ACADEMIC PROGRAM

MUSIC AND SOUND DESIGN

B.F.A. IN INTERACTIVE PRODUCT DESIGN

MODALITY: ON CAMPUS

ACADEMIC YEAR: 2023-2024

Name of the course:	Music and Sound Design	
Degree :	Interactive Product Design	
Location:	Centro Universitario de Tecnología y Arte Digital	
Modulo:	Ideation and Concept Design	
Area:	Audiovisual Production and Development	
Year:	3º	
Teaching period:	2º	
Type:	OB	
ECTS credits:	6	
Teaching modality:	On campus	
Language:	English	
Lecturer / Email	Cristina Aguilar Hernández/cristina.aguilar@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 Audiovisual Production and Development.

This area refers to the study and practice of the set of fundamental artistic techniques of creation and their application to the digital environment, such as video games. In it, the student obtains diverse skills related to art, and acquires the necessary knowledge of digital tools that will allow them to use them.

Subject description

This subject, by its nature, has an interdisciplinary character with subjects in the fields of technology, communication, fine arts and humanities.

The subject has a general focus: to provide students with basic knowledge of music and sound and, above all, to encourage their intellectual curiosity. It will also seek to provide conceptual and practical tools to carry out basic work on the sound of images.

The aim is to provide future professionals in the field of digital product design with fundamental and basic references about the role of music and sound in the audiovisual world.

COMPETENCIES AND LEARNING OUTCOMES

Competencies
BASIC AND GENERAL

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

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.

GC5 - Demonstrate initiative and entrepreneurial spirit.

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

SC5 - Understand the influence of sociology, philosophy and psychology in their correlation with the history of art, literature and games as a reference in the creative process.

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

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

SC10 - Knowing the techniques of artistic representation and design of 2D and 3D content.

SC11 - Apply creativity in the digital content environment.

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.

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

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

Learning outcomes

Transforming a concept or message into a graphic representation

Experiment with different drawing techniques

Use visual language knowledge to build basic designs

Transferring knowledge of the psychological and perceptual effects of light, colour, music and sound to game design

Use symbolism and iconography to convey information

Create coherent visual worlds

Identify the most appropriate geometry representation method for each type of shape or space

Differentiate and categorize the different processes that take place in the generation of graphs within the graphical pipeline model.

Develop insight into bi-dimensional and three-dimensional geometry.

CONTENTS
•   Fundamentals of Music

•   Music and Sound narrative

•   Sound Edit and Design

•   Introduction to the Music composition workflow and methodologies

•   Music and Sound in the audiovisual industry

SUBJECT SYLLABUS

Topic 1. Introduction. Fundamentals of music and sound

   1.1 Fundamentals of music

       1.2.1 How to listen to music: melody, harmony, texture, rhythm.

       1.2.2 Music and emotions

   1.2 Introduction to acoustics

Theme 2. Narrative of sound and music

      2.1 Music, narrative and sound effects: ambience, character design, leitmotifs

      2.2 Structural functions of music and sound in film: music and audiovisual editing.

      2.3 Music, sound effects and video game design: adaptive and interactive music. Procedural elements in video game music.

      2.4 Brief history of music and video games. Music genres and video game genres.

Theme 3. Sound Editing and Sound Design

      3.1 Introduction to Sound Design (sound libraries, copyright)

            3.1.2 Sound Synthesis and Sound Effects

      3.2 Post-production and mixing

            3.2.1 Panning, reverb, delay, EQ and compression

            3.2.2 Mixing

            3.2.3 Introduction to music production

      3.3 Recording

            3.3.1 Recording techniques

            3.3.2 Foley

            3.3.3 Voice over, voice dubbing and voice editing

      3.4. Interactive sound production: interactive sound generation with FMOD

TRAINING ACTIVITIES AND TEACHING METHODOLOGIES

TRAINING ACTIVITIES

LEARNING ACTIVITIES	Total hours	Hours of presence
Theoretical classes	30,00	30,00
Seminars and workshops	3,33	3,33
Practical classes	20,67	20,67
Tutorials	4,00	4,00
Evaluation Activities	6,00	6,00
Group work and study	17,67	0,88
Autonomous and individual study and work	68,33	0,00

TOTAL	150	65

Teaching methodologies

Expository method/Master lecture

Case studies

Exercise and problem solving

Problem-based learning

Cooperative learning

TEMPORAL DEVELOPMENT

Theme 1 Introduction. Fundamentals of music and sound: 5 weeks

Theme 2 Narrative of Sound and Music: 6 weeks

Theme 3 Sound editing and design: 4 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	55	55
Objective test	35	35

General comments on the evaluations/assessments

•   In order to pass the course in ordinary call attendance must be equal to or higher than 80%.

•   The student must submit and pass the final exercise in order to pass the course. 80% of the class exercises must be handed in and passed.

•   In the extraordinary call, students must submit all pending work. Students must fulfil the same requirements as in the ordinary call in order to pass the course.

•   In order to pass the course, it will be necessary to pass both the theoretical and practical parts.

•   "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

COLLINS, K. (2008). Game sound: An introduction to the history, theory, and practice of video game music and sound design. Cambridge, MA: MIT Press.

KAMP, M., Summers, T., & Sweeney, M. (2016). Ludomusicology: Approaches to Video Game Music. Equinox Publishing.

Recommended references

BALL, Philip (2012). El instinto musical: escuchar, pensar y vivir la música. Turner, 2012.

CHION, Michel (1993). La audiovisión: introducción a un análisis conjunto de la imagen y el sonido. Grupo Planeta (GBS).

COLLINS, K. (2013). Playing with Sound: A Theory of Interacting with Sound and Music in Video Games. Cambridge, MA: MIT Press.

CUADRADO Méndez, Francisco José, y Juan José Domínguez López (2001). Teoría y técnica del sonido-Madrid: Síntesis.

DITTMAR, T. (2012). Audio Engineering 101: A Beginner's Guide to Music Production (Edición: 1). Focal Press.

HOROWITZ, Steve, Looney, Scott R (2014). The Essential Guide to Game Audio: The Theory and Practice of Sound for Games. New York and London: Focal Press

Summers, T. (2016). Understanding Video Game Music. Cambridge University Press.

ROSE, Jay (2014). Producing Great Sound for Film and Video: Expert Tips from Preproduction to Final Mix. New York.

WILLIAMS, Duncan, y Newton Lee. Emotion in Video Game Soundtracking. Springer, 2018.

REQUIRED MATERIALS, SOFTWARE AND TOOLS

Type of classroom
Projection equipment and whiteboard

Materials:
Laptop computer

Software:
Adobe Audition

Adobe Premiere

CakeWalk (de BandLab)

FMOD Studio Suite