



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Gamification

### Course

Field of study

Engineering Management

Area of study (specialization)

Managing Enterprise of the Future

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

Polish

Requirements

elective

### Number of hours

Lecture

15

Laboratory classes

Tutorials

15

Projects/seminars

Other (e.g. online)

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

Ph.D., D.Sc., Eng. Ewa Więcek-Janka

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Responsible for the course/lecturer:

Ph.D., Eng. Joanna Majchrzak

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### Prerequisites

The Student defines the concepts of: production process, production costs, materials, production



capacity, production logistics, marketing expertise, marketing strategy, buyer, customer, price and methods of its calculation, supply, demand (and other concepts in the field of enterprise management included in the training program).

The Student characterizes the stages of the production process and assign its costs.

The Student formulates opinions on the basis of group discussion, brainstorming, implemented SWOT and PEST analyzes, explain their applications, summarize and recommend corrective actions. The Student creates: financial analysis, turnover and balance statement, SWOT analysis, PEST, product life cycle; matrices: BCG, GE, McKinsey; marketing plan.

The Student can create a company development plan based on available market data.

The Student is able to draw conclusions from the decisions taken, plan and introduce corrective actions.

The Student is responsible for the timely implementation of tasks.

The Student actively participates in both lecture classes and exercises.

The Student is able to work in a group and make individual and group decisions.

The Student follows the norms of social life.

The Student is determined to solve tasks creatively and realize assigned projects.

### Course objective

Developing the potential of knowledge, skills and attitudes in making management decisions in production and market processes based on knowledge and skills acquired at the first level of education at the university and with the application of the management games.

### Course-related learning outcomes

Knowledge

Student:

has in-depth knowledge of legal standards, their sources, changes and ways of influencing organizations, with particular emphasis on economic law, and is able to relate them to decision making [P7S\_WG\_01]

knows in depth the methods of obtaining data on the behavior of market participants in the context of decision making [P7S\_WG\_07]

has in-depth knowledge of ethical standards, their sources, nature, changes and ways of influencing organizations [P7S\_WK\_03]

Skills

Student:

has the ability to independently propose solutions to a specific management problem and carry out a decision-making procedure, in this scope [P7S\_UW\_04] has the ability to understand and analyze social



phenomena, extended by the ability to theoretically in-depth assessment of these phenomena in selected areas, using the research method [P7S\_UW\_05]

can correctly interpret and explain social, cultural, political, legal, economic phenomena) and mutual relations between social phenomena [P7S\_UW\_06]

is able to properly analyze the causes and course of social processes and phenomena (cultural, political, legal, economic), to formulate their own opinions on this subject and to formulate simple research hypotheses and verify them [P7S\_UW\_07]

is able to take responsibility for own work and jointly performed tasks and manage the work in a team [P7S\_UO\_01]

#### Social competences

Student:

can see the cause-effect relationships in the implementation of the goals set and rank the importance of alternative or competitive tasks [P7S\_KK\_02]

is able to make a substantive contribution to the preparation of social projects and manage undertakings resulting from these projects [P7S\_KO\_01]

can initiate activities for social projects [P7S\_KO\_02]

is able to plan and manage business ventures [P7S\_KO\_03]

is aware of the importance of professional behavior, compliance with the rules of professional ethics and respect for the diversity of views and cultures [P7S\_KR\_01]

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge gained during lectures: 100% of points. 50% of points can be obtained in partial tests on the [ekursy.put.poznan.pl](http://ekursy.put.poznan.pl) platform (tests containing the content from subsequent lectures). Another 50 % of points from the final exam (the exam can be carried out in one of three forms: oral, written open, written test). Exercises will be assessed on the basis of an oral and written report on the implemented gamification processes.

Assessment range (for lectures):

up to 50% of points - 2.0

51-60% points - 3.0

61-70% points - 3.5

71-80% points - 4.0

81-90% points - 4.5



91-100% points - 5.0

### Programme content

1. Essence, goals, types of decisions.
2. Deciding and decision-making processes.
3. Features of the decision-making process.
4. Classification of decisions.
5. Criteria for making rational decisions.
6. The shaping of the decision-making process.
7. Models and decision-making methods.
8. Decision rules.
9. Barriers in making decisions.
10. Risk and uncertainty in decision making.
11. Game theory in decision making.
12. Game concepts.
13. Game history.
14. Simulation games, seriously simulation games, management games.
15. Conflicts in simulation games.
16. Psychological aspects in simulation games.
17. The course of simulation games.
18. Inference based on the results of simulation games.
19. Gamification in marketing and management

### Teaching methods

Lectures, discussions, teamwork, brainstorming, management games, simulation games, psychodrama.

### Bibliography

Basic

1. Więcek-Janka E., (2011). Games & Decisions. Poznan : Publishing House of Poznan University of Technology



2. Amy Jo Kim (2018). Game Thinking

Additional

1. Zhigeng Fang (2010). Grey game theory and its applications in economic decision-making. Boca Raton : CRC Press Taylor&Francis Group

**Breakdown of average student's workload**

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests, project preparation) <sup>1</sup>	20	1,0

<sup>1</sup> delete or add other activities as appropriate