UAB
Universitat Autònoma de Barcelona

Sound Reinforcement Systems

Code: 104745
ECTS Credits: 6

2025/2026

Degree	Type	Year
Interactive Communication	OT	4

Contact

Name: Oriol Tio Coma

Email: oriol.tio@uab.cat

Teaching groups languages

You can view this information at the end of this document.

Prerequisites

None.

Objectives and Contextualisation

- To know the technological aspects related to sound for audiovisual products.

- To know the fundamentals of sound editing and post-production.

- To know the components of sound language: semantics and aesthetics of voice, music, sound effects and silence.

- To know how to build the sound profiles of the characters, the soundscapes, the acoustic perspective, the planning, for an interactive product.

- To know the strategies for the selection of voices, music and effects most appropriate to the project being developed.

Competences

- Act with ethical responsibility and respect for fundamental rights and duties, diversity and democratic values.
- Act within one's own area of knowledge, evaluating sex/gender-based inequalities.
- Integrate knowledge of design, language and photographic and audiovisual techniques to bring meaning to different types of content.
- Introduce changes in the methods and processes of the field of knowledge to provide innovative responses to the needs and demands of society.
- Manage time efficiently and plan for short-, medium- and long-term tasks.
- Search for, select and rank any type of source and document that is useful for creating messages, academic papers, presentations, etc.

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- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must have and understand knowledge of an area of study built on the basis of general secondary education, and while it relies on some advanced textbooks it also includes some aspects coming from the forefront of its field of study.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Analyse the sex-/gender-based inequalities and gender bias in one's own area of knowledge.
3. Choose suitable soundtrack components for the communicative objectives marked out.
4. Communicate using language that is not sexist or discriminatory.
5. Consider how gender stereotypes and roles impinge on the exercise of the profession.
6. Cross-check information to establish its veracity, using evaluation criteria.
7. Distinguish the salient features in all types of documents within the subject.
8. Find what is substantial and relevant in documents of all types on sound and its uses.
9. Identify situations in which a change or improvement is needed.
10. Know the main techniques of sound design for interactive audiovisual products and apply them to the different compositions in line with their characteristics and target audiences.
11. Plan and conduct projects in the field of sound in interactive works.
12. Propose new methods or well-founded alternative solutions.
13. Propose new ways to measure the success or failure of the implementation of innovative proposals or ideas.
14. Propose projects and actions that are in accordance with the principles of ethical responsibility and respect for fundamental rights and obligations, diversity and democratic values.
15. Propose projects and actions that incorporate the gender perspective.
16. Students can apply the knowledge to their own work or vocation in a professional manner and have the powers generally demonstrated by preparing and defending arguments and solving problems within their area of study.
17. Submit course assignments on time, showing the individual and/or group planning involved.
18. Use sound creatively, experimenting with the multiple informative and expressive possibilities offered by voice, music, effects and silence, together with the techniques of sound montage and direction.
19. Weigh up the risks and opportunities of both one's own and other people's proposals for improvement.

Content

1. Basic concepts of sound

    1. The sound

    2. Physical and perceptual characteristics

    3. Digitization and visualization

3. Microphone and speakers

    1. Transducers

    2. Microphones

    3. Speakers

5. Sound post-production

    1. Functions and processes

2. Sound editing, transformation and processing

3. Editing software and hardware

7. Sound resources and audiovisual narrative

1. Ambient sound and action sound

2. The voice

3. The music

9. Immersive and interactive environments

1. Video games

2. Adaptive music

3. Immersive sound

11. Legal aspects

1. Ownership of the musical work

2. Copyright, synchronization rights, mechanical rights, phonographic rights

3. Contracts

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practical sessions	33	1.32	2, 1, 4, 10, 9, 11, 19, 17, 12, 13, 14, 15, 16, 3, 18
Theoretical sessions	15	0.6	2, 1, 10, 7, 9, 11, 3, 8, 5
Type: Supervised			
Tutorials	7.5	0.3	1, 6, 9, 19, 12, 13, 14
Type: Autonomous			
Preparation of assignments, readings, etc.	87	3.48	2, 1, 4, 10, 6, 7, 9, 11, 19, 17, 12, 13, 14, 15, 16, 3, 8, 18, 5

The calendar will be available on the first day of class. Students will find all information on the Virtual Campus: the description of the activities, teaching materials, and any necessary information for the proper follow-up of the subject.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Course internships	40%	4	0.16	4, 10, 11, 17, 14, 15, 16, 3, 18
Final work	25%	2	0.08	1, 4, 10, 6, 11, 19, 17, 12, 13, 14, 15, 16, 3, 18
Theory exam	35%	1.5	0.06	2, 1, 4, 10, 6, 7, 9, 11, 19, 17, 12, 13, 14, 15, 16, 3, 8, 18, 5

THE EVALUATION ACTIVITIES ARE:

- Activity A, theoretical exam, 35% of the final grade.

- Activity B, practical exercises during the course (individual and group), 40% of the final grade.

- Activity C, final work, 25% of the final grade.

In order to pass the course, a minimum grade of 5 in activities A, B and C will be required.

RECOVERY

The student will have the right to recover the course if he/she has been evaluated in all the activities whose weight is equivalent to a minimum of 2/3 of the total grade of the course.

The theoretical exam and the final work can be recovered. The practices carried out throughout the course will not be recoverable.

SECOND REGISTRATION:

In case of second enrollment, students may take a single synthesis test consisting of a theoretical-practical exercise. The grade of the course will correspond to the grade of the synthesis test.

PLAGIUM. VERY IMPORTANT:

In case the student performs any irregularity that may lead to a significant variation in the grade of an evaluation act, this evaluation act will be graded with 0, regardless of the disciplinary process that may be instructed. In case of several irregularities in the evaluation acts of the same subject, the final grade of this subject will be 0.

This subject doesn't provide for the single assessment system.

AI: In this course, the use of Artificial Intelligence (AI) technologies is not permitted at any stage. Any assignment containing content generated by AI will be considered a breach of academic integrity and may result in a partial or total penalty to the assignment grade, or more serious sanctions in severe cases.

Bibliography

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NIETO, J. (2003). Música para la Imagen, la influencia secreta. Madrid: Iberautor.

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ROMÁN, A. (2017). Análisis Musivisual, guía de audición y análisis de la música cinematográfica. Madrid: Editorial Visión Libros.

ROMERO, B. & ROMÁ, M. Electroacústica. Altavoces y micrófonos. Universidad de Alicante, Ed. Pearson/Prentice Hall.

SAITTA, C. (2002). El Diseño de la Banda Sonora. Buenos Aires: Saitta Publicaciones Musicales.

SANTACREU O.A. (2002). La Música en la Publicidad. Universidad de Alicante.

SCHIFRIN, L. (2011). Music Composition for Film and Television. Boston: Berkley Press.

Software

Free audio editing software will be used (such as Cakewalk by Bandlab).

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this link. To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PLAB) Practical laboratories	61	Catalan	second semester	afternoon
(TE) Theory	6	Catalan	second semester	afternoon