COURSE UNIT DESCRIPTION

Course unit title	Course unit code
User Experience Engineering	**PMZP7134**

Lecturer(s)	Department where the course unit is delivered
Coordinator: Kristina Lapin **Other lecturers:** -	Department of Software Engineering Institute of Computer Science 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	2nd semester (4th semester part-time)	Lithuanian, English

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

Number of credits allocated	Student's workload	Contact hours	Individual work
5	135	48	87

Purpose of the course unit: programme competences to be developed		
To deepen knowledge of the foundations of excellent user experience, to study perceived usage quality assurance methods in the software development project, to foster the competence of user experience design documentation, to apply the principles and methods designing interactive information technologies.		
Learning outcomes of the course unit: students will be able to	**Teaching and learning methods**	**Assessment methods**
Analyse user's emotional 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.	Exam (open-ended questions). Project.
Plan, manage, and evaluate user experience engineering processes in software development projects.		
Specify stakeholders' expectations and needs, develop information architecture mockups and user interface prototypes, evaluate their usability, compare the usability evaluation models, design 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. User experience engineering processes and case study.	4						**4**	**1**	Self-preparation for the discussion on seminar by reading the mandatory and individually selected publications. Self-study of literature.
2. Conceptualizing interaction and users.	2				1		**3**	**1**	
3. Data gathering.	2						**2**	**1**	
4. Emotional interaction design.	2		1		1		**4**	**2**	
5. Cognitive aspects of interaction.	2		1				**3**	**2**	
6. Establishing user requirement.s	2				1		**3**	**2**	
7. Mockuping information architecture, designing high fidelity prototypes.	2				1		**3**	**2**	
8. Aligning user experience and software engineering lifecycles.	2						**2**		
9. Visual design.	2		1				**3**	**2**	
10. Security and privacy.	2		1				**3**	**2**	
11. Expert inspections, analytics, and models.	2		1		1		**4**	**3**	
12. Evaluation studies in controlled and natural settings.	2		1		1		**4**	**1**	
13. User study data analysis, interpretation and presentation for stakeholders	2		1				**3**	**2**	
14. Social interaction.	2		1				**3**	**1**	
15. Preparing the course project that deals with analysis, prototyping and usability evaluation cases.		1			1		**2**	**25**	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.
16. Preparing the presentation of selected research paper on the seminar.							**0**	**25**	Preparation of the presentation of a research paper from the recommended list and selected related papers. Self-study of literature.
17. Preparing for the exam and taking the final exam (written)							**2**	**15**	Self-study of literature.
Total	**30**	**1**	**8**		**7**		**48**	**87**	

Assessment strategy	Weight %	Deadline	Assessment criteria
Active participation in lectures and seminars	10%	During the semester	1 point. Active participation in classroom discussions providing criticism.
Project	20%	During the semester	2 points. The analysis of the selected case of human computer interaction design (15%, 1,5 points). Scientific style and culture: the fair treatment of sources and quotations, wording and style meets the requirements of a scientific work (5%, 0,5 points).
Presentation	20%	During the semester	2 points. The following aspects of the work will be evaluated: an appropriate structure and scope of the work, the material is illustrated with appropriate examples (0,5 points); complete analysis, sound findings, formulated on the basis of the main and supplementary material (1 point); scientific style and culture: the fair treatment of sources and quotations, wording and style meets the requirements of a scientific work (0,5 points).
Exam	50%	Exam session	5 points. It is required to collect at least 3 points during the semester to be allowed take an exam. Exam consists of open-ended questions.

Author	Publishing year	Title	Number or volume	Publisher or URL
Required reading				
David Platt	2016	The Joy of UX: User Experience and Interaction Design for Developers		Addison-Wesley Professional
Y. Rogers, H. Sharp, J. Preece.	2015	Interaction Design: Beyond Human Computer Interaction		Wiley www.id-book.com
Recommended reading				
Steve Krug	2014	Don't make me think, revisited: a common sense approach do Web usability		New Riders
Alan Cooper	2014	About face: the essentials of interaction design		Wiley
Jonathan Lazar, Jinjuan Heidi Feng, Harry Hochheiser.	2017	Research methods in human-computer interaction		Wiley