



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Strategic simulations in safety management [S2IBiJ1-BiZK>SSwZB]

Course

Field of study

Safety and Quality Engineering

Year/Semester

1/2

Area of study (specialization)

Safety and Crisis Management

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

full-time

Requirements

elective

Number of hours

Lecture

15

Laboratory classes

0

Other

0

Tutorials

15

Projects/seminars

0

Number of credit points

2,00

Coordinators

dr inż. Rafał Mierzwiak

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Lecturers

Prerequisites

The student formulates opinions on the basis of group discussion, brainstorming, implemented SWOT and PEST analyzes, explain their applications and summarize and recommend corrective actions. The student formulates opinions on the basis of group discussion, brainstorming, implemented SWOT and PEST analyzes, explain their applications and summarize and recommend corrective actions.

Course objective

Expanding the potential of knowledge, skills and attitudes in the field of shaping the vision and developing strategic goals in crisis market processes based on the knowledge and skills acquired in the first degree of education at a university with the use of simulations and serious games

Course-related learning outcomes

Knowledge:

1. The student has structured knowledge of the following concepts: decisions, decision-making process, decision-making rules, barriers to decision-making, game theory, simulation games, serious simulation games, management games [K2_W08].
2. The student knows in depth the psychological aspects taken into account in professional activity in

the field of safety engineering in the field of: decisions, decision-making process, decision-making rules, barriers to decision-making, conflicts in decision-making processes [K2_W10].

Skills:

1. The student is able to implement the assumptions of project management, including: organizing a decision-making team and assigning responsibilities [K2_U09].
2. The student is able to communicate in the field of recommendations to improve decision-making [K2_U11].

Social competences:

1. The student is critical of his knowledge, is ready to consult experts when solving decision-making problems [K2_K01].
2. The student is prepared to reliably perform professional roles resulting from current economic and social needs in the field of decision-making [K2_K06].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Form Rating:

Participation in classes; carrying out tasks and placing them on e-courses;

51% of points in current knowledge (knowledge test in each class); Skills - passing 2-3 decision games on a scale of 1-100 points

51% of points for passing calculations;

The final grade is an external source.

Rating 3.0 - 51-60 points

Rating 3.5 - 61-70 points

Rating 4.0 - 71-80 points

Rating 4.5 - 81-90 points

Rating 5.0 - 91-100 points

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

Programme content

Lecture: The essence, goals of strategic decisions Decision-making and strategic decision-making processes; Features of the strategic decision-making process; The course of shaping the strategic decision-making process; Decision models and methods; Decision rules; Barriers in making decisions; Risk and uncertainty in making decisions; Game theory in decision making; Simulation games, serious simulation games, management games; Conflicts in simulation games; Psychological aspects in simulation games.

Tutorials: The course of simulation games; Inference based on the results of simulation games.

Course topics

none

Teaching methods

lecture, talk, teamwork, presentation

The lecture is conducted using distance learning techniques in a synchronous mode. Acceptable platforms: eMeeting, Zoom, Microsoft Teams.

Bibliography

Basic:

1. Więcek-Janka, E. (2011), Games and Decisions, Poznań: Wydawnictwo Politechniki Poznańskiej.

Additional:

1. Opracowania Szkoły Symulacji Systemów Gospodarczych (w latach 2000-2010), Wydawnictwo Politechniki Wrocławskiej, Wrocław (lata 2000-2010).
2. Mierzwia R., Nowak M., Modele decyzyjne w teorii systemów szarych, Polskie Towarzystwo Ekonomiczne, 2020.

Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00