# POZNAN UNIVERSITY OF TECHNOLOGY



EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

# **COURSE DESCRIPTION CARD - SYLLABUS**

#### Course name

Strategies for managing occupational risk [S2IBiJ1-JiEwBP>SZRZ]

Course									
Field of study Safety and Quality Engineering Area of study (specialization) Quality and Ergonomics in Work Safety		Year/Semester 1/2 Profile of study general academic							
					Level of study second-cycle		Course offered i Polish	n	
					Form of study full-time		Requirements compulsory		
Number of hours									
Lecture 15	Laboratory class 0	es	Other 0						
Tutorials 15	Projects/seminar 0	S							
Number of credit points 2,00									
<b>Coordinators</b> dr inż. Adam Górny adam.gorny@put.poznan.pl		Lecturers							

#### **Prerequisites**

A 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. Getting to know the strategy of occupational risk management.

## Course-related learning outcomes

#### Knowledge:

 A student has structured and theoretically supported knowledge and knows the facts and events characteristic for management science, mechanical engineering and safety engineering [K2\_W01].
A student knows, in the extended scope, development trends and good practices regarding to occupational risk management in organizations [K2\_W04].

3. A student knows, in the extended scope, and understands mathematical and statistical mechanisms used in safety engineering (in particular in relation to ergonomics and occupational safety and occupational risk management) [K2\_W05].

4. A student knows, in the extended scope, the principles and rules of management activities characteristic of safety engineering (in particular those used in relation to ergonomics and occupational safety as well as occupational risk management) [K2\_W06].

Skills:

1. A student is able to apply methods and tools for solving complex and unusual problems as well as advanced information and communication techniques characteristic for effective management of occupational risk in organizations [K2\_U02].

2. A student is able to develop and apply methods and tools for solving problems, typical to the area of safety engineering (in particular occupational safety and ergonomics) or select and apply existing management methods and tools [K2\_U03].

3. A student is able to formulate and testing simple hypotheses related to specific of safety engineering issues (in particular occupational safety and ergonomics) [K2\_U04].

Social competences:

1. A student correctly identifies and resolves dilemmas related to occupational risk management, understands the need to make public awareness in relation to shaping safety in various areas of the organization's operation [K2\_K02].

## 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. The grading scale is consistent with the principles described in the Study Regulations.

Detailed guidelines for obtaining a credit are given to a student before the start of classes.

# Programme content

Issues related to occupational risk management in the enterprise. Guidelines for selecting safety measures.

## **Course topics**

Lecture: The idea of the occupational risk management process. Occupational risk (in the management function). Methods of strategic analysis in risk management. Systemic occupational risk management. Methodology of dealing with occupational risk. Improvement activities in occupational risk management. Implementation of safety goals. Implementation of improvement actions. 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.

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

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

# Bibliography

Basic:

1. Górny A., Ocena i zarządzanie ryzykiem zawodowym, Wydawnictwo Politechniki Poznańskiej, Poznań, 2021.

Kaczmarek T. T., Zarządzanie ryzykiem. Ujęcie interdyscyplinarne, Wydawnictwo Difin, Warszawa, 2010.
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. Czajkowska K., Metody identyfikacji ryzyka w zarządzaniu ryzykiem w przedsiębiorstwie, Journal of Modern Management Process, 2017, 2 (1), 40-49.

2. Smoliński D., Ocena ryzyka zawodowego, Wyd. ODDK, Gdańsk, 1999.

3. Koradecka D. (red.), Bezpieczeństwo pracy i ergonomia, t. I i II, Centralny Instytut Ochrony Pracy, Warszawa, 1997.

4. PN-ISO 31000:2018-08, Zarządzanie ryzykiem. Wytyczne.

5. PN-EN 31010:2010, Zarządzanie ryzykiem. Techniki oceny ryzyka.

6.PKN-ISO Guide 73:2012, Zarządzanie ryzykiem. Terminologia.

7. Radło M., Risk management in integrated management systems, Szkoła Główna Handlowa Warszawa, 2015.

## 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