

**Budapest University of Technology and Economics
Faculty of Economic and Social Sciences**

**Course Syllabus
and Requirements**

1. Title: Industrial Organization

2. Course code	Semester	Course type	ECTS credits	Language of Instruction	Level (BSc/BA/MSc/MA)
BMEGT30N002	autumn/ <u>spring</u>	Lectures	6	English	MSc/MA

3. Course supervisor (name, title, department):

Dr. Zsombor Ligeti, associate professor / deputy chair of department, Department of Economics

4. Instructor

Name	Position	Availability (E-mail address; office)
Zoltán Bánhidi	Junior Research Fellow	E-mail: banhidiz@kgt.bme.hu; Department of Economics, Building Q, Wing A, Room 225

5. Academic prerequisites or preliminary requirements

Basic algebra and calculus. (Microeconomics is recommended.)

6. Objectives and description of the course

Industrial Organization (IO) covers topics that range from production and pricing decisions of the firms in imperfectly competitive markets through collusive behavior, mergers, entry decisions and entry deterrence down to the role of advertising and incentives in economic activities. IO draws heavily on non-cooperative game theory to analyze the strategic behavior and interaction of firms. By the end of this course students should understand the intuition behind different market models and how these could be applied in analyzing firm behavior and its social impact.

7. Teaching methods

The course material is accessible to students without a strong mathematical background. The course will introduce students to the basics of game theory and its applications. In-class discussions are encouraged following the presentations in each class. In-class presentations should not be longer than 15 minutes. Students must prepare a PPT slide show and a draft that should be submitted before the presentation.

8. Course material, compulsory and recommended readings:

Recommended textbook: Pepall, L., G. Norman and D. Richards, *Industrial Organization: Contemporary Theory and Empirical Applications*, 4th edition. Wiley-Blackwell, 2008 (referred to as PNR).

9. Lecture and presentation topics

	<u>Topics to be discussed, readings required for the class, other assignments</u>
Topic 1	<p><i>Industry structures and welfare analysis</i></p> <ul style="list-style-type: none"> • Efficiency and the size of the market • Structure-Conduct-Performance (SCP) and the new IO • Antitrust policy • Measures of industry concentration • Costs and market structure • Single product and multiple product firms • Network externalities • The role of the government <p><i>Readings:</i> PNR Chapter 1, Sections 1.1–1.6, 1.A, Ch. 2, Section 2.1–2.5</p>
Topic 2	<p><i>Pricing strategies of the single product monopoly</i></p> <ul style="list-style-type: none"> • Uniform pricing, two part tariffs, and price discrimination of the single product monopoly • Multi-plant monopolist • Durable goods and leasing • Product variety and price discrimination <p><i>Readings:</i> PNR Ch. 3, Sections 3.1–3.5</p>
Topic 3	<p><i>The multi-product monopoly</i></p> <ul style="list-style-type: none"> • Pricing • Spatial models • Tie-Ins and bundling • The Microsoft case <p><i>Readings:</i> PNR Chapter 4, Sections 4.1–4.4, 4.A, B, C</p>

Topic 4	<p><i>Oligopolies</i></p> <ul style="list-style-type: none"> • Introduction to game theory and Nash equilibrium • Static models of oligopoly and spatial models • Quality competition <p><i>Readings:</i> PNR Chapter 5, Sections 5.1–5.5.</p>
Topic 5	<p><i>Monopoly power and predatory conduct</i></p> <ul style="list-style-type: none"> • Market entry and entry deterrence • Contestable markets • Capacity expansion and other strategic investments • Brand proliferation and predatory pricing <p><i>Readings:</i> PNR Chapter 6, Sections 6.1–6.7</p>
Topic 6	<p><i>Collusion and cartels</i></p> <ul style="list-style-type: none"> • Repeated games, threats, and sub-game perfect Nash equilibrium • Cartels, undercutting, and price wars <p><i>Readings:</i> PNR Chapter 7, 7.1–7.6.</p>
Topic 7	<p><i>Mergers</i></p> <ul style="list-style-type: none"> • Horizontal mergers and product differentiation • Vertical mergers <p><i>Readings:</i> PNR Chapter 8, Sections 8.1–8.6 + Appendix</p>
Topic 8	<p><i>Vertical relations and restraints</i></p> <ul style="list-style-type: none"> • Vertical restraints and double marginalization • Royalties; two part tariffs • Resale price maintenance (RPM) • The provision of retail services • RPM and variable demand • Non-price vertical agreements <p><i>Readings:</i> PNR Chapter 9, Section 9.1–9.7.</p>
Presentation topics (preferably with real-life examples)	<ol style="list-style-type: none"> 1. Industry structures and measures 2. The single-product monopoly's pricing strategy 3. Game theory and oligopolistic competition 4. The monopoly's predatory conduct 5. Collusion and cartels. 6. Horizontal and vertical mergers 7. Vertical relations and restraints

10. Requirements and assessment

Students may miss a maximum of 25% of the lectures, unless they can provide legitimate reasons for not attending (e.g. timetable clashes). Students will have to give a presentation **AND** (take two mid-term exams [Option A] **OR** a final exam [Option B]) to get a passing grade.

11. Grading

The final percentage score will be determined according to the following items:

In-class presentation (weight: 20%) + Option A or B (weight: 80%) + Extra points

Extra points are awarded for contribution to class discussions and for every mistake you can spot in the lecture notes/slides.

Hungarian (BME) and ECTS grading scale

<i>Percentage achieved</i>	<i>Hungarian grade</i>	<i>ECTS equivalent</i>	<i>Explanation for Hungarian grades</i>	<i>Hungarian grade/remark</i>	<i>ECTS equivalent</i>	<i>Explanation for Hungarian grades/remark</i>
85-100	5	A	Excellent	Nem vizsgázott	I	Incomplete (no credit)
70-84	4	B	Good	Aláírva	S	Signed (no credit)
55-69	3	C	Satisfactory	Megtagadva	R	Denied (no credit)
40-54	2	D	Pass	Nem jelent meg	DNA	Did not attend (no credit)
0-39	1	F	Fail	Nem teljesítve	(None)	Unfulfilled

12. Make-up duties and make-up exams

Since the mid-term exams are optional, they cannot be retaken. Students can still pursue “Option B” if they cannot get a passing grade through the mid-term exams (“Option A”).

Final exams (“Option B”) can be retaken and the presentations can be postponed according to the standard rules and conditions of BME’s Code of Studies.