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.
804241 - DISVJ2 - Game Design II

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 psychological 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 social 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 coherent 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.

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></th>
<th>Hours large group:</th>
<th>Hours medium group:</th>
<th>Hours small group:</th>
<th>Guided activities:</th>
<th>Self study:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total learning time:</strong></td>
<td>150h</td>
<td>18h</td>
<td>30h</td>
<td>0h</td>
<td>90h</td>
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<td>12.00%</td>
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<td>8.00%</td>
<td>60.00%</td>
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## Content

<table>
<thead>
<tr>
<th>Block 1</th>
<th>Learning time: 0h</th>
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<tbody>
<tr>
<td></td>
<td>Practical classes: 0h</td>
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### Description:

-  

<table>
<thead>
<tr>
<th>Introduction to role-playing games - genres</th>
<th>Learning time: 10h</th>
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<tbody>
<tr>
<td></td>
<td>Theory classes: 4h</td>
</tr>
<tr>
<td></td>
<td>Self study : 6h</td>
</tr>
</tbody>
</table>

### Description:

1. Role Play Games: Genres
2. Form project team (coordination, marketing, art and layout, content and development)
3. References and adaptations
4. Pillars creation

### Related activities:

- Play and tutorial RPG
- Determine the different roles of the team
- Generate reports from Editor's direction
- Select the project to develop

### Specific objectives:

- Discover the role play game and different genres
- Create the development team
- Search documentation and references
- Submit proposals
- Establish the project
World Bible (worldbuilding)

Description:
1. World Basics
2. Economy, cartography, chronology
3. Science / Magic, history / events, states / cities

Related activities:
Set different races, cultures, societies, currency and population.
Generate a map of the world with different areas and regions.
Determine magic or technology levels of each society.
Develop a historical timeline with important events as a basis for creating adventures.

Specific objectives:
Develop the game world and its basics (economics, geography, religion, history, etc.)
Generate the background of the world
Create and document the different parts of the world

Rules and game system (generic and combat)

Description:
1. Game rules: specific and generic rules
2. Mechanisms to generate simulations
3. Preparation of tables and content creation

Related activities:
Establish general system rules
Design the combat system (individual and battles)
Generate list and tables of material required for such a system (equipment, weapons, protection ...)

Specific objectives:
Implementing a system of rules for the general operation of the game and checks for generic actions
Develop a system of individual combat and battles
Provide additional documents to the rules of the game (material, weapons, protection, miscellaneous equipment)
## Character creation

**Learning time:** 10h  
Theory classes: 4h  
Self study: 6h

<table>
<thead>
<tr>
<th>Description:</th>
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</table>
| 1. Types of characters: heroes and antagonists, monsters  
2. System character creation  
3. Characteristics, attributes and skills  
4. The process of creating PCs and NPCs |

<table>
<thead>
<tr>
<th>Related activities:</th>
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</table>
| Present character archetypes for the game: heroes, villains and monsters  
Establish a process for creating characters for players  
Designing the character sheet with the different sections and options |

<table>
<thead>
<tr>
<th>Specific objectives:</th>
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</table>
| Character development  
Rules behind character creation  
Character sheet design |

## Adventure design

**Learning time:** 7h 30m  
Guided activities: 3h  
Self study: 4h 30m

<table>
<thead>
<tr>
<th>Description:</th>
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| 1. Creation of plots for adventures  
2. The process of creating adventures  
3. Campaign development |

<table>
<thead>
<tr>
<th>Related activities:</th>
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</table>
| Create the introductory game module  
Develop all elements of the game so that it can be edited and played  
Develop content, sheets, etc. |

<table>
<thead>
<tr>
<th>Specific objectives:</th>
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</table>
| Design and develop an introductory adventure (tutorial)  
Develop proposals and suggestions for campaigns adventures |
### Playtesting and editing

**Description:**
1. Playtesting and implementation of improvements
2. Annexes or additional material
3. Final Layout, review and correction
4. Post-production

**Related activities:**
- Playtesting the introductory adventure (internal, with other group members and people outside the course)
- Development and improvements based on playtesting, suggestions for campaigns
- Edit and publish the final game

**Specific objectives:**
- Playtesting the introductory game, implement changes and improvements
- Analysis and implementation of playtesting suggestions
- Final product's edition and publication

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### Block 2

**Description:**
- content english

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<th>Learning time: 0h</th>
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<td>Practical classes: 0h</td>
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### Presentation & Design in the workplace

**Description:**
- Presentation of the structure of the classes (duration of the segments, exercises, theory, focus, tasks and evaluation). Introduction to the approach the classes will be taking to analyse videogames.
- Special focus on how rules reign over game systems, the objects that bend to these rules, its attributes and the context they appear in.

**Related activities:**
- Analysis of the "magic circle" concept and ideas around the concept of "engagement"

**Specific objectives:**
- Provide a common field and language for the study of videogames where the focus is on the objective of each block of theory.

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<th>Learning time: 5h</th>
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<tbody>
<tr>
<td>Practical classes: 2h</td>
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<tr>
<td>Guided activities: 0h 30m</td>
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<tr>
<td>Self study: 2h 30m</td>
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</table>
## Methodologies and Production work - Scrum, Agile & Cerny Method

**Learning time:** 5h  
Practical classes: 2h  
Guided activities: 0h 30m  
Self study: 2h 30m

**Description:**  
Presentation of the diverse methodologies used in the videogames industry. Introduction to agile methodologies, scrum and related production roles.  
Use, pros and cons that spawn by using these methodologies  
Examples of company situations and possible situations. Good practices.

**Related activities:**  
Teamwork, work under pressure and motivation control.

**Specific objectives:**  
Teach the most used work models in the companies of the industry.

## Tools I - Game Vision: Public & Team communication

**Learning time:** 5h  
Practical classes: 2h  
Guided activities: 0h 30m  
Self study: 2h 30m

**Description:**  
Introduction to the first of two main documenting tools in the daily routine of a designer in a production team: The game Vision / Treatment. Uses of the document, level of abstraction and potential public, extern and intern. Method for its creation, useful tools and communication with the rest of the team.

**Related activities:**  
Team communication in an iterative process. Task and project elements prioritization.

**Specific objectives:**  
Demonstrate how to create and manage the use of a project’s high level documentation.
### Description:
Show examples of public commercial project's documentation. Comparison of the expectations in the year it was published and the actual projects in the market (AAA or indie).
Present the methodology of teamwork: updating and developing by blocks of systems. Collaborative process and team attitude in a production.
Systems to allow access to the information and avoid confusion in a project.

### Related activities:
Promote the separation between person and project. Lower the value of the content created in agile driven environments.

### Specific objectives:
Introduction to the constant updating of a project's documentation. Scientific process: constant testing of theories.

### From High to Low Concepts I - Assist & Design
**Tools:** Rules, Attributes, Dynamics & Representation

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**Description:**
Introduction to the basic elements that need to be defined when working in all the departments that form a videogames studio. Methods and first steps. Documentation style and basic information for all the roles that will be visiting the information.
In-engine application and tools required for testing. Prevision of in-engine tools.
Promote taking mistakes. Fail more and fail faster in the early stages of development.

**Related activities:**
Promote the organization of each students tools. Foster the communication between classmates with different backgrounds.

**Specific objectives:**
Promote the prevision and future thinking of the students. Self-management.
Provide the students with communication tools that all the production team can understand.
### From High to Low Concepts II - Game Loops, Core Gameplay & Testing

**Learning time:** 5h  
- **Practical classes:** 2h  
- **Guided activities:** 0h 30m  
- **Self study:** 2h 30m

**Description:**  
Reintroduce the concept of Game Loops to the students. Focus on the three basic values for future balancing. Loops of 3??, 30? i 3?. Identify the Core Gameplay of a game and promote testing of the elements that make it playable and fun. Isolate variables to reach solid conclusions. Applications in-engine and basic tools for testing.

**Related activities:**  
Promote curiosity and experimentation in preexitant environments and in future projects.

**Specific objectives:**  
Introduction to direct testing. Promote intuition as a base to evaluate the fun of a game. Promote the use of focus groups and concrete variable testing.

### Game Progression I - Integrated Systems: Micro & Macro

**Learning time:** 5h  
- **Practical classes:** 2h  
- **Guided activities:** 0h 30m  
- **Self study:** 2h 30m

**Description:**  
Reintroduction to the systems concept. Presentation of its use in a workplace. Work on documentation in order to be understood by all the departments and publics. Interaction between systems dedicated to the players, the game worlds and the product. Tools for their creation and control.

**Related activities:**  
Analytical view of the elements that control the experience of a player. Feeling of progression. Engagement & challenge.

**Specific objectives:**  
Present which systems controls what, how they integrate with each other and reward the experience of the Core Gameplay. Pave the way to introduce the balancing of a game's progression.
### Game Progression II - Granularity & Layered Systems

**Description:**
Introduction to the specific weight of each of the systems in a videogame. Representation of all the connections of all the systems that make the basic experience of a project. Introduction to the relationship between the production cost and the footstep of a system in a game and in future projects. Introduction to the concept of games as overlaid layers of systems. Closed circle of systems. Feedbacks and Escaping Funnels. Transparency of system pingbacks. Introduction to the concepts of Systemic, Spatial & Schedule Agency through Doom.

**Related activities:**
- Lateral and Parallel thinking.
- Birth of concepts that resolve multiple problems with a single action.

**Specific objectives:**
- Demonstrate how systems give feedback to each other. Archetypical formations.
- Transparency and usability: simple interaction & complex systems.

**Learning time:** 5h
- Practical classes: 2h
- Guided activities: 0h 30m
- Self study: 2h 30m

### Game Progression III - Metrics, Balancing & Testing

**Description:**
Coordinate the elements of progression with the elements to review. Include debug attributes and new ones to review metrics inside the products. Presentation of the main elements to review for each of the different types of products: focus on mobile gaming. Relationship between tools and metrics inside development. Interaction between metrics and balancing during development. Maintenance of products and testing. Applying the feedback from testing and documentation of the conclusions.

**Specific objectives:**
- Promote an analytic vision of the projects and from the received feedback, both in focus group and during maintenance. Promote tools and methods that the students can use to find and study the conflict points of their games.

**Learning time:** 5h
- Practical classes: 2h
- Guided activities: 0h 30m
- Self study: 2h 30m
**804241 - DISVJ 2 - Game Design II**

<table>
<thead>
<tr>
<th>Pacing I - Flow, Learning &amp; Difficulty. Documentation &amp; Procedures</th>
<th>Learning time: 5h</th>
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<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Self study: 2h 30m</td>
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</table>

**Description:**
Presentation of the main principles to structure a product and maintain the user’s interest for all its duration. Introduction to the techniques used to control difficulty and the players feeling of control throughout the duration of the experience of the product. Presentation of the most used control and design methods in workspaces to control the cohesion between the story and the conflicts shown in the game. Game and level scope.

**Specific objectives:**
Presentation of the basic principles to create engagement to a player through the pacing of a level or a game.

<table>
<thead>
<tr>
<th>Pacing II - Narrative, Story &amp; Atmosphere</th>
<th>Learning time: 5h</th>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Self study: 2h 30m</td>
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</table>

**Description:**

**Specific objectives:**
Knowledge of the basic and contemporary narrative techniques in videogames. Presentation of the techniques unique to videogames. Critical view for the application with intention and general cohesion of a product.
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, specially the naming. The correct management of the submitted documentation is also an ability to acquire and part of the evaluation.

Bibliography

Basic: