

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Normalization in Occupational Safety and Ergonomics		Code 1011104161011124342
Field of study Safety Engineering - Part-time studies - First-	Profile of study (general academic, practical) (brak)	Year /Semester 3 / 6
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: First-cycle studies	Form of study (full-time, part-time) part-time	
No. of hours Lecture: 10 Classes: 12 Laboratory: - Project/seminars: 8		No. of credits 4
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences		ECTS distribution (number and %) 4 100%
Responsible for subject / lecturer: Adam Górny email: adam.gorny@put.poznan.pl tel. 61 665 34 07 Wydział Inżynierii Zarządzania ul. Strzelecka 11, 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Student knows the essence and importance of the information that exist in the technical documents.
2	Skills	The student can identify the standards concerning the conditions of the executed work.
3	Social competencies	The student is aware of the role and importance of technical documents in shaping the conditions for work performance.
Assumptions and objectives of the course: Acquisition of skills for applying the standards and the way how to implement regulatory requirements, identify records and standards requirements.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Has systematized, theoretically supported general knowledge of technical safety - [K1A_W08]		
2. Is familiar with the current development trends as well as best practices in the field of technology and normalization - [K1A_W15]		
3. Knows the basic methods and techniques of work organisation - [K1A_W22]		
Skills:		
1. Can acquire, integrate, interpret data from literature, database or other properly matched sources, both in English or other foreign language accepted as an international language of communication within Safety Engineering, as well as to draw conclusions, formulate and justify opinions - [K1A_U01]		
2. Can create, both in English and Polish language, a well- documented report of problems within Safety Engineering, which present the results of their own research - [K1A_U03]		
3. Has self-study ability and comprehends it's importance - [K1A_U05]		
4. Can, while formulating and solving engineering tasks, discern their systemic and non-technical aspects and also socio-technical, organizational and economic approach - [K1A_U10]		
5. Can make a critical analysis of the functioning methods and assess ? in conjunction with the Safety Engineering, the existing technical solutions and, in particular, machines, devices, facilities, systems, processes and services - [K1A_U13]		
Social competencies:		

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 argue the need to learn for the whole life - [K1A_K01]
2. 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 - [K1A_K03]

Assessment methods of study outcomes

Formative assessment:

Classes: on the basis of a report in a class,

Projects: on the basis of work progress

Lectures: on the basis of oral answers of the questions connected with the covered lecture content from current and previous lectures.

Collective assessment:

Classes: average of the grades achieved report preparation

Projects: assessment of the project

Lectures: written test, in which at least one answer in correct (scored 0,1) or written answers to open questions (scored 0-3); Credits will be given after achieving at least 31% of points.

Course description

Normalization, terms, definitions. National and international normalization. International normalization units. The national standards. Accreditation, authorization and notifications. Standards documents. The technical standards. The type of standards. The harmonisation standard. Presumption of conformity with the standard. Typification and unification. Legal requirements in the area of normalization. Safety. Reliability. Risk assessment. Safe and hazardous products.

Basic bibliography:

1. Tomaszewski Z., Bezpieczeństwo wyrobów oraz ich zgodność ze standardami Unii Europejskiej (Safety of products and their compliance with the standards of the European Union), Wydawnictwo Politechniki Poznańskiej, Poznań, 2002
2. Miesięcznik Normalizacja (Normalization), wydawnictwo PKN, Warszawa

Additional bibliography:

1. Tomaszewski Z., Wprowadzenie do techniki (Introduction to technology), Wydawnictwo Politechniki Poznańskiej, Poznań, 2002
2. Kowalewski S., Dąbrowski A., Dąbrowski M., Zagrożenia mechaniczne (Mechanical hazards), Centralny Instytut Ochrony Pracy, Warszawa, 1998

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	10
2. Participation in classes	12
3. Participation in project classes	8
4. Preparation for classes	8
5. Preparation for written test (based on lectures)	7
6. Preparation for a project	10
7. Overview of the credits	2
8. Preparation of a report (based on classes)	6

Student's workload

Source of workload	hours	ECTS
Total workload	63	4
Contact hours	20	2
Practical activities	20	2