# 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

Occupational risk management

**Course** 

Field of study Year/Semester

Safety Engineering 1/2

Area of study (specialization) Profile of study

Integrated Work Safety Management general academic
Level of study Course offered in

Second-cycle studies Polish

Form of study Requirements

full-time compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

15

Tutorials Projects/seminars

15

**Number of credit points** 

3

### **Lecturers**

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

Ph.D., Eng. Adam Górny,

Mail to: adam.gorny@put.poznan.pl

Phone: 61 665 34 07

Faculty of Engineering Management, ul. J. Rychlewskiego 2, 60-965 Poznań

## **Prerequisites**

The student has a basic knowledge about the methodology of occupational risk assessment and the management process. The student is able to assess the occupational risk in the workplace. The student is aware of the role and importance of occupational risk assessment to ensure effective shaping of occupational safety.

### **Course objective**

Strengthening knowledge of occupational risk assessment and familiarizing students with the basic issues related to the process of occupational risk management. Indication of the role of occupational risk management in ensuring the effectiveness of systemic occupational health and safety management.

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# **Course-related learning outcomes**

### Knowledge

- knows issues in the field of risk analysis, risk assessment and their effects in the work environment, in particular related to the area of ergonomics and work safety [P7S\_WG\_03], [P7S\_WG\_05],

#### Skills

- is able to properly select the sources and information derived from them, perform assessments and critical analyzes and synthesis of obtained information, on this basis formulate conclusions and comprehensively justify the adopted solutions [P7S UW 01],
- is able to identify changes in requirements, standards, regulations in order to adapt them to technical progress and the reality of the labor market and based on them determine the needs for supplementing information [P7S UU 01],
- is able to use research, analytical, simulation and experimental methods to formulate and solve engineering tasks and draw correct conclusions [P7S\_UW\_04], [P7S\_UO\_01],
- is able to implement various techniques to enable effective communication in a professional environment [P7S\_UW\_02],
- is able to prepare the necessary resources required to provide opportunities to work in an industrial environment and knows the safety principles associated with this work and is able to force their application in practice [P7S UW 04].

#### Social competences

- is aware of the cause-and-effect relationships that are important when achieving the set goals and ranking the importance of alternative solutions [P7S\_KK\_01],
- is aware of the importance of knowledge in ensuring the effectiveness of solving problems in the field of safety engineering and is aware of the need for continuous improvement [P7S\_KK\_02],
- is aware of the responsibility for his own work and is ready to comply with the accepted principles of team work and to bear responsibility for jointly performed tasks [P7S\_KR\_02].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

#### Formative assessment:

- in the scope of tutorials: on the basis of reports on independently performed tasks,
- in the scope of lectures: on the basis of a partial tests covering the discussed issues.

## Summative rating:

- in the scope of tutorials: average grade of partial grades for submitted reports, colloquium to check knowledge,
- in the scope of lecture classes: exam in the form of a test in which at least one answer is correct (the answer is scored as 0 or 1), or written answers to open questions (answers are scored on a scale of 0 to 3); student get a positive result of exam after obtaining at least 51% of the points available.

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## **Programme content**

Lecture: The idea of the occupational risk management process. Occupational risk (in the management function). Improvement activities in occupational risk management. Implementation of safety goals. Implementation of improvement actions. Risk management in technology. Levels of excellence in the scope of implemented improvement tasks.

Tutorials: practical implementation of the issues presented during the lecture.

## **Teaching methods**

Lecture classes are conducted in the form of an informational lecture supported by a multimedia presentation.

Tutorials are conducted using the case method, based on solving practical examples (tasks).

## **Bibliography**

#### Basic

- 1. Górny A., Zarządzanie ryzykiem zawodowym, Wydawnictwo Politechniki Poznańskiej, Poznań, 2011.
- 2. Kaczmarek T. T., Zarządzanie ryzykiem. Ujęcie interdyscyplinarne, Wydawnictwo Difin, Warszawa, 2010.
- 3. Kaczmarek T., Ryzyko i zarządzanie ryzykiem. Ujęcie interdyscyplinarne, Wydawnictwo Difin, Warszawa, 2004.
- 4. Pietrzak L., Zarządzanie bezpieczeństwem pracy i ryzykiem, Centralny Instytut Ochrony Pracy, Warszawa, 2001.

#### Additional

- 1. Smoliński D., Ocena ryzyka zawodowego, Wyd. ODDK, Gdańsk, 1999.
- 2. Koradecka D. (red.), Bezpieczeństwo pracy i ergonomia, t. I i II, Centralny Instytut Ochrony Pracy, Warszawa, 1997.
- 3. PN-ISO 31000:2018-08, Zarządzanie ryzykiem. Wytyczne.
- 4. PN-EN 31010:2010, Zarządzanie ryzykiem. Techniki oceny ryzyka.
- 5.PKN-ISO Guide 73:2012, Zarządzanie ryzykiem. Terminologia.

## Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (iterature studies, preparation for exercises, preparation of reports on individual work, preparation for	45	2,0
colloquiums) <sup>1</sup>		

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