Course Syllabus

Title of the course	**Empirical industrial organization**
Title of the Academic Programme	Masters in Economics (1st year)
Type of the course	Elective, available to foreign students
Prerequisites	Advanced microeconomics, Instrumental methods of economic analysis, Mathematical economics and statistics
ECTS workload	

Total indicative study hours	Directed Study	Self-directed study	Total
	44	108	152

Course Overview	The course covers the standard variety of topics in industrial organization. The main purpose of the course is that students get the first idea of what imperfect markets are. In order to achieve this purpose, the key concepts of the discipline (market power, product differentiation, strategic behavior) will be discussed, which are also essential for modern economics as a whole. It is also expected that the students will learn how to apply these concepts to better understand the problems industrial economists study: determination of price and quality patterns, the sources and measurement of monopoly power, competition policy issues, R&D behavior of firms, etc. Finally, the course will briefly explain how the basic models of industrial organization are developed and used to study the relevant economic questions. The course appeals to the economic intuition rather than formal models. However, it requires from the students some knowledge in microeconomics. Knowledge of some basic calculus and basic optimization is also strongly appreciated, though not absolutely necessary.
Intended Learning Outcomes (ILO)	Students should acquire a deeper understanding of the process of market functioning, aims, objectives and the role of the government in market regulations.
Teaching and Learning Methods	The course consists of lectures (20 hours) and tutorials (24 hours).

Content and Structure of the Course

№	Topic / Course Chapter	Total	Directed Study		Self-directed Study
			Lectures	**Tutorials**	
1	Demand, welfare and demand estimation	35	4	4	27
2	Market structures	35	4	4	27
3	Product differentiation	41	6	8	27
4	Price discrimination	41	6	8	27
Total study hours		152	20	24	108

Indicative Assessment Methods and Strategy	Students' progress will be measured by [1] in-class test (30% of the final grade), [2] class participation (20%), and [3] 90-minute written final exam (50%).

Readings / Indicative Learning Resources	<u>Mandatory</u> Tremblay, V.J., Tremblay, C.H. New Perspectives on Industrial Organization [Electronic Resource] / Victor J. Tremblay, Carol Horton Tremblay. – Springer, New York, NY, 2012. – 820 p. – Authorized access: https://link.springer.com/book/10.1007/978-1-4614-3241-8 - (Springer Texts in Business and Economics book series). <u>Optional</u> Berry, S., Levinsohn, J., Pakes, A. Automobile prices in market equili-brium [Electronic Resource] / Steven Berry, James Levinsohn and Ariel Pakes // Econometrica. – 1995. – Vol. 63, No. 4. – Authorized access: https://www.jstor.org/stable/2171802 (JSTOR). Zhelobodko, E., Kokovin, S., Parenti, M., Thisse, J.-F. Monopolistic competition: Beyond the constant elasticity of substitution [Electronic Resource] / Evgeny Zhelobodko, Sergey Kokovin, Mathieu Parenti and Jacques-François Thisse // Econometrica. – 2012. – Vol. 80, No. 6. – Authorized access: https://www.jstor.org/stable/23357240 (JSTOR). Smith, M., Brynjolfsson, E. ConsumerDecision-Making at an Internet Shopbot: Brand Still Matters [Electronic Resource] / Michael D. Smith and Erik Brynjolfsson // The Journal of Industrial Economics. – 2001. – Vol. 49, No. 4. – Authorized access: https://www.jstor.org/stable/3569795 (JSTOR).

Indicative Self- Study Strategies			
	Type	**+/–**	**Hours**
	Reading for seminars / tutorials (lecture materials, mandatory and optional resources)	+	40
	Assignments for seminars / tutorials / labs	+	20
	E-learning / distance learning (MOOC / LMS)	+	48
	Fieldwork	-	
	Project work	-	
	Other (please specify)	-	
	Preparation for the exam	-	

Academic Support for the Course	Academic support for the course is provided via LMS, where students can find: guidelines and recommendations for doing the course; guidelines and recommendations for self-study; samples of assessment materials
Facilities, Equipment and Software	(If required)
Course Instructor	Philip Ushchev

Intended Learning Outcomes (ILO) Delivering

Programme ILO(s)	Course ILO(s)	Teaching and Learning Methods for delivering ILO(s)	Indicative Assessment Methods of Delivered ILO(s)

Course Content

Topic 1. We discuss the two competing ways of modeling demand used in industrial organization: the representative-consumer model and the discrete choice model. Within the representative consumer model, we derive the linear demand system and cover the standard issues of linear demand estimation. To stress how it helps in policy evaluation, we pay special attention to the consumer surplus and welfare issues. Within the discrete-choice setting, we explain the basics of the multinomial logit model of consumer choice (Anderson et al., 1992) and show how to apply it for demand estimation using micro-level consumption data (Train, 2003).

Topic 2. We study the standard bundle of market structures, including pure monopoly, Cournot and Bertrand oligopoly, monopolistic competition. We discuss the concept of market power and the ways of its measurement. We also study the consequences of endogenous firm entry, and show how to estimate general-equilibrium models with entry (based on Berry et al., 1995). The role of business-stealing effect in creating a tendency to over-entry in equilibrium will be considered based on Mankiw and Whinston (1986). Finally, we show how to use conjectural variations to quantify strategic interactions and assess market power.

Topic 3. Here we plunge deeper into product differentiation issues. We use the Hotel-ling's (1929) linear city model to explain the minimum differentiation principle. Furthermore, we show why a discontinuity in demand in the Hotelling model is problematic and why the shape of transport costs matters (based on d'Aspremont et al, 1979). We proceed by showing how differentiated product oligopoly models are estimated using the discrete-choice toolkit (Goldberg, 1995). Finally, we discuss vertical product differentiation and its role in formation of natural monopolies and natural oligopolies (Gabs-zewicz and Thisse, 1979) and show an example of an empirical analysis of a vertically differentiated market (Smith and Brynjolfsson, 2001).

Topic 4. We discuss three types of price discrimination: personalized pricing, group pricing and menu pricing (Shapiro and Varian, 1999), and derive empirically testable implications of these types of behavior.

Assessment Methods and Criteria

Assessment Methods

Types of Assessment	Forms of Assessment	Modules			
		1	2	3	4

Formative Assessment	Test				*
	Essay				
	Report/Presentation				
	Project				
	In-class Participation				*
	Other (write appropriate control forms for the course)				
Interim Assessment (if required)	Assignment (e.g. written assignment)				
Summative Assessment	Exam				*

Assessment Criteria

In-class Participation

Grades	Assessment Criteria
«Excellent» (8-10)	A critical analysis which demonstrates original thinking and shows strong evidence of preparatory research and broad background knowledge.
«Good» (6-7)	Shows strong evidence of preparatory research and broad background knowledge. Excellent oral expression.
«Satisfactory» (4-5)	Satisfactory overall, showing a fair knowledge of the topic, a reasonable standard of expression. Some hesitation in answering follow-up questions and/or gives incomplete or partly irrelevant answers.
«Fail» (0-2)	Limited evidence of relevant knowledge and an attempt to address the topic. Unable to offer relevant information or opinion in answer to follow-up questions.

Project Work

Grades	Assessment Criteria
«Excellent» (8-10)	A well-structured, analytical presentation of project work. Shows strong evidence and broad background knowledge. In a group presentation all members contribute equally and each contribution builds on the previous one clearly; Answers to follow-up questions reveal a good range and depth of knowledge beyond that covered in the presentation and show confidence in discussion.
«Good» (6-7)	Clearly organized analysis, showing evidence of a good overall knowledge of the topic. The presenter of the project work highlights key points and responds to follow up questions appropriately. In group presentations there is evidence that the group has met to discuss the topic and is presenting the results of that discussion, in an order previously agreed.
«Satisfactory» (4-5)	Takes a very basic approach to the topic, using broadly appropriate material but lacking focus. The presentation of project work is largely unstructured, and some points are

	irrelevant to the topic. Knowledge of the topic is limited and there may be evidence of basic misunderstanding. In a group presentation, most of the work is done by one or two students and the individual contributions do not add up.
«Fail» (0-2)	Fails to demonstrate any appropriate knowledge.

Written Assignments (Essay, Test/Quiz, Written Exam, etc.)

Grades	Assessment Criteria
«Excellent» (8-10)	Has a clear argument, which addresses the topic and responds effectively to all aspects of the task. Fully satisfies all the requirements of the task; rare minor errors occur;
«Good» (6-7)	Responds to most aspects of the topic with a clear, explicit argument. Covers the requirements of the task; may produce occasional errors.
«Satisfactory» (4-5)	Generally addresses the task; the format may be inappropriate in places; display little evidence of (depending on the assignment): independent thought and critical judgement include a partial superficial coverage of the key issues, lack critical analysis, may make frequent errors.
«Fail» (0-2)	Fails to demonstrate any appropriate knowledge.

Recommendations for students about organization of self-study

Self-study is organized in order to:
- Systemize theoretical knowledge received at lectures;
- Extending theoretical knowledge;
- Learn how to use legal, regulatory, referential information and professional literature;
- Development of cognitive and soft skills: creativity and self-sufficiency;
- Enhancing critical thinking and personal development skills;
- Development of research skills;
- Obtaining skills of efficient independent professional activities.

Self-study, which is not included into a course syllabus, but aimed at extending knowledge about the subject, is up to the student's own initiative. A teacher recommends relevant resources for self-study, defines relevant methods for self-study and demonstrates students' past experiences. Tasks for self-study and its content can vary depending on individual characteristics of a student. Self-study can be arranged individually or in groups both offline and online depending on the objectives, topics and difficulty degree. Assessment of self-study is made in the framework of teaching load for seminars or tests.

In order to show the outcomes of self-study it is recommended:

- Make a plan for 3-5 presentation which will include topic, how the self-study was organized, main conclusions and suggestions and its rationale and importance.
- Supply the presentation with illustrations. It should be defined by an actual task of the teacher.

Recommendations for essay

An essay is a written self-study on a topic offered by the teacher or by the student him/herself approved by teacher. The topic for essay includes development of skills for critical thinking and written argumentation of ideas. An essay should include clear statement of a research problem; include an analysis of the problem by using concepts and analytical tools within the subject that generalize the point of view of the author.

Essay structure:
1. *Introduction and formulation of a research question.*
2. *Body of the essay* and theoretical foundation of selected problem and argumentation of a research question.
3. *Conclusion* and argumentative summary about the research question and possibilities for further use or development.

Special conditions for organization of learning process for students with special needs

The following types of comprehension of learning information (including e-learning and distance learning) can be offered to students with disabilities (by their written request) in accordance with their individual psychophysical characteristics:
1. *for persons with vision disorders:* a printed text in enlarged font; an electronic document; audios (transferring of learning materials into the audio); an individual advising with an assistance of a sign language interpreter; individual assignments and advising.
2. *for persons with hearing disorders: a* printed text; an electronic document; video materials with subtitles; an individual advising with an assistance of a sign language interpreter; individual assignments and advising.
3. *for persons with muscle-skeleton disorders: a* printed text; an electronic document; audios; individual assignments and advising.