STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Health and Safety in Civil Engineering**		Code **1010101141010110107**
Field of study **Sustainable Building Engineering First-cycle**	Profile of study (general academic, practical) **(brak)**	Year /Semester **2 / 4**
Elective path/specialty **-**	Subject offered in: **Polish**	Course (compulsory, elective) **elective**
Cycle of study: **First-cycle studies**	Form of study (full-time,part-time) **full-time**	
No. of hours Lecture: **30** Classes: **-** Laboratory: **-** Project/seminars: **-**		No. of credits **2**
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** **Technical sciences**		ECTS distribution (number and %) **2 100%** **2 100%**

Responsible for subject / lecturer:

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Prerequisites in terms of knowledge, skills and social competencies:

1	**Knowledge**	184/5000 - knows the ways of conducting construction works and has an initial knowledge of security rules - basic knowledge in the field of machine construction and principles of operation of the most important components
2	**Skills**	can analyze the formulated tasks and work with technical documentation
3	**Social competencies**	The student understands the importance of safety nad health on building site

Assumptions and objectives of the course:

To acquaint students with the issues of occupational health and safety in construction

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

Knowledge:

1. has knowledge in the area of build organisation and management, creation of quality management procedures in construction work; is familiar with work standards in civil engineering - [KSB_W15]
2. is familiar with building code, national standards (PN) and European standards (EN) as well as technical conditions for construction works and low- energy buildings - [KSB_W07]
3. has basic knowledge about conducting business activity in civil engineering - [KSB_W16]

Skills:

1. knows how to evaluate threats for realisation of construction and installation work, and to implement appropriate health and safety principles and maintain technical condition of construction works - [KSB_U17]
2. knows how to apply regulations of building code and legal acts regulating construction works - [KSB_U20]
3. knows how to plan and organise work both individual and in teams, knows how to collaborate with others, is prepared to work in team, is prepared to collaborate with other individuals in interdisciplinary design teams (specialists in different areas) - [KSB_U26]

Social competencies:

1. understands the need for team work and is responsible for safety of hi work and the work of his team - [KSB_K04]
2. individually catches up on and expands his knowledge about modern techniques, processes and technologies - [KSB_K03]
3. has the skill to adapt to new and changing circumstances, knows how to prioritise tasks in realisation of a job, also acting for the common good - [KSB_K01]

Assessment methods of study outcomes

Grade from lecture,

Lecture: checking knowledge through written colloquium, 50% minimum point for passing.

Marks scale

100-91% - 5,0; 90-81% - 4,5; 80-71% - 4,0; 70-61% - 3,5; 60-50% - 3,0; ?49% - 2,0

Course description

Genesis of problematic aspects in the area of health and safety and ergonomics. Tasks and objectives of health and safety as well as ergonomic engineering. Legal foundations for activities in the realm of health and safety. Human-technical object system as a representation of a workplace. Threats identification in workplace related to electrotechnology. Methods of occupational risk assessment in a workplace. Technical and organizational ways of limiting an excessive occupational risk. Assessment of physiological workload. Assessment of mental workload. Anthropometrical data in machines design and workspace. Instrument measurements and assessment of material parameters in working environment. Examples of technical and organizational solutions which boost safety and ergonomic quality of machines as well as working conditions.

Teaching methods, Lectures:

information lecture, lecture with multimedia presenta

Basic bibliography:

1. Dąbrowski A., Dźwiarek M.: Bezpieczeństwo wykonywania robót budowlanych, CIOP- PIB, Warszawa
2. Reese Ch.D.: Occupational Health and Safety Management: A practical Approach. CRC Press, 2008
3. Kościukiewicz Kazimierz, BHP w budownictwie, Wolters Kluwer Polska Sp. z o.o., Kraków, 2010

Additional bibliography:

1. Kodeks Pracy oraz aktualnie obowiązujące rozporządzenia Ministra Gospodarki, Pracy i Polityki Społecznej.

Result of average student's workload

Activity	Time (working hours)
1. Lecture _contact with lecturer)	30
2. Preparing for test (own work)	15
3. Participation in consultations related to the implementation of the education process (lectures) (contact hours)	5

Student's workload

Source of workload	hours	ECTS
Total workload	50	2
Contact hours	35	1
Practical activities	0	0