

INTERMEDIATE MICROECONOMICS (EC201)

Course duration: 54 hours lecture and class time (Over three weeks)

LSE Teaching Department: Department of Economics

Lead Faculty: Dr Andrew Ellis (first-half) and Dr Francesco Nava (second-half)

Pre-requisites: Introductory Microeconomics, Ordinary and Partial Differential Calculus.

Course Overview:

The aim of this course is to give students the conceptual basis and the necessary tools for understanding modern microeconomics at the intermediate level. In the context of this theoretical framework the course will explore a number of applied issues such as contract design, insurance, and ownership structures.

The course covers 6 broad areas:

- Consumer Theory
- The Theory of the Firm
- General Equilibrium
- Game Theory
- Oligopolistic Markets
- Information Economics

1

The theory of the consumer explores the demand side, while the theory of the firm discusses the supply side of the economy. General equilibrium puts the two parts together and discusses welfare implications, including in the presence of externalities.

The second part of the course introduces basic concepts in non-cooperative game theory, emphasising the strategic aspect of economic interaction. Game theory is then applied to analyse informational problems in economics, in particular problems of hidden information (adverse selection) and hidden action (moral hazard).

Whilst not all of the presentations will be as mathematical as that provided in the course text, knowledge of differential calculus is essential for the study of quantitative solutions to economic problems and, indeed, enhances one's understanding of the underlying concepts. In class on the first day of the course, partial differential calculus will be reviewed, and students will be introduced to the technique of constrained maximisation due to Lagrange.

Lecture Plan:

Topic 1 - Consumer Theory

This part of the course studies consumers' preferences and budget constraints. It derives individual demand functions and analyses how these can be aggregated to build the market demand curve. Also the concepts of consumer surplus and price indexes will be discussed.

Topic 2 - The Theory of the Firm

This part of the course reviews the structure of production and studies the profit maximisation problem of the firm. It analyses how the firm responds to market stimuli both in the short and in the long run. The issues above are addressed for perfectly competitive firms as well as for monopolies. The market supply is also derived as the aggregate supply of firms that produce identical products.

Topic 3 - General Equilibrium and Welfare

The topic provides conditions for an economy to reach equilibrium and studies how equilibrium prices and quantities are determined. It identifies conditions under which the market equilibrium is efficient as well as those under which a central planner can implement an efficient allocation as a market-equilibrium.

Topic 4 - Game Theory

Game theory is used to study the strategic interaction between agents and is a fundamental tool in modern economics. This topic analyses two general classes of games and defines relevant solution concepts in each of the two. It begins by discussing static games of complete information and by defining Dominant Strategy equilibria and Nash equilibria, in pure and mixed strategies. It proceeds by analysing dynamic and repeated games with complete information, and by introducing Subgame Perfection.

Topic 5 – Oligopolistic Markets

Two main game theoretic applications are considered. The first looks at the strategic behaviour of firms in a duopoly. The second looks at a model of entry-deterrence with pre-commitment strategies.

Topic 6- Information Economics

In many environments agents involved in economic transactions have access to different information about profitability of trade between them. The final topic considers such scenarios: firstly, in adverse-selection models where one agent cannot observe another agent's characteristics (insurance market); secondly, in moral hazard models where one agent cannot observe another agent's action. The optimal design of contracts to provide incentives and elicit information is the main aim of the topic.

Suggested Reading:

The following text is recommended as additional reading to the lecture notes and class exercises.

Christopher Snyder and Walter Nicholson, Microeconomic Theory: Basic Principles and Extensions, (11th edition, International Edition), South-Western College Publishing (2011).

Please note that the textbook differs from previous editions as well as the American edition.

Credit Transfer: If you are hoping to earn credit by taking this course, please ensure that you confirm it is eligible for credit transfer well in advance of the start date. Please discuss this directly with your home institution or Study Abroad Advisor.

As a guide, our LSE Summer School courses are typically eligible for three credits within the US system and 7.5 ECTS in Europe. Different institutions and countries can, and will, vary. You will receive a digital transcript and a printed certificate following your successful completion of the course in order to make arrangements for transfer of credit.

If you have any queries, please direct them to summer.school@lse.ac.uk