## **Faculty of Engineering Management**

		STUDY MODULE I	DES	CRIPTION FORM			
Name of the module/subject						Code 1011105221011128836	
Field of study  Safety Engineering - Part-time studies - Secon				Profile of study (general academic, practica (brak)	al)	Year /Semester 1 / 2	
Elective path/specialty  Ergonomics and Work Safety				Subject offered in:  Polish		Course (compulsory, elective) elective	
Cycle of	f study:		For	m of study (full-time,part-time	e)		
Second-cycle studies				part-time			
No. of h	e: 8 Clas	ses: 10 Laboratory: -		Project/seminars: (university-wide, from another	- field)	No. of credits	
Olalas	or the course in the ste	(brak)	,	difficulty wide, from another	(bra	ak)	
Education areas and fields of science and art technical sciences				ECTS distribution (number and %)  3 100%		•	
dr in ema tel Fac	nż. Małgorzata Wej	nan@put.poznan.pl Management					
Prere	quisites in te	rms of knowledge, skills ar	nd s	ocial competencies	<b>::</b>		
1	Knowledge	The student has knowledge of ergonomics in technology, ecology, basics of diagnosing and ergonomic design as well as occupational.					
_		The students can interpret rela	tionsh	nips occurring in the syste	m of h	numan-technical object,	

## Assumptions and objectives of the course:

-Presenting students with a detailed knowledge of the theoretical and practical problems associated with the impact of their work on human health. Teaching how to prevent the negative consequences of excessive workload. The use of acquired skills in design. The knowledge and skills should enable students to independently implement corrective actions for adapting work to the capabilities of the human body and to ensure health.

organize work that causes minimal workload ensures security.

The student is aware of the social role of a technical college graduate, and of predispositions

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

## Knowledge:

Skills

Social

competencies

2

3

1. Knows an in-depth characterization of dependencies within a given discipline. - [[K2A\_W02]]

to apply occupational safety principles.

- 2. Knows the detailed dependencies within the scope of a given discipline. [[K2A\_W05]]
- 3. Knows the advanced concepts for the discipline. [[K2A\_W08]]
- 4. Knows the historical development of the discipline. [[K2A\_W12]]
- 5. Knows the current trends within the discipline. [[K2A\_W13]]
- 6. Knows the rules of occupational health and safety. [[K2A\_W21]]

# Skills:

- 1. Has self-study ability and comprehends it [[K2A\_U5]]
- 2. Student can apply information-communicative techniques to deal with tasks that are typical of engineering activity. [[K2A\_U7]]
- 3. 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]]
- 4. Student can, according to a given specification, design and operate simple equipment, object, system or a process, typical for Safety Engineering, wile using appropriate methods, techniques and tools, as well as solve complex engineering tasks, characteristic of Safety Engineering (including some uncommon ones which possess research component). [[K2A\_U18]]

#### Social competencies:

# **Faculty of Engineering Management**

- 1. Understands the need and knows means how to self-study (first, second and third cycle studies, postgraduate studies, qualification courses)- improving professional, personal and social competence; can argument the need to learn for the whole life. [[K2A\_K1]]
- 2. 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]]
- 3. Can determine some causal relationships in the process of targets implementation and rank pertinence of alternative or competitive tasks. [[K2A\_K4]]

# Assessment methods of study outcomes

-Oral and written exam; evaluation of written assignments presented during classes.

### **Course description**

- The historical development of occupational health.
- Possibilities of human psycho-physical, chemical and biological occupational environment.
- -The tolerance limits of the human body: hygienic evaluation of working conditions, occupational diseases and related to his profession.
- Risk factors in the work environment, somatic and psychological reactions of the human body to these risks.
- Fatigue and rest.
- Physiological principles for the organization of shift work.
- Working conditions of women and the elderly.
- Technical and organizational development of the welfare conditions.
- Standards for determining allowable changes in the work environment, ie those that allow the functional balance of the human body.
- The law concerning the health protection of the working man.

### Basic bibliography:

- 1. Koradecka D., (red), Bezpieczeństwo pracy i ergonomia (Occupational safety and ergonomics), Wyd. CIOP, Warszawa 1999
- 2. Wejman M., Higiena pracy (Work hygiene), Wyd.Politechniki Poznańskiej, Poznań 2012

#### Additional bibliography:

1. Norms, standards, regulations specified by the lecturer.

### Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	8
2. Participation in classes	10
3. Preparation for classes and report preparation	10
4. Preparation for oral and written exam	5
5. Review of exam results	2

# Student's workload

Source of workload	hours	ECTS
Total workload	35	3
Contact hours	20	1
Practical activities	18	2