### **Faculty of Engineering Management**

DESCRIPTION FORM			
	Code 1011101161011120718		
,	Year /Semester 3 / 6		
Subject offered in: Polish	Course (compulsory, elective)  obligatory		
Form of study (full-time,part-time)			
full-time			
	No. of credits		
Project/seminars:	1 2		
Status of the course in the study program (Basic, major, other) (university-wide, from another field)			
other univers			
	ECTS distribution (number and %)		
study effects leading to the acquisition of engineering qualifications			
	1 50%		
	1 50%		
•	Profile of study (general academic, practical) general academic Subject offered in: Polish  Form of study (full-time,part-time) full-time Project/seminars: (university-wide, from another funive		

### Responsible for subject / lecturer:

mgr inż. Ewa Budniak

email: ewa.budniak@put.poznan.pl

tel. 61 665 34 38

Wydział Inżynierii Zarządzania ul. Strzelecka 11 60-965 Poznań

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

1	Knowledge	Student has rudimentary knowledge of company management, production processes and occupational safety
2	Skills	The student can discern, associate and interpret phenomena and indentify threats in working environment
3	Social competencies	The student understands and is ready to raise social awareness for decisions that have been taken in the field of occupational safety management in an organization

### Assumptions and objectives of the course:

The main objective of the course is an observation, analysis and results assessment in the process of management realization, especially in occupational safety, in organizations, as well as acquisition of practical skills and elementary use of managerial and engineering processes

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

### Knowledge:

- 1. has orderly, theoretically supported general knowledge of technical security [K1A\_W08]
- 2. has organized knowledge of threats identification, their consequences and risk [K1A\_W09]
- 3. has basic methods for occupational accidents investigation and risk assessment, critical analysis of events and causes of accidents [K1A\_W10, K1A\_W21]
- 4. has extensive knowledge in the area of ergonomics of occupational environment [K1A\_W11]
- 5. has knowledge regarding organizing and functioning safety systems [K1A\_W12]
- 6. . knows rules, ways and range of activity of health and safety authorities as well as knowledge about first aid [K1A\_W13]
- 7. knows concepts connected with reliability and safety of technical equipment, objects and technical systems exploitation [K1A\_W20]
- 8. knows basic methods and techniques of work organization [K1A\_W22]
- 9. has knowledge of elementary techniques and tools that are used when dealing with easy engineering tasks connected with information technologies, data protection and computer support [K1A\_W25]
- 10. knows and understands elementary concepts within copyright protection, data protection and protection of intellectual property in market economy [K1A\_W34]

### Skills:

# Faculty of Engineering Management

- 1. has skills for obtaining and analyzing source data [K1A\_U01]]
- 2. can apply in practice, numerous communicative techniques with a professional environment- [K1A\_U02]
- 3. can prepare and present some notions especially in the framework of safety engineering, in Polish or and a foreign language [K1A\_U04]
- 4. can plan and do experiments, measurements and simulations, as well as draw proper conclusions [K1A\_U08]
- 5. . can make use of analytical, simulation and experimental methods to formulate and solve engineering tasks [K1A\_U09]
- 6. has preparation that is indispensable to work in an industrial environment, as well as knows safety rules relating to this work and can use them in practice [K1A\_U11]
- 7. can estimate and scrutinize existing technical solutions, particularly machines, equipment, objects, systems, processes and services, in connection with Safety Engineering [K1A\_U13]
- 8. . has the ability to formulate and identify simple and practical engineering tasks in Safety Engineering [K1A\_U14]
- 9. can assess usability and apply methods or tools to solve simple engineering tasks [K1A\_U15]
- 10. can design simple equipment and technological processes that are typical of Safety Engineering [K1A\_U16]

### Social competencies:

- 1. understands the need to make progress [K1A\_K01]
- 2. is aware of importance and consequences of engineering activity, its impact on an environment, responsibility for taken decisions [K1A\_K02]]
- 3. Is aware of the responsibility for his own work and the work of others [K1A\_K03]
- 4. discerns some causal dependencies in the process of realizing the objectives [K1A\_K04]
- 5. is aware of importance to act in a professional and ethical way that respects business ethics [K1A\_K05]
- 6. is ready to take up a business venture [K1A\_K06]
- 7. is aware of the social role that a university graduate represents, in clear formulating and passing in the knowledge about echnology achievements [K1A\_K07]]

### Assessment methods of study outcomes

- 1. Preparation for internship report
- 2. Report presentation based on internship

### **Course description**

- 1. Presentation of an economic entity: legal regulations of an organization, product range, applied technologies, forms of organizing the product (sockets, lines)
- 2. Organizational structure of a company
- 3. Analysis of Health and Safety management system: management and administration in the field of company safety, managers and employees training processes, planned health and safety inspections as well as operation of devices, critical tasks and work procedures analysis, investigation of accidental events, auditing of work processes, preparing a company for emergency situations, health and safety regulations and work permits, analysis of accidental events, selection processes, application and exploitation of means regarding individual protection, protection of health and work hygiene in a company, internal audits of a safety management system, technology and changes management. Interpersonal and group communication in health and safety, promotion of occupational safety issues in a company, selection and a preparation of employees to do work, purchases management of materials and services, safety outside work
- 4. Organizing work in a workplace: tasks completed on a given production line (types and number of different operations, division of the chosen operation into processes, activities and working movements), norms of work (quality and time based), method of fixing and updating, site development plan of a workplace, organizing workplace (material and tools supply, transport, maintenance, repairs, quality control, distribution of work)
- 5. Ergonomics of workplace. Analysis of ergonomic risk factors: maintaining non-natural body positions or/and other segments of musculoskeletal system positions (uncomfortable, hamstrung positions that are long-term maintained and unstable), unfavourable to health due to the high repetition rate, (the duration of each movement and exercise extreme angular positions around the joints), unacceptable values while performing work, compression (physical pressure) of soft tissue, low ambient temperature, contact with the source of vibrations, position assessment while doing manual transport work, designing the spheres of work by means of upper and lower limbs, rhythm and work pace, monotony, breaks and rests, material parameters of occupational environment (physical, chemical and biological factors)
- 6. A project of work improvement in a workplace.

Basic bibliography:		
Additional bibliography:		

# http://www.put.poznan.pl/

Result of average stud	dent's workload	
Activity		Time (working hours)
1. Participation in internship		160
2. Preparation and presentation of internship report		5
Student's wo	rkload	
Source of workload	hours	ECTS
Total workload	165	2
Contact hours	2	0
Practical activities	160	2