ACADEMIC PROGRAM

GAME DESIGN (II)

B.F.A. IN INTERACTIVE PRODUCT DESIGN

MODALITY: ON CAMPUS

ACADEMIC YEAR: 2023-2024

Name of the course:	Game Design (II)	2
Degree :	Interactive Product Design	
Location:	Centro Universitario de Tecnología y Arte Digital	
Modulo:	Ideation and Concept Design	
Area:	Human-machine interaction	
Year:	3º	
Teaching period:	1º	
Type:	OB	
ECTS credits:	6	
Teaching modality:	On campus	
Language:	English	
Lecturer / Email	Alvaro Ortuño/alvaro.ortuno@u-tad.com	
Web page:	http://www.u-tad.com/	

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

The course Video Game Design II aims to provide students with a specific vision of the essential role played by game mechanics within the system that makes up a video game. Through the in-depth analysis of the mechanics present in the different video game genres and several practical applications, the student will acquire the knowledge and tools necessary to design game mechanics according to the final objectives of the work. It is complemented by Video Game Design III, a subject in the second four- month period of the course.

This subject provides students with knowledge about one of the structural components of the design of any video game. Understanding the functioning and implications of game mechanics is fundamental for the videogame designer, who will have to work with them on a daily basis.

The knowledge acquired in this subject will be applicable in advanced video game design subjects.

COMPETENCIES AND LEARNING OUTCOMES

Competencies
BASIC AND GENERAL

GC8 - Demonstrate the ability to work in a team.

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

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

GC18 - Manage information appropriately.

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

GC6 - Demonstrate motivation for quality.

CB1 - That students have demonstrated possession and understanding of knowledge in an area of study that builds on the foundation of general secondary education, and is usually at a level that, while relying on advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.

CB2 - Students are able to apply their knowledge to their work or vocation in a professional manner and possess the competences usually demonstrated through the development and defence of arguments and problem solving within their field of study.

CB3 - Students have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgements that include reflection on relevant social, scientific or ethical issues.

CB4 - Students are able to communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

CB5 - That students have developed those learning skills necessary to undertake further study with a high degree of autonomy.

SPECIFIC

SC1 - Know 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.

SC7 - Knowing the practical fundamentals of the use and programming of computers and interactive product development tools.

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.

SC14 - Apply the fundamentals of narrative to the development of interactive products.

SC15 - Analysing the characteristics and needs of users in the humanistic environment as a fundamental element in the design of interactive products.

SC19 Understand the design principles that enable the use, accessibility and usability of interactive products and their philosophical implications.

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

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

• Construction of videogames through mechanics

• Mechanical design process

SUBJECT SYLLABUS

1. Mechanics and their Design

    1.1. Definition and development of Game Mechanics

1.2.   Game needs: Mechanics Proposal

1.3.   Mechanics Design Process

1.4.   Mechanics Hybridization

1.5.   Creation and support of a mechanic

1.6.   Construction of Videogames through Mechanics

2.   Challenges and Objectives

2.1.   Challenges and Collective Behavior

2.2.   Game Objectives: Definition and Types

2.3.   Reinforcements and Punishments

2.4.   Development of Difficulty

2.5.   Progressive Difficulty

3.   Monetization

3.1.   Business systems

3.2.   Inclusion of payment mechanics Free to Play / Freemium / Premium 3.4.

3.4.   Battle Passes

3.5.   Economic Design

4.   Genres

4.1.   Narrative Adventures / Visual Novels

4.2.   Sports and Simulation

4.3.   Music and Rhythm

4.4.   Sub-genres and Game Modes

4.5.   Open World / Sandbox

4.6.   MMO / MOBA / Battle Royale 4.6.

TRAINING ACTIVITIES AND TEACHING METHODOLOGIES

TRAINING ACTIVITIES

LEARNING ACTIVITIES	Total hours	Hours of presence
Theoretical classes	44,44	44,44
Seminars and workshops	0,00	0,00

Practical classes	35,56	35,56
Tutorials	4,22	4,22
Evaluation Activities	8,89	8,89
Group work and study	23,56	1,18
Autonomous and individual study and work	33,33	0,00
TOTAL	150	94

Teaching methodologies

Expository method/Master lecture

Case studies

Exercise and problem solving

Problem-based learning

TEMPORAL DEVELOPMENT

Topic 1. Mechanichs and their Design: 3 weeks

Topic 2. Challenges and Objectives: 3 weeks

Topic 3. Monetization: 2 weeks

Topic 4. Genres: 7 weeks

EVALUATION SYSTEM

ASSESSMENT SYSTEM	MINIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)	MAXIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)
Assessment of participation in class, exercises or projects of the course	10	30
Assessment of assignments, projects, reports, memos	35	70

Objective test	30	60

GRADING CRITERIA

ASSESSMENT SYSTEM	ORDINARY EVALUATION	EXTRAORDINARY EVALUATION
Assessment of participation in class, exercises or projects of the course	10	10
Assessment of assignments, projects, reports, memos	40	40
Objective test	50	50

General comments on the evaluations/assessments

• Class participation will account for 10% of the final grade of the course, this grade will be kept for the extraordinary call-in case of failure of the course. It is necessary to reach 80% of class attendance in order to be able to take the ordinary call, otherwise the student will fail this exam and will have to take the extraordinary call.

• It is necessary to pass all the assignments (SE2) in order to pass the course in the ordinary call All the failed assignments will have to be handed in during the extraordinary call, keeping the grades of the approved assignments to make the average of this section in the extraordinary call. This section will represent the same percentage of the final grade in ordinary and extraordinary call, 40%.

• It is crucial to hand in the assignments on time. A 10-minute courtesy period will be given during which the hand-in is considered to be on time. After that time, assignments may be handed in within 24 hours after the due date, but with a penalty on the grade to be determined by the teacher. No work will be accepted after 24 hours.

• The final test will consist of a delivery and an exam, both of which must be passed in order to pass the course, both in Ordinary and Extraordinary call. The approved parts will be kept in case of failing the course. This section will represent the same percentage of the final grade in ordinary and extraordinary call, 50%.

• A file that cannot be opened or whose link is broken will have a grade of 0. Subsequent submissions (beyond the 24h margin from the deadline) or "attempts to prove that it was there, but disappeared" will not be accepted, so the student is advised to check the status of the file after uploading it to his or her support page.

• Students are responsible for finding, organizing and coordinating their own groups for team work. If any student is left out of the teams, he/she is in no case exempted from having to hand in the exercise with all its sections and must do it individually.

• For group work, the breakdown of members involved and their assigned part will be requested, so that not all members will have to have the same common grade, if it is understood that they have worked above or below the group average. A group that has not broken down its members will have the common grade among all of them, not being able to consider a breakdown a posteriori for a possible adverse grade. All members of the group must submit the exercise and, in the case of a late submission, the rules for late submission will be applied exclusively to the person concerned.

• Any detection of plagiarism, copying or use of bad practices (such as the use of AIs) in a paper or exam will result in the failure of that paper with a zero, the report to the faculty and academic coordinator and the application of the current regulations, which can lead to very serious penalties for the student.

• The use of Smartwatches or cell phones is not allowed during exams. Such devices will have to be put away and out of the student's sight during the exam. The use of cell phones is not allowed during classes.

• The evaluation percentages of Ordinary will be maintained in the Extraordinary Examination

LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

Key references

SELLERS, Michael. Advanced Game Design. 1ª ed. Pearson Addison-Wesley, 2018. ISBN 978-0134667607

DAMS, Ernest y DORMANS, Joris. Game Mechanics: Advanced Game Design. 1ª ed. New Riders, 2012. ISBN 978-0321820273

FULLERTON, Tracy. Game Design Workshop: A Playcentric Approach to Creating Innovative Games. 3ª ed. A K Peters/CRC Press, 2014. ISBN 978-148221716

Recommended references

KOSTER, Raph. A Theory of Fun for Game Design. 1ª ed. Paraglyph Press, 2004. ISBN 978-1932111972

SALEN, Katie y ZIMMERMAN, Eric. Rules of Play: Game Design Fundamentals. MitPress, 2003. ISBN 978-0262240451

SCHELL, Jesse. The Art of Game Design, a book of Lenses. CRPress. ISBN: 978-0123694966

REQUIRED MATERIALS, SOFTWARE AND TOOLS

Type of classroom
Projection equipment and whiteboard

Materials:

Laptop computer

Software:

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