



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Gamification

### Course

Field of study

CM

Area of study (specialization)

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

english

Requirements

elective

### Number of hours

Lecture

15

Laboratory classes

Other (e.g. online)

Tutorials

15

Projects/seminars

### Number of credit points

2

### Lecturers

Responsible for the course/lecturer:

dr hab. inż. Ewa Więcek-Janka

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Faculty of Engineering Management

ul. Jacka Rychlewskiego 2, 60-965 Poznań

Responsible for the course/lecturer:

dr 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

The Student defines the concepts of decision, decision-making process, decision-making rules, decision-making barriers, game theory, simulation games, seriously simulation games, and managerial games.

The Student describes the decision problem in the enterprise and choose a model to solve it.

The Student formulates and explains the concepts of: decision, decision-making process, decision-making rules, decision-making barriers, decision models, game theory, simulation games, seriously simulation games, management games, conflicts in decision-making processes.

The Student explains the need to apply a specific decision model to the problem being solved.

(P7S\_WG\_01; P7S\_WG\_07; P7S\_WK\_01).

#### Skills

The Student is able to formulate a need for information about the decision problem.

The Student is able to organize a decision-making team and separate duties.

The Student is able to determine the price of the product based on costs and planned profit.

The Student can negotiate.

The Student is able to develop recommendations to improve subsequent decisions.

The Student is able to present recommendations resulting from the decision-making process.

(P7S\_UW\_04; P7S\_UW\_05; P7S\_UW\_06; P7S\_UW\_07; P7S\_UO\_01).



### Social competences

The Student is determined to solve the decision problem.

The Student is aware of the responsibility for individual and group decisions and presented applications.

The Student takes care of developing and carrying out the decision-making process according to the game scenario.

The Student observes the rules of ethics in decision-making games.

(P7S\_KO\_01; P7S\_KK\_02; P7S\_KO\_03; P7S\_KR\_01).

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge - written or oral exam.

Skills - passing 3 decision games.

Social competences - work in project teams (internal team division of grades).

### 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.

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

**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

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	60	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/exam, project preparation) <sup>1</sup>	30	1,0

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