STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Computer techniques in work safety and occupational risk**		Code **10111011610111129832**
Field of study **Safety Engineering - Full-time studies - First-**	Profile of study (general academic, practical) **(brak)**	Year /Semester **3 / 6**
Elective path/specialty **-**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**
Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **full-time**	

No. of hours				No. of credits **2**
Lecture: **15**	Classes: **-**	Laboratory: **30**	Project/seminars: **-**	

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	ECTS distribution (number and %**)**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	Student has basic knowledge of evaluation methods concerning occupational risk in workplace and attends IT classes.
2	**Skills**	Student can operate basic computer programmes.
3	**Social competencies**	Student is fully aware of the relevance of the computer skills.

Assumptions and objectives of the course:

Teaching practical implementation of evaluation methods concerning occupational risk by means of computer applications that support workplace security management in a company.

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

Knowledge:

1. Student has orderly, theoretically supported knowledge of dangers, their consequences, risks and monitoring, identification and evaluation of criticality of incidents that are present in a workplace. - [K1A_W09]

2. Student has orderly, theoretically supported knowledge of accident at work and occupational diseases. - [K1A_W10]

3. Student knows current trends and best practices within Information technology and information techniques but also supporting process of modelling the dangers. - [K1A_W16]

4. Student knows methods of risk assessment, code of conduct in the face of threats and incidents, establishing the causes of accidents in working environment and/or in the life of man. - [K1A_W21]

5. Student knows basic techniques and tools used in dealing with simple engineering tasks that use information technologies and computer aid. - [K1A_W25]

Skills:

1. Student can conduct a critical analysis of the ways in which technical solutions function. - [K2A_U15]

2. Student can suggest improvements (advancements) of existing technical solutions that are characteristic of Engineering security. - [K2A_U16]

3. Student can assess the utility of routine methods and tools for solving simple engineering tasks. - [K2A_U17]

Social competencies:

1. Student can use information and communication techniques for the implementation of tasks that are typical of engineering activity. - [K1A_U07]

2. Student can make use of simulation and experimental methods to formulate and solve engineering problems. - [K1A_U09]

Assessment methods of study outcomes
Formative assessment: a) In regards to the laboratory classes, on the basis of written tests and case studies b) Regarding lectures: on the basis of oral or written assignments relating to the material covered during current or previous lectures. Collective assessment: a) laboratory classes: the average of marks b) lectures: the average of marks

Course description
The students will be familiarized with the ways to support methods of occupational risk assessment by means of computer applications. The computer programmes for occupational risk assessment that will be characterized are ubiquitously used in Polish companies and include STER-CIOP, Asystent BHP-TARBONUS and occupational risk assessment in workplace-ODDK. There will also be a presentation on an interactive online tool designed for assessing occupational risk (OiRA), that was developed by European Agency for Safety and Health at Work (EU-OSHA). This tool supports small enterprises in creating a complex process of risk assessment- starting with identification process and dangers assessment at workplace, and ending with decision taking process within preventive action along with carrying out these activities, constant monitoring and reporting. The ability to use systems aimed at supporting workplace security management will account for a boost in efficiency of functioning such systems.

Basic bibliography:

1. Ocena ryzyka zawodowego - wykorzystanie systemu STER. Praca zbiorowa. CIOP, Warszawa 2008.

2. Ocena ryzyka zawodowego na stanowiskach narażonych na: czynniki szkodliwe, czynniki uciążliwe, zagrożenia wypadkowe wraz z programem komputerowym. Andrzej Uzarczyk. Gdańsk, ODDK, 2008

3. Ocena ryzyka zawodowego z zastosowaniem komputera. Dariusz Smoliński. ODDK, Gdańsk, 2007.

Additional bibliography:

1. Bezpieczeństwo i higiena pracy. Koradecka Danuta. CIOP, Warszawa, 2008

Result of average student's workload	
Activity	**Time (working hours)**
1. Participation in lectures	15
2. Preparation for the written test of a lecture	10
3. Participation in laboratory classes	30
4. Preparation for laboratory classes	18
5. Reviewing the results of a written test	2

Student's workload		
Source of workload	**hours**	**ECTS**
Total workload	75	2
Contact hours	47	1
Practical activities	30	1