Faculty of Engineering Management

STUDY MODULE D)ESCF	RIPTION FORM			
				Code 1011102111011126456	
Field of study Safety Engineering - Full-time studies - Secon	(g	rofile of study eneral academic, practical) (brak))	Year /Semester	
Elective path/specialty Ergonomics and Work Safety	Sı	ubject offered in: Polish		Course (compulsory, elective) obligatory	
Cycle of study:	Form o	f study (full-time,part-time)			
Second-cycle studies		full-time			
No. of hours				No. of credits	
Lecture: 15 Classes: 15 Laboratory: -	Pro	oject/seminars:	15	3	
Status of the course in the study program (Basic, major, other)	(uni	versity-wide, from another f	ield)		
(brak) (b			(bra	ak)	
Education areas and fields of science and art				ECTS distribution (number and %)	
technical sciences				100 3%	

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]]
- $2. The student knows the in-depth characteristics of dependencies found in Safety Engineering \hbox{\tt [[K2A_W02]]}$
- $3.\ . \ Students\ knows\ the\ importance\ of\ the\ majority\ of\ dependencies\ in\ Safety\ Engineering\ \ -\ [[K2A_W03]]$
- 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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Faculty of Engineering Management

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)

Faculty of Engineering Management

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