STUDY MODULE DESCRIPTION FORM

Name of the module/subject **Work environment diagnosis**		Code **1011102221011126458**
Field of study **Safety Engineering - Full-time studies - Second-**	Profile of study (general academic, practical) **(brak)**	Year /Semester **1 / 2**
Elective path/specialty **Ergonomics and Work Safety**	Subject offered in: **Polish**	Course (compulsory, elective) **obligatory**

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

No. of hours Lecture: **15** Classes: **30** Laboratory: **-** Project/seminars: **15**	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**	The student has knowledge of ergonomics in technology, ecology, basics of diagnosing and ergonomic design as well as occupational.
2	**Skills**	The students can interpret relationships occurring in the system of human-technical object, organize work that causes minimal workload ensures security.
3	**Social competencies**	The student is aware of the social role of a technical college graduate, and of predispositions to apply occupational safety principles.

Assumptions and objectives of the course:

-Presenting the students a detailed knowledge of the theoretical and practical problems as well as methods of ergonomic diagnosis occupational safety of a man. The use of diagnosis results in design. The knowledge and skills should allow the student to apply ergonomic diagnoses and occupational safety, in terms of adapting work to the capabilities of the human body, and suggesting the proposals for corrective action.

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

Knowledge:

1. Has extensive knowledge of recognizing the association of a certain problem to a given discipline. - [[K2A_W01]]

2. Knows an in-depth characterization of dependencies within a given discipline. - [[K2A_W02]]

3. Knows the definition of the subject and scope of the discipline. - [[K2A_W04]]

4. Knows the relationships between a given discipline and other disciplines. - [[K2A_W06]]

5. Has a basic knowledge of the objects and organizational and socio-technical systems lifecycle. - [[K2A_W16]]

6. Knows the basic dependencies that exist when solving simple engineering problems in the field of safety engineering. - [[K2A_W19]]

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. - [[K2A_U1]]

2. Can apply various techniques in order to communicate in occupational environment and other environments. - [[K2A_U2]]

3. Has self-study ability and comprehends it - [[K2A_U5]]

4. Student can apply information-communicative techniques to deal with tasks that are typical of engineering activity. - [[K2A_U7]]

5. Is able to plan and carry out experiments, including measurements and computer simulations to interpret the results and draw conclusions. - [[K2A_U8]]

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

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 argument the need to learn for the whole life. - [[K2A_K1]]

2. 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 responsibility for mutually realized and completed tasks. - [[K2A_K3]]

3. Can determine some causal relationships in the process of targets implementation and rank pertinence of alternative or competitive tasks. - [[K2A_K4]]

Assessment methods of study outcomes

- Oral and written exam.

- Credits assignment (based on classes.

- Report and a project.

Course description

-Living and working environment of a man. Technology as a source of occupational environmental risks to human.

The man- technology-environment system as an object of a diagnosis. Diagnostic procedures.

The purpose of the diagnostic measures. Diagnosing loads in the work environment.

Optimization problems of human loads. Diagnosing the technical, organizational and material occupational environment. Methodological problems of diagnosing the working environment:

method of experts, how to identify subjective feelings of employees, research testing. The ergonomic checklists.

Formalizing evaluations of environmental features at work .

Computer-aided diagnosis process of an occupational environment.

Basic bibliography:

Additional bibliography:

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	15
2. Participation in classes	30
3. Participation in project work	15
4. Preparation for oral and written exam	15
5. Preparation of a report based on classes	10
6. Preparation of a project and consultations	15
7. Overview of exam results	2

Student's workload

Source of workload	hours	ECTS
Total workload	102	2

Contact hours	77	1
Practical activities	25	1