# **Faculty of Engineering Management**

STUDY MODULE DESCRIPTION FORM						
		Code 1011102211011126456				
Field of study  Safety Engineering - Full-time studies - Secon	Profile of study (general academic, practical) d- general academic	Year /Semester				
Elective path/specialty  Ergonomics and Work Safety	Subject offered in:  Polish	Course (compulsory, elective)  obligatory				
Cycle of study:	Form of study (full-time,part-time)					
Second-cycle studies	full-time					
No. of hours		No. of credits				
Lecture: 15 Classes: 15 Laboratory: -	Project/seminars:	15 3				
Status of the course in the study program (Basic, major, other) (university-wide, from another field)						
other	ersity-wide					
Education areas and fields of science and art		ECTS distribution (number and %)				
technical sciences	100 3%					
		T.				

## Responsible for subject / lecturer:

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# Prerequisites in terms of knowledge, skills and social competencies:

1	Knowledge	The student has a basic knowledge in the field of safety engineering, including occupational safety, hazard identification and occupational risk assessment
2	Skills	The student is able to diagnose the effects of the work process. The student is able to assess occupational risk. The students can prepare a data bank to develop SZBP
3	Social competencies	The student is aware of the problems relating to health and safety at work. Students can work in a group

# Assumptions and objectives of the course:

The aim of the course is to familiarize students with the basic principles of managing health and safety at work

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

# Knowledge:

- 1. The student has an extended knowledge of discerning the belonging of a particular problem belonging to Safety Engineering [[K2A\_W01]]
- 2. The student knows the in-depth characteristics of dependencies found in Safety Engineering [[K2A\_W02]]
- $3.\ . \ Students\ knows\ the\ importance\ of\ the\ majority\ of\ dependencies\ in\ Safety\ Engineering\ \ -\ [[K2A\_W03]]$
- 4. Student know the detailed dependencies within the framework of Safety Engineering [[K2A\_W10]]
- 5. The student knows the best practices in Safety Engineering [[K2A\_W14]]

#### Skills:

- 1. Can acquire, integrate, interpret data from literature, database or other properly matched sources- concerning Safety Engineering [[K2A\_U1]]
- 2. . Can create, both in English and Polish language, a well- documented report of problems within Safety Engineering [[K2A\_U3]]
- 3. Can prepare and give oral presentation relating to detailed issues within the realm of Safety Engineering in Polish and other foreign language. [[K2A\_U4]]
- 4. Can, while formulating and solving engineering tasks, discern their systemic and non-technical aspects and also sociotechnical, organizational and economic approach [[K2A\_U10]]
- 5. Has got the preparation that is indispensable to be able to work in an industrial environment and also knows safety rules connected with a given work along with the ability to impose their use in practice [[K2A\_U13]]
- 6. Student can, according to a given specification, design and operate simple equipment, object, system or a process, typical for Safety Engineering [[K2A\_U18]]

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#### Social competencies:

- 1. Student is fully aware of the responsibility that he has taken for his own work and expresses readiness to comply with the rules of team work as well as responsibility for mutually realized and completed tasks. [[K2A\_K3]]
- 2. Can determine some causal relationships in the process of targets implementation and rank pertinence of alternative or competitive tasks [[K2A\_K4]]
- 3. The student is aware of the social role of a technical college graduate, especially understands the need for the formulation and communication to the society [[K1A\_K7]]

#### Assessment methods of study outcomes

#### Formative assessment:

Classes and Projects: on the basis of an active participation during classes

Lectures: on the basis of oral answers for the questions connected with the presented material during current and previous lectures

#### Collective assessment:

Classes and Projects: grade for the presentation: classes and project

Lectures: exam or a written pass in the form of answering 3-5 questions, from a set of questions that will be previously given; every answer is scored 1-3 point; credits will be given after achieving at least 5 points when answering 3 questions, and 8 point when giving answers to 5 questions.

#### Course description

#### 1 PROFESSIONAL RISK MANAGEMENT.

- 1.1. Corrective actions to reduce the risks associated with the performed work
- 1.2. Occupational health and safety training
- 1.3. Emergency handling
- 1.4. The use of analysis and risk assessment in a company
- 2. SAFETY AND HEALTH MANAGEMENT AT WORK.
- 2.1 Definition of occupational health and safety
- 2.2 Traditional and systemic approach to occupational safety
- 3 BASIC OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT OBJECTIVES
- 3.1 The objectives of occupational health and safety management
- 3.2 Principles of effective occupational health and safety management
- 4. OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM / SZBIZWP / AND ITS COMPONENTS.
- 4.1 Occupational health and safety policy in a company
- 4.2 Planning activities for occupational safety
- 4.3 Implementation and functioning of occupational health and safety management
- 4.4 Monitoring and audit SZBIZwP. Types of safety audits.
- 4.5 Overview of the system.
- 4.6 The documentation of occupational health and safety management
- 4.7 Basic conditions for the effective functioning of the ISMS ZWP

# Basic bibliography:

- 1. Jerzy S. Marcinkowski i W. M. Horst. Podstawy zarządzania bezpieczeństwem I zdrowiem w pracy (Fundamentals of occupational health and safety management). Wyd. PP., 2012, Poznań
- 2. Jerzy S. Marcinkowski. Podstawy bezpieczeństwa pracy (Basics of safety at work), Wyd. PP, 2011, Poznań,
- 3. Jerzy S. Marcinkowski, Auditowanie systemów zarządzania bezpieczeństwem pracy (Auditing of safety management systems) , Wyd. PP, 2012, Poznań
- 4. W.,Horst.Ryzyko zawodowe na stanowisku pracy. Część 1. Ergonomiczne czynniki ryzyka (Occupational hazards in the workplace. Part 1 Ergonomic risk factors). Wyd. PP, Poznań, 2004
- 5. J. Karczewski Zarządzanie bezpieczeństwem pracy (Occupational safety management), ODDK Gdańsk, 2002
- 6. Koradecka D. (red.), Bezpieczeństwo pracy i ergonomia (Occupational safety and ergonomics), T.1 i 2 Warszawa 1997r
- 7. Polskie normy z zakresu bezpieczeństwa pracy, ergonomii i systemów zarządzania bezpieczeństwem pracy ( SZBP) (Polish standards in the field of occupational safety, ergonomics and occupational safety management systems (SZBP)

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## Additional bibliography:

- 1. W.Horst( red.) Ergonomia z elementami bezpieczeństwa pracy. Przewodnik do ćwiczeń laboratoryjnych (Ergonomics with the elements of occupational safety. Guide to laboratory exercises). Wyd. PP, Poznan,2006
- 2. Jerzy S. Marcinkowski ( red.) Wybrane problemy bezpieczeństwa pracy, ergonomii I ochrony środowiska (Selected problems of safety, ergonomics and environmental protection), Wyd. Pressmedial, Lubin, 2011
- 3. W.M.Horst, G. Dahlke, A. Górny, N. Horst, W.F. Horst. Ergonomia z elementami bezpieczeństwa i ochrony zdrowia w pracy. Zasady i wymagania związane z materialnym środowiskiem pracy (Ergonomics with the elements of occupational health and safety. Rules and requirements for material working environment), Wyd. PP, Poznań, 2011,
- 4. www. ciop.pl
- 5. www.pip.gov.pl
- 6. www.udt.gov.pl

# Result of average student's workload

Activity	Time (working hours)
1. lecture	15
2. classes	15
3. project.	15
4. individual work	30

#### Student's workload

Source of workload	hours	ECTS
Total workload	105	3
Contact hours	45	2
Practical activities	30	1