



## Course guide

### 804234 - DISVJ1 - Game Design I

**Last modified:** 27/08/2024

**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:** 2024    **ECTS Credits:** 6.0    **Languages:** Catalan, English

#### LECTURER

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**Coordinating lecturer:** Hurtado, Daniel

**Others:** Hurtado, Daniel  
Blanch, Noemí  
Grau, Tomás

#### PRIOR SKILLS

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Creative and communicative abilities.

#### REQUIREMENTS

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Games and videogames culture, videogames industry.

#### TEACHING METHODOLOGY

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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

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- 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 video games 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

Type	Hours	Percentage
Guided activities	12,0	8.00
Hours medium group	30,0	20.00
Self study	90,0	60.00
Hours large group	18,0	12.00

**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. decorative
- \* 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

### Mechanics and documentation

**Description:**

- Game vision document
- Game design document
- Groundbreaking mechanics
- Emergent mechanics

**Full-or-part-time:** 5h

Theory classes: 5h



## ACTIVITIES

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### 2 physical prototypes

**Description:**

Out of 4 concepts, we choose 2 and we do 2 physical prototypes. (30% of the grade)

**Material:**

1 single pdf and 2 physical prototypes

**Delivery:**

Classroom session

**Full-or-part-time:** 4h

Theory classes: 4h

### 1 single final prototype

**Description:**

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

**Material:**

1 single pdf and 1 physical prototype

**Delivery:**

Classroom session

**Full-or-part-time:** 4h

Theory classes: 4h

## GRADING SYSTEM

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1. First delivery: 30% of the final grade.
2. Partial exam: 30% of the final grade (this is the only part that can be recovered in the recovery exam).
3. Second and last delivery: 30% of the final grade.
4. The evaluation of the student's participation in the formative activities of the subject and the learning attitude will be evaluated by means of a follow-up of his interventions, voluntary presentations and voluntary tasks. This evaluation corresponds to 10% of the final grade.

Students who fail will have the chance to take the reevaluation exam. The mark of this exam will replace the mark of the partial exam and, in case of passing the course, the maximum final mark will be 5.

Irregular actions that may lead to a significant variation of the grade of one or more students constitute a fraudulent performance of an evaluation act. This action entails the descriptive grade of failure and a numerical grade of 0 for the ordinary global evaluation of the course, without the right to re-evaluation.

If the lecturers have indications of the use of AI tools not allowed in the evaluation tests, they may summon the students concerned to an oral test or a meeting to verify the authorship.



## EXAMINATION RULES.

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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

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### Basic:

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- Koster, R. A theory of fun for game design. 2nd ed. Sebastopol, USA: O'Reilly Media, 2013. ISBN 9781449363215.
- Selinker, M. The Kobold guide to board game design. Kirkland, WA: Open Design LLC, 2012. ISBN 9781936781041.
- Tinsman, B. Game inventor's guidebook: how to invent and sell board games, card games, role-playing games, and everything in between!. Garden City, NY: Morgan James Pub, 2008. ISBN 9781600374470.
- Woods, S. Eurogames: the design, culture and play of modern european board games. Jefferson, North Carolina and London: McFarland & Company, 2012. ISBN 9780786467976.