COURSE UNIT DESCRIPTION

Course unit title	Course unit code
Human Computer Interaction Design	**PMZP7134**

Lecturer(s)	Department where the course unit is delivered
Coordinator: Kristina Lapin **Other lecturers:** -	Department of Software Engineering Faculty of Mathematics and Informatics Vilnius University

Cycle	Level of course unit	Type of the course unit
Second		Optional

Mode of delivery	Semester or period when the course unit is delivered	Language of instruction
Face-to-face	Spring semester, first year of study	Lithuanian, English

Prerequisites and corequisites	
Prerequisites:	**Corequisites (if any):** -

Number of ECTS credits allocated	Student's workload	Contact hours	Individual work
6	150	82	68

Purpose of the course unit: programme competences to be developed		
To deepen design skills for the human-computer interaction quality assurance in the software development project, to foster the competence of interaction conceptualization, to apply the principles and methods to the various interaction paradigms.		
Learning outcomes of the course unit: students will be able to	**Teaching and learning methods**	**Assessment methods**
Analyze user's needs, tune up design decisions and evaluate their usability, while communicating with representatives of other professional fields of business or science.	Lecture, augmented with written information and images (interface examples, diagrams, tables, conceptual schemes and video) on slides. problem-based teaching, group discussions and seminars on presentation of projects, reading the literature, case analysis.	Test (open-ended questions). Project.
Plan, manage, and evaluate usability engineering processes in software development projects.		
conceptually and formally design objective field and evaluate the designed model, compare the usability evaluation models, methods and prototyping tools for the purposeful usage in various contexts.		
Prepare usability evaluation and field studies plans or projects, select methods and resources for the investigation, to formulate and make a statement on the subject.	Research methods (information retrieval, comparative analysis), preparation of presentation slides and summary	Presentation and summary

Course content: breakdown of the topics	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Practice	Laboratory work	Practical training	**Contact hours**	**Individual work**	**Assignments**
1. Interaction design and user experiences.	2				1		**3**	**1**	Self-preparation for the discussion on seminar by reading the mandatory and individually selected publications. Self-study of literature.
2. Conceptualizing interaction.	2	1			1		**4**	**1**	
3. Cognitive aspects.	2	1			1		**4**	**1**	
4. Social interaction.	2				1		**3**	**1**	
5. Emotional interaction.	2				1		**3**	**2**	
6. Interfaces.	2		2		1		**5**	**4**	
7. Data gathering.	2				1		**3**		
8. Data analysis, interpretation and presentation.	2	1			1		**4**		
9. The process of interaction design.	2		1				**3**	**2**	
10. Establishing requirements.	2		2		1		**5**	**2**	
11. Design, prototyping, and construction.	2	1	2		1		**6**	**3**	
12. Introducing evaluation.	2		1				**3**	**1**	
13. An evaluation framework.	2		2		2		**6**	**2**	
14. Evaluation studies in controlled and natural settings.	2		1		1		**4**	**1**	
15. Expert inspections, analytics, and models.	4		3		1		**8**	**4**	
16. Preparing of the project that the deals with analysis, prototyping, implementation and usability evaluation cases.		1	6		1		**8**	**15**	Preparation of the project: user need analysis, specification of usability goals, prototyping and usability evaluation for a chosen problem domain. Presentation of the analysed case.
17. Preparing the presentation of selected research paper on the seminar.		1	6		1		**8**	**16**	Preparation of the presentation of a research paper from the recommended list and selected related papers. Self-study of literature.
18. Preparing for the exam and taking the final exam (written)							**2**	**12**	Self-study of literature.
Total	**32**	**6**	**26**		**16**		**82**	**68**	

Assessment strategy	Weight %	Deadline	Assessment criteria
Active participation in lectures and seminars	10%	During the semester	Active participating in seminar discussions, providing criticism for peers projects.
Project	20%	During the semester	Completeness and argumentation quality of the user experience analysis, design prototypes and evaluation applied to a specific case of human computer interaction.
Presentation	20%	During the semester	The following aspects of the work will be assessed: - an appropriate structure and scope of the work, the material is illustrated by examples (0.5 points); - complete analysis, sound findings, formulated on the basis of the main and supplementary material (1 point); - scientific research style and culture: the fair treatment of sources and quotations, wording and style to meet the requirements of a scientific work (0.5 points)
Exam	50%	Exam session	Test consists of open-ended questions.

Author	Publishing year	Title	Number or volume	Publisher or URL
Required reading				
Rogers, Y., Sharp, H., Preece, J.	2011 2007 2002	Interaction Design: Beyond Human Computer Interaction	3rd ed.	Wiley www.id-book.com
Recommended reading				
Purchase, Helen C.	2012	Experimental human-computer interaction: a practical guide with visual examples		Cambridge [N.Y.] : Cambridge University Press,
J. A. Jacko (ed.), A. Sears (eds.)	2008	The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications		Lawrence Erlbaum Associates
Cooper A., Reimann R., Croni D.	2007	About Face 3: The Essentials of Interaction Design.		Wiley
Jonathan Lazar, Jinjuan Heidi Feng, Harry Hochheiser.	2010	Research methods in human-computer interaction		Chichester : Wiley,