

Subject card

Subject name and code	Design of Human-Computer Interaction, PG_00156481						
Field of study	Informatics and Econometrics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
Education level	Master's 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	1		Language of instruction		Polish		
Semester of study	1		ECTS credits		5.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Business Informatics -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Michał Kuciapski				
	Teachers		dr Monika Woźniak				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	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	45		20.0		60.0	125
Subject objectives	• overview of methods and devices supporting human-computer interaction, • introduction to human-computer interaction design methodologies, • design of adaptable application prototypes, • preparation of useful human-computer interaction interfaces for web and mobile applications, • mastering the basics of user interface analysis and evaluation.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[liEMU2_W05] The student has an in-depth knowledge of socio-economic data sources, their databases and how to create them.	understands the interdisciplinary nature of human-computer interaction design knowledge, understands the differences between the approach to creating a user interface and the approach to creating the core part of software	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[liEMU2_U02] The student is able to proficiently acquire detailed information about economic processes and phenomena through direct observation, planned experimentation or database queries, as well as collect and process it using modern information technology tools.	Edits the interface sections of the contract's material requirements specification (ToR), reviews software for interface quality, creates interactive interface prototypes, designs and programs mobile applications based on prototypes	[SU2] presentation/project/paper/report
	[liEMU2_W01] The student has an in-depth knowledge of the place of social sciences in the system of sciences, their nature, methodology and connections with other sciences.	explains the characteristics of the target user on the selection of methods and devices for interaction with the computer, can present the basics of the psychology of human-computer interaction, evaluates the interface - analysis of the interface concept and specification of requirements for the interface	[SW2] presentation/project/paper/report
	[liEMU2_K01] The student understands the need for continuous completion and deepening of acquired knowledge. The student inspires and organizes others' learning processes.	Supervises a team of developers implementing interfaces, mediates between the developer and the contractor of the new application	[SK2] presentation/project/paper/report
	[liEMU2_U04] The student is able to plan, design, and program information systems at an advanced level, supporting the operation of business entities.	synthesizes ideas about how to interact with the software being developed, creates presentations demonstrating how the interface works	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written

Subject contents	Lecture		
	1. Foundations and Principles of Human Computer Interaction 1. Foundations 2. History 3. Principles and Theories 2. Understanding users and their tasks 1. Task-centered system design 2. High level models of human behavior 3. Designing with the user 1. Sketchbook 2. User centered design and Prototyping 4. Designing and building visual interfaces 1. Psychology of everyday things 2. Beyond screen design 3. Graphical screen design 4. Interface design 5. Physical User Interfaces 5. Principles for Design 1. Design principles and usability heuristics 6. Quality of UI 1. Quality of Service 2. Evaluating Interfaces with Users: Qualitative Methods 3. Evaluating Interfaces with Users: Controlled Experiments 7. HCI in practise implementation 1. Web applications 2. Desktop applications 3. Mobile applications 8. Future of HCI		
Prerequisites and co-requisites	None		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Team project	50.0%	50.0%
	Exam test	50.0%	50.0%
Recommended reading	Basic literature	1. Shneiderman B., Plaisant C., Cohen M., Jacobs S., Designing the User Interface: Strategies for Effective Human-Computer Interaction, 5/E , 2020 2. Budiu R., Nielsen J., Mobile Usability, New Riders 2023	
	Supplementary literature	1. Kuciapski M. (2017), A model of mobile technologies acceptance for knowledge transfer by employees, Journal of Knowledge Management, Vol. 21, Issue 5, ISSN: 1367-3270, pp 1053-1076. doi.org/10.1108/JKM-03-2016-0136	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Design an interactive user interface prototype of a mobile application to support the organization's business processes.		
Work placement	Not applicable		

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