The fundamental economic problem: Scarcity

Seemingly unlimited human needs and wants, need to be satisfied in a world of limited resources.

Society has insufficient productive resources to fulfill all human wants and needs, therefore not all of society's goals can be pursued at the same time; trade-offs are made of one good against others.

Opportunity Cost:

The maximum benefit forgone by using scarce resources for a particular purpose. It is the benefit provided by the next best use of that resource.
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**microeconomics**

Branch of economics that deals with the behavior of individual economic units—mainly, consumers and firms—as well as the markets that these units comprise and the interactions therein.
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You know much of this already, so let’s move forward.
AGENDA

Economic Lens
Scarcity and Choice
Marginal Thinking
Demand and Supply
Equilibrium and Welfare
Elasticity

Consumer Theory
Utility Maximization
Preferences and Budget

Firm Theory
Profit Maximization
Productivity and Costs

Market Structures
Competition and Monopoly
Oligopoly and Monopolistic Competition
Game Theory
Market Failures
Thinking at the Margin
Thinking at the Margin

Very small changes from status quo are essential in decision making
Thinking at the Margin

Very small changes from status quo are essential in decision making

Idea goes back to:

...external goods have a limit, like any other instrument, and all things useful are of such a nature that where there is too much of them they must either do harm, or at any rate be of no use.

Aristotle *Politics*
Thinking at the Margin

Economic activity persists until benefits and costs are equal at the margin

Consumer context: Marginal Utility vs Marginal Cost
Producer context: Marginal Revenue vs Marginal Cost
Social Context: Social MB vs Social MC
Market

is the collection of buyers and sellers that, through their actual or potential interactions, determine the price of a product or set of products. It includes more than an industry - a collection of firms that sell the same or closely related products – which in fact is just the supply side of the market.

can be competitive or noncompetitive
Demand and Supply:

Definition
Determinants
Disturbances

Equilibrium:

Where markets make participants content

Applications