



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Examination of occupational accidents and diseases [N1IBez2>BWiCZ]

### Course

Field of study

Safety Engineering

Year/Semester

2/4

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

polish

Form of study

part-time

Requirements

compulsory

### Number of hours

Lecture

8

Laboratory classes

8

Other (e.g. online)

0

Tutorials

10

Projects/seminars

0

### Number of credit points

3,00

### Coordinators

dr inż. Wiktoria Czernecka

wiktoria.czernecka@put.poznan.pl

### Lecturers

### Prerequisites

The student has knowledge of occupational hazard factors; knows how to identify and assess hazards in the work environment, as well as to assess the risks. The student is aware of the relationship between the risk of hazards and accident.

### Course objective

Acquiring knowledge about accidents at work and occupational diseases occurring in Polish workplaces. At the practical level, the goal is to acquire skills in using properly selected methods to determine the causes of accidents in the work environment in order to carry out preventive actions; in addition, the ability to prepare documentation related to accidents at work and to apply procedures for reporting and determining the causes of occupational diseases.

### Course-related learning outcomes

Knowledge:

- Student knows deeply the concepts for the investigation of occupational accidents and diseases and their historical development [K1\_W02].
- The student has in depth knowledge of the characteristic of the study of accidents and occupational

diseases and advanced relationships between the level of safety and accidents [K1\_W03].

- The student knows deeply the issues of ergonomics, human ecology, environmental protection and occupational health and safety and understands their interrelationship in the processes of ensuring psychophysical well-being of employees in connection with the economics of enterprises [K1\_W05].

Skills:

- The student is able to present, using properly selected means, the problem of the risk of burns at work and occupational diseases, embedding it in the theoretical assumptions of safety engineering and propose solutions at least at the organizational level [K1\_U08].

- Student is able to identify changes in requirements, standards, regulations, technical progress and reality of the labor market, and based on them determine the needs of preventive actions to reduce the occurrence of accidents at work and occupational diseases [K1\_U12].

- Student is able to plan, organize and conduct research (including measurements and simulations) in relation to the causes and circumstances of accidents at work, interpret the results obtained, draw conclusions and propose ways to reduce the risk of accidents and potentially accident events [K1\_U11].

Social competences:

1. The student is aware of the recognition of the importance of knowledge in solving problems in the field of accident and occupational disease research, and continuous improvement in this area [K1\_K02].

2. The student is aware of the responsibility for own work and readiness to comply with the principles of teamwork and taking responsibility for jointly implemented tasks in the work to improve the level of safety and reduce occupational accidents and diseases [K1\_K07].

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

Lecture:

- knowledge is verified by short tests after the third and fifth didactic unit - single-choice test consisting of several questions (new concepts and definitions) + written problem tasks; 1st and 2nd attempt credit threshold - 50% + 1;

Exercises:

- single-choice test after the third unit - qualification of accidents and the average of partial marks for individual tasks; 1st and 2nd attempt credit threshold - 50% + 1;

Project:

- average of partial grades for the implementation of individual phases of the project + grade for the editing level of the project and progress during the course; 1st and 2nd attempt credit threshold - 50% + 1;

## Programme content

Lecture:

1. Identification of risk factors and actions to reduce threats in the work environment. 2. Methods of investigating accidents in the work environment. 3. Determining the causes of accidents. 4. Accident team, legal qualification of the accident. 5. Accident documentation. 6. Occupational diseases. Development history, distribution of occurrence, causes. 7. Procedure for reporting suspected occupational disease. Documentation - its scope and storage.

Exercises:

1. Accidents at work, accidents equated with accidents at work. Accidents on the way to / from work. 2. Costs of accidents at work. 3. Potentially accidental events. 4. Occupational diseases - practical aspects of the procedure.

Project: students design the accident investigation and related documentation.

## Teaching methods

Lecture:

- information lecture, seminar lecture, multimedia presentation.

Exercises:

- exposing methods (multimedia presentation, film), panel discussion, case study, brainstorming, practical exercises.

Design:

- multimedia presentation, case study

## Bibliography

Basic:

1. Sadłowska-Wrzesińska J., Lewicki L, (red.) Podstawy bezpieczeństwa i zdrowia w pracy, Wydawnictwo WSL, Poznań, 2018.
2. Sadłowska-Wrzesińska J., Lewicki L, Wypadki przy pracy i choroby zawodowe, [w]: Istotne aspekty BHP, Lewicki L., Sadłowska-Wrzesińska J., Wydawnictwo WSL, Poznań, 2014.
3. Pietrzak L., Badanie wypadków przy pracy. Modele i metody, CIOP, Warszawa, 2004.
4. Polskie Normy i rozporządzenia, w tym Rozporządzenie Rady Ministrów z dnia 1 lipca 2009 r. w sprawie ustalania okoliczności i przyczyn wypadków przy pracy.

Additional:

1. Nowakowski M., Zieja M., Ewertowski T., Żyluk A. (2016), Badanie udziału czynnika ludzkiego z wykorzystaniem opracowanego modelu taksonomii przyczyn zdarzeń lotniczych, *Autobusy : technika, eksploatacja, systemy transportowe*, R. 17, nr 12, s. 339- 247.
2. Czernecka W., Górny A., Ergonomic risk measurement in prioritizing corrective action at workstations, [in:] *Occupational Safety and Hygiene VI: Proceedings of the 6th International Symposium on Occupation Safety and Hygiene*, Guimarães, Portugal (p. 419), CRC Press, March 2018.

## Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	26	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	49	2,00