

Course programme

Course code IFI7179.DT	Basics of Game Theory and Design		
ECTS credits: 4	Amount of contact lessons: 23	Teaching semester: autumn	Assessment form: examination
Course objectives:	The course aims to provide an overview of, and an introduction to, the fields of educational game design and game studies. The students will examine the concepts of play, digital games and game-based learning, familiarize themselves with the major areas of game studies, and gain an overview of game design techniques and game creation process.		
Brief description of course content: (including the description of the independent work)	<p>The course begins with an introduction to games and play in general, followed by a more specific discussion of digital games and various theoretical perspectives regarding them. Then the concepts of gamification and digital learning games are introduced and educational paradigms that can be employed in such games are examined. The second half of the course builds on previously discussed concepts to provide an overview of game design process and techniques.</p> <p>The course includes a number of group activities. Independent work consists of individual assignments and a final project where students present their own game ideas.</p>		
Learning outcomes:	<p>Students will:</p> <ul style="list-style-type: none"> ● have a grasp of the key concepts in game design, game-based learning, and game studies; ● be able to analyze existing digital and analogue games from a range of perspectives; ● have a basic understanding of the process of game design. 		
Assessment Methods:	The final grade is comprised of two elements: assignments and class participation (60%) and final project (40%).		
Lecturer(s):	Mikhail Fiadotau		
Course title in Estonian:	Mänguteooria ja -disaini alused		
Prerequisted course(s):	N/A		
Compulsory literature:	<p>Frans Mayra (2008) An Introduction to Game Studies. Jesse Schell (2008) The Art of Game Design: a Book of Lenses. Marc Prensky (2007) Digital Game-Based Learning.</p>		

Replacement literature:	<p>Johan Huizinga (1955) <i>Homo Ludens: A Study of the Play-Element in Culture</i>.</p> <p>Ernest Adams (2009) <i>Fundamentals of Game Design</i>.</p> <p>Brenda Brathwaite and Ian Schrieber (2008) <i>Challenges for Game Designers: Non-Digital Exercises for Video Game Designers</i>.</p>
Participation and exam requirements:	<p>To pass the course, students are required to have attended at least 70% of the classes and to have submitted at least four assignments and the final project. One point will be detracted for assignments submitted after the deadline.</p>
Independent work:	<p>Course assignments:</p> <p>There are a total of six course assignments (see course description below). The assignments are evaluated on a scale from 0 (not submitted/assignment requirements not met) to 2 (assignment requirements are fully met).</p> <p>Group activities:</p> <p>There are two group quizzes and one group brainstorming exercise (see course description). For group quizzes, students form four teams whose performance in the quiz is rated from 2 (the most correct answers) to 0,5 (the fewest correct answers), with a step of 0,5. After the brainstorming session, all the ideas are evaluated by students; the team whose ideas receive the highest total votes gets 2 points, the team with the second best result gets 1,5 points, and so on.</p> <p>Final project:</p> <p>For the final project, students develop a short specification of a serious digital game. Students then rate each other's projects based on four criteria: educational/serious value, engagement, feasibility, novelty; a mean total score is calculated and normalized to 8 points. The instructor likewise rates each of the projects by the same criteria, with a maximum total score of 4. The two totals are added together, making up for a maximum of 12 points.</p>
Grading criteria scale or the minimum level necessary for passing the subject:	<p>The final grade is based on the number of points accumulated by the student throughout the course by submitting assignments, participating in group activities, and completing the final project.</p> <p>The grades are determined as follows:</p> <p>A - 25 to 30 points;</p> <p>B - 20 to 24 points;</p>

	<p>C - 15 to 19 points;</p> <p>D - 10 to 14 points;</p> <p>E - 6 to 9 points.</p>	
<p>Information about the course:</p> <p>(Topics by contact session, deadlines of independent works and exams/assessments times)</p>	<p>1) 09.09</p>	<p><i>Play, games, and the magic circle. Key ideas in ludology.</i> Assignment 1: Define your personal learning goals (due 15.09).</p>
	<p>2) 16.09 (I)</p>	<p><i>Games as rule-governed systems. Game theory and game economics.</i></p>
	<p>3) 16.09 (II)</p>	<p><i>History of digital games. Digital game genres and platforms.</i> Group quiz 1: Game history Assignment 2: Describe the rules of a game of your choice and introduce a playing strategy (due 22.09).</p>
	<p>4) 23.09</p>	<p><i>Serious games and learning games. Gamification and ludification.</i> Assignment 3: Describe a serious goal for a future digital game (due 29.09)</p>
	<p>5) 30.09 (I)</p>	<p><i>Introduction to game studies. Game-centered approaches in game studies.</i></p>
	<p>6) 30.09 (II)</p>	<p><i>Player-centered approaches in game studies. Theory-informed game design.</i> Group quiz 2: Gamification and game studies. Assignment 4: Analyze a digital game using any approach from game studies (due 06.10).</p>
	<p>7) 07.10</p>	<p><i>Pedagogical paradigms and approaches to learning. Educational elements in games.</i> Assignment 5: Introduce a game of your choice, focusing on its learning content and its engaging and immersive properties (due 13.10).</p>
	<p>8) 14.10 (I)</p>	<p><i>Introduction to game design. Game development process and role division in game development teams.</i></p>
	<p>9) 14.10 (II)</p>	<p><i>Game mechanics. Game elements. Game design document.</i> Assignment 6: Define your role(s) in a game development team (due 20.10)</p>
	<p>10) 21.10</p>	<p><i>Creating a game concept. Creativity techniques for game idea generation</i> Brainstorming activity: serious game ideas for a specified task. Final project: Learning/serious game concept (due 26.10).</p>

	Final projects must be submitted by 26.10 and will be rated by 28.10.
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Teaching Unit in charge:	School of Digital Technologies
Course programme is prepared by:	Mikhail Fiadotau
Date:	13.08.2016

The course program is registered in the academic unit:

Date:	22.08.2016
Name of academic coordinator:	Viktoria Humal