Course programme

Course code IFI7179.DT	Basics of Game Theory and Design			
ECTS credits: 4	Amount of contact lessons: 20	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 the game creation process. This knowledge will lay the foundation for further, more specific game-related courses.			
Brief description of course content: (including the description of the independent work)	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. The course includes a number of group activities. Independent work consists of individual assignments, a final test, and a final project where students present their own game ideas.			
Learning outcomes:	Students will: • 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 three elements: assignments and class participation (47%), final test (13%), and final project (40%).			
Lecturer(s):	Mikhail Fiadotau			
Course title in Estonian:	Mänguteooria ja -disaini alused			
Prerequisted course(s):	N/A			

Compulsory literature:	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.
Replacement literature:	Johan Huizinga (1955) Homo Ludens: A Study of the Play-Element in Culture.
	Ernest Adams (2009) Fundamentals of Game Design. Brenda Brathwaite and Ian Schrieber (2008) Challenges for Game Designers: Non-Digital Exercises for Video Game Designers.
Participation and exam requirements:	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.
Independent work:	Course assignments:
	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).
	Group activities:
	There is one group quiz and one group brainstorming exercise (see course description). For the group quiz, 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, students will vote for the best ideas; however, no points will be assigned.
	Final test:
	The final test comprises 12 multiple-choice questions based on material covered during the lectures. Most are comprehension questions, but several also involve interpretation and extrapolation of known material. The test accounts for a maximum of 4 points, with the result being proportional to the percentage of correct answers.
	Final project:

	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.	
Grading criteria scale or the minimum level necessary for passing the subject:	The final grade is based on the number of points accumulated by the student throughout the course by submitting assignments, participating in group activities, the final test result, and completing the final project. The grades are determined as follows: A - 25 to 30 points; B - 20 to 24 points; C - 15 to 19 points; D - 10 to 14 points; E - 6 to 9 points.	
Information about the course: (Topics by contact session, deadlines of independent works and exams/assessments times)	<table><tr><td>1) 08.09</td><td>*Play, games, and the magic circle. Key ideas in ludology.* **Assignment 1:** a) Define your personal learning goals; b) find and classify three examples of play in your everyday life (both due 14.09).</td></tr><tr><td>2) 08.09</td><td>*History of digital games.* **Group quiz 1:** Game history</td></tr><tr><td>3) 15.09</td><td>*Games as rule-governed systems. Game theory and game economics [video lecture delivered online]* **Assignment 2:** Describe the rules of a game of your choice and introduce a playing strategy (due 21.09).</td></tr><tr><td>4) 22.09</td><td>*Digital game classification. Game genres and platforms.* **Assignment 3:** Re-imagine an existing game in a different genre/on a different platform (due 28.09)</td></tr><tr><td>5) 29.09 (I)</td><td>*Introduction to game studies. Game-centered approaches in game studies.*</td></tr></table>	

	6) 29.09 (II)	*Player-centered approaches in game studies. Theory-informed game design.* **Assignment 4:** Analyze a digital game using any approach from game studies (due 05.10).
	7) 06.10 (I)	*Serious games and learning games. Gamification and ludification.*
	8) 06.10 (II)	*Pedagogical paradigms in game-based learning. Scaffolding and assessment in digital learning games.* **Assignment 5:** a) Introduce a game of your choice, focusing on its learning content and its engaging and immersive properties; b) suggest an educational paradigm applicable to a given learning task (both due 12.10).
	9) 13.10 (I)	*Introduction to game design. Game development process and role division in game development teams.*
	10) 13.10 (II)	*Game mechanics and dynamics. Game elements. Game design document.* **Assignment 6:** Analysis of a role in a game development team (due 19.10)
	11) 20.10	*Creating a game concept. Creativity techniques for game idea generation* **Brainstorming activity:** serious game ideas for a specified task. **Final project:** Learning/serious game concept (due 25.10).

The final test must be completed online by 25.10. Final projects must be submitted by 27.10 and will be peer-rated by 30.10, then assessed by the instructor within a week.

Teaching Unit in charge:	School of Digital Technologies
Course programme is prepared by:	Mikhail Fiadotau
Date:	15.08.2017

The course program is registered in the academic unit:

Date:	17.08.2017
Name of academic coordinator:	Kristi Oikimus