## **State Educational Establishment Belarus State Economic University**

**APPROVED** 

Rector of State, Educational Establishment Belorus State Economic University

V. Yu. Shutilin **18. A. A. C. P**Registration **42.** 3789-19/42.

## MICROECONOMIC ANALYSIS AND POLICY (in English)

## Course Syllabus of State Educational Establishment for master students

for specialties: 1-25 80 02 «World Economy» 1-25 80 05 « Accounting, analysis and audit » 1-26 80 05 «Marketing»

### **DESIGNED BY:**

Filipcov A.M., Associate Professor of the Department of Economic Theory of the Educational Institution "Belarus State Economic University", Candidate of Economic Sciences.

#### **REVIEWS:**

Korneevec I.V., Associate Professor of the Department of Economic Policy of the Educational Institution "Belarus State Economic University", Candidate of Economic Sciences.

Lubecki P.B, Associate Professor of the Department of Marketing of the Educational Institution "Belarusian State Agricultural Academy", Candidate of Economic Sciences.

#### **RECOMMENDED TO APPROVAL:**

Department of Economic Theory of the Educational Establishment "Belarus State Economic University" (Protocol No. 11 from the of 18.04.2019).

The Scientific and Methodological Council of the Educational Establishment "Belarus State Economic University" (Protocol No. 6 from the of 25.06.2019).

#### EXPLANATORY NOTE

In the conditions of the emergence of a socially-oriented market economy in Belarus, one of the priority tasks is to increase the efficiency of the functioning of economic entities. Microeconomics as a science is precisely the direction of research into the economic life of a society whose task is to identify the patterns of economic behavior of market participants-consumers and producers-by making choices for optimal solutions in conditions of limited resources.

The curriculum "Microeconomic analysis and policy" is intended for study by graduate students of economic specialties, who previously studied economic theory and microeconomics at the basic level, as well as those who possess the skills of mathematical analysis. The proposed program contains a deeper presentation of the main sections of microeconomics.

The purpose of studying the academic discipline: deepening the fundamental knowledge of undergraduates about the laws of microeconomic processes, as well as the ability to apply theoretical knowledge in the process of economic analysis and making managerial decisions.

The tasks of studying the academic discipline:

- give in-depth presentation to undergraduates about the principles of behavior of subjects in a market economy;
  - develop skills of analysis of specific microeconomic phenomena;
- to form an understanding of the functioning mechanisms of markets, including in the context of uncertainty, asymmetric information and imperfect competition;
  - to help undergraduates master the tools of microeconomic regulation.

As a result of studying the academic discipline, the master student should know:

- theoretical foundations of the behavior of consumers and producers in a market economy;
  - Pricing mechanisms in commodity markets;
  - The theory of general equilibrium, social welfare and economic efficiency;
- directions, methods and economic boundaries of the state microeconomic policy;

be able to:

- analyze the microeconomic processes taking place in the Republic of Belarus and abroad;
- use theoretical knowledge to make optimal decisions in the conditions of economic choice;
- it is reasonable to defend one's point of view in discussions on topical problems of microeconomics.

know:

- -major microeconomic models;
- Ways and methods of making managerial decisions;

- fundamental microeconomic patterns; own:
- microeconomic terminology;
- necessary tools for microeconomic analysis;
- skills in the use of microeconomic methods in related social sciences.

The study of the discipline "Microeconomic analysis and policy" will contribute to the formation of the following academic competencies:

- to have in-depth theoretical knowledge and apply them to solve practical problems;
  - own research skills;
  - be able to work independently;
  - be able to generate new ideas;
  - to have an interdisciplinary approach to solving microeconomic problems.

The study of the discipline "Microeconomic analysis and policy" will contribute to the formation of the following social and personal competencies:

- have the qualities of citizenship;
- be capable of social interaction;
- have the ability to interpersonal communication;
- understand and accept critical remarks and modify their position accordingly if they are justified;
- clearly formulate their own position, find and clearly state the arguments in its defense.

The study of the discipline "Microeconomic analysis and policy" will contribute to the formation of the following professional competencies:

- Develop and justify the socio-economic indicators that characterize the activities of economic entities;
  - analyze potential sources of economic information for economic calculations;
- to manage structural subdivisions of the economic and management orientation of organizations (enterprises) of different forms of ownership;
  - use global information resources;
  - own modern means of telecommunications;
- develop working plans and programs for scientific research, prepare tasks for groups and individual performers;
- develop strategies for the behavior of economic agents in the commodity and financial markets;
- assess the competitiveness and cost-effectiveness of the technologies being developed.

Interdisciplinary relations. The academic "Microeconomic analysis and policy" deepens the material studied in the courses "Economic theory" and "Microeconomics".

Microeconomics uses such methods of cognition as marginal, functional analysis, economic and mathematical modeling, i.e. based on the knowledge that gives the study of the discipline "Higher Mathematics".

Based on the study of the academic discipline "Microeconomics: Advanced Level", further study of the subject "Macroeconomics" is being largely developed.

In all - 102 hours, including: classroom - 50 hours, lectures - 26 hours, seminars - 24 hours.

The final control is exam.

## EXAMPLE PLAN OF TOPICS

(for intermural)

	In all	including				
	In an	lectures	seminars			
Topic 1. Market and its government regulation	4	4	4			
Topic 2. Barriers to market entry, monopoly and competition policy	4	2	2			
Topic 3. Oligopoly: industry leadership and cooperative game	8	4	4			
Topic 4. Monopolistic competition, product differentiation and government regulation	4	2	2			
Topic 5. Pricing strategies of firms and government regulation	4	2	2			
Topic 6. Horizontal, vertical, diversified firm integration and government regulation	6	4	2			
Topic 7. Externalities and government regulation	4	2	2			
Topic 8. Public goods and government regulation	4	2	2			
Topic 9. Risk, uncertainty, asymmetry of information and government regulation	8	4	4			
In all:	50	26	24			

## CONTENT OF EDUCATIONAL MATERIAL

## Topic 1. Market and its government regulation

Market and industry: concept, boundaries, classifiers.

Market structures and their basic determinants: the level of concentration of production, the economic characteristics of products, barriers to entry and exit from the market, information security, vertical integration and diversification of the company's activities, conditions that determine consumer demand.

The level of concentration and its determinants. Indicators of industry concentration: Herfindahl-Hirschman indices, entropy, Gini and others.

Market power and its performance. The coefficients (indices) of Bane, Lerner, Tobin. Empirical studies of the ratio of concentration and monopoly power.

Firm as a subject of the market. The problem of choosing a goal by the firm. The hypothesis of profit maximization. Alternative goals of the company.

Market Efficiency. Partial and general balance. The efficiency of exchange, production and structure of production.

Market fiasco and the need for microeconomic policy.

Government regulation of markets and structural policy.

## Topic 2. Barriers to market entry, monopoly and competition policy

Barriers to entry and exit of firms on the market and their types. Classification of markets for the level of entry barriers D. Bane. Non-strategic entry / exit barriers and their types. Strategic entry barriers for firms and their types. Barriers associated with pricing strategies. The main non-price strategies for creating barriers. Indicators of entry and exit of firms to the market.

Monopoly: concept, causes, types. Conditions of the first and second order to maximize profits. Supply and costs monopolist. Monopolist with several plants.

The economic impact of the implementation of monopoly power. Pure welfare terms. Measurements of net losses in practice. X-inefficiency monopoly. The opportunity cost of monopolization.

Features of the market with a natural monopoly. The economic nature of natural monopoly. Price regulation of natural monopoly. Non-price methods of regulation of natural monopoly.

Competitive policy of the state and its theoretical justification. The structure and direction of competition policy. Policy of regulation of monopolistic activity: goals, focus, implementation mechanism. Government policy and concentration. Antitrust and price discrimination. State and regulation of mergers, acquisitions. Vertical control policy.

## Topic 3. Oligopoly: industry leadership and cooperative game

Oligopoly as a market structure. Classification of oligopoly models. Non-cooperative and cooperative models.

The dominant firm and its strategic competitive advantages. Price leadership of the dominant firm (Forheimer model). The model of "self-suicidal" behavior of the dominant firm and the strategy of limiting pricing. Dynamic pricing model in the market with a pre-dominant firm. The consequences of the activities of the dominant company.

Agreements between firms in terms of oligopoly: varieties and institutional forms that promote and limit factors. Cartel as a form of agreement. The economic model of the cartel: maximizing joint profits. Negotiation models of cartel agreements. Factors to ensure the stability of the cartel. Methods for preventing breach of agreement.

Alternative ways of coordinating in oligopolistic markets. Heuristic pricing as a coordination tool. Focal points and silent coordination. Order flows, inventories and coordination in oligopolistic industries.

## Topic 4. Monopolistic competition, product differentiation and government regulation

Monopolistic competition: the concept, causes, models.

Product differentiation: concept, types. Product differentiation and market power. Types of product differentiation. Horizontal differentiation, vertical differentiation and approach of selected characteristics. Product positioning. The theory of the optimal level of grocery variety and market structure.

Advertising as a factor in product differentiation. Market structure and advertising costs. Impact and effectiveness of advertising.

Regulatory analysis of monopolistic competition and government regulation. The choice of society between the volume of production and diversity in a monopolistic competition.

## Topic 5. Pricing strategies of firms and government regulation

Price discrimination: conditions and types. Perfect price discrimination (first-degree discrimination). Price discrimination second degree. Block rate. Third-degree price discrimination and market segmentation. Intertemporal price discrimination. Coase's paradox and the way it dissolves.

The practice of price discrimination: related sales, non-linear pricing, variable pricing approach, seasonal pricing. Peak load pricing. Peak load pricing for the case of full capacity utilization during the period of maximum demand. Pricing on the principle of "cost - plus."

Transfer prices. Transfer pricing models.

State regulation of pricing strategies of firms.

## Topic 6. Horizontal, vertical, diversified firm integration and government regulation

Mergers and acquisitions of firms: causes, forms, consequences.

Horizontal integration: concept, causes, types.

Vertical integration: concept, causes, types. Vertical control and its shape. The problem of double marginalization (double monopoly profits) and its solution. Vertical integration and strengthening of market power. Franchising as a special kind of vertical contract.

Diversification: classification, motives, current trends.

State regulation of the integration of firms.

## Topic 7. Externalities and government regulation

Externalities: concept, types, consequences. Inequality of equilibrium in the economy with externalities.

Quasilinear preferences and the Coase theorem. Market models with externalities.

Economics of compatibility and standards. Network externalities. Markets with network externalities.

State regulation of externalities. Regulation of externalities through quotas and taxes. Creating markets externals.

Externalities of innovation.

## Topic 8. Public goods and government regulation

Public goods: concept, types.

Problems of public goods markets. Private provision of public goods. Balance with voluntary funding of public goods.

Quasilinear preferences and public goods.

Equity financing with equilibrium in voting. Detection of demand. Identify true preferences. Groves-Clark Mechanism. State funding of public goods.

Innovation as a public good.

## Topic 9. Risk, uncertainty, asymmetry of information and government regulation

The behavior of subjects in conditions of uncertainty and risk. Expected utility and attitude to risk. Measuring attitudes to risk. The generalized task of the investor. Markowitz's Model.

Asymmetric information. Adverse selection. Information and effectiveness of market outcomes. Market signals. Screening under perfect and imperfect competition. Moral hazard. Model "principal-agent".

Auctions and the creation of mechanisms for resolving information problems. Auction models: English, Dutch, first and second price auction. Individual rationality and optimal sales mechanism.

Innovation and imperfection of information.

## 3. COURSE MAP

	Section, topic, lecture/practical/seminar; subjects under consideration		In-cla	ass ho	urs			
Number of section topic			Practicals	Seminars	Lab classes	Controlled independent work	Other	Form of control
	Microeconomic analysis and policy	26		24				
1.	Topic 1. Market and its government regulation	4		4			[3,4,5,6,11,15]	quiz
2.	Topic 2. Barriers to market entry, monopoly and competition policy	2		2			[3,4,5,6,10,11,15]	quiz
3.	Topic 3. Oligopoly: industry leadership and cooperative game	4		4			[3,4,5,6,10,11,15]	quiz
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5.	Topic 5. Pricing strategies of firms and government regulation	2		2			[3,4,5,6,10,11,15]	quiz
6.	Topic 6. Horizontal, vertical, diversified firm integration and government regulation	4		2			[1.2,3,4,5,6,11,12	quiz
7.	Topic 7. Externalities and government regulation	2		2			[1.2,3,4,5,6,11,12	quiz
8	Topic 8. Public goods and government regulation	2		2			[1,3,4,5,6,9,11, 13]	quiz
9.	Topic 9. Risk, uncertainty, asymmetry of information and government regulation	4		4			[1,2,3,4,5,6,11, 13]	quiz

## **COURSE RESOURCES**

## Legislative and normative acts:

- 1. Конституция Республики Беларусь 1994 года (с изменениями и дополнениями, принятыми на республиканских референдумах 24 ноября 1996 года и 17 октября 2004 года). 3-е изд., стер. Минск: Национальный центр правовой информации Республики Беларусь, 2008. 64 с.
- 2. Гражданский кодекс Республики Беларусь: [принят Палатой представителей 28 окт. 1998 г.: одобрен Советом Республики 19 нояб. 1998 г.]: с изменениями и дополнениями по сост. на 1 сент. 2008 г. 6-е изд., с изм. и доп. Минск: Национальный центр правовой информации Республики Беларусь, 2008. 653 с.
- 3. Национальная стратегия устойчивого социально-экономического развития Республики Беларусь на период до 2020 г. / Национальная комиссия по устойчивому развитию Республики Беларусь; Редкол: Я.М. Александрович и др. Минск: Юнипак, 2004. 202 с.

#### Course Books

#### Main literature:

- 1. Chiang, Eric. Core Economics. New York: Worth Publishers. 2017
- 2. Cowen, Tyler, and Alex Tabarrok. Modern Principles: Economics. New York: Worth Publishers. 2016
- 3. Gwartney, James D., et al. Economics: Private and Public Choice. Mason, OH: South-Western Cengage Learning.
- 4. Hall, Robert E., and Marc Lieberman. Economics: Principles and Applications. Mason, OH: South-Western Cengage Learning.
- 5. Jehle, Geoffrey A. and Philip J. Reny, Advanced Microeconomic Theory, 3rd ed., New York: Prentice Hall, 2018.
- 6. Mas-Colell, Andreu, Michael D. Whinston, and Jerry R. Green, Microeconomic Theory, New York: Oxford University Press, 2015.
- 7. Ok, Efe A., Real Analysis with Economic Applications, Princeton, New Jersey: Princeton University Press, 2017.
- 8. Vohra, Rakesh V., Advanced Mathematical Economics, London: Routledge, 2014.
- 9. Jeffrey M. Wooldridge Introductory Econometrics: A Modern Approach. Cengage Learning, 4 edition. 2008

### Additional literature:

- 1. Drew Fudenberg and Jean Tirole, Game Theory, The MIT Press, 2011
- 2. Kreps, David. A Course in Microeconomic Theory, Harvester-Wheatsheaf, 2010.
- 3. Martin J. Osborne and Ariel Rubinstein, A Course in Game Theory, The MIT Press, 1994
- 4. Osborne, Martin J., An Introduction to Game Theory, Oxford University Press, 2004
  - 5. P. Bolton and M. Dewatripont. Contract Theory MIT Press. 2005
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# Дополнения и изменения к учебной программе на \_\_\_\_\_\_ учебный год

№	Дополнения и и	Основание			
п/п					
Учебн	ная программа пересмотрен (название кафедры)	на и одобрена на зас (протокол № _			
Завед	ующий кафедрой	(подпись)	В.А. Воробьёв (инициалы, фамилия)		
	<b>ЕРЖДАЮ:</b> н факультета МЭО ——	(подпись)	А.А. Праневич (инициалы, фамилия) 16		