ACADEMIC PROGRAM

SERIOUS GAME DESIGN

B.F.A. IN **INTERACTIVE PRODUCT DESIGN**

MODALITY: ON CAMPUS

ACADEMIC YEAR: 2023-2024

Name of the course:	Serious Game Design
Degree :	Interactive Product Design
Location:	Centro Universitario de Tecnología y Arte Digital
Modulo:	Specialized Design
Area:	Advanced Design
Year:	4º
Teaching period:	2º
Type:	OP
ECTS credits:	3
Teaching modality:	On campus
Language:	English
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SUBJECT DESCRIPTION

Area description

This subject belongs to the Specialised Design module within the Advanced Design subject.

This area refers to the study and practice of the set of techniques necessary for the deepening of the essential and basic aspects of design. Focusing on the development of these, in a more complex way, and applied to more specific cases. The acquisition of the competences is guaranteed through the training activities and teaching methodologies associated with the area.

Subject description

Due to its specific nature, the subject Serious Game Design is closely related to those subjects in which very formal aspects of the development of interactive products are developed, such as: "Introduction to Game Design" and "Video Game Design".

This subject develops an important aspect within the new trends that already prevail in the development of interactive products, such as serious games.

COMPETENCIES AND LEARNING OUTCOMES

Competencies

BASIC AND GENERAL

GC1 - Lifelong learning through self-study and continuous training.

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

GC3 - Develop creativity and innovation and have the ability to present new resources, ideas and methods in order to subsequently turn them into actions.

GC4 - Exercise leadership and negotiation skills.

GC6 - Demonstrate motivation for quality.

GC7 - Show interest and sensitivity in environmental and social issues, as well as the ability to analyse the social dimension of the activity and corporate social responsibility.

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.

CG14 - Know how to work in a team in multidisciplinary environments.

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

GC18 - Manage information appropriately.

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.

SC9 - Understand the principles of audiovisual narrative to develop discourses and stories applicable to interactive products.

SC11 - Apply creativity in the digital content environment.

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.

SC17 - Apply the fundamentals of animation on computer-generated models.

SC18 - Apply theoretical and practical knowledge of product design for content development.

Learning outcomes

Create puzzles, obstacles, and milestones to build a interesting user experience

Apply design knowledge to the development of serious and casual games and innovative genres

To design video games for the acquisition of knowledge and skills aligned with the school curricula of the different educational stages.

Analyze the educational possibilities of entertainment video games.

CONTENTS

• Definition of serious video games

• Serious video games design

• Development and detailed analysis of video games by genre

• Elements of analysis in interactive products

SUBJECT SYLLABUS

1. INTRODUCTION TO GAMIFICATION

   1. What is Gamification? - Gamification, Serious Games, Game-BasedLearning, Gamification and others.

   2. History of Gamification: kings, scientists and housewives.

   3. Entertainment Games VS Serious Games and Gamification: differences, similarities and possibilities.

   4. Game genres applied to Gamification and Serious Games

   5. Platforms applied to Gamification and Serious Games: video games, board games, card games, Lego Serious Play, Escape Room, GPS, Big Data, etc.

2. THE HUMAN BRAIN

   1. Neuroscience applied to Gamification: why does it work?

   2. BehaviouralDesign

   3. Bad practices in Gamification: PBLs, exploitationware, etc.

3. GAMIFICATION BY PURPOSE - MAPPLE: Motivation, Awareness, Persuasion, Practice, Learning and Evaluation

   1. Gamification to motivate: exergaming, wearables, prevention of harmful habits in the population, self-management of chronic diseases. Super Better, Pokémon Go and Ingress.

   2. Gamification to raise awareness: empathy and conflicting designs. Censorship, self-censorship and social impact.

   3. Gamification for practice: Simulators, AR and VR, Montessori and DIY. Cost and risk savings.

   4. Gamification to persuade: Advertising, transmedia campaigns, Propaganda Games, China 2020, social credit and population control.

   5.   Gamification for learning: Edutainment, adult learning and tutorial design.

   6.   Gamification for evaluation: personnel selection, disease detection. The absence of distress.

4.   DESIGN OF GAMIFIED PRODUCTS

   1. Development of a gamified product I: clients, budgets and proposals.

   2. Development of a gamified product II: gamedesign, constraints and narrative VS "educational" content.

   3. The Octalysis Framework by Yu-Kai Chou: differences between White Hat and Black Hat Core Drives. Application in business environments.

   4.   Markets, conferences, possibilities

   5.   Final Project

TRAINING ACTIVITIES AND TEACHING METHODOLOGIES

TRAINING ACTIVITIES

LEARNING ACTIVITIES	Total hours	Hours of presence
Theoretical classes	18,75	18,75
Seminars and workshops	2,50	2,50
Practical classes	6,25	6,25
Tutorials	1,50	1,50
Evaluation Activities	2,50	2,50
Group work and study	5,00	0,25
Autonomous and individual study and work	38,50	0,00

TOTAL	75	32

Teaching methodologies

Expository method/Master lecture

Case studies

Exercise and problem solving

Problem-based learning

TEMPORAL DEVELOPMENT

1. INTRODUCTION TO GAMIFICATION: 4 weeks

2.PSYCHOLOGY AND LEARNING: 3 weeks

3.DESIGN OF GAMIFIED PRODUCTS : 6 weeks

4. THE SERIOUS GAMES SECTOR: 2 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

• It is essential to have at least a 5 in the objective test.

• EXTRAORDINARY CALL: The student will have to take an exam, in addition to a new proposal for a serious game.

• "Any detection of plagiarism, copying or use of malpractice (such as the use of AIs) in a paper or exam will result in the failure of that paper with a zero, a 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 mobile phones is not permitted during the exams. These devices must be put away and out of sight during the exam.

• The use of mobile phones is not permitted during lessons

LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

Key references

Actionable Gamification – Yu-Kai Chou

Reality is Broken – Jane McGoniga.

Recommended references

MOOC Learning How to Learn – Coursera

REQUIRED MATERIALS, SOFTWARE AND TOOLS

Type of classroom
Projection equipment and whiteboard

Materials:

Laptop computer

Software:

Office