

Course programme

Course code: IFI7162	UBIQUITOUS COMPUTING		
ECTS credits: 4 ECTS	Amount of contact lessons: 28	Teaching semester: Autumn	Assessment form: Exam
Course objectives:	The course aims to provide the skills necessary for analyzing digital services that work across a broad range of devices. By participating in the course students will acquire hands-on experience of designing distributed interactions.		
Brief description of course content: (including the description of the independent work)	<p>The course consists of the following modules:</p> <ul style="list-style-type: none"> • Mapping the avatar ecology of a digital service; • Describing distributed interaction scenarios; • Describing interactions in an artefact ecology with the distributed interaction design (DIXD) pattern language; • Composing a design brief for a distributed service; • Sketching distributed interactions. 		
Learning outcomes:	<p>After successfully passing the course students will know:</p> <ul style="list-style-type: none"> • What service avatars are and how to map an avatar ecology; • How to describe distributed interaction scenarios; • How to describe distributed interactions by using design patterns; • How to compose design briefs; • How to sketch distributed interactions. 		
Assessment Methods:	<p>The final grade consists of the following:</p> <ul style="list-style-type: none"> • 15% - mapped avatar ecology of an existing service; • 15% - distributed interaction scenario descriptions; • 10% - distributed interaction descriptions using design patterns; • 20% - design brief; • 30% - distributed interaction prototype; • 10% - attendance. 		

	Students will work in teams of up to 3 people and will be assessed based on their contribution to the group work. The role of each student in the group must be clearly defined and students might be asked to present their individual contributions.
Lecturer(s):	Ilja Šmorgun
Course title in English:	Ubiquitous Computing
Prerequisited course(s):	-
Compulsory literature:	http://ifi7162.wordpress.com
Replacement literature:	<p>The course cannot be passed only on the basis of replacement literature.</p> <p>Kuniavsky, M. (2010). Smart Things: Ubiquitous Computing User Experience Design. Morgan Kaufmann.</p> <p>Buxton, B. (2010). Sketching User Experiences: Getting the Design Right and the Right Design. Morgan Kaufmann.</p> <p>Elmqvist, N. (2011). Distributed User Interfaces: State of the Art. In J. A. Gallud, R. Tesoriero, & V. M. R. Penichet (Eds.), Distributed User Interfaces (pp. 1–12). London: Springer London. http://doi.org/10.1007/978-1-4471-2271-5_1</p> <p>Borchers, J. O. (2000). A pattern approach to interaction design. In Proceedings of the conference on Designing interactive systems processes, practices, methods, and techniques - DIS '00 (pp. 369–378). New York, New York, USA: ACM Press. http://doi.org/10.1145/347642.347795</p> <p>Remy, C., Weiss, M., Ziefle, M., & Borchers, J. O. (2010). A pattern language for interactive tabletops in collaborative workspaces. In Proceedings of the 15th European Conference on Pattern Languages of Programs - EuroPLoP '10. New York, New York, USA: ACM Press. http://doi.org/10.1145/2328909.2328921</p> <p>Mercer, E. (2015). Towards a Pattern Language for Describing Distributed Interactions. Tallinn University. Retrieved from www.cs.tlu.ee/teemaderegister/get_file.php?id=364</p>
Participation and exam requirements:	In general students are required to participate in all workshops, which amounts to 10% of the final grade.

	No separate exam is foreseen. The components of the final grade are described in the Assessment methods section.
Independent work:	In case of absence the student is expected to complete the individual work for the module and present it to the lecturer.
Grading criteria scale or the minimum level necessary for passing the subject:	<p>A - 90-100% of the work is done - excellent: outstanding work with only few minor errors.</p> <p>B - 80-90% of the work is done - very good: above average work but with some minor errors.</p> <p>C - 70-80% of the work is done - good: generally good work with a number of notable errors.</p> <p>D - 60-70% of the work is done - satisfactory: reasonable work but with significant shortcomings.</p> <p>E - 50-60% of the work is done - sufficient: passable performance meeting the minimum criteria.</p> <p>F- less than 50% of the work is done - fail: more work is required before the credit can be awarded.</p>
<p>Information about the course:</p> <p>(Topics by contact session, deadlines of independent works and exams/assessments times)</p>	
04.09.2015	Mapping the avatar ecology of an existing digital service.
18.09.2015	Describing distributed interaction scenarios.
16.10.2015	Describing interactions in an artefact ecology with the DIxD pattern language.
30.10.2015	Composing a design brief for a distributed service.
13.11.2015	Sketching distributed interactions.
27.11.2015	Sketching distributed interactions.
11.12.2015	Sketching distributed interactions.

14.12.2015	Exam
11.01.2016	Reassessment exam

Teaching Unit in charge:	Institute of Informatics
Course programme is prepared by:	Ilja Šmorgun
Date:	10.08.2015

The course program is registered in the academic unit:

Date:	19.08.2015
Name of academic coordinator:	Merilin Tohver