

CENTRO UNIVERSITARIO DE TECNOLOGÍA Y ARTE DIGITAL



ACADEMIC PROGRAM

GAME DESIGN I

1. BASIC INFORMATION/GENERAL INFORMATION.

Degree:	Bachelor in Interactive Product Design
Faculty or Centre:	Centro Universitario de Tecnología y Arte Digital (U-TAD)
Area:	Human-machine interaction
Course:	Game Design
Year:	Second
Teaching period:	First
Type:	Compulsory subject
ECTS credits:	6
Teaching modality:	classroom-based course
Language:	English
Lecturer/Teacher:	Jaime Martínez Barahona
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2. SUBJECT DESCRIPTION

Area description

This subject belongs to the module of Conceptual Design and Ideation and, within this, to the area of Human-Machine Interaction.

This area refers to the study and practice of the set of techniques necessary for the creation of all those applications in which an interrelation between a machine, device, application and the human being is necessary.

Subject description

This subject has links with the other subjects of the degree as one of the objectives of this degree is the development of interactive projects and one of the most fertile areas is gamification. Knowing the theoretical bases of game mechanics is the basis on which possible developments are based.

Video Game Design I provides the necessary knowledge to understand the structure of a game and gamification, as well as the parts that make it up. For those who want to develop their career in the field of interactive products, it provides critical knowledge to be able to develop their work projects. In addition, attention to theory is a pending subject for companies and other training cycles, so its acquisition can be an advantage when it comes to differentiating oneself from other possible candidates for a job.

3. SKILLS AND LEARNING OUTCOMES

3.1 Skills

GC2 - Knowing how to adapt to change and new situations with flexibility and versatility.

GC6 - Demonstrate motivation for quality.

GC8 - Demonstrate the ability to work in a team.

GC12 - Express a critical and self-critical sense and the ability to analyse and evaluate different alternatives.

GC17 - Demonstrate the ability to analyse, synthesise and gather information from different sources.

GC18 - Manage information appropriately.

CB2 - That students know how to apply their knowledge to their work or vocation in a professional manner and possess the competences that are usually demonstrated through the elaboration and defence of arguments and the resolution of problems within their area of study.

SC1 - Knowing the language necessary to communicate and structure a coherent discourse in the field of sociology, philosophy and psychology in relation to the design of interactive products.

SC3 - Analyse the social and cultural aspects that favour the usability of interactive products.

SC8 - Evaluate the ethical, technical and creative implications of technology in the design of interactive products.

SC12 Knowing the elements involved in the design of an interactive work in relation to the user.

SC13 - Applying basic knowledge of human-machine interaction to an interactive digital product.

3.2 Learning outcomes

Incorporate the psychological fundamentals into the game design.

Build a system in which players' actions make sense in the context of the game

Define a game rule structure to produce a satisfying game experience

Recognize the special needs of players with disabilities

Evaluate the usability components in a game

Designing a testing system for a game

4. CONTENTS

- Definition and development of game mechanics
- Challenges and collective behaviour
- Game goals: definition and types
- Developments of progressive difficulty in the design
- Reinforcements and punishments
- Genres and mechanics
- Mechanical Hybridization
- Moral Implications in the Design of Video Games and Interactive Products
- Construction of videogames through mechanics
- Mechanical design process

5. SUBJECT SYLLABUS:

Theme 0. Elements of the video game and design documents

0.1. Introduction

0.2. Basic elements of game design

0.3. Design documents

- Theme 1. Game concept and playability
- 1.1. State of concentration (flow)
 - 1.2. Dynamic difficulty setting
 - 1.3. Rule systems
 - 1.4. Game space
 - 1.5. Interface

- Theme 2. Game experience and immersive systems
- 2.1. Ambient immersive systems
 - 2.2. Mechanical immersive systems

- Theme 3. Gameloops
- 3.1. Gameloop
 - 3.2. Core loop
 - 3.3. Compulsionloop
 - 3.4. Feedbackloops
 - 3.5. Operant conditioning

- Theme 4. Genres and mechanics
- 4.1. Beat'em ups
 - 4.2. Puzzle games
 - 4.3. Adventure games

6. TRAINING ACTIVITIES AND TEACHING METHODS

Teaching methods

The subject will be developed through the following general methods and techniques, which will be applied differently depending on the characteristics of the subject:

- **Expository method/Master lecture:** the lecturer will develop the contents of the syllabus through master classes and dynamic lectures.
- **Case studies:** analysis of real cases related to the subject.
- **Exercise and problem solving:** students will develop the appropriate solutions by applying transformation procedures to the information available and interpreting the results.
- **Problem-based learning:** using problems as a starting point for the acquisition of new knowledge.

Training activities

LEARNING ACTIVITIES	Total hours	Hours of attendance	% attendance
Theory classes	44	44	100
Seminars and workshops	0	0	0
Practical classes	36	36	100
Tutoring	4	4	100
Evaluation activities	9	9	100
Study and group work	24	1	5
Self-study and individual work	33	0	0

7. TEMPORAL DEVELOPMENT

Subject	Week
Theme 0. Elements of the video game and design documents	1,2,3
Theme 1. Game concept and playability	4,5,6
Theme 2. Game experience and immersive systems	7,8
Theme 3. Gameloops	9,10,11
Theme 4. Genres and mechanics	12,13,14,15

8. EVALUATION SYSTEM

ASSESSED ACTIVITY	MINIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)	MAXIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)
SE1 Assessment of participation in class, practicals or projects of the subject.	10%	30%
SE2 Evaluation of assignments, projects, reports, reports, reports	35%	70%
SE3 Objective assessment	30%	60%

Grading criteria:

EVALUATION ACTIVITY	EVALUATION CRITERIA	EVALUATION CRITERIA ASSESSMENT IN RELATION TO THE FINAL GRADE (%)
SE1 Assessment of participation in class, practicals or projects of the subject.	Students will be assessed on the basis of their active participation and the correct submission of the practical assignments in due form and on time.	10%
SE2 Evaluation of assignments, projects, reports, reports, reports	Format, level of detail, analytical capacity, applied theoretical knowledge, presentation, grammatical and spelling correctness.	40%
SE3 Objective assessment	Understanding of the contents developed during the course.	50%

General comments on the evaluations/assessments:

- Activities: It is necessary to present all the activities and obtain a mark of 5 or higher in each one in order to attend the ordinary exam. The approved works will be kept for the extraordinary exam.
- Examination: It is necessary to obtain a grade of 5 or higher to pass the course

9. LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

Key references

SHELL, J. (2008). The Art of Game Design, A Deck of Lenses. ISBN: 978-0615218281.

Recommended references

ROGERS, S. (2010). Level Up! The Guide to Great Video Game Design. ISBN: 978-0470688670.

SWINK, S. (2008). Game Feel: A Game Designer's Guide to Virtual Sensation. ISBN: 978-0123743282.

10. Required materials, software and tools

Type of classroom:

Projection equipment and whiteboard

Materials:

Laptop computer

Webcam

Microphone

Software: