STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Work processes design		**1011105231011126443**

Field of study	Profile of study (general academic, practical)	Year /Semester
Safety Engineering - Part-time studies - Second-	**(brak)**	**2 / 3**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Work Safety Management	**Polish**	**obligatory**

Cycle of study:	Form of study (full-time,part-time)
Second-cycle studies	**part-time**

No. of hours				No. of credits
Lecture: **8**	Classes: **12**	Laboratory: **-**	Project/seminars: **8**	**2**

Status of the course in the study program (Basic, major, other)	(university-wide, from another field)
(brak)	**(brak)**

Education areas and fields of science and art	ECTS distribution (number and %)
technical sciences	**2 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	He knows the selected methods and tools for the description, including the techniques of data collection and modeling social structures and processes within them.
2	**Skills**	He can properly analyze the causes and processes and social phenomena, formulate their own opinions on the subject and put simple hypotheses and verify them.
3	**Social competencies**	Able to prioritize appropriately for implementation specified by you or other tasks.

Assumptions and objectives of the course:

Provide students with knowledge of the methodology of the design of work processes in various fields of technology, service and conceptual-office and in the field of research methods and standardization work.

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

Knowledge:

1. He knows the depth depending on the characteristics found in the work process and knows the importance of Engineering Safety - [K1A_W02]
2. He knows the relationship between a given discipline and other disciplines - [K2A_W13]
3. He knows the basic relationship existing in solving simple engineering tasks - [K1A_W01]

Skills:

1. It can use information and communication technology for the tasks typical of engineering - [T2A_U01]
2. It can create a proposal to use new developments (techniques and technologies) in the subject being studied - [K2A_U12]
3. Has the ability to understand and analyze social phenomena, enhanced by the ability to in-depth theoretical evaluation of these phenomena in selected areas, using the test method - [T2A_U08]

Social competencies:

1. Is aware of the importance of behavior in a professional manner and comply with the rules of professional ethics and respect for the diversity of views and cultures - [T2_U15]
2. He can suggest improvements (improve) the existing technical solutions specific to the Engineering Safety - [T2_U16]
3. Able to characterize the typical engineering technologies in the field of Safety Engineering - [T2_U18]

Assessment methods of study outcomes

W02, W05, W06 tested mainly on the basis of written work.

Other effects tested in practical classes.

Course description

General characteristics of the design and operating system designs. The phases of the production process. The division of the work process into its constituent parts. The study ways of working. Principles of economics working movements. Teamwork. Physical and mental workload and its organizational forms. Design time and human biological rhythm. Operating environment and its diagnosis. The specificity of human tasks in the techniques of production, services and labor in conceptual and office space. Design principles humanized forms of work organization.

Basic bibliography:

1. Niezawodność człowieka w interakcji z procesem przemysłowym, Sławińska M., WPP, Poznań 2012

2. Ergonomia w projektowaniu stanowisk pracy. Podstawy teoretyczne, Górska E., Tytyk E., Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 1998

3. Eksploatacja systemów technicznych, Kaźmierczak J., Wydawnictwo Politechniki Śląskiej, Gliwice, 2000

Additional bibliography:

1. Badanie metod i normowanie pracy. Wołk R., Strzelecki J.T., Wyd. Politechniki Warszawskiej, Warszawa 1993

2. Diagnoza ergonomiczna stanowisk pracy, Górska E., Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 1998

3. Organizacja pracy na stanowiskach roboczych, Matczyński F., WNT, Warszawa, 1998

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	8
2. Participation in classes	12
3. Participation in project classes	8
4. Preparation for classes	4
5. Preparation for project tasks	4
6. Preparation for written credits (based on lectures)	6
7. Overview of results (lectures)	2
8. Overview of results (classes)	2
9. Presentation of the semester project	2

Student’s workload

Source of workload	hours	ECTS
Total workload	48	2
Contact hours	34	1
Practical activities	20	1