

## SYLLABUS

**Name:** Safety Management (ZIPAOZ>SI5SM19S)

**Name in Polish:**

**Name in English:** Safety Management

### Information on course:

**Course offered by department:** Faculty of Organization and Management

**Course for department:** Silesian University of Technology

### Default type of course examination report:

EGZ

### Language:

English

### Short description:

The aim of this subject is to acquaint students with the role of risk assessment in safety management, thematic legal acts on occupational health and safety, the safety management system, economic aspects of occupational health and safety management, as well as aspects related to major hazard accidents and carriage of dangerous goods.

### Description:

Lectures:

1. Introduction to the science of safety.
2. Safety management – law regulations.
3. Safety management in enterprises.
4. Role of risk in safety management.
5. Safety management systems.
6. Introduction to auditing of safety management systems.
7. Hazard monitoring systems.
8. Contemporary concepts of occupational health and safety management.
9. Economical aspects of occupational health and safety management.

Classes

1. Methods of occupational risk assessment.
2. Identification of hazards.
3. Occupational risk evaluation.
4. Elements influencing acceptance of risk.
5. Major industrial accidents – classification of plants.
6. Carriage of dangerous goods – parameters of transportation.

Project

1. Conducting an occupational risk assessment for a selected workplace.
  - a) Characteristics of the workplace.
  - b) Identification of hazards.
  - c) Occupational risk assessment with the use of the acquainted methods.
  - d) Risk reduction – implementation of improvements on the workplace.
  - e) Another occupational risk assessment.

The number of hours of classes with the direct participation of academic teachers or other persons conducting classes and students

Lecture: 30

Classes: 15

Project: 15

Student's own work:

Preparation for the test: 30

Preparation for the classes: 20

Preparation of the project: 40

Total workload: 150

Number of ECTS credits: 5

### Bibliography:

1. Safety Management System, PN-N-18001,18002:2004.
2. Occupational health and safety management systems. Requirements with guidance for use, ISO 45001:2018.
3. Marcinkowski, J. S., Education in ergonomics and occupational safety: monograph, Publishing House of Poznan University of Technology, Poznan, 2009.
4. Marcinkowski, J. S., General problems of work safety : work safety management: monograph, Publishing House of Poznan University of Technology, Poznan, 2009.
5. Schneeweiss, W. G., The fault tree method: from the field of reliability and safety technology, Hagen: LiLoLe-Verlag, 1999.
6. ed: Stanik-Besler, A., Hachkevych, O., Wołczański, T., Manufacturing processes: actual problems – 2020. Vol. 3, Safety engineering in manufacturing processes, Oficyna Wydawnicza Politechniki Opolskiej, Opole, 2020.
7. Asfahl, C. R., Industrial safety and health management, Upper Saddle River, NJ: Prentice Hall, 2004.
8. ed.: Frączek, T., New trends in production engineering: monograph, selected aspects of production engineering in management and materials engineering, Sciendo, Warsaw, 2019.
9. Sanders, R. E., Chemical process safety: learning from case histories, Elsevier/Butterworth-Heinemann, 2005.

### Learning outcomes:

Knowledge: (knows and understands)

K1A\_W14 - basic processes occurring in the life cycle of technical devices, objects and systems related to the management of safety

K1A\_W17 - principles, concepts and methods of logistics, quality management, environmental protection and management, ergonomics and occupational safety in light of safety management

Skills: (is able to)

K1A\_U08 - make a critical analysis of how existing technical solutions related to safety management work and evaluate the solutions  
 K1A\_U10 - take into account aspects of logistics, quality management, environmental protection and management, and ergonomics and occupational safety in the industrial environment and the environment of production systems in relation to safety management  
 Social competence: (is ready for)  
 K1A\_K05 - responsible performance of professional roles in security management, including adherence to professional ethics and demanding it of others. as well as caring for the achievements and traditions of the profession

**Assessment methods and assessment criteria:**

A single-choice test that covers the materials presented on lectures and classes.  
 Calculations performed during the classes.  
 Individually prepared project.

**Element of course groups in various terms:**

Course group description	First term	Last term
<i>missing group description in English</i> (ZIPAOZ>SI-5-19-S)	2021/2022-Z	

**Course credits in various terms:**

**Management and Production Engineering, full-time first degree engineering studies 7 sem. (ZIPAOZ-SI7)**

Type of credits	Number	First term	Last term
European Credit Transfer System (ECTS)	5	2021/2022-Z	