

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject (-)		Code 1011102221011105146
Field of study Engineering Management - Full-time studies -	Profile of study (general academic, practical) (brak)	Year /Semester 1 / 2
Elective path/specialty Quality Systems and Ergonomics	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: Second-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 15 Classes: 15 Laboratory: - Project/seminars: -		No. of credits 3
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 %) 3 100% 3 100%
Responsible for subject / lecturer: dr inż. Krzysztof Hankiewicz email: krzysztof.hankiewicz@put.poznan.pl tel. 616653408 Faculty of Engineering Management ul. Strzelecka 11 60-965 Poznań		
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	Student has basic knowledge about computer sciences and ergonomics
2	Skills	Student can discern their system, socio-technical, organizational, economic and non-technical aspects of the human-technical object system
3	Social competencies	Student is aware of the need to shape products including physical, psychological features and capabilities of an individual
Assumptions and objectives of the course: To learn theoretical and practical problems of designing and use of computer (and dedicated for other devices) software in accordance with the principle of adaptation to human limitations and capabilities. Familiarity with the principles of human-machine interface design and related conceptual and technical knowledge.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Student has basic knowledge of product lifecycle - [K1A_W22] 2. Student knows fundamental methods, techniques, tools and materials that are applied in solving simple engineering tasks relating building and machines utilization - [K1A_W24] 3. Student has rudimental knowledge which is indispensable to comprehend non-technical conditions of engineering activity; knows basic health and safety procedures - [K1A_W25]		
Skills:		
1. Student can make use of analytic, simulation and experimental methods to formulate and deal with engineering tasks - [K1A_U13] 2. Student can discern its systemic, socio-technical, organizational, economic and non-technical aspects - [K1A_U14] 3. Student can make a preliminary economic analysis in taking up engineering activities - [[K1A_U15]		
Social competencies:		
1. Student is conscious of the relevance and understands non-technical aspects and consequences of engineering activity, including an impact on a human being, and connected with it, responsibility for undertaken decisions - [K1A_K08] 2. Student is aware of the fact, that creating the product which fulfils the user?s needs, requires system approach - [K1A_K09]		

Assessment methods of study outcomes		
Formative assessment: Classes: current evaluation of the assigned tasks; Lectures: evaluations based on questions relating to the presented materials during the previous lectures. Collective assessment: Classes: average of partial exercises; credits given after passing all exercises; Lectures: written test (open questions) concerning material presented during the lectures		
Course description		
The subject area includes the following: place and role of the user interface in the information system; restrictions resulting from the characteristics of the human body; methods and techniques for the implementation of human-machine dialogues; user interface design principles; testing methods, user interface evaluation; impact of the user interface on the ergonomics and usability of the IT product. In addition, the adaptation of equipment for people from different cultures and language groups is also included. The topic of the exercise concerns the practical application of the known methods of designing and evaluating the user interface. Didactic methods: informative lecture, conversational lecture, case method; auditorium exercises; project method: teamwork and partial individual design.		
Basic bibliography:		
1. Projektowanie funkcjonalnych stron internetowych, Nielsen J., Helion, Gliwice, 2003 2. Human-Computer Interaction, Dix A., Finlay J. Abowd G., Beale R., Prentice Hall , 2004 3. International Standard ISO (EN) 9241. Ergonomic requirements for office work with visual display terminals (VDTs) 4. User Interface in Contemporary Ergonomics, Hankiewicz K., Poznan University of Technology, 2009		
Additional bibliography:		
1. Nie każ mi myśleć. O życiowym podejściu do projektowania stron internetowych, Krug S., Helion, Gliwice, 2006 2. Badanie jakości użytkowej dialogowych stron internetowych Prussak W., Hankiewicz K. Politechnika Poznańska, 2006		
Result of average student's workload		
Activity	Time (working hours)	
1. Lecture	15	
2. Preparation for lecture test	15	
3. Exercise classes	15	
4. preparation for exercise	20	
5. Consultation	8	
6. Final test	2	
Student's workload		
Source of workload	hours	ECTS
Total workload	75	3
Contact hours	40	2
Practical activities	43	2