

*Approved by the Academic council
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Syllabus
Economic Theory
(4 ECTS)

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1. Course Description

a) Pre-requisites

To learn the course, students must have the following knowledge and skills:

- calculus;
- ability to navigate the Internet resources;
- proficiency in English.

b) Abstract

Economic Theory encompasses a broad spectrum of fields. This course focuses on Market Theory (Theory of Industrial Organisation), which is a necessity for future managers. This field is concerned with the study of competition. Market participants interact strategically in setting prices, investing in capacities, R&D, advertisement etc. If there are many firms, a market may become close to perfect competition. A market with a small number of firms is described as an oligopoly, which can turn into a monopoly if competitors merge. We will discuss pricing strategies, non-price competition, entry, network effects, innovations, antitrust policies.

The course is taught in English.

2. Learning Objectives

The main objective of taking this course for a student should be receiving basic understanding of the Market Theory and its main developments. The course doesn't offer any advanced material but students will learn where to get it from if they need to. Market Theory is essential for understanding competition, innovation races, mergers and acquisitions, firms' entry and exit.

3. Learning Outcomes

Upon completion of the course, students should:

Be aware of:

- the basics of market structures theory: competition, monopoly, oligopolies.

Be able to:

- solve theoretical economic questions regarding perfect and imperfect competition;
- make a market analysis using the theoretical background;
- participate in basic debates about competition and pricing.

Learn how to:

- understand firms' pricing strategies;
- use basic analytical tools of market analysis.

4. Course Plan

Topic 1. Technology, costs and competition

Microeconomic concept of a firm. Decision-making under perfect competition. Perfectly competitive market: efficiency and government intervention.

Topic 2. Monopoly

Definition of a monopoly. Linear pricing and inefficiency. Types of price discrimination.

Topic 3. Introduction to Game Theory

Definition of a game. Nash Equilibrium. Normal and extended form games. Subgame perfection.

Topic 4. Basic Oligopoly Models

Cournot, Stackelberg and Bertrand models with homogenous good. Repeated interactions.

Topic 5. Differentiation

Bertrand model with differentiated good. Hotelling linear city model and its extensions. Salop model.

Topic 6. Anticompetitive Behaviour

Entry deterrence. Price maintenance. Predatory pricing.

Topic 7. Mergers

Horizontal and vertical mergers. Price and other vertical restraints.

Topic 8. Non-Price Competition

Advertising. Investment in R&D.

Topic 9. Network Effects

Markets with network externalities. Critical mass.

Topic 10. Behavioural IO

Markets in behaviour economics. Consumer behaviour and consumer protection. Bounded rationality of actors.

5. Reading List

a) Required

1. P. Belleflamme and M. Peitz (2015). *Industrial Organization: Markets and Strategies*. Cambridge University Press
2. Gibbons, R. (1992). *Game theory for applied economists*. Princeton University Press

b) Optional

Shy, O. (1995). *Industrial organization: theory and applications*. MIT Press.

6. Grading System

Students are supposed to participate in the following activities:

- Homework (not graded)
- 3 short tests during seminar classes, 10% of the grade each. Short tests will be based on the homework for the current week. The dates of the tests will not be specified upfront.
- Two group presentations, 15% of the grade each.
- Final exam, 40% of the grade.

7. Examination Type

Short tests

Homeworks will be provided after the seminar classes devoted to solving theoretical questions. Students may solve the questions individually or in groups, nothing has to be submitted for grading. Some seminar classes will start with the short tests (not announced in advance) which will be similar to a question from the latest homework. Students will have to provide solutions which will be graded.

Group presentations

4 seminar classes at the end of each module will be comprised of student groups presentations. Students will be given some topic or case (e.g., of antitrust regulation enforcement) and will be expected to study them carefully in groups and present in class. The grade will be given to each group and will be equal for each student in a group.

Example topic: Virgin vs. British Airways antitrust case

Final exam

Final exam will consist of a few questions, both theoretical and applied. In some questions, students will be required to rigorously solve theoretical problem, in other they will have to provide verbal explanation of some phenomenon using the concepts studied in the course.

8. Methods of Instruction

The course consists of lectures and seminar classes. Lectures are instructor-centered and explain the core concepts of the course. All seminar classes are learner-centered and interactive. Part of the seminar classes will be devoted to solving economic questions; others will include case presentation done by students.