STUDY MODULE DESCRIPTION FORM

Name of the module/subject	Code
Diagnosing the Manner of Work	**1011102131011126465**

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**	**elective**

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: **30**	Project/seminars: **15**		**4**

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 %)

Responsible for subject / lecturer:

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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

- Check the message before beginning the lab exercise.
- Work in teams (evaluation of the solution used).
- Presentation of the chosen method of ergonomic diagnosis.
- Evaluation of the work (project on the diagnosis of the selected workplace).
- Final test (after lectures).

Course description

-The environment of human life and work.

-Technology as a source of risks to human work environment.

-System human - technology - environment as a diagnostic object.

-Diagnosis of human workload in the work environment.

-Organizing work for its ergonomics.

Basic bibliography:

1. Horst W.M., Diagnozowanie sposobu wykonywania pracy. Zagrożenia ergonomiczne, Wyd. Politechniki Poznańskiej, 2012

2. Butlewski M., Tytyk E., Bezpieczeństwo w technice i organizacji pracy. Wyd. Politechniki Poznańskiej, 2011

3. Lewicki L., Sadłowska-Wrzesińska J., Istotne aspekty BHP, Wydawnictwo WSL, Poznań 2015.

Additional bibliography:

1. Horst W.M., Wprowadzenie do diagnozowania sposobu wykonywania pracy. Wybrane zagadnienia fizjologii, biomechaniki i antropometrii, Wyd. Politechniki Poznańskiej 2012

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

3. Koradecka D. (red.), Nauka o pracy - bezpieczeństwo, higiena, ergonomia. Pakiet edukacyjny dla uczelni wyższych, (8 tomów); Wydawnictwo Centralnego Instytutu Ochrony Pracy, Warszawa, 2000

4. Standards and legal acts indicated in the classes.

Result of average student's workload

Activity	Time (working hours)
1. Participation in laboratory classes	30
2. Preparationfor for laboratory classes	15
3. Participation in lectures	15
4. Preparation for the final test	15
5. Preparation of reports	30
6. Participation in project activities	15

Student's workload

Source of workload	hours	ECTS

Total workload	120	4
Contact hours	60	2
Practical activities	45	2