

Subject card

Subject name and code	Design of Human Computer Interaction, PG_00158290						
Field of study	Information Science and Econometrics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
Education level	postgraduate 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		English		
Semester of study	1		ECTS credits		5.0		
Learning profile	academic		Assessment form				
Conducting unit	Katedra Informatyki Ekonomicznej -> Faculty of Management						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Michał Kuciapski				
	Teachers		dr hab. Michał Kuciapski				
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_W03] The student has an in-depth knowledge of man as a subject who creates economic structures and institutions.	Explains the characteristics of the target user on the selection of methods and devices for interaction with the computer, is able to 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_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.	synthesizes ideas on how to interact with the software under development, creates presentations demonstrating how the interface works	[SU2] presentation/project/paper/report [SU5] implementation of a problem task
	[liEMU2_K02] The student can communicate freely with the public on specialised topics in the field of computer science and econometrics in and outside the workplace, communicate his knowledge and share his skills through various media. Culturally participates in discussions, is not afraid to ask questions and knows how to give constructive criticism.	Is sensitive to the social aspect of the development of methods and devices for human-computer interaction	[SK2] presentation/project/paper/report
	[liEMU2_U01] The student can comprehensibly, orally and in writing, present and justify in depth advanced economic theories and apply them to explain the functioning of the national economy and its components. Understands and can explain the content of communications from economic institutions, articles in the economic press and scientific journals.	Edits interface sections in 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 [SU5] implementation of a problem task
	[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, acts as an intermediary between the developer and the contractor of the new application	[SK2] presentation/project/paper/report
	[liEMU2_K03] The student is able to communicate freely with the public inside and outside the workplace, transfer his knowledge and share his skills through various media.	mediates between the developer and the contractor of the new application	[SK2] presentation/project/paper/report
	[liEMU2_W07] The student has an extended and established knowledge of ethical norms applicable to business, good practices for its conduct and legal regulations for the protection of intellectual property. The student has an extended knowledge of the risks and responsibilities associated with the computerization of business processes. The student knows the principles of netiquette.	Understands the interdisciplinary nature of the knowledge of human-computer interaction design, understands the differences between the approach to the development of the user interface and the approach to the development of the core part of the software	[SW2] presentation/project/paper/report

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		
	Laboratories:		
	1. Prototype designing 1. Sketchbook 2. User centered UI design 3. Controls mapping 4. Map of screens 2. Users Experience analysis 3. Exporting prototype: 1. Exporting sketchflow as interactive solution 2. Receiveing feedback from user		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Exam test	50.0%	50.0%
	Team project	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	Adresy na platformie eNauczanie:	
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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