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. (ENG) Aplicar las metodologías de diseño de interfaces gráficas de una aplicación interactiva siguiendo criterios de usabilidad y accesibilidad y teniendo en cuenta las diferentes plataformas a las que puede ir dirigida.
CEVJ 4. (ENG) Identificar i emprar mecàniques i dinàmiques de joc en entorns no lúdics amb la finalitat de potenciar la motivació, la concentració, l'esforç i la fidelitat en sectors molt diversos com l'educació, el màrqueting, l'empresa i la salut o l'esport.
CEVJ 1. (ENG) Dissenyar les mecàniques, les regles, l'estructura, el guió i el concepte artístic d'un videojoc, maximitzant la immersió i els criteris de jugabilitat i balanceig per oferir la millor experiència d'usuari possible.

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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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 stucture 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.

Conduce 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.

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.
### 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>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>90h</td>
<td>60.00%</td>
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</table>
# Content

## Worldbuilding and development systems

<table>
<thead>
<tr>
<th>Description:</th>
<th>Learning time: 20h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile systems</td>
<td>Theory classes: 8h</td>
</tr>
<tr>
<td>* SCRUM, Kanban &amp; Agile</td>
<td>Self study: 12h</td>
</tr>
<tr>
<td>Milestones i Waterfall</td>
<td></td>
</tr>
<tr>
<td>Crunch</td>
<td></td>
</tr>
<tr>
<td>Basic fundamentals of Worldbuilding</td>
<td></td>
</tr>
<tr>
<td>* Choose the fantasy level</td>
<td></td>
</tr>
<tr>
<td>* Economy, cartography and chronology</td>
<td></td>
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<tr>
<td>* Creation methodologies</td>
<td></td>
</tr>
<tr>
<td>Inhabitants of the world</td>
<td></td>
</tr>
<tr>
<td>* Races, cultures and beliefs</td>
<td></td>
</tr>
<tr>
<td>* Cities, states and nations</td>
<td></td>
</tr>
<tr>
<td>* Mysterious cults and secret societies</td>
<td></td>
</tr>
<tr>
<td>Science, magic and pantheons</td>
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</tbody>
</table>

## Characters creation

<table>
<thead>
<tr>
<th>Description:</th>
<th>Learning time: 20h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archetypes</td>
<td>Theory classes: 8h</td>
</tr>
<tr>
<td>* Archetypal racing</td>
<td>Self study: 12h</td>
</tr>
<tr>
<td>* Archetypal classes</td>
<td></td>
</tr>
<tr>
<td>* Archetypal roles</td>
<td></td>
</tr>
<tr>
<td>* Features, attributes and abilities</td>
<td></td>
</tr>
<tr>
<td>The figure of the antagonist force</td>
<td></td>
</tr>
<tr>
<td>* The enemies and monsters</td>
<td></td>
</tr>
<tr>
<td>Progression of the characters</td>
<td></td>
</tr>
</tbody>
</table>
### Balancing

**Description:**
- Deterministic vs. random
- Solvency
- Availability of information
- Interaction with the players
- Symmetry
- Equilibrium of the metajoc
- Numerical, intra-systemic and transitory relationships
- Cost benefit curve
- Situational balancing
- Opportunity costs and Sunken costs
- Unwanted behaviors
- Probabilistic
  * Sampling distributions
  * Psychology of probabilities

**Learning time:** 30h
- Theory classes: 12h
- Self study: 18h

### Storytelling

**Description:**
- Storytelling basics
  * Basic structure
- The conflict
- Analysis of narrative structures
  * Linear (Railway Road)
  * Emergents (Open World - Sandbox)
- Methodologies for the narrative structure
- Plot arc of the characters
- The dialogue
- The climax
- Ludonarrative dysonance
- Diegetic of narrative

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

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

<table>
<thead>
<tr>
<th>Learning time:</th>
<th>15h</th>
</tr>
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<tbody>
<tr>
<td><strong>Theory classes:</strong></td>
<td>6h</td>
</tr>
<tr>
<td><strong>Self study:</strong></td>
<td>9h</td>
</tr>
</tbody>
</table>

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# Game economy

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

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<td>9h</td>
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</tbody>
</table>

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# Procedural design

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

<table>
<thead>
<tr>
<th>Learning time:</th>
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<tr>
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<tr>
<td><strong>Self study:</strong></td>
<td>9h</td>
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</table>
## 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
### Planning of activities

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

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

| Adventure alone: Creation of an adventure | Hours: 4h  
Theory classes: 4h |
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<tr>
<td><strong>Description:</strong></td>
<td>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>
</tr>
<tr>
<td><strong>Support materials:</strong></td>
<td>1 pdf 25-50 pages</td>
</tr>
<tr>
<td><strong>Descriptions of the assignments due and their relation to the assessment:</strong></td>
<td>Campus virtual</td>
</tr>
</tbody>
</table>
Qualification system

The final grade of the subject will be the result of the following sum:

100% = 30% Final Exam + 30% Block 1 + 30% Block 2 + 10% Attitude & Participation

Block 1:
Continuous evaluation with a sole project about a tabletop role playing game.

Block 2:
Mid-term Exam with a value of 15% of the final subject grade. Continuous evaluation about all the exercises proposed during classes and as homework with a value of 15%. These will be divided in 5 blocks with a value of 3%. One block for each theme of the theory classes.

Their attitude towards the formative activities of the subject and the learning material will be evaluated by following the interventions of each of the students through the classes. This will have a value of the 10% of the final subject 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, especially the naming. The correct management of the submitted documentation is also an ability to acquire and part of the evaluation.
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Bibliography

Basic:


Others resources:

Hyperlink

https://gamebalanceconcepts.wordpress.com/
Game balance concepts