



ACADEMIC PROGRAM

USABILITY TESTING

B.F.A. IN INTERACTIVE PRODUCT DESIGN

MODALITY: ON CAMPUS

ACADEMIC YEAR: 2023-2024

Name of the course:	Usability Testing
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:	2º
Type:	OB
ECTS credits:	3
Teaching modality:	On campus
Language:	English
Lecturer / Email	Álvaro 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 field of Usability is directly related to all subjects related to UX and Graphic Interface design, control design; game mechanics and functionalities. The criteria from which to analyse a product in terms of usability are proportionally related to human perception systems and their relationship with digital products.

The field of Testing encompasses practically all areas of knowledge since, in one way or another, this field is present throughout the entire development cycle of a product; from the conception of its prototype to moments before its launch on the market.

The study of the subject of Usability and Testing will offer the student advanced notions in two fundamental areas implicit in any development of Interactive Products. Both disciplines imply an analysis of the product from two specific points of view focused on the user's perception and interaction with the product and on the design of an effective testing system that ensures its correct functioning at all levels. By mastering both areas, the student will be able to acquire the necessary criteria to ensure that the result of their designs reaches the desired levels of quality and acceptance within the industry.

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

- Usability design in videogames
- Interface design guidelines
- Usability testing
- Quality Assurance (QA)
- Testing methodologies and typologies

SUBJECT SYLLABUS

1. What is Usability?

1.1 Definition and practice

1.2 How can we measure Usability in our games?

1.3 User Experience.

2. Usability Design

2.1 Measuring Usability.

2.2 Jakob Nielsen and his ten principles.

3. Bug Reporting

3.1 What is a Bug?

3.2 How to report a bug?

3.3 Bug reporting in the industry.

4. Playtesting

4.1 How should we prepare a Playtesting session?

4.2 Questions and Answers

4.3 Using Playtesting to improve our games

TRAINING ACTIVITIES AND TEACHING METHODOLOGIES

TRAINING ACTIVITIES

LEARNING ACTIVITIES	Total hours	Hours of presence
<i>Theoretical classes</i>	22,22	22,22
<i>Seminars and workshops</i>	0,00	0,00
<i>Practical classes</i>	17,78	17,78
<i>Tutorials</i>	2,11	2,11
<i>Evaluation Activities</i>	4,44	4,44
<i>Group work and study</i>	11,78	0,59
<i>Autonomous and individual study and work</i>	16,67	0,00
TOTAL	75	47

Teaching methodologies

Expository method/Master lecture

Case studies

Exercise and problem solving

Problem-based learning

TEMPORAL DEVELOPMENT

Topic 1 What is Usability?: 3 weeks

Topic 2 Usability Design: 3 weeks

Topic 3 Bug Reporting: 3 weeks

Topic 4 Playtesting: 6 weeks

EVALUATION SYSTEM

ASSESSMENT SYSTEM	MINIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)	MAXIMUM SCORE RESPECT TO THE FINAL ASSESSMENT (%)
<i>Assessment of participation in class, exercises or projects of the course</i>	10	30
<i>Assessment of assignments, projects, reports, memos</i>	35	70
<i>Objective test</i>	30	60

GRADING CRITERIA

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

General comments on the evaluations/assessments

- The evaluation throughout the course will consist of 2 fundamental parts, on the one hand, there will be the sessions of preparation, completion and completion of the tests proposed in class and on the other hand, the delivery of work proposed throughout the course. Each of these parts will be worth 20% of the mark.

- The number of test sessions will vary depending on the projects proposed throughout the course, being necessary that all students present at least one test session prepared by them in order to evaluate their learning in the subject.
- The final exam will account for 50% of the final mark for the course. It will consist of multiple choice, essay and critical thinking questions.
- All students must pass the final exam in order to pass the course. If the final exam is not passed, it will not be averaged with the other exams.
- Pass" is understood as a mark of 5 or more out of 10.
- In the case that the average of the assignments does not reach 5, that part of the course will be considered as failed, and therefore it will have to be recovered in the extraordinary call.
- In the event that a student chooses the grade of Honours for exceptional performance throughout the course, he/she will be informed at the end of the correction of work, once the faculty has approved it.
- "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

Designing Web Usability – Nielsen, Jakob. ISBN: 9781562058104

Recommended references

CHANDLER, The Game Production Handbook. Jones & Barlett learning.

KATHERINE Isbiter; Noah Shaffer , Game Usability. CRC Press.

CHARLES P. Shultz and Robert D. Bryant, Game Testing All in One; Mercury Learning.

REQUIRED MATERIALS, SOFTWARE AND TOOLS

Type of classroom

Projection equipment and whiteboard

Materials:

Laptop computer

Software:

Blackboard

Word

Excel

Unity

Unreal