STUDY MODULE DESCRIPTION FORM

Name of the module/subject		Code
Computer aided work processes security		**1011102231011126447**
Field of study	Profile of study (general academic, practical)	Year /Semester
Safety Engineering - Full-time studies - Second-	**(brak)**	**2 / 3**
Elective path/specialty	Subject offered in:	Course (compulsory, elective)
Ergonomics and Work Safety	**Polish**	**obligatory**
Cycle of study:	Form of study (full-time,part-time)	
Second-cycle studies	**full-time**	
No. of hours		No. of credits
Lecture: **15** Classes: **-** Laboratory: **15** Project/seminars: **-**		**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%**
Technical sciences		**2 100%**

Responsible for subject / lecturer:

dr inż. Beata Mrugalska
email: beata.mrugalska@put.poznan.pl
tel. +48(61) 6653364
Faculty of Engineering Management
ul. Strzelecka 11 60-965 Poznań

Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Student has basic knowledge of occupational safety management system, can diagnose workplace environment and knows measurement methods in occupational safety.
2	**Skills**	Student can use basic computer programs.
3	**Social competencies**	Student is aware of the importance of computer use.

Assumptions and objectives of the course:

Acquainting a student with function improvement methods that are realized to ensure the required level of occupational safety

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

Knowledge:

1. Students knows the characteristics of some basic functions that are realized by means of computer techniques to ensure occupational safety, computer aided process safety at workplace, diagnosing work processes, computer aided health and safety management system at workplace. - [K2A_U19]

2. Students knows computer programs which support measurement analysis within safety and ergonomics. - [K2A_U25]

Skills:

1. . Student can acquire, integrate, interpret data in the language of international communication within the area of study, as well as to draw conclusions, formulate and justify opinions. - [K2A_U01]

2. Student can apply various techniques in order to communicate in occupational environment and other environments, also in a foreign languages. - [K2A_U02]

3. Student has self-study ability and comprehends it - [K2A_U05]

4. Student can apply information-communicative techniques to deal with tasks that are typical of engineering activity. - [K2A_U07]

5. Student can plan and do computer simulations, interpret the achieved results and draw conclusions. - [K2A_U08]

6. . Student can, while formulating and solving engineering tasks, discern their systemic and non-technical aspects and also socio-technical, organizational and economic approach. - [K2A_U10]

7. Student can come up with a suggestion how to make use of state-of-the art technoogy (techniques and technology) within products design. - [K2A_U12]

8. Student. 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]

9. Student can, according to the given specification, design and operate on a simple equipment, system or a process, which is typical of Safety Engineering (including some uncommon ones and having a research component). - [K2A_U15]

10. . Student can suggest some improvements of already existing technical solutions that are typical of Safety Engineering. - [K2A_U16]

11. Student can assess the utility of routine methods and tools that are designed for solving simple engineering tasks of practical nature, characteristic to the safety engineering as well as choose and apply an appropriate method and tools and also use it effectively, bearing in mind non-technical aspects. - [K2A_U17]

12. Student can, according to the given specification, design and operate on a simple equipment, system or a process, which is typical of Safety Engineering, using appropriate and groundbreaking methods, techniques and tools. - [K2A_U19]

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 takes responsibility for mutually realized and completed tasks. - [K2A_K03]

2. Student can determine some causal relationships in the process of targets implementation and rank pertinence of alternative or competitive tasks. - [K2A_K04]

Assessment methods of study outcomes

Formative assessment:

a) In regards to the laboratory classes, on the basis of written tests and reports

b) Regarding lectures: on the basis of oral or written assignments relating to the material covered during current or previous lectures.

Collective assessment:

a) In respect to laboratory classes: the average of marks given

b) Considering lectures: the average of formative marks

Course description

Characterization of some basic functions that are realized by means of computer techniques to ensure workplace safety. Computer aided process safety at workplace. Diagnosing work processes. Computer aided health and safety management system at workplace. Characterization of the most commonly used computer programs in Polish companies such as Tarbonus, Vademecum BHP, Vademecum HACCP ? YARSTON. Use of machines and equipment in an enterprise- FORUM and health and safety computer programs of PENTA SOFT company.

Basic bibliography:

1. Komputerowe wspomaganie bezpieczeństwa procesów pracy, Mrugalska B., Wyd. Politechniki Poznańskiej, Poznań, 2012

2. Bezpieczeństwo pracy i ergonomia, Koradecka D. (red.), Wyd. CIOP, Warszawa, 2008

3. Praktyczny poradnik dla służb bhp, Dołęgowski B., Janczała S., Wyd. ODDK, Gdańsk, 2008

Additional bibliography:

1. BHP w praktyce, Rączkowski B., Wyd. ODDK, Gdańsk, 2010

Result of average student's workload

Activity	Time (working hours)

1. Participation in lecture	15
2. Participation in classes	15
3. Preparation for laboratories	13
4. Preparation for a written test based on lectures	10
5. Report on laboratory classes	7

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	60	2
Contact hours	30	1
Practical activities	15	1