UNIVERSIDADE LUSÍADA
LISBOA

Course Unit Program
SOUND STUDIES

Academic Year 2025/2026

1. Organic Unit

Faculty of Architecture and Arts

2. Course

ARTS AND MULTIMEDIA COMMUNICATION

3. Cycle

1st

4. Course Unit

SOUND STUDIES (V3011)

5. Scientific Area

6. Curricular Year

1st

7. Type of Curricular Unit / Semester

2nd Semester

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8. Class type and workload (work time)

Theoretical classes:	
Practical classes:	
Theoretical-Practical Classes	30,00
Tutorial Guidance:	

9. ECTS Credits

3,00

10. Scientific Area Coordinator

11. Regent

Prof. Doutora GRÉCIA DESIREE FALCAO DE ARAUJO

12. Assistants

13. Teaching Language

Portuguese

14. General Objectives

The course unit focuses on the analysis of the evolution of sound and musical practices in audiovisual, with an emphasis on sound editing and its role in the construction of meaning. It also covers fundamental concepts of acoustics and psychoacoustics applied to audio production and reproduction. The course aims to equip students with necessary skills to integrate sound and musical components into multimedia projects, with a particular focus on the fields of entertainment and advertising.

15. Specific Objectives

- Understand sound as a process of meaning-making.
- Analyze narratological concepts and their application in sound and audiovisual editing.
- Recognize sound as a modulating factor of emotions and sensory experiences.
- Understand the principles of electroacoustics that enable the recording, digitization, and reproduction of sound.
- Relate acoustic phenomena to physiological, musical, and perceptual processes.
- Understand the cognitive and ecological dimensions of the soundscape.

16. Skills to be acquired

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- Historical understanding of the use of sound and music in cinema, as well as of sound editing techniques.
- Ability to use sound manipulation software for multimedia product design.
- Basic knowledge of the fundamental concepts of acoustics and psychoacoustics.
- Development of the ability to relate physical phenomena to physiological processes.
- Development of the ability to relate acoustic phenomena to their analog and digital electronic representation.

17. Teaching Methodology

Expository classes; guided readings and studies; practical exercises using appropriate devices and software; exercises and multimedia projects.

18. Course Unit Program

1. Sound art for cinema and multimedia: a. signs and sound signification; b. relationship between sound and moving image: audiovisual language and hypermedia language; c. sound editing and construction of the audiovisual narrative; d. sound typologies: i. diegetic sound, ii. non-diegetic sound, iii. metadiegetic and oneiric sound; iv. transdiegetic sound; f. sound libraries; g. audio editing tutorials using professional software.

2. Introduction to sound theory and acoustic phenomena: a. speed of sound in space; b. sinusoidal waves; c. frequency, amplitude, phase, wavelength; d. intensity measurements: i. study of the decibel; ii. sound pressure; iii. sound power; iv. sound intensity; e. modal systems and resonance; f. sound interactions: i. absorption; ii. reflection; iii. transmission; iv. diffusion; v. refraction; vi. diffraction; h. reverberation, the propagation of sound in space.

3. Psychoacoustics: a. Fletcher-Munson curves; b. critical bands and masking; c. Haas effect; d. neurological phenomena in the psychoacoustic field; e. soundscape ecology.

19. Assessment Methods

The continuous assessment methodology follows the general regulations of Universidade Lusíada, as well as the Specific Assessment Rules for the Degree in Arts and Multimedia Communication.

20. Didactic Resources

Specialized bibliography; multimedia projector; multimedia case studies using suitable software for carrying out exercises.

21. Sustainability Objectives

22. Keywords

Sound art; sound editing; sound for multimedia; acoustics; perception.

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23. Main Bibliography

Author(s): Chion, M.
Title: La Audio-Vision: Sound on Screen.
Edition: 1ª Year: 1994
Local: Nova Iorque
Publisher: Columbia University Press
ISBN Code:

Author(s): Schafer, R. M.
Title: Soundscape: Our Sonic Environment and the Tuning of the World.
Edition: 2ª Year: 1994
Local: Nova Iorque
Publisher: Destiny Books
ISBN Code:

Author(s): Heller, E.
Title: Why You Hear What You Hear.
Edition: 1ª Year: 2012
Local: New Jersey
Publisher: Princeton University Press
ISBN Code:

24. Complementary Bibliography

Author(s): Sonnenschein, D.
Title: Sound Design: The Expressive Power of Music, Voice and Sound Effects in Cinema.
Edition: 1ª Year: 2001
Local: Los Angeles
Publisher: Michael Wiese Productions
ISBN Code:

Author(s): Elmosnino, S.
Title: Audio Production Principles: Practical Studio Applications.
Edition: 1ª Year: 2018
Local: Oxford
Publisher: Oxford University Press
ISBN Code:

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