### POZNAN UNIVERSITY OF TECHNOLOGY



### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Elective economic course: Basics of economics

Course

Field of study Year/Semester

Electrical Engineering 1/2

Area of study (specialization) Profile of study

general academic

Level of study Course offered in

Second-cycle studies Polish

Form of study Requirements

full-time elective

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

0 0

Tutorials Projects/seminars

0 0

**Number of credit points** 

2

**Lecturers** 

Responsible for the course/lecturer: Responsible for the course/lecturer:

dr Krzysztof Kołodziejczyk

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Wydział Inżynierii Zarządzania

ul. J. Rychlewskiego 2, Poznań

#### **Prerequisites**

The student starting this course should have basic knowledge of algebra. He should also have the ability to solve math problems at the high school level. In addition, the student should understand the importance of knowledge in problem solving and lifelong learning to improve professional, personal and social competences.

#### **Course objective**

Transfer of knowledge about the basic principles of economics. Important phenomena in the modern market economy, including key mechanisms and factors determining the activity of market entities, in particular enterprises. Introduction to the functioning of the economic system based on the market mechanism. Clarification of the decision-making mechanism by market participants (with particular emphasis on enterprises). Discussion of the diversification of market structures and the resulting

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consequences for households and enterprises. Raising students' awareness of the practical dimension of economic knowledge.

### **Course-related learning outcomes**

### Knowledge

- 1. The student has knowledge of the concept of operation of individual economic entities and the basic rules used in the process of making market decisions by enterprises.
- 2. The student has knowledge of various market structures and their impact on the activities undertaken by individual economic entities.
- 3. The student has knowledge about the basics of economic policy implemented by the state.

#### Skills

- 1. The student is able to present economic phenomena and processes using the tools of the basics of economics.
- 2. The student is able to solve simple decision problems using the laws and rules postulated by the theory of the basics of economics.

### Social competences

1. The student is aware of the importance of economic knowledge in solving practical problems of enterprises.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

### Lecture:

- 1.assessment of the knowledge and skills shown in the written exam (open and closed question)
- 2. evaluation of studies prepared independently by the student

Additional activities during the classes, in particular:

- 1. presentation of additional topics during lectures
- 2. applying the acquired knowledge while solving a given problem
- 3. Formulating own opinions

### **Programme content**

INTRODUCTION TO ECONOMICS Economics as a science of decision making; microeconomics and macroeconomics; opportunity cost; marginal analysis; application of marginal analysis - the principle of optimization.

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MARKET ECONOMY Demand and the law of demand, supply and the law of supply; market equilibrium - operation of the market mechanism; non-price factors affecting supply and demand; consumer demand (selected issues); state interference in the operation of the market mechanism.

DEMAND AND SUPPLY ELASTICITY Demand elasticity - mixed price, income elasticity; supply elasticity; total, average and marginal income; the relationship between the price elasticity of demand and corporate earnings; other practical uses of flexibility.

BASIS OF THE MANUFACTURER'S ECONOMIC DECISIONS Short and long-term analysis of the enterprise; the concept of inputs and outputs; measuring the productivity of factors of production (labor and capital) in the short term; three stages of production; the law of diminishing marginal productivity

PRODUCTION COSTS Short-term costs: fixed cost, variable cost, total cost, average costs, marginal cost; long-term costs and economies of scale.

BASIC MARKET STRUCTURES Perfect competition, monopoly, monopolistic competition and oligopoly; price and production in conditions of perfect competition and monopoly - comparison, social costs of monopoly, state interference in the monopoly, price discrimination in monopoly; price and non-price competition (quantity, quality, advertising, product differentiation); oligopoly models; strategic behavior of enterprises in the conditions of an oligopoly.

STATE INTERVENTIONISM. Market failures; intervention for the sake of efficiency; intervention for the sake of justice; state failures.

ECONOMIC POLICY Fiscal policy. Country budget. The issue of public debt. Monetary policy. Banks in the economy. Money and interest rates. The issue of inflation.

### **Teaching methods**

Lecture with a multimedia presentation (including: drawings, photos) supplemented with examples given on the board, taking into account various aspects of the issues presented, including: economic, legal, environmental and social.

### **Bibliography**

#### **Basic**

- 1. Mankiw G.N., Taylor M.P., Mikroekonomia, PWE, Warszawa 2009.
- 2. Begg D., Fischer S., Dornbusch R., Makroekonomia, 4th edition, PWE, Warszawa 2007 (or earlier editions).
- 3. Czarny B., Podstawy ekonomii, PWE, Warszawa 2011.

### Additional

1. Klein G., Bauman Y., Microeconomics in comics. Introduction to Economics, vol. 1, Explanator, Poznań 2012.





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# Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,0
Classes requiring direct contact with the teacher	35	1,0
Student's own work (literature studies, preparation for laboratory	25	1,0
classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>		

4

 $<sup>^{\</sup>mbox{\scriptsize 1}}$  delete or add other activities as appropriate