

Academic Year: ( 2023 / 2024 )

Review date: 18-04-2023

Department assigned to the subject: Electronic Technology Department

Coordinating teacher: PLEITE GUERRA, JORGE

Type: Courses of humanities ECTS Credits : 3.0

Year : 1 Semester :

#### REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

It is recommended to have transversal knowledge, such as:

- Genuine interest in music not only for listening, but also for its production.
- Commitment to attend classes and work in the subject
- General knowledge of first engineering courses: Mathematics, Physics, ...
- Reasonable command of English language.

#### OBJECTIVES

The essential objective of the course is to integrate the artistic vision of a musician with the technical and scientific vision. The technical and emotional approach should not be antagonistic, but complementary and synergistic.

This eclectic approach to one of the main Arts such as Music, seeks to connect seemingly distant aspects but linked in its essence, such as rhythm, frequencies and emotions, sensation of depth and acoustics, timbre of an instrument and harmonic frequencies, etc.

To do this, a review of the typical phases of Audio Production (Recording, Editing, Mixing and Mastering) is addressed, and different current technologies and their requirements are discussed, which allow them to be implemented with professional results, even under a domestic environment.

The reached level in the subject is just initiation, that is, enough for the interested student to continue autonomously their self-learning process.

#### DESCRIPTION OF CONTENTS: PROGRAMME

1. Presentation and introduction to the subject
2. Music technology and sound and music concepts
3. Music production
  - 3.1. DAW
  - 3.2. Recording
  - 3.3. Editing
  - 3.4. Mixing
  - 3.5. Mastering
4. Present your project.

#### LEARNING ACTIVITIES AND METHODOLOGY

The subject consists of the following activities:

- Theoretical Classes: in which the subject of the subject will be taught with a focus as experimental as possible, supported by high fidelity audiovisual material.
- Development of a Project: you will start using a D.A.W. (Digital Audio Workstation). Working groups of 2/3 students will be formed to develop an audiovisual project throughout the course, which will be presented in class showing the results obtained.

#### ASSESSMENT SYSTEM

- Project Presentation: 35%.
  - Delivery of the Project, uploaded to Aula Global: 35%.
- Minimum grade of the Project: 5 out of 10 points.

- Set of Tests throughout the course 30%
- Minimum score of the Global Tests: 5 out of 10 points.

The qualification may be subsidized for:

- Early presentation of the project: up to +0.5 points
- Participation in the Youtube channel of the subject: up to +3 points

The qualification may be penalized for:

- Missing or poorly defined statement of the Project Title in the inscription: - 2 points
- Missing or poorly defined description of the Project in the inscription: - 2 points

<b>% end-of-term-examination:</b>	0
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	100

#### BASIC BIBLIOGRAPHY

- Catherine Schmidt-Jones Sound, Physics and Music, Rice University, Houston, Texas.
- Douglas Cohen Music: Its Language, History, and Culture, Brooklyn College Library and Academic IT.
- Fletcher, Neville H. The physics of musical instruments, Springer.
- Olson, Harry F. Music, physics and engineering, Dover Publications Inc..
- Zhou Fan Seminar Notes: The Mathematics of Music, Yale University.

#### ADDITIONAL BIBLIOGRAPHY

- <https://proquest.safaribooksonline.com/9781305115101> Web Link 1, The Internet.
- Dave Benson Music: A Mathematical Offering, Cambridge University Press.
- Julio Ribeiro Alves The History of the Guitar, Marshall Digital Scholar.
- <http://iopscience.iop.org/article/10.1088/0031-9120/51/6/065015/pdf> Web Link 4, The Internet.
- <https://aapt.scitation.org/doi/pdf/10.1119/1.4931010> Web Link 3, The Internet.
- <https://spinditty.com/instruments-gear/Beginners-Guide-to-Guitar-Effects-Pedals> Web Link 2, The Internet.