

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject Diagnosing the Manner of Work		Code 1011105231011126465
Field of study Safety Engineering - Part-time studies - Second-	Profile of study (general academic, practical) (brak)	Year /Semester 2 / 3
Elective path/specialty Ergonomics and Work Safety	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: Second-cycle studies	Form of study (full-time,part-time) part-time	
No. of hours Lecture: 8 Classes: - Laboratory: 18 Project/seminars: 8		No. of credits 4
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: Wiesława M. Horst email: wieslawahorst@o2.pl tel. 665 3379 WIZ PP Wydział Inżynierii Zarządzania ul. Strzelecka 11 60 965 Poznań		Responsible for subject / lecturer: Joanna Sadłowska-Wrzesińska email: joanna.sadlowska-wrzesinska@put.poznan.pl tel. 665 33 64 Wydział Inżynierii Zarządzania Strzelecka 11, Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	The student has knowledge of basic knowledge of the principles and requirements regarding ergonomics
2	Skills	The student is able to apply the principles and requirements of ergonomics to create conditions of work as well as knows how to make the timing work
3	Social competencies	The student is able to associate the social and economic effects of rules negligence with the requirements of ergonomics in shaping working conditions
Assumptions and objectives of the course: Aim of the course: the acquisition of knowledge and social competence in the field of methodology for measuring the body burden that result from work performance, developing skills and adaptation to the actual assessment		
Study outcomes and reference to the educational results for a field of study		
Knowledge: 1. The student knows the methodological problems of ergonomic diagnosis, ergonomics and safety assessment, , methods of achieving them, the principles and techniques of measurement in safety and ergonomics as well as computer programs to support their analysis - [[K2A_W25]]		
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. Can create, both in English and Polish language, a well- documented report of problems within Safety Engineering, which present the results of their own research - [[K2A_U3], [K2A_U3]] 4. . Can prepare and give oral presentation relating to detailed issues within the realm of Safety Engineering in Polish and other foreign language - [[K2A_U4]] 5. Has self-study ability and comprehends it - [[K2A_U5]] 6. Student can apply information-communicative techniques to deal with tasks that are typical of engineering activity - [[K2A_U7]]		
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 argue 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

Formative assessment:

Classes: presentation (PP) of the research results along with the application of particular indicated tools to measure musculoskeletal load (ongoing)

Lectures: written tests

Collective assessment:

Classes and projects: average of the achieved marks and preparation of a project (basis for credits)

Lectures: average of test grades

Course description

Content:

- ergonomic hazards and ways of work performance
- methods of identifying biomechanical loads
- methods of identifying musculoskeletal load
- estimation methods of musculoskeletal load

Basic bibliography:

1. Horst Wiesława M., Diagnostowanie sposobu wykonywania pracy. Zagrożenia ergonomiczne. Wyd. PP, Poznań, 2012.
2. Horst Wiesława M., Wprowadzenie do diagnostowania sposobu wykonywania pracy. Wybrane zagadnienia z fizjologii, biomechaniki i antropometrii. Wyd. PP, Poznań, 2012.

Additional bibliography:

1. Horst Wiesława M., Ryzyko zawodowe na stanowisku pracy. Ergonomiczne czynniki ryzyka. Wyd. PP, Poznań, 2004.
2. Zawieska W., (red.) Ocena ryzyka zawodowego. Podstawy metodyczne. CIOP PIB, Warszawa, 2007.
3. DzU 2009.105.869 Rozporządzenie Rady Ministrów z dnia 30 czerwca 2009 r. w sprawie chorób zawodowych.
4. DzU 2008.237.1656 Ustawa z dnia 19 grudnia 2008 r. o emeryturach pomostowych.

Result of average student's workload

Activity	Time (working hours)
1. Participation in lectures	10
2. Participation in laboratories	24
3. Participation in projects	8
4. Preparation for lab classes	36
5. Preparation for project	40
6. Preparation for the lectures based tests	8
7. Preparation of the materials for lab	14
8. Overview of credit results (lectures)	2

Student's workload

Source of workload	hours	ECTS
Total workload	150	5
Contact hours	90	3
Practical activities	60	2