## POZNAN UNIVERSITY OF TECHNOLOGY



#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

### **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Economics in developing work safety

**Course** 

Field of study Year/Semester

Safety Engineering 3/5

Area of study (specialization) Profile of study

general academic

Level of study Course offered in

First-cycle studies Polish

Form of study Requirements

part-time elective

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

Tutorials Projects/seminars

14

**Number of credit points** 

3

**Lecturers** 

Responsible for the course/lecturer: Responsible for the course/lecturer:

Rafał Mierzwiak, Ph.D. Eng.

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tel.: 691504270

Faculty of Engineering Management

**Prerequisites** 

Basic knowledge of economics

Knowledge of the basics of OSH

### **Course objective**

The aim of the course is to acquire knowledge, skills and competences in the field of concepts, issues, correctness and methods of solving occupational safety and health problems in the context of their economic implications

### **Course-related learning outcomes**

Knowledge

The student has basic economic knowledge in the context of occupational health and safety

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The student knows and understands the basic methodological instruments for modelling and decision making in the context of OSH

Skills

The student is able to describe and analyse economic and social phenomena concerning work safety.

The student is able to apply methods of data analysis in the context of economic problems in occupational safety and health

Social competences

The student is aware of the importance of cost accounting in occupational safety

The student is aware of the importance of ethical problems in the economization of work safety activities

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Moodle quiz

Evaluation of mini-projects

### **Programme content**

- 1. Economic doctrines and their importance for state and business policy-making in the field of occupational health and safety
- 2.Occupational safety as part of the management process introduction to the issue
- 3. Economic instruments to ensure job safety in microeconomic and macro-economic terms
- 4. Types of benefits and costs of work safety analysis of selected cost-benefit models
- 5. The methods for assessing the benefits and costs of ensuring safety at work, including methods for assessing the economic impact of accidents at work
- 6. Economic determinants of decisions taken in the field of occupational safety by the organization's stakeholders elements of strategic analysis
- 7. Optimisation of occupational safety decisions advanced decision-making and evaluation models

# **Teaching methods**

Group projects and e-learning with the Moodle paltform

### **Bibliography**

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#### **Basic**

- 1.Ekonomiczne aspekty ochrony pracy, w: Koradecka D. ( red.), Bezpieczeństwo pracy i ergonomia, Rzepecki J., CIOP, Warszawa, 1999
- 2.BHP w Przedsiębiorstwie. Model analizy korzyści i kosztów ochrony pracy, Rzepecki J., Bezpieczeństwo pracy 2(2002), Warszawa, 2002
- 3. Podstawy prowadzenia analizy kosztów i korzyści bhp, Rzepecki J., CIOP, Warszawa, 2006

#### Additional

- 1. Podstawy ekonomiki przedsiębiorstwa, Duraj J., PWE, Warszawa, 2000
- 2. Teaching materials for the classes on the Moodle plaform

## Breakdown of average student's workload

|   | Hours | ECTS |
|---|-------|------|
| Total workload  | 80    | 3,0  |
| Classes requiring direct contact with the teacher                 | 14    | 1,5  |
| Student's own work (literature studies, preparation for project   | 66    | 1,5  |
| activities, project execution, analysis of materials published on |       |      |
| Moodle, consultations) <sup>1</sup>                               |       |      |

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