



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Computer techniques in work safety and occupational risk assessment

Course

Field of study

Safety Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

3/6

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

15

Tutorials

Laboratory classes

30

Projects/seminars

Other (e.g. online)

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

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Wydział Inżynierii Zarządzania

Instytut Inżynierii Bezpieczeństwa i Jakości

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Responsible for the course/lecturer:

Prerequisites



The student has basic knowledge of evaluation methods concerning occupational risk in workplace and attends IT classes.

The student can operate basic computer programmes.

The student is fully aware of the relevance of the computer skills.

Course objective

Teaching practical implementation of evaluation methods concerning occupational risk by means of computer applications that support workplace security management in a company.

Course-related learning outcomes

Knowledge

The student knows the issues in the field of threats and their effects, risk assessment in the work environment as well as occupational accidents and diseases

The student knows development trends and the best practices in the field of security engineering

The student knows the basic methods, techniques, tools and materials used in preparation for conducting scientific research and solving simple engineering tasks using information technology, information protection and computer support

Skills

The student is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks, also using information and communication methods and tools

The student is able to plan and carry out experiments, including computer measurements and simulations, interpret the results obtained and draw conclusions

Social competences

The student is aware of the recognition of the importance of knowledge in solving problems in the field of security engineering and continuous improvement

The student is aware of the responsibility for their own work and readiness to comply with the principles of teamwork and taking responsibility for jointly performed tasks

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

a) laboratory classes: knowledge and abilities at classes

b) lectures: 2 written tests: 7th and 15th lecture. Each tests consist of 5-10 opened questions. In order to pass the test, at least 50% of all points should be obtained.

Collective assessment:

a) laboratory classes: the average of formative marks



b) lectures: the average of formative marks

Programme content

Lecture:

The students will be familiarized with the ways to support methods of occupational risk assessment by means of computer applications. The computer programmes for occupational risk assessment that will be characterized are ubiquitously used in Polish companies and include STER-CIOP, Asystem BHP-TARBONUS and occupational risk assessment in workplace- ODDK. There will also be a presentation on an interactive online tool designed for assessing occupational risk (OiRA), that was developed by European Agency for Safety and Health at Work (EU-OSHA).

Laboratories:

The students will learn about the practical application of the software: STER - Computer System Supporting Occupational Health and Safety Management, including:

1. Administrative Data Management Module - ADMINISTRATION
2. Module for Recording Hazards and Occupational Risk Assessment - RISK
3. Documentation on Accidents at Work - ACCIDENTS
4. Module administering OHS activities - OHS
5. Personal Protection Equipment Selection Module - SELECTION
6. Module supporting the management of the STER system - ASSISTANT

Teaching methods

Lecture: multimedia presentation

Laboratories: computer programmes

Bibliography

Basic

1. Ocena ryzyka zawodowego - wykorzystanie systemu STER. Praca zbiorowa. CIOP, Warszawa 2008.
2. Ocena ryzyka zawodowego na stanowiskach narażonych na: czynniki szkodliwe, czynniki uciążliwe, zagrożenia wypadkowe wraz z programem komputerowym. Andrzej Uzarczyk. Gdańsk, ODDK, 2008.

Additional

1. Zarządzanie bezpieczeństwem pracy. Jerzy T. Karczewski, Krystyna W. Karczewska. ODDK, Gdańsk, 2012.



Breakdown of average student's workload

	Hours	ECTS
Total workload	90	3,0
Classes requiring direct contact with the teacher	45	1,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests) ¹	45	1,5

¹ delete or add other activities as appropriate