804241 - DISVJ2 - Game Design II

Coordinating unit: 804 - CITM - Image Processing and Multimedia Technology Centre
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre

Academic year: 2019
Degree: BACHELOR'S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Teaching unit Compulsory)

ECTS credits: 6

Teaching languages: Catalan, Spanish, English

Teaching staff
Coordinator: Pons López, Juan Jose
Others: Castaño Estrella, Daniel Loepfe, Lasse

Prior skills
Teamwork and planning.
Creative and communicative abilities.

Requirements
Games and videogames culture, videogames industry.

Degree competences to which the subject contributes

Specific:
CEVJ 3. Apply graphic interface design methodologies in an interactive application based on usability and accessibility criteria, taking the various platforms to which it can be directed into account.
CEVJ 4. Identify and use gameplay mechanics and dynamics in non-gaming environments to enhance motivation, concentration, effort and loyalty in a wide range of sectors including education, marketing, business and health and sport.
CEVJ 1. Design the mechanics, rules, structure, script and artistic concept of a video game, maximising immersion and criteria of playability and balance to provide the best possible user experience.

Transversal:
04 COE N3. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
05 TEQ N3. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
06 URI N3. EFFECTIVE USE OF INFORMATION RESOURCES - Level 3. Planning and using the information necessary for an academic assignment (a final thesis, for example) based on a critical appraisal of the information resources used.
07 AAT N3. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
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**Teaching methodology**

Class sessions are divided into two bands of activity:

1. Descriptive part, in which the teacher explains new content, describes work materials, and answers questions from students.

2. Participatory part, in which students work, explain and discuss the exercises.

**Learning objectives of the subject**

Show the knowledge of the standards and the rules related to the applications and computer systems, usability, accessibility, gameplay and the design method focused on the end user.

Show understanding of the concept ?Game Design? and other basic concepts involved and be able to design videogames using the documentation and technological resources necessary.

Show understanding of the concept ?human factor?, of the mechanisms and psicological processes involved and be able to apply the knowledge in the decision making process during the development of videogames.

Show understanding and expertise in the ?Design method focused on the User? and the procedures, techniques and technologies involved and be able to apply it in the videogame design process and development.

Show understanding and accept the social commitment of the guidelines, specially the ones related to accessibility, and be able to apply them properly to each interactive application or videogame in its creation process.

Show understanding of the interactive narrative elements in videogames and the ability to apply these methods and techniques in the development of such games.

Show understanding of the relationships between culture, society and videogames. And between the tipologies and characteristics of the videogames with the cultural and socials ones from society it is being produced and played. Be able to apply this knowledge to the analysis of videogames.

Use strategies to prepare and undertake the oral presentations and written text documents with a coheren content, an adequate structure and style and a good spelling and grammar levels.

Be able to communicate in a clear and efficient way in oral and written presentations, each one adapted to the type of public and the objectives of the communications while using the proper strategies and mediums.

Contribute to consolidate the team by planning objectives, working efficiently and favouring the communication, task distribution and cohesion.

Conducte the assigned tasks from the basic orientations given by the professors. Deciding how much time it takes to complete them, including personal contributions and expanding the information sources indicated.

Apply the knowledge acquired in the realization of a task based in the relevance and decide how to undertake, the time needed and selecting the proper information sources.

Demonstrate enough reading comprehension in the reading of the documents written in english, linked to the lessons, like notes, articles, webs, etc
# Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group:</th>
<th>18h</th>
<th>12.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours medium group:</td>
<td>30h</td>
<td>20.00%</td>
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<tr>
<td></td>
<td>Hours small group:</td>
<td>0h</td>
<td>0.00%</td>
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<tr>
<td></td>
<td>Guided activities:</td>
<td>12h</td>
<td>8.00%</td>
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<tr>
<td></td>
<td>Self study:</td>
<td>90h</td>
<td>60.00%</td>
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</tbody>
</table>
### Worldbuilding and development systems

**Description:**
- Agile systems
- * SCRUM, Kanban & Agile
- Milestones i Waterfall
- Crunch
- Basic fundamentals of Worldbuilding
- * Choose the fantasy level
- * Economy, cartography and chronology
- * Creation methodologies
- Inhabitants of the world
- * Races, cultures and beliefs
- * Cities, states and nations
- * Mysterious cults and secret societies
- Science, magic and pantheons

**Learning time:** 20h
- Theory classes: 8h
- Self study: 12h

### Characters creation

**Description:**
- Archetypes
- * Archetypal racing
- * Archetypal classes
- * Archetypal roles
- * Features, attributes and abilities
- The figure of the antagonist force
- * The enemies and monsters
- Progression of the characters

**Learning time:** 20h
- Theory classes: 8h
- Self study: 12h
### Balancing

<table>
<thead>
<tr>
<th>Description</th>
<th>Learning time: 30h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deterministic vs. random</td>
<td>Theory classes: 12h</td>
</tr>
<tr>
<td>Solvency</td>
<td>Self study: 18h</td>
</tr>
<tr>
<td>Availability of information</td>
<td></td>
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<tr>
<td>Interaction with the players</td>
<td></td>
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<tr>
<td>Symmetry</td>
<td></td>
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<tr>
<td>Equilibrium of the metajoc</td>
<td></td>
</tr>
<tr>
<td>Numerical, intra-systemic and transitory relationships</td>
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<tr>
<td>Cost benefit curve</td>
<td></td>
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<tr>
<td>Situational balancing</td>
<td></td>
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<tr>
<td>Opportunity costs and Sunken costs</td>
<td></td>
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<tr>
<td>Unwanted behaviors</td>
<td></td>
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<tr>
<td>Probabilistic</td>
<td></td>
</tr>
<tr>
<td>* Sampling distributions</td>
<td></td>
</tr>
<tr>
<td>* Psychology of probabilities</td>
<td></td>
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</tbody>
</table>

### Storytelling

<table>
<thead>
<tr>
<th>Description</th>
<th>Learning time: 15h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storytelling basics</td>
<td>Theory classes: 6h</td>
</tr>
<tr>
<td>* Basic structure</td>
<td>Self study: 9h</td>
</tr>
<tr>
<td>The conflict</td>
<td></td>
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<tr>
<td>Analysis of narrative structures</td>
<td></td>
</tr>
<tr>
<td>* Linear (Railway Road)</td>
<td></td>
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<tr>
<td>* Emergents (Open World - Sandbox)</td>
<td></td>
</tr>
<tr>
<td>Methodologies for the narrative structure</td>
<td></td>
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<tr>
<td>Plot arc of the characters</td>
<td></td>
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<tr>
<td>The dialogue</td>
<td></td>
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<tr>
<td>The climax</td>
<td></td>
</tr>
<tr>
<td>Ludonarrative dysonance</td>
<td></td>
</tr>
<tr>
<td>Diegetic of narrative</td>
<td></td>
</tr>
</tbody>
</table>
### Rules

**Description:**
- Generic regulation
- Climate and environment
- Time, healing and transportation
- Specific regulation
- Setting
- Races and powers
- Combat regulations
- Design of combat situations

**Learning time:** 15h
- Theory classes: 6h
- Self study: 9h

### Game economy

**Description:**
- Feedback positive and negative loop
- Fonts & pous
- Game meta
- Commerce
- Supply & demand
- Substitution
- Enhancer & scarcity
- Open economies

**Learning time:** 15h
- Theory classes: 6h
- Self study: 9h

### Procedural design

**Description:**
- Feedback positive and negative loop
- Fonts & pous
- Game meta
- Commerce
- Supply & demand
- Substitution
- Enhancer & scarcity
- Open economies

**Learning time:** 15h
- Theory classes: 6h
- Self study: 9h
### Advanced puzzles

**Description:**
- Order
- Digital vs. analog
- Puzzles like core mechanics
- Puzzles as secondary mechanics
- Emergence to the puzzles
- Tips & Tricks

**Learning time:** 15h
- Theory classes: 6h
- Self study: 9h

### Machine Learning

**Description:**
- NPC Agents
- Generation of art
- Generation of rules

**Learning time:** 5h
- Theory classes: 2h
- Self study: 3h
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Planning of activities

<table>
<thead>
<tr>
<th>Worldbuilding: Creating a fantastic world</th>
<th>Hours: 4h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: First delivery - Worldbuilding: Creating a fantastic world (25% of the note)</td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Support materials:</td>
<td>1 pdf 8 pages</td>
</tr>
<tr>
<td>Description of the assignments due and their relation to the assessment:</td>
<td>Campus virtual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Creation of characters: Creation of the Cast of the game</th>
<th>Hours: 4h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: Second installment - Creation of characters: Creation of the Cast of the game. Protagonist, Antagonist and 2 secondary (25% of the note)</td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Support materials:</td>
<td>1 pdf 8 pages</td>
</tr>
<tr>
<td>Description of the assignments due and their relation to the assessment:</td>
<td>Campus virtual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Adventure alone: Creation of an adventure</th>
<th>Hours: 4h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description: Third and final installment - Adventure alone: Creation of an adventure of 25-30 points in RPGMaker or another system provided by the teacher. (40% of the note)</td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td>Support materials:</td>
<td>1 pdf 25-50 pages</td>
</tr>
<tr>
<td>Description of the assignments due and their relation to the assessment:</td>
<td>Campus virtual</td>
</tr>
</tbody>
</table>

Qualification system

1. First delivery: 25% of the total grade
2. Second installment: 25% of the total grade
3. Third and last delivery: 40% of the total grade
4. The evaluation of the participation of the student in the formative activities of the subject and the attitude of learning will be evaluated by means of a follow-up of his interventions. This evaluation corresponds to 10% of the final grade.
Regulations for carrying out activities

A part of the exercises can be done during the classes with the teacher of the subject.

The students will also have to dedicate autonomous work time (outside of class) to do the homework tasks assigned in the sessions of Block 2.

The exercises, once completed, will have to be submitted in corresponding slot for the submission and in the corresponding date in the Virtual Campus service. The evaluation will only take into consideration those that have been submitted before the 24h limit.

The evaluation of the exercises won’t only imply their resolution. The principal interest of the exercises is to evaluate how the student defends the results and the realization of the handed document.

Any coincidence that doesn’t allow to submit the exercise in the timeframe indicated will have to be previously communicated to the professor.

After the corresponding communication, and taking into account the causes that motivate the lack of submission, if justified, the professor and the student will look for alternatives to complete the evaluation.

The lack of submissions communicated by the management of the studies will also be considered justified.

The presented document will have to be completed following the instructions, specially the naming. The correct management of the submitted documentation is also an ability to acquire and part of the evaluation.

Bibliography

Basic:


Others resources:

Hyperlink

https://gamebalanceconcepts.wordpress.com/

Game balance concepts