



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Knowledge-based economy [S1IZarz1>GOnW]

### Course

Field of study

Engineering Management

Year/Semester

3/6

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

### Number of hours

Lecture

30

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

15

### Number of credit points

3,00

### Coordinators

dr hab. Mariya Khmelyarchuk prof. PP  
mariya.khmelyarchuk@put.poznan.pl

### Lecturers

### Prerequisites

Students beginning this course should have basic knowledge of microeconomics, macroeconomics, finance, management, and marketing, as well as an understanding of the conceptual foundations of human capital theory, sustainable development, and Industry 4.0. They must also have the skills to search, analyze and interpret economic and financial data, identify factors influencing the competitiveness of enterprises and assess the impact of technological and organizational changes on the development of the economy. Furthermore, the student must understand the need to expand their competences in the area of innovation, knowledge transfer and modern technologies.

### Course objective

Celem przedmiotu jest zapoznanie studentów z warunkami, modelami oraz koncepcjami rozwoju współczesnych organizacji w warunkach gospodarki opartej na wiedzy.

### Course-related learning outcomes

Knowledge:

The student identifies and describes key elements of a knowledge-based economy, including its development in Europe and Poland, and characterizes the impact of information technology, innovation,

and human capital on this development [P6S\_WG\_01].

The student analyzes and classifies methods of data collection, processing, and distribution in the context of a knowledge-based economy [P6S\_WG\_08].

The student determines and compares various methods and tools for modeling business processes, taking into account market dynamics in a knowledge-based economy [P6S\_WG\_10].

**Skills:**

The student applies theoretical foundations to analyze and interpret specific processes and phenomena in the context of a knowledge-based economy, with particular emphasis on social, cultural, political, legal, and economic aspects [P6S\_UW\_01].

**Social competences:**

The student selects and uses educational and training centers to develop their skills and competencies in the area of a knowledge-based economy, and recognizes the need for continuous education in this area [P6S\_KK\_01].

The student analyzes and interprets the importance of a systemic approach to creating products and services in a knowledge-based economy, considering technical, economic, marketing, legal, organizational, and financial aspects [P6S\_KO\_02].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

**Formative assessment:**

a) within the scope of the project: based on the assessment of the current progress of task implementation in the audit process of the state of the organization in the knowledge economy.

b) in the scope of lectures: based on answers to questions about the material discussed in previous lectures,

**Summative assessment:**

a) in the scope of the project based on: (1) public presentation of the audit results and assessment of the organization's level of adaptation to the conditions of the knowledge-based economy; (2) discussion after the presentation; (3) the form and quality of prepared materials,

b) in the scope of lectures: exam in the form of a choice test, with answers among which at least one is correct; each question is scored on a scale of 0 to 1; the exam is passed after obtaining at least 55% of points. You can take the exam after passing the project.

### Programme content

Development of a knowledge-based economy in Europe and Poland.

Methods for analyzing and measuring the development of a knowledge-based economy.

Conditions for the development of enterprises in the knowledge-based economy (human capital, innovations, ICT, political and legal environment).

Business management models in the knowledge-based economy.

Tools and techniques supporting the development of the organization in the conditions of knowledge economy.

### Course topics

Knowledge-based economy: origins and key elements.

Development of a knowledge-based economy in Europe and Poland.

Methods of analysis and measurement of the development of a knowledge-based economy.

Anti-crisis management in a knowledge-based economy under conditions of uncertainty.

Innovation in shaping a knowledge-based economy.

Human capital in the development of a knowledge-based economy.

Information technologies and the institutional environment in the formation of a knowledge-based economy.

Knowledge enterprise.

Enterprise management models in a knowledge-based economy.

Tools and techniques supporting the development of organizations in a knowledge-based economy.

### Teaching methods

Lectures - monographic and conversational

Project - observation, demonstration and project method

## Bibliography

Basic:

Kałkowska J., Pawłowski E., Włodarkiewicz-Klimek H., Zarządzanie organizacjami w gospodarce opartej na wiedzy, Wydawnictwo Politechniki Poznańskiej, Poznań 2013.

Trzcieleński S., Kałkowska J., Pawłowski E., Włodarkiewicz-Klimek H., Dostosowanie stremów zarządzania przedsiębiorstwem do warunków gospodarki opartej na wiedzy, Wydawnictwo Politechniki Poznańskiej, Poznań 2016.

Mikuła B., Pietruszka-Ortyl A., Potocki A., Podstawy zarządzania przedsiębiorstwami w gospodarce opartej na wiedzy, Difin Warszawa 2007.

Additional:

Włodarkiewicz-Klimek H., Kapitał ludzki w kształtowaniu zwinności organizacji opartych na wiedzy, Wydawnictwo Politechnik Poznańskiej, Poznań 2018.

Kotler P., Caslione J.A., Chaos, Zarządzanie i marketing w erze turbulencji, MT Biznes 2009.

Piech K., Wiedza i innowacje w rozwoju gospodarczym: w kierunku pomiaru i współczesnej roli państwa, Instytut Wiedzy i Innowacji Kraków 2008.

Khmel'yarchuk M., Demko, N. Kozmuk, O. Balueva, The role of entrepreneurship in strategic management of the tourism industry. Journal of Entrepreneurship Education, Vol. 22, Issue 2, 2019

## Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	45	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00