



Course guides

804242 - GAM - Gamification

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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: Del Castillo Figueruelo, Arantzazu

Others: Del Castillo Figueruelo, Arantzazu
Montserrat Ribes, Roger

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

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.

Transversal:

04 COE N2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 2. Using strategies for preparing and giving oral presentations. Writing texts and documents whose content is coherent, well structured and free of spelling and grammatical errors.

05 TEQ N2. TEAMWORK - Level 2. Contributing to the consolidation of a team by planning targets and working efficiently to favor communication, task assignment and cohesion.

06 URI N2. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.

07 AAT N2. SELF-DIRECTED LEARNING - Level 2: Completing set tasks based on the guidelines set by lecturers. Devoting the time needed to complete each task, including personal contributions and expanding on the recommended information sources.

TEACHING METHODOLOGY

The theoretical contents are introduced by the teacher in classes of a participatory and dynamic nature. Students intervene by carrying out activities, searching for information, and raising doubts about the contents studied.

The theoretical contents are consolidated by carrying out two practical exercises, called challenges, which have a great weight within the subject. These are carried out during classes and, especially, autonomously based on the guidance provided by the teacher. The face-to-face classes are used as a coworking space where work teams receive feedback from both the teacher and the rest of their colleagues.

LEARNING OBJECTIVES OF THE SUBJECT

- Show understanding of the gamification concept and gamification techniques that are applied in different sectors and, be able to design a gamification process for a specific environment.
- Identify and use game mechanics and dynamics in non-playful environments in order to enhance motivation, concentration, effort, and loyalty in very diverse sectors such as education, marketing, business, and health or sports
- Understand concepts and methods of psychology related to design.
- Use strategies to prepare and carry out oral presentations and write texts and documents with coherent content, an adequate structure and style, and a good level of spelling and grammar.
- Contribute to consolidating the team planning objectives, working effectively and favoring communication, the distribution of tasks, and cohesion.
- After identifying the different parts of an academic document and organizing the bibliographic references, design and execute a good advanced search strategy with specialized information resources, selecting the relevant information taking into account criteria of relevance and quality.
- Carry out the tasks assigned from the basic guidelines given by the professors, deciding the time that needs to be used for each task, including personal contributions and expanding the indicated sources of information.

STUDY LOAD

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

Total learning time: 150 h

CONTENTS

Gamification. Basic notions.

Description:

Interpretation and definition, history, uses and real examples cases.

Full-or-part-time: 10h 40m

Theory classes: 0h 40m

Practical classes: 1h

Guided activities: 3h

Self study : 6h

Psychology of Motivation and Gamification.

Description:

Description of the most relevant aspects of the psychological theories on motivation that serve as the basis for gamification.

Related activities:

Challenge 1

Full-or-part-time: 10h 40m

Theory classes: 0h 40m

Practical classes: 1h

Guided activities: 3h

Self study : 6h



Designing the Gamification and design decisions.

Description:

Process of design, definition of the objectives and behaviors. Kinds of players and their courses of activity. Tips to Get more engagement. Design decisions, balance and validation of our gamification. Design according to specific groups. Creative resources available.

Related activities:

Challenge 1 and 2

Full-or-part-time: 11h

Theory classes: 1h

Practical classes: 1h

Guided activities: 3h

Self study : 6h

Player Centred Design.

Description:

Presentation of the design approach focused on the player, history, principles and applications.

Full-or-part-time: 11h

Theory classes: 1h

Practical classes: 1h

Guided activities: 3h

Self study : 6h

Game elements.

Description:

Game Thinking technics, think as a Game Designer, implement the rules of design, measure the emotions and the entertainment factors. Decomposition, hierarchical organization and pyramid of the elements. Development Of PBL triangle and its limitations. Deconstruction of a memorable experience. Creative available resources.

Full-or-part-time: 11h

Theory classes: 1h

Practical classes: 1h

Guided activities: 3h

Self study : 6h

Teoria de Maslow.

Description:

Theoretical basis of the Maslow. Analysis of its application in Design.

Full-or-part-time: 3h

Theory classes: 1h

Self study : 2h

Gamification in context.

Description:

The 4 areas of culture gamification and where to place gamification in the current context.

Related activities:

Challenge 2

Full-or-part-time: 11h

Theory classes: 1h

Practical classes: 1h

Guided activities: 3h

Self study : 6h

The Flow Theory.

Description:

The flow Theory. Analysis of its implementation to gamification.

Related activities:

Challenge 1

Full-or-part-time: 10h 40m

Theory classes: 0h 40m

Practical classes: 1h

Guided activities: 3h

Self study : 6h

Virtual Economies and Metagames.

Description:

Introduction to the most expanded virtual economies. Review of the principal existing systems of monetization. Integration of virtual goods and virtual currencies with our gamified experience and metagame.

Related activities:

Challenge 2

Full-or-part-time: 11h 20m

Theory classes: 1h

Practical classes: 1h 40m

Guided activities: 2h 40m

Self study : 6h

The Self-Determination Theory.

Description:

The Self-Determination Theory. Analysis of its implementation in gamification.

Related activities:

Challenge 1

Full-or-part-time: 15h

Theory classes: 1h

Practical classes: 1h

Guided activities: 3h

Self study : 10h



KPIs: Metrics and analysis of the gamification.

Description:

Introduction to the main KPI 's, measurement methods and implementation in gamification to validate its performance in a business context.

Related activities:

Challenge 2

Full-or-part-time: 15h

Theory classes: 1h

Practical classes: 1h

Guided activities: 3h

Self study : 10h

Operant Conditioning.

Description:

Operant conditioning. Analysis of its implementation in gamification. Ethical issues.

Related activities:

Challenge 1

Full-or-part-time: 15h

Theory classes: 1h

Practical classes: 1h

Guided activities: 3h

Self study : 10h

The Social Cognitive Theory

Description:

Analysis of the application of cognitive social theory to the field of gamification, specifically, in the establishment of objectives.

Related activities:

Practical exercises construction & deconstruction.

Full-or-part-time: 14h 40m

Theory classes: 0h 40m

Practical classes: 1h

Guided activities: 3h

Self study : 10h

ACTIVITIES

Challenge 1. Research about two gamified projects

Description:

Gamification is a methodology that can be applied to a wide variety of contexts to achieve different goals. For this challenge, the work team must decide the thematic area (health, education, fitness, business, etc.) on which to investigate the existence of gamified projects. Once this is done, you will look for 1 example of a gamified project within the chosen area. Then you must perform an individual and comparative analysis of the project, covering the following points or sections:

- Objectives of the project
- Target user (s)
- Game elements used
- User flow of the main tasks
- Pros and cons

Specific objectives:

Develop the ability to analyze a gamified experience applied to an APP with mainly business objectives that implements various elements and gamification strategies. The exercise aims to familiarize the student with the identification and recognition of the structures that make up a gamification process, with the basic motivational factors and how these influence the complete design of an application.

Material:

- Notes of the subject.

Tools:

- TRELLO

Papers:

- From Game Design Elements to Gamefulness Defining "Gamification" (Sebastian Deterding; Dan Dixon; Rilla Khaled; Lennart Nacke)
- Behavioral game design by John Hopson (Gamasutra)
- The Player experience of Need Satisfaction by Scott Rigby and Richard Ryan (PENS)
- Motivation during Videogame Play: Analysing Player Experience in terms of Cognitive Action

Delivery:

The practical exercise is divided into 3 sub-deliveries, which are a necessary condition for the final delivery to be evaluated. All practice accounts for 20% of the final grade for the course.

The final delivery must include all of the previous deliveries reviewed and improved by the student throughout the reviews obtained in person or through the virtual classroom in the practical class sessions with the teacher.

Full-or-part-time: 20h 50m

Theory classes: 5h

Self study: 15h 50m



Challenge 2: Construction of a gamified project.

Description:

From the briefing of a specific client, the student must develop a gamification proposal and document and design an interactive prototype which presents the main dynamics of the metagame and the gamification. The proposal must consistently implement a metagame that facilitates the retention and loyalty of its players. This metagame will have to incorporate gamification mechanics correctly interrelated with both the virtual microeconomics and the main experience of the videogame.

Specific objectives:

Be able to abstract the key elements of the experience of a video game and combine gamification techniques that cooperate with the game's metagame. Understand the existing dependencies of the metagame, gamification and game design.

Material:

Tools:

- Game Design Lenses Card Deck by Jesse Schell
- SCVNGRs Secret Game Mechanics Playdeck by Zynga
- TRELLO

Webs:

- Deconstructor for fun BLOG by Michail Katkoff.

Delivery:

Plan de gamificación, esquema de metajuego con ?core-loop? y dependencias con el modelo de negocio del videojuego. Prototipo navegable del metajuego y su gamificación.

Full-or-part-time: 20h 50m

Theory classes: 5h

Practical classes: 15h 50m

GRADING SYSTEM

Practical exercises:

Challenge 1: Initial investigation of a gamified project, with a weighting of 20% of the final grade for the course.

Challenge 2: Construction of a gamified project, with a weighting of 20% of the final grade for the course.

Midterm exam:

1 partial exam with a weighting of 25% of the final grade for the course.

Final exam:

1 final exam with a weighting of 25% of the final grade for the subject.

Participation and learning attitude, with a weighting of 10% of the final grade for the course.

Students who have failed in the continuous assessment can present themselves in re-assessment, regardless of the grade they have obtained (there is no minimum grade to access, as long as the grade is different from NP). The grade obtained in the re-evaluation replaces, if higher, the set of those obtained in the midterm and final exams. The final grade for the course, calculated from the re-evaluation exam, cannot be higher than 5.



BIBLIOGRAPHY

Basic:

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- Werbach, Kevin; Hunter, D. For the win: how game thinking can revolutionize your business. Wharton Digital Press, 2012. ISBN 9781613630235.
- Zichermann, G.; Linder, J. Game-based marketing: inspire customer loyalty through rewards, challenges and contests. Wiley, 2010. ISBN 9780470562239.
- Koster, Raph. A theory of fun for game design. 2nd ed. O'Reilly Media, 2013. ISBN 9781449363215.
- Burke, Brian. Gamify: how gamification motivates people to do extraordinary things. Bibliomotion, 2014.
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