GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Human-computer interaction, PG_00045305		
Field of study	Data Engineering		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2022/2023
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study
			Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Informatics in Management -> Faculty of Management and Economics		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Marcin Sikorski	
	Teachers	prof. dr hab. inż. Marcin Sikorski	
		dr inż. Magdalena Ciesielska	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	0.0	60
	E-learning hours included: 0.0						

Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	60	8.0	32.0	100

Subject objectives	• familiarize students with the principles of building effective human-computer interaction • learn how to design, evaluate and improve ergonomics of the user interface • acquire practical skills of conducting usability tests and organizing cooperation with users during an IT project

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U02] designs, analyses correctness and creates functional specification of IT systems, selects appropriate measures, creates quality models, prepares and assesses their design documentation.	Student is able to work in a team and organize cooperation between supplier and customesr/users in an IT project	[SU1] Assessment of task fulfilment
	[K6_W11] has knowledge of the role of man in social structures and the impact of their decisions on economic situation of business entities	The student has an extended knowledge on guidelines for interaction design and on methods of developing the user interface	[SW1] Assessment of factual knowledge
	[K6_K03] Knows how to cooperate or work in a project team and take managerial or executive functions.	Student is able to work in a team and organize cooperation between supplier and customesr/users in an IT project	[SK1] Assessment of group work skills

Subject contents	1. Ergonomics, usability and User Experience. 2. Characteristics of the user. 3. GUI interface - guidelines and principles of design. Methods of development. 4. Web interface - guidelines and principles of design. Methods of development. 5. UCD approach - quality management, User-Centred Design methodology. 6. UCD approach - methods for eliciting requirements, context of use analysis. 7. UCD approach prototyping , evaluation and usability tests. 8. UCD approach collecting data from users. Surveys and questionnaires. 9. UCD approach reporting results from usability studies. 10. Methods of collaboration with users in IT projects. 11. Multimodal and natural user interfaces. 12. Developing economic interactions. Trust on-line in e-business and in e-services. 13. Creativity and innovation in developing interactions on-line between customer and service vendor.

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written coloqium	60.0%	50.0%
	laboratory exercises	60.0%	50.0%

Recommended reading	Basic literature	Literatura podstawowa: Sikorski M. Interaction Design in Agile IT Projects. Wyd. PG, 2021 Sharp H., Rogers Y., Preece J.: Interaction Design. Beyond Human-Computer Interaction. Wiley, 2019.
	Supplementary literature	Schneiderman B., et al. (2017). Designing the User Interface: Strategies for Effective Human-Computer Interaction. Pearson
	eResources addresses	Podstawowe https://www.researchgate.net/publication/357434574_INTERACTION_DESIGN_IN_AGILE_IT_PROJECTS - Sikorski M. Interaction Design in Agile IT Projects. Wyd. PG, 2021 Adresy na platformie eNauczanie: Human-Computer Interaction ID 2022/2023 - Moodle ID: 24306 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=24306

Example issues/ example questions/ tasks being completed	Exemplary questions: - user-system interaction techniques - prototyping in user interface design - methods of cooperation with users during an IT project
Work placement	Not applicable