

# ECON0072 Empirical Industrial Organization

## Contact Details

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<b>Course timetable:</b>	see <code>timetable.ucl.ac.uk</code>

## Overview

This course provides an overview of empirical and theoretical methods that allows economists to understand and analyze the behavior of firms and consumers within various markets. These methods are often used to guide policymakers in making informed decisions about competition policy and market regulation.

## Required Reading

The course content is based on material in the lecture notes and the problem sets. In addition, there will be required reading selected from the following sources:

1. Davis, Peter and Garcés, Eliana (2010), *Quantitative Techniques for Competition and Antitrust Analysis*
2. Tirole (1993), *The Theory of Industrial Organization*.
3. Selected academic papers (uploaded on Moodle).

## Problem sets

Problem sets will be handed out the week before the tutorial and will be due the day before the tutorial at the end of the day. The grades for the problem sets do not count towards the final grade for the course.

## Final Exams

The final examination will be an online exam based on material covered in the lectures, assigned readings, and tutorial class assignments. The format of the exam paper will be the same as for the sample paper published on Moodle. The final exam will take place in Term 3.

## Course Outline

1. Determinants of market outcomes (Chapter 1)
  - (a) Demand functions and demand elasticities
  - (b) Cost functions and technology
  - (c) Market structure and competitive environment
2. Estimation of cost functions (chapter 3)
  - (a) Measurement: Accounting vs economic costs
  - (b) Theory: Cost structure and market structure
  - (c) Estimation: Production functions and cost functions
3. Estimation of demand (Chapter 9)
  - (a) Measurement: goods, prices, characteristics
  - (b) Theory: Demand theory
  - (c) Estimation: Models of continuous choice vs discrete choice
  - (d) Problems
    - i. Endogeneity of price
    - ii. Unobserved product or consumer characteristics
4. Market definition (Chapter 4)
  - (a) Economics: Law of one price, substitutability
  - (b) Antitrust or competition law
5. Market structure and price (Chapter 5)
  - (a) Fixed market structure
  - (b) Entry and exit
  - (c) Information
6. Merger Simulation (Chapter 8)
  - (a) Elements of model
  - (b) Implications of model
  - (c) Data and assumptions
  - (d) Computation
7. Miscellaneous topics
  - (a) Dynamic games and entry
  - (b) Bundling and upstream issues
  - (c) Switching costs