### **Faculty of Engineering Management**

STUDY MODULE D	ESCRIPTION FORM		
Name of the module/subject  Economic problems of work safety		Code 1011104171011144358	
Field of study	Profile of study (general academic, practical)		
Safety Engineering - Part-time studies - First-	(brak)	4/7	
Elective path/specialty	Subject offered in: <b>Polish</b>	Course (compulsory, elective) <b>elective</b>	
Cycle of study:	Form of study (full-time,part-time)		
First-cycle studies	part-time		
No. of hours		No. of credits	
Lecture: 10 Classes: 12 Laboratory: -	Project/seminars:	8 3	
Status of the course in the study program (Basic, major, other)	(university-wide, from another f	ield)	
(brak)	(brak)		
Education areas and fields of science and art		ECTS distribution (number and %)	
technical sciences		3 100%	
Responsible for subject / lecturer:	Responsible for subject	ct / lecturer:	
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# Prerequisites in terms of knowledge, skills and social competencies:

1	Knowledge	Student has knowledge of the economic determinants of companies functioning.	
2	Skills	Students can interpret and describe the fundamental economic laws and processes that affect company's operations.	
		Are able to interpret and describe basic requirements regarding work safety in companies	
3	Social competencies	Student is aware of the social context of business regarding occupational safety and health, and understands the need of economic optimization of occupational health and safety issues.	

#### Assumptions and objectives of the course:

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

#### Study outcomes and reference to the educational results for a field of study

# Knowledge:

- 1. Student is aware of the costs of occupational safety and health in enterprises [K1A\_W28]
- 2. Student knows the basic terminology associated with the economic issues of work safety [K1A\_W31]
- 3. Student knows and understands basic operations, methods and instruments related to the calculation of the OSH costs -[K1A\_W28]
- 4. Student has knowledge of the economics of work safety [K1A\_W28]

#### Skills:

- 1. Student is able to describe and analyze the social and economic phenomenons of work safety [K1A\_U12]
- 2. Student can use the methods and economic instruments to address work safety issues [K1A\_U12]
- 3. Student will be able to make decisions regarding OSH solutions based on economic analysis [K1A\_U12]
- 4. Student is able to formulate and analyze the issues work safety costs occurring in company management [K1A\_U12]

### Social competencies:

- 1. Student is aware of the need for constant self-education regarding a proactive approach to work safety with particular emphasis on economic issues in this area - [K1A\_K01]
- 2. Student is aware of the importance of cost analysis in work safety [K1A\_K02]
- 3. Student is aware of the importance of active participation in the economic analysis of projects improving the working conditions - [K1A\_K02]
- 4. Student is aware of the importance of ethical issues in economizing activities in the field of work safety [K1A\_K05]

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#### Assessment methods of study outcomes

#### Formative evaluation

- a) regarding project: on the basis on verbal responses which goal is have student justify the solution of an element of the project.
- b) regarding practical classes: on the basis of written and oral tasks performed during classes
- c) regarding lectures: on the basis of written or oral responses considering the material from current or previous lecture summative evaluation
- a) regarding project: on the basis of this written report of project work
- b) regarding practical classes: based on the average grades from verbal or written exams (on a scale from 2 to 5)
- c) regarding lecture: on the basis of a written test consisting of five essay questions. Each question is scored graded from 1 to

#### 5. Positive grade is obtained for achieving at least 50% of the points.

#### Course description

- 1.Occupational safety as a part of the management process
- 2. Economic conditions of the decision (producer and employee) taken with respect to occupational safety.
- 3. Types of benefits and costs of occupational safety
- 4.Methods of assessing the benefits and costs of ensuring occupational safety, including methods of assessment of the economic impact of accidents at work, occupational diseases and the presence of threats to the safety of people and the environment
- 5.Methods of assessing the benefits and costs of ensuring occupational safety, including methods of assessment of the economic impact of accidents at work, occupational diseases and the presence of threats to the safety of people and the environment
- 6. Optimizing the decisions in regard to ensuring occupational safety.
- 7. Economic instruments for ensuring occupational safety.

#### Basic bibliography:

- 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

#### Additional bibliography:

- 1. Podstawy prowadzenia analizy kosztów i korzyści bhp, Rzepecki J., CIOP, Warszawa, 2006
- 2. Straty i korzyści ekologiczne w gospodarce, Famielec J., PWN, Warszawa, 1999
- 3. Podstawy ekonomiki przedsiębiorstwa, Duraj J., PWE, Warszawa, 2000

#### Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	10
2. Participation in practical classes	12
3. Participation in project classes	8
4. Preparing for project classes	20
5. Preparing for practical classes	15
6. Preparing to pass the final exam	10

# Student's workload

Source of workload	hours	ECTS
Total workload	75	3
Contact hours	30	0
Practical activities	20	0