

## Course guides

### 804241 - DISVJ2 - Game Design II

**Last modified:** 01/09/2021

**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

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**Coordinating lecturer:** Pons López, Juan Jose

**Others:** Loepfe, Lasse

#### PRIOR SKILLS

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Teamwork and planning.  
Creative and communicative abilities.

#### REQUIREMENTS

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Games and videogames culture, videogames industry.

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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##### 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.

## 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 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 video games 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 video games.
- 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 video game 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 video game in its creation process.
- Show understanding of the interactive narrative elements in video games and the ability to apply these methods and techniques in the development of such games.
- Show understanding of the relationships between culture, society and video games. And between the typologies and characteristics of the video games with the cultural and social ones from society, it is being produced and played. Be able to apply this knowledge to the analysis of video games.
- 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 favoring the communication, task distribution and cohesion.
- Conduct 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

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



Total learning time: 150 h

## CONTENTS

### 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

**Full-or-part-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

**Full-or-part-time:** 20h

Theory classes: 8h

Self study : 12h

## 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

**Full-or-part-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

**Full-or-part-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

**Full-or-part-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

**Full-or-part-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

**Full-or-part-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

**Full-or-part-time:** 15h

Theory classes: 6h  
Self study : 9h

### Machine Learning

**Description:**

NPC Agents  
Generation of art  
Generation of rules

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

Theory classes: 2h  
Self study : 3h

## ACTIVITIES

### Worldbuilding: Creating a fantastic world

**Description:**

First delivery - Worldbuilding: Creating a fantastic world (25% of the note)

**Material:**

1 pdf 8 pages

**Delivery:**

Atenea

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

Theory classes: 4h

### Adventure alone: Creation of an adventure

**Description:**

Adventure alone: Creation of an adventure of 25-30 points in RPGMaker or another system provided by the teacher. (25% of the note)

**Material:**

1 pdf 25-50 pages

**Delivery:**

Campus virtual

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

Theory classes: 4h



## GRADING SYSTEM

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1. First delivery: 25% of the final grade
  2. Second delivery: 25% of the final grade
  3. Partial exam: 30% of the final mark (this is the only part that can be recovered in the recovery exam)
  4. Evaluation of projects between companies: 10%
  5. 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. This evaluation corresponds to 10% of the final grade.
- Students who do not pass the subject through continuous assessment may take the re-assessment exam, as long as they do not have an NP grade. In this exam the qualifications corresponding to the partial exam will be re-evaluated.

## 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:

- Michael Sellers. Advanced Game Design. Pearson, 2018.
- Qué es el juego de rol. Barcelona: Troll, 1987.
- Silverstein, J.; Sholes, K. The Kobold guide to worldbuilding. Kirkland, WA: Kobol Press, 2012. ISBN 9781936781119.

## RESOURCES

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### Hyperlink:

- <https://gamebalanceconcepts.wordpress.com/>. Game balance concepts