Aims

This course covers microeconomic theory at an advanced level that falls between the 2nd year ('intermediate') and postgraduate stages. The course begins with a careful study of linear programming, which provides a model both of individual producers and the economy as whole. We then use linear programming to introduce a more abstract model of technology and the firm. The approach we take to consumer theory will rely on axioms on preferences rather than taking utility functions or indifference curves as starting points. The course then fuses the analysis of consumer and producer behavior in the general equilibrium model. We conclude with the welfare theorems of general equilibrium theory. We will spend the time necessary to teach the mathematics needed for a proper understanding of the theoretical topics considered.

Course Delivery

The course will be delivered through a one hour lecture and a one-hour seminar to go over problem sets.

I will be available for consultation during my office hours. Please contact me if these times do not work for you.

Assessment

A final examination contributes 75% of the final mark and is taken during the Summer term. Problem sets will be handed out regularly. Working on the problems is the key to doing well in the course. Most of the problems will be discussed in seminars but some problems will not be. Solutions to two of these problems must be submitted as coursework during the week of 26 October. They will be marked and will contribute 25% of the final mark.

Reading

Unfortunately most existing textbooks are pitched at levels either too elementary or too mathematical for this course. The best compromise I can find is the text below, which is available in the bookshop and library.

Geoffrey Jehle and Philip Reny, *Advanced Microeconomic Theory*, Addison Wesley

The next hardest textbook is Bryan Ellickson’s *Competitive Equilibrium* (Cambridge University Press). The next easiest is Hal Varian’s *Intermediate Microeconomics* (Norton), both in the library.
Given the limitations of the textbooks, I will rely extensively on lecture notes.

**Timetable**

**Topic 1: Linear and nonlinear programming**

Lecture notes. Linear programming as a model of a small economy (with an application to game theory depending on demand).

**Topic 2: Activity analysis and the theory of the firm**


**Topic 3: Preferences, utility, and demand**

Jehle and Reny, chapter 1. Preference relations and their relationship to utility and demand.

**Topic 4: General equilibrium with exchange**

Jehle and Reny, chapters 5.1 and 5.2. The theory of the simultaneous interaction of markets.

**Topic 5: The welfare theorems of general equilibrium theory**

Jehle and Reny, chapter 5.2. Pareto optimality as a welfare criterion and its relationship to market equilibria.

**Topic 6: Further topics in general equilibrium theory**