

<b>Subject code:</b> IFI6099.DT	<b>Subject name:</b> Computer Games		
<b>Study load:</b> 4 (EAP/ECTS)	<b>Load of contact hours:</b> 40	<b>Study semester:</b> Spring	<b>Assessment:</b> Exam
<b>Objectives:</b>	Game industry is one of the newest and the fastest growing branch of the cross media. The goal of this course is to provide an overall understanding of game research and theory, design and implementation.		
<b>Course outline:</b>	<p>The course is designed as game. Students are treated as players and teacher is game master. During this game players have to fulfil different missions. Each mission has activities like:</p> <ol style="list-style-type: none"> <li>1. Crafting (creating documents and game elements)</li> <li>2. Questing (presenting individual or teamwork results)</li> <li>3. Fighting (asking questions from each other)</li> </ol> <p>The ultimate quest is to defeat Big Boss (exam) with designing and selling the idea for a new game. Details about missions are presented in the section of “Independent Work”.</p> <p>To achieve this goal players (students) will be equipped with needed weapons (principles of game play theory, game design and implementation methods).</p> <p>Topics covered:</p> <ol style="list-style-type: none"> <li>1. Game definition</li> <li>2. Game elements and mechanics</li> <li>3. Game classification</li> <li>4. Game design process stages</li> <li>5. Game design roles</li> <li>6. Game idea</li> <li>7. Game concept</li> <li>8. Gameplay (challenges and actions)</li> <li>9. Core Mechanics (rules) and game balancing</li> <li>10. Game world design</li> <li>11. Character design</li> <li>12. Storytelling and interactive dialogues</li> <li>13. User interface</li> <li>14. Prototype development</li> <li>15. Business and marketing aspects</li> </ol> <p>In addition to gamification, this course is also based on flipped classroom learning strategy. All lectures are recorded and students are asked to listen them before the next class. Also additional learning materials are shared via online learning platform. Majority of the classes are spent for team work and design workshops.</p>		
<b>Learning Outcomes:</b>	In the end of the game (course) players (students) have achieved		

	<p>following qualities (outcomes):</p> <ol style="list-style-type: none"> <li>1. Understanding the game design role in the framework of cross media management and in the overall game production process.</li> <li>2. Overall overview of game related theories.</li> <li>3. Game design skills.</li> </ol>
<b>Assessment Methods:</b>	<p>Big Boss Fight (Exam)</p> <p>Players (students) will earn XP's (experience points) for every mission (assignment) during the entire game (source). XP's are divided to levels (grades). Based on players performance leader board is created. See details in the "Grading" section. Players can earn extra XP's for active participation and solving additional missions. Big Boss is defeated when sufficient number of XP's is earned.</p>
<b>Teacher(s):</b>	Martin Sillaots (Game Master)
<b>Subject name in Estonian:</b>	Arvutimängud
<b>Prerequisite subject(s):</b>	None
<b>Compulsory Literature:</b>	Jim Thompson (2009). The Computer Game Design Course (selected chapters)
<b>Replacement Literature:</b>	Ernest Adams (2010). Fundamentals of Game Design
<b>Participation and Exam requirements:</b>	<p>Visiting the classes and active participation is important because most of the classes will be spent for team works and workshops and not for presentations. Players will earn also points for attending the classes (1 XP per class).</p> <p>Attending the Big Boss fight is mandatory even if the previously collected amount of XP's is already sufficient for getting the positive grade.</p>
<b>Independent work:</b>	<p><b>Game Missions</b> (Course Assignments)</p> <p><b>User Name</b> Based on the personal player type or desired roll in the game development team, select an user name and craft (design) an icon [1 XP]. Additional points can be earned by creating the avatar story [1 XP]. All information related with the player progress will be published in the Internet so please do not violate your rights of the personal data (it's up to you how much your user is presenting your</p>

real identity).

### **Roles**

What is your background? What game design related skills you have? What skills you would like to develop and why? Choose one or more roles that you would like to have in the game design team and explain why:

- Project manager
- Designer (logics of the game)
- Art director
- Writer
- Technical (programing)
- Sales manager
- Other (e.g. music, animation, etc.)

[1 XP]

### **Idea**

Provide one idea for a new game. Each player will pitch this idea to the rest of the class (2 min) [2 XP]. Followed by mass fight – each student will give vote to one idea. 5 (number depends on class size) best ideas will be selected. Owners of the winning ideas will earn extra points [2 XP].

### **Teams**

Form teams around the game ideas (5 members per team – number depends on class size). All players whose idea was not selected will choose between 2 favourite ideas. Teams are formed with the help of TeamUp (<http://teamup.aalto.fi>). After dividing players in to teams, group will reorganize the roles (if needed) and select name for the team. All groups will introduce their team members and their roles to the rest of the class [1 XP per team member].

### **Concept**

Based on selected game ideas all teams craft the game concept (2 pg. document). All teams will participate in the quest of introducing the Game Concept and fight (asking and answering questions from opposite teams). [2 XP per team member]

Aspects that should be covered in the game concept:

- Idea description
- Players role
- Gameplay main mode
- Genre
- Target audience
- Hardware platform
- Competition/Collaboration mode
- Game world
- Unique selling points
- Marketing strategy

**Gameplay**

All teams will craft a document (2 pg.) where game challenges and actions are described. All teams will participate in the quest and fight of introducing the gameplay. [2 XP per team member]

Aspects that should be covered in the gameplay:

- Hierarchy of challenges
- Essential actions
- Other Actions

**Core mechanics**

All teams will craft a document (2 pg.) where game objects and conditions are described. All teams will participate in the quest and fight of introducing the game mechanics. [2 XP per team member]

Aspects that should be covered in the Core mechanics:

- Resources (if relevant)
- Objects and attributes
- Relationships between objects
- Events and processes
- Conditions to events and procedures

**Game world**

All teams will craft a document (2 pg.) about game world. All teams will participate in the quest and fight of introducing the game world. [2 XP per team member]

Aspects that should be covered in the game world document:

- General map of the game world
- 2 or 3 background images (places)
- 2 or 3 game world items
- Describe style and context issues

**Characters**

All teams will craft a document (2 pg.) about game characters. All teams will participate in the quest and fight of introducing the game characters. [2 XP per team member]

Aspects that should be covered in the character document:

- Player avatar (if relevant)
- 2 or 3 NPC's (visuals and story)
- 2 or 3 character related items
- Animations (not mandatory)

**Game story**

All teams will craft a document (2 pg.) about game story. All teams will participate in the quest and fight of introducing the game story. [2 XP per team member]

Aspects that should be covered in the story document:

- Overall structure of the story
- Descriptions of the story nodes
- Connections between nodes (conditions)
- 2 or 3 dialogue trees

### **Prototype**

All teams will craft a paper or digital prototype of the game, participate in the quest and fight of introducing the paper prototype. During the quest teams test each other game prototypes and provide feedback. [2 XP per team member]

Aspects that should be covered:

- Gameplay modes (interaction and camera modes)
- Screen layout
- Visual elements (main view – backgrounds and characters, feedback elements, buttons, menus)
- Controls (mechanics, input devices, navigation)

### **Big Boss Fight (Exam)**

All teams will craft presentation where they integrate together elements of game design (crafted for previous quests). All teams will participate in the quest of presenting game design to wider audience and fight of answering questions. Representatives from game industry are invited to listen students' presentations and ask questions. Game presentations should be as short as possible and as attractive as possible. [10 XP per team member]

Elements of the game design document:

- Game name
- Team, members and roles
- Game idea
- Challenges
- Actions
- Game world (as illustrations)
- Characters (as illustrations)
- Story (if needed for introduction)
- User Interface (as illustration)
- Additional elements (Music, Videos, Animations, etc. as illustrations)
- Market aspects (potential users, cost of production, selling ideas, etc.)

### **Post Mortem**

All teams will conduct team self evaluation where they can adjust points provided for the teamwork. If the contribution to the teamwork is lower than average, the points achieved for teamwork will be reduced according to that. If the contribution will be higher

	than average, the amount of points will be increased. [~100%]  <b>Bonus missions</b> Players can earn additional points through farming (conducting shorter and repeating activities) by solving missions like: <ul style="list-style-type: none"> <li>• Mini quests – presenting topics related to computer games [1 XP per presentation]</li> <li>• Mini crafting – providing additional links and adding comments to learning activities and study content in virtual learning environment [0,5 XP per unit of information]</li> </ul>		
<b>Grading criteria scale or the minimal level necessary for passing the subject:</b>	XP	Level	Grade
	0 - 1	0	F
	2 - 3	1	F
	4 - 6	2	F
	7 - 9	3	F
	10 - 13	4	F
	14 - 17	5	F
	18 - 22	6	E
	23 - 27	7	D
	28 - 33	8	C
	33 - 38	9	B
	39 - ...	10	A
<b>Information about the course:</b>	Room A303, Mondays from 16:15 to 19:45		
<b>1) 15.02</b>	Classroom presentation - Intro Indi classroom mission - User profile Classroom presentation - Game definition and elements Classroom presentation - Game Design Process and Roles Indi classroom mission - Choosing suitable roles Classroom presentation - Game Idea Indi home mission - Idea for a new digital game		
<b>2) 22.02</b>	Indi classroom mission - Presentation of game ideas and selecting best ideas Group classroom mission - Forming and introducing teams Indi home mission - Read materials and listen presentations about Game Concept Group classroom mission - Design game concept		
<b>3) 29.02</b>	Group classroom mission - Design game concept Group classroom mission - Presentation of game concepts Indi home mission - Read materials and listen presentations about Gameplay (challenges and actions)		
<b>4) 07.03</b>	Group classroom mission - Design of game challenges and actions Group classroom mission - Presentation of gameplay		

	Indi home mission - Read materials and listen presentations about Core Mechanics and Game Balancing
<b>5) 14.03</b>	Group classroom mission - Design of game objects and conditions Group classroom mission - Presenting the core Mechanics Indi home mission - Read materials and listen presentations about Game World
<b>6) 28.03</b>	Group classroom mission - Design game world map and backgrounds Group classroom mission - Present the game world Indi home mission - Read materials and listen presentations about Character Development
<b>7) 04.04</b>	Group classroom mission - Design Avatars and NPC's Group classroom mission - Present game characters Indi home mission - Read materials and listen presentations about Interactive Story telling
<b>8) 18.04</b>	Group classroom mission - Writing game scenario and dialogues Group classroom mission - Present game story Indi home mission - Read materials and listen presentations about User interface and Prototyping
<b>9) 25.04</b>	Group classroom mission – Design game prototype Group classroom mission – Present game prototype Group home mission – Prepare Big Boss presentation
<b>10) 02.05</b>	Big Boss Fight (Exam) - Presentation of game prototypes to wider audience (game design experts and academic staff) Post Mortem – Group self evaluation