Course guides
804234 - DISVJ1 - Game Design I

Unit in charge: Image Processing and Multimedia Technology Centre
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre.
Degree: BACHELOR’S DEGREE IN VIDEO GAME DESIGN AND DEVELOPMENT (Syllabus 2014). (Compulsory subject).
Academic year: 2021  ECTS Credits: 6.0  Languages: Catalan, Spanish, English

LECTURER

Coordinating lecturer: Pons López, Juan Jose
Others: Castaño Estrella, Daniel

PRIOR SKILLS

Creative and communicative abilities.

REQUIREMENTS

Games and videogames culture, videogames industry.

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 ability to design, evaluate and test the usability, accessibility and playability of GUIs game.

? Show knowledge of the standards and regulations relating to applications and systems, usability, accessibility, gameplay and method of user-centered design player

? Show understanding of the concept "game design" and other basic concepts involved and be able to design games using the documents and technological resources.

? Show understanding of the "human factor" concept, mechanisms and psychological processes involved and be able to apply this knowledge in the process of decision making in game design.

? Show understanding and mastery of the "Method of User Centered Design" and the procedures, techniques and technologies involved and be able to apply in the process of design and game development.

? Show understanding and acceptance of social commitment to the standards and guidelines, especially those related to accessibility and ability to adequately apply to each type of interactive application or game in the process of creating it.

? Show understanding of the elements of interactive storytelling in videogames and capacity in applying these methods and techniques in game development.

? Show knowledge of the relationship between "culture - society - game" and the relationship between the types and characteristics of video games with cultural and social characteristics of the society in which they occur and play. Be able to apply this knowledge in the analysis of video games.

? Using strategies for preparing and giving oral presentations and write texts and documents whose content is coherent, adequate structure and style and good spelling and grammatical errors.

? Communicate clearly and efficiently in oral and written presentations tailored to specific audiences and communication objectives and strategies + using appropriate means.

? Help strengthen the team by planning targets and working efficiently to favor communication, task assignment and cohesion.

? After identifying the different parts of an academic document and organizing references, designing and executing a good strategy for advanced searches using specialized information resources, selecting relevant information based on criteria of relevance and quality.

? Carry out the tasks based on the guidelines set by lecturers, deciding the time needed to complete each task, including personal contributions and expanding information sources.

? Applying the knowledge gained in completing a task according to its relevance and importance, deciding how to carry it out and the time to be devoted and selecting information sources most appropriate.

? Show sufficient reading comprehension in reading documents written in English, linked to the art, such as notes, scientific articles, popular articles, web pages, etc.

- Show knowledge and understanding of the different categories and types of board games, with the aim of identifying the most suitable for specific projects or assignments.

- Show ability to develop a proposal and design a prototype board game that can serve as a presentation of a larger project.

- Show ability to identify the main existing recreational resources in board games, in order to implement and / or adapt to video game projects.
STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>18,0</td>
<td>12.00</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Guided activities</td>
<td>12,0</td>
<td>8.00</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>30,0</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Total learning time: 150 h

CONTENTS

Introduction to game design

Description:
Definition of game design
The job of game designer
What is Magic Circle?
What does fun mean?
What does Meaningful decisions mean?
Game and culture (Homo Ludens)

Related activities:
Own definition of what a game is, what is game design, which means fun?

Full-or-part-time: 15h
Theory classes: 6h
Self study : 9h

Brainstorming and early ideas

Description:
Brainstorming
Sources of inspiration (Inner & Outer world)
Filter ideas
The Pitch - Sales Sheet
Copy and modify
References

Related activities:
Collaborated chaining design.
Moodboard & Sale sheet of a game, identifying the important elements

Full-or-part-time: 25h
Theory classes: 10h
Self study : 15h
## Foundations and approaches to game design

**Description:**
- Space & Time
- State machines
- Handling of information
- The actions (Introduction to the mechanics)
- Uncertainty & probability
- Emergency
- Approaches to game design
  - Game centric
  - Player centric
  - Narrative centric
  - Centered art
  - Centric niche
  - Tech centric
  - License centric (franchised games)
  - Date centric

**Related activities:**
- Taxonomy of mechanics, generics, platforms, etc.
- Game Wireframe

**Full-or-part-time:** 25h
- Theory classes: 10h
- Self study: 15h

## Player psychology, documentation and design frameworks

**Description:**
- Player psychology
  - Models
  - Get to know the player
  - Intrinsic and extrinsic motivation
  - Maslow Needs Hierarchy
  - Flow learning curve
- User types Hexad, PENS, Big Five model, Bartle & Kahneman
- Documentation
  - GVD - Game vision statement
  - GDD - Game design document
  - After GDD?
- Core Mechanics
  - Mechanics and emerging narrative
  - Mechanics of the Puzzles
  - Framework of the MDA

**Full-or-part-time:** 25h
- Theory classes: 10h
- Self study: 15h
## Pacing, rewarding systems and game theory

**Description:**
- Pacing
  * Organic tutorial
  * Impetus of the movement
- Threat, tension and time
- Front loaded vs. Slow burn
- Targets
  * Nested goals
- Rewards
  * Contingencies
  * Triangularity
  * Rewards planning (Schedules)
  * Uncertainty for rewards
- Game Theory
  * Competition vs. cooperation

**Full-or-part-time:** 30h
- Theory classes: 9h
- Self study: 21h

## Playtesting and analysis of technologies

**Description:**
- Technology
  * History
  * Foundational vs. decorational
  * Hype cycle
  * Innovator’s dilemma
- Design for VR & Design for AR
- Design for switch & mobiles
- Physical prototyping
  * Write the rules of the game
- Playtesting prototypes
- Iterate & improve

**Full-or-part-time:** 25h
- Theory classes: 10h
- Self study: 15h

## Mecanics and documentation

**Description:**
- Game vision document
- Game design document
- Groundbreaking mecanics
- Emergent mecanics

**Full-or-part-time:** 5h
- Theory classes: 5h
ACTIVITIES

4 conceptual boardgames

Description:
First delivery: 4 ideas or concepts of board game of one page each. (20% of the note)

Material:
1 a single pdf with 4 pages

Delivery:
1 - Campus virtual

Full-or-part-time: 10h
Theory classes: 10h

2 physical prototypes

Description:
Second delivery: Of the 4 concepts, we choose 2 and we do 2 physical prototypes. (20% of the grade)

Material:
a single pdf and 2 physical prototypes

Delivery:
Classroom session

Full-or-part-time: 4h
Theory classes: 4h

a single final prototype

Description:
Third and final delivery: Of the two physical prototypes, we choose one and perform a minimum of three iterations of improvement, well documented. (30% of the grade)

Material:
a single pdf and 1 physical prototype

Delivery:
Classroom session

Full-or-part-time: 4h
Theory classes: 4h

GRADING SYSTEM

1. First delivery: 20% of the final grade
2. Second installment: 20% of the final grade
3. Partial exam: 20% of the final grade (This is the only part that you can recover in the referral/re-take exam)
4. Third and final delivery: 30% of the final grade
5. 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.

Students who do not pass the course through continuous assessment may take the referral/re-take exam, only if they do not have a NP grade. In this exam, only the grades corresponding to the midterm exam are re-evaluated.
EXAMINATION RULES.

The exercises, once completed, must be returned to the Virtual Campus in the corresponding delivery and date thereof. The evaluation of the exercises involves not only the judgment of the case, also it means the defense made of the results and the realization of relevant documents. Any incidents that do not help solve the exercise in the indicated time must be previously communicated to the teacher. Following this communication and depending on the causes for failure to submit the exercise, if justified, alternatives were found to complete the assessment. Also they consider justified reasons for non-submission of the exercises communicated to management studies. The documents must be completed following the instructions, especially regarding file names. Proper management of the documentation is an aspect of desirable skills and part of the evaluation.

BIBLIOGRAPHY

Basic: