

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
Ivan Franko National University of Lviv
Faculty of Economics
Department of Economic Theory

Approved
At the meeting of the
Department of Economic Theory
Faculty of Economics
Ivan Franko National University of Lviv
(Minutes No. 1 of August 2024)

Head of the Department

prof. Ostroverkh P.I.

Syllabus of the discipline
“Industrial Economics - II”
taught within the second (master's) level
of higher education program
051 “Economics”
(Educational program “Business Economics”)

Syllabus
Industrial Economics-II
academic year 2024-2025

Course title	Industrial economics
Course Teaching Address	Lviv, 18 Svobody Avenue
Faculty and department for which the discipline is assigned	Faculty of Economics. Department of Economic Theory
Field of knowledge, code and name of specialty	Field of knowledge: 05 "Social and behavioral sciences" Specialty: 051 "Economics" Educational program: "Business economics"
Instructor	Assoc. Prof. Tetyana Moryak
Contact information of teachers	tetyana.moryak@lnu.edu.ua
Consultations on the course take place	Every Thursday, 15:00-16:00 (address of the Faculty of Economics: 18 Svobody avenue, Lviv, 79000, Ukraine; room. 114) At the same time, consultations can take place on the day of lectures/practical classes (by prior arrangement). Online consultations are also possible via Zoom or similar resources. To agree on the time of online consultations, you should write to the teacher's e-mail or call.
Course web page	https://econom.lnu.edu.ua/course/ekonomika-haluzevykh-rynkiv-ii
Information about the course	The course is designed to provide participants with the knowledge necessary to master modern tools for analyzing the economics of sectoral markets, as well as the ability to apply modern theoretical and methodological tools for studying imperfectly competitive market structures to the practical analysis of the behavior, forms and consequences of strategic interaction of firms in real sectoral markets, and to prepare expert opinions on competition policy measures.
Brief summary of the course	The discipline "Industrial economics-II" is the final normative discipline in the specialty 051 "Economics" for the educational program Business Economics, which is taught in the 1st semester in the amount of three credits (according to the European Credit Transfer System ECTS).
Purpose and objectives of the course	<p>The purpose of teaching the discipline is to form a holistic view of students about the effectiveness of various types of market structures, the methodology for analyzing and modeling the cooperative and non-cooperative behavior of firms in modern monopolistic and oligopolistic markets, as well as the principles of state competition policy.</p> <p>The main objectives of the discipline are:</p> <ul style="list-style-type: none"> - deepening students' knowledge of the modern theory of analyzing the efficiency of sectoral markets, studying their statics and dynamics; - to acquire practical skills in the use of economic and mathematical tools for modeling the forms and consequences of strategic interaction of firms in real sectoral markets; - developing the ability to evaluate the effectiveness of competition policy measures for strategic decision-making at both the micro and macroeconomic levels.
Literature	Main:

	<ol style="list-style-type: none"> 1. Martin S. Advance industrial economics (second edition): Solution manual, 2002 – URL: https://krannert.purdue.edu/faculty/smartin/aie2/aie2ans.pdf 2. Tirole J. The Theory of Industrial Organization, 2006. – URL: https://library.fa.ru/files/Tirole-Theory.pdf 3. Tremblay V., Tremblay C. New Perspectives on Industrial Organization with contributions from behavioral economics and game theory. Springer-Verlag New York, 2012. 820 p. – URL: https://1lib.eu/book/2166435/1bab1b?regionChanged=&redirect=1429950 4. Bocard N. Industrial organization a contract based approach , 2010. – URL: http://dugi-doc.udg.edu/ 5. Liston-Heyes C. International Business Economics. University of London, 2016. 321p. 6. Church J. Industrial organization: A strategic approach. University of Calgary, 2000. 926p. – URL: https://works.bepress.com/jeffrey_church/23/download/ <p style="text-align: center;">Additional:</p> <ol style="list-style-type: none"> 1. Chien-Fu CHOU. Lecture Notes on Industrial Organization, January 2004. – URL: http://idv.sinica.edu.tw/kongpin/teaching/io/io.pdf 2. Xavier Martinez-Giralt Lecture Notes on Industrial Organization.- CODE and Department of Economics Universitat Autònoma de Barcelona. – URL: http://pareto.uab.cat/xmg/Docencia/IO-en/IO-Introduction.pdf 3. Suman Lata Dr. Industrial Economics. Alagappa University. Directorate of Distance Education, 2018. 286p. 4. Industrial economics /School of distance education Bharathiar university, Coimbatore. – URL: https://www.acecollege.in/CITS_Upload/Downloads/Books/1081_File.pdf 5. International Journal of Industrial Organization. – URL: https://www.sciencedirect.com/journal/international-journal-of-industrial-organization/vol/90/suppl/C
Course duration	3 credits, 90 hours.
The course lasts	90 hours of them: 16 hours of lectures 16 hours of seminars 58 hours of independent work
Expected learning outcomes	<p style="text-align: center;">Upon completion of this course, the student will:</p> <p>know:</p> <ul style="list-style-type: none"> - basic theoretical provisions and key concepts of the modern theory of sectoral markets; - mechanisms of quantitative and price competition/interaction of oligopolists and peculiarities of its influence on the main parameters of market functioning; - the latest approaches to analyzing the socio-economic consequences of market monopolization and determining the effectiveness of modern sectoral markets; - methods and tools of state sectoral policy and ways to improve its efficiency; - key problems and trends in the development of sectoral markets, the mechanism of their state regulation in the domestic and global economy. <p>be able to:</p> <ul style="list-style-type: none"> - use the postulates and conclusions of modern theoretical and methodological concepts of sectoral markets to explain the patterns of formation of imperfect competition markets, features of their functioning and efficiency analysis; - identify the factors that determine the development of sectoral markets, the behavior of their actors and use the results obtained to make management decisions; - research and predict the micro- and macroeconomic consequences of cooperative and non-cooperative decisions made by individual sectoral market participants;

	- to form economically sound conclusions on the effectiveness of competition measures and develop recommendations in the field of state regulation of sectoral markets.
Keywords	Oligopolistic market, quantitative oligopoly, price oligopoly, models of oligopoly behavior, pure monopoly, natural monopoly, game theory, X-efficiency of monopolies, X-efficiency of monopolies, antitrust regulation, state sectoral policy.
Course format	Full-time
	Conducting lectures, workshops and consultations for a better understanding of the topics
Topics	Topic 1: Subject and methodology of “Economics of Sectoral Markets-II” Topic 2. Model of oligopolistic market and basics of game theory Topic 3. Quantitative models of oligopolistic behavior Topic 4: Price models of oligopolistic behavior Topic 5. The problem of asymmetric information in industry markets Topic 6. The effectiveness of the functioning of industry structures Topic 7. State regulation of imperfectly competitive market structures Topic 8: State competition policy: foreign experience and domestic practice
Final control, form	Written exam at the end of the semester Control over students' educational and cognitive activities is an important structural component of the educational process. The final assessment of students' knowledge is carried out on the basis of current and intermediate control of knowledge during the semester. In order to check the quality of training, knowledge, skills of the student in the discipline, the following assessment tools are used: - for current control - oral questioning, testing, problem solving, case studies; - for intermediate control - conducting module control, including testing, theoretical questions; - for the final control - a scheduled examination (test tasks, theoretical questions, tasks).
Prerequisites	To study the course, students need basic knowledge of such disciplines as Economics of Sectoral Markets-I, Microeconomics, Higher Mathematics, Econometrics, Statistics, Business Economics, Marketing, Management, Business Economics, Professional Foreign Language and other disciplines sufficient to perceive the categorical apparatus of the discipline “Industrial economics-II” and understand scientific sources on the relevant issues.
Teaching methods and techniques to be used during the course	Presentations, lectures, comprehensive modules and individual assignments; electronic materials from the relevant course and other related courses in the Moodle system (platform), collaborative learning (group projects, joint developments), project-based learning, discussion, writing joint research and development.
Required equipment	Studying the course “Industrial economics-II” requires the use of commonly used programs and operating systems and electronic materials of the Moodle platform.
Evaluation criteria (separately for each type of learning activity)	The evaluation is based on a 100-point scale. Points are awarded according to the following ratio: - practical/independent, etc.: maximum number of points is -20 (calculated by multiplying the arithmetic mean of all current grades on a 5-point scale by a conversion factor of 4); - control measurements (modules): the maximum number of points is 30 (two modules of 15 points each are provided); - exam/quiz: maximum number of points -50 The total maximum number of points is 100 The form of final control of learning progress is an exam.

The following methods of control are used in teaching the discipline “Industrial economics-II”:

Current control is carried out during practical classes and is aimed at checking the level of student's preparation for performing a specific job. Its tools are oral questioning, problem solving, problem solving, testing. The objects of the current control of students' knowledge in the discipline “Industrial economics-II” are: systematic and active work in seminars; performance of independent (individual) tasks. In assessing the systematic and active work of the student in practical classes, the following is taken into account: the level of knowledge demonstrated in the answers to practical classes; activity in discussing discussion issues; results of practical work, tasks of current control, etc.

Intermediate control is carried out in the form of module control and involves assessing the general level of theoretical knowledge and practical skills acquired by students during the mastery of the relevant content module.

The final control is carried out to assess the final learning outcomes and is conducted in the form of a written examination.

Academic integrity:

Students' individual work is expected to be their own original research or reasoning. Failure to cite sources used, fabrication of sources, cheating, and interference with the work of other students are, but are not limited to, examples of possible academic dishonesty. Detection of signs of academic dishonesty in a student's written work is grounds for non-credit by the instructor, regardless of the extent of plagiarism or cheating.

Attendance is an important part of learning. All students are expected to attend all lectures and practical classes of the course. Students should inform the instructor if they are unable to attend class. In any case, students are required to meet all deadlines for all types of written work required by the course.

Literature. All literature that students cannot find on their own will be provided by the instructor for educational purposes only and may not be shared with third parties. Students are encouraged to use other literature and sources that are not among the recommended ones.

Scoring policy. Points are taken into account based on the results of the current and intermediate control. This takes into account the presence in the classroom and the student's activity during the practical training; inadmissibility of absences and lateness to classes; use of a mobile phone, tablet or other mobile devices during the class for purposes unrelated to learning; cheating and plagiarism; late completion of the assigned task, etc.

No form of violation of academic integrity is tolerated.

Grading scale for assessing post-graduate student performance

Points	ECTS grade	Ukrainian evaluation
90 – 100	A	excellent
81-89	B	good
71-80	C	
61-70	D	satisfactorily
51-60	E	
0-509	FX	unsatisfactorily

<p>Questions for a test or exam</p>	<p>Structurally, the exam paper includes 3 components (50 points in total):</p> <ul style="list-style-type: none"> - a theoretical part with 2 questions with freely constructed written answers (10 points in total); - multiple-choice tests from the list of given answer options (20 points in total); - tasks that require certain calculations using the method of conceptualization of knowledge specified in the condition (20 points in total) <p style="text-align: center;">Questions for the exam of the discipline “Industrial economics-II”:</p> <ol style="list-style-type: none"> 1. Subject and methodology of the study “Industrial economics-II” 2. Modern conceptual approaches to the analysis of sectoral markets 3. The main features of an oligopolistic market 4. Oligopoly and models of oligopolistic behavior. Cartel collusion 5. Incentives and temptations of unfair behavior of duopolists (on the example of the water market) and their graphical interpretation 6. Oligopolistic equilibrium. Net welfare losses in an oligopolistic market 7. Application of game theory to analyze the behavior of oligopolists. The prisoner's dilemma 8. Cournot's model of duopoly. Reaction curves of duopolists 9. Cournot equilibrium, contractual and competitive equilibrium of duopolists in the Cournot model 10. Cournot duopoly model with asymmetric costs 11. Cournot model for the nth number of firms and symmetric costs 12. The Stackelberg duopoly model. Optimization behavior of leader and follower 13. Price competition of firms in an oligopolistic market: the Bertrand model 14. Bertrand's duopoly response curves for differentiated and homogeneous products 15. Price competition of firms in an oligopolistic market: the Edgeworth model and its graphical interpretation 16. Information problems in the functioning of sectoral markets. Incomplete information and its causes 17. Asymmetric information and forms of its manifestation for different economic entities 18. Moral hazard in the context of information asymmetry. The model of the principal-agent 19. Adverse selection in different types of markets. The relationship between adverse selection and moral hazard 20. The model of the “lemon market” by J. Akerlof 21. Solving the problem of adverse selection. Signals of quality and protection. 22. The problem of adverse selection in the insurance market. 23. A simple model of signals in the labor market 24. The effectiveness of state support for producers of high-quality goods in mitigating the problem of adverse selection (standardization and certification of products, control of advertising activity of sellers, pricing policy) 25. Reputation of the firm as a signal of product quality 26. Provision of guarantees, wasteful expenditures, low entry price in the system of product quality determinants 27. Performance of firms in the national economy. Microeconomic analysis of technological and economic efficiency of production

	<p>28. Economic efficiency and efficiency of resource allocation. The impact of externalities on public and private spending</p> <p>29. Efficient allocation of resources under conditions of perfect competition and market power of economic agents</p> <p>30. Economic effect of monopolization of the industry market</p> <p>31. Problems of the methodology for assessing the “deadweight” of monopolization. Using the Lerner index to calculate net welfare losses due to monopolization</p> <p>32. X-inefficiency of monopolies and its graphical interpretation</p> <p>33. X-inefficiency of monopolies: causes and graphical model.</p> <p>34. Methodology for determining the possible overall increase in welfare in a monopolized market</p> <p>35. Social costs of monopolization</p> <p>36. The effectiveness of natural monopolies</p> <p>37. The need, objectives and tools of state regulation of markets with imperfect competition</p> <p>38. Establishment by the state of the maximum price for the products of a monopolist and its consequences</p> <p>39. Microeconomic consequences of excise taxation of monopoly products</p> <p>40. The economic effect of licensing the activities of a monopolist and taxation of monopoly profits</p> <p>41. Principles, objectives and methods of state regulation of natural monopolies</p> <p>42. Price regulation of the natural monopolist: Ramsay pricing</p> <p>43. Price regulation of the natural monopolist: pricing at the level of marginal costs</p> <p>44. Price regulation of a natural monopolist: “peak” pricing</p> <p>45. Non-price methods of regulation of natural monopolies. Demzecz's competition</p> <p>46. Antimonopoly policy of the state: essence, goals, objectives</p> <p>47. Tools of antitrust policy</p> <p>48. World experience of state regulation of imperfectly competitive markets: methods, models, mechanisms</p> <p>49. Features and effectiveness of competition policy in Ukraine</p>
Опитування	An evaluation questionnaire to assess the quality of the course will be provided at the end of the course.

Course outline “Industrial economics-II”:

Content module 1.

Theoretical and methodological foundations of the study of the “Industrial economics-II”

Topic	Lectures	Practical	Independent work
Topic 1. Subject matter and methodology of “Industrial economics-II”	2	2	6
Topic 2. Model of an oligopolistic market and basics of game theory	2	2	6
Topic 3. Quantitative models of oligopolistic behavior	4	4	7
Topic 4: Pricing models of oligopolistic behavior	2	2	6
Total	14	14	32

Content module 2. Efficiency of functioning and state regulation of imperfectly competitive market structures

Topic	Lectures	Practical	Independent work
Topic 5. The problem of asymmetric information in industry markets	4	4	7
Topic 6. Efficiency of sectoral structures	2	2	6
Topic 7. State regulation of imperfectly competitive markets	2	2	6
Topic 8: State competition policy: foreign experience and domestic practice	4	4	7
Total	14	14	32

General competencies (GC).

GC 2. Ability to think abstractly, analyze and synthesize.

Specialty competencies (SC).

SC 1. Ability to apply scientific, analytical, methodological tools to substantiate the development strategy of economic entities and related management decisions.

SC 2. Ability to communicate professionally in the field of economics in a foreign language.

SC 7. Ability to justify management decisions on the effective development of business entities.

SC 8. Ability to assess possible risks, socio-economic consequences of management decisions

Special competencies provided by the educational program (SC)

SC12. Ability to apply modern theoretical and methodological tools for the study of imperfectly competitive market structures for practical analysis of the behavior, forms and consequences of strategic interaction of firms in real industry markets, as well as to prepare expert opinions on measures in the field of competition policy.

SC15. Ability to choose effective strategies for firms in local and global markets and to differentiate pricing policies taking into account factors of the internal and external environment.

SC16. Ability to perform consecutive and simultaneous English-Ukrainian translation, professionally analyze economic and socio-political texts and choose translation methods and approaches in terms of their effectiveness.

Program learning outcomes

PLO 1. Formulate, analyze and synthesize solutions to scientific and practical problems.

PLO 2. Develop, justify and make effective decisions on the development of socio-economic systems and management of economic entities.

PLO 3. Communicate fluently on professional and scientific issues in the state and foreign languages orally and in writing.

PLO 7. To choose effective methods of economic activity management, to justify the proposed solutions on the basis of relevant data and scientific and applied research.

PLO 9. To make effective decisions under uncertain conditions and requirements that require the use of new approaches, methods and tools of socio-economic research.

PLO 12. Justify management decisions on the effective development of business entities, taking into account goals, resources, constraints and risks.

PLO 13. Assess possible risks, socio-economic consequences of management decisions

PLO 16. Analyze the forms and consequences of strategic interaction of firms in industry markets, develop recommendations for state regulation of imperfectly competitive industry structures, taking into account their socio-economic efficiency

PLO 19. Justify the mission, goals and strategy of business development, realize the competitive advantages of the company in different segments of the national and global market

PLO 20. To carry out consecutive and simultaneous English-Ukrainian translation, professionally analyze economic texts and choose translation methods and approaches in terms of their effectiveness