



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Student internships (after 6th semester - 4 weeks)

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### 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

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### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

0

165

Tutorials

Projects/seminars

0

### Number of credit points

4

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### Lecturers

Responsible for the course/lecturer:

Tomasz Ewertowski, Ph.D., Eng.

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Responsible for the course/lecturer:

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### Prerequisites

The student has a knowledge about the complexity and multiple aspects of OHS management systems in an organization, and engineering knowledge in relation to broadly understood issues of safety engineering. The student has skills to perceive, associate and interpret phenomena occurring in organizations and use them in the area of OHS management in the organization, with particular



emphasis on the engineering area. The student has ability to work in a team and solve problems together in a team. The student has awareness of the importance and necessity of raising one's competences and awareness of taking social responsibility for decisions made in relation to safety management in the organization

### Course objective

The aim of the course is to observe, analyze and evaluate OHS management processes in the organization and to acquire practical skills in assessing the organization and ergonomics of workplaces as well as identifying management and engineering processes implemented in the enterprise.

### Course-related learning outcomes

#### Knowledge

- knows the issues of technical safety, safety systems, health and safety as well as hazards and their effects (P6S\_WG\_02).
- knows issues in the field of hazards and their consequences, risk assessment in the work environment as well as occupational accidents and diseases (P6S\_WG\_03).
- knows issues of ergonomics and human ecology (P6S\_WG\_05).
- knows development trends and best practices in the field of safety engineering (P6S\_WK\_03).
- knows the basic methods, techniques, tools and materials used in preparation for conducting scientific research and solving simple engineering tasks using information technologies, information protection and computer support (P6S\_WK\_04).
- knows the basic concepts and principles of copyright protection, information security and intellectual property protection in a market economy (P6S\_WK\_05).

#### Skills

- is able to properly select the sources and information derived from them, making the assessment, critical analysis and synthesis of this information (P6S\_UW\_01).
- can use various techniques to communicate in a professional environment and in other environments (P6S\_UW\_02).
- is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks, also using information and communication methods and tools (P6S\_UW\_04).
- is able to prepare the necessary resources to work in an industrial environment and knows the safety rules associated with this work and is able to force their application in practice (P6S\_UW\_05).



- is able to make a critical analysis of the way it functions and assess - in conjunction with Safety Engineering - existing technical solutions, in particular machines, devices, objects, systems, processes and services (P6S\_UW\_06).
- can design an object, system or process that meets the requirements of safety engineering using appropriate methods and techniques (P6S\_UW\_07).
- is able to present, using properly selected means, a problem within the framework of safety engineering (P6S\_UK\_01).
- can plan and carry out experiments, including computer measurements and simulations, interpret obtained results and draw conclusions (P6S\_UO\_01).
- is able to identify changes in requirements, standards, regulations and technical progress and the reality of the labor market, and based on them determine the needs of supplementing knowledge (P6S\_UU\_01).

#### Social competences

- can see cause-and-effect relationships in achieving the goals and rank the significance of alternative or competitive tasks (P6S\_KK\_01).
- is aware of the importance of knowledge in solving problems in the field of safety engineering and continuous improvement (P6S\_KK\_02).
- is aware of the understanding of non-technical aspects and effects of engineering activities, including its impact on the environment and the related responsibility for the decisions (P6S\_KK\_03).
- can plan and manage business ventures (P6S\_KO\_01).
- is able to initiate activities related to transmission of information and cooperation in society in the field of safety engineering (P6S\_KO\_02).
- is aware of behavior in a professional manner, compliance with the principles of professional ethics and respect for the diversity of views and cultures (P6S\_KR\_01).
- is aware of responsibility for own work and readiness to comply with the principles of teamwork and taking responsibility for jointly implemented tasks (P6S\_KR\_02).

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

It consists of answers to the following questions: Has the Student been properly prepared for the internships (has correctly completed the required documents and provided them to the Supervisor in accordance with the deadlines)? Has the Student consulted any changes regarding the organization of internships? Has the Student prepared the internships report in accordance with the guidelines? Did the



Student refer the Supervisor the course of the internship, particularly emphasizing his own ideas proposed in the company.

Grade of assessment: definitely yes, on average, definitely not.

Summative assessment:

Appraisal of the Supervisor based on the prepared report. The report is prepared in accordance with the internship program.

### Programme content

1. Presentation of the business entity:

- legal form,
- industry / services rendered / range offered),
- technologies used,
- forms of production .

2. Company organizational structure.

3. Analysis of OHS management processes:

- management and administration in the area of company safety,
- training processes for management and other employees,
- planned OHS reviews and operation of equipment,
- compliance with occupational health and safety rules,
- analysis of critical tasks and work procedures,
- accident investigation,
- preparing the company for emergency situations,
- incident analysis,
- processes for selecting, applying and using personal protective equipment,
- health protection and occupational hygiene in the company,
- internal audits of the safety management system,
- interpersonal and group communication in the field of health and safety,
- promotion of occupational safety issues in the company.

4. Organization of work at the workplace:

- tasks carried out at the selected workplace,
- labor standard (quantitative or qualitative), how it is set and updated,
- workplace organization,

5. Ergonomics of the workplace:



- development of the work place,
- analysis of ergonomic risk factors,
- breaks at work and the opportunity to rest,
- material parameters of the working environment,
- non-material parameters of the working environment.

6. Suggestions for improvement in the workplace.

### Teaching methods

Classical problem method, situational method, exchange of ideas, SWOT, demonstration method, method of production exercises, method of experiments, workshop method.

### Bibliography

Basic

1. Regulations of internships for students implemented at Faculty of Engineering Management edition 8
2. Procedures, instructions and descriptions of company processes.
3. Regulations and other company standards.

Additional

Enterprise documentation available during internships.

### Breakdown of average student's workload

	Hours	ECTS
Total workload	165	4,0
Classes requiring direct contact with the teacher	5	1,0
Student's own work (preparation for internships, studying enterprise documentation, observation of processes, analysis of phenomena in the organization) <sup>1</sup>	160	3,0

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