

Acoustics and direct sound
COURSE GUIDE

BACHELOR'S IN FILMMAKING
Course 2025-2026

Course data

<i>Duration</i>	Annual
<i>Credits</i>	6 ECTS
<i>Modality</i>	In-person
<i>Language</i>	English
<i>Faculty</i>	Filmmaking
<i>Teacher</i>	Laura Gantes

Course presentation

Introduction to the fundamentals of acoustics and electronics related to the generation and propagation of sound, which are essential for its capture, recording, processing and reproduction. Analysis of the different systems and techniques related to audio. Advanced techniques for capturing optimum sound to enable the post-production department to achieve a professional finish.

Student competencies

CG01	Utilize different historical, sociologic, cultural and/or artistic sources in the creation of audiovisual projects.
CG03	Know the codes of ethics and deontology applicable to the audiovisual industry.
CG04	Know the various applications of the technological resources from the field of audiovisual creation.
CE02	Understand the essentials and specificities of an audiovisual project in its different formats, genres and typologies.
CE03	Know the production workflows of the audiovisual industry.
CE15	Design the sound of an audiovisual work through capture, conceptualization and the tonal and spatial composition of the dialogues, settings, effects and music.

Learning outcomes

Upon completion of this course, each student must be able to:

1. Know the parameters that define light: its nature, formation, movement, psychology, etc.
2. Develop artistic criteria regarding the intrinsic, formal and symbolic qualities of the color palette of an audiovisual piece.
3. Propose a chromatic line that is coherent with the style and character of the work.
4. Work with color editing software.

Teaching methodology

MD1	Participatory masterclass.
MD2	Case studies and discussion.
MD3	Problem resolution and discussion of results.
MD5	Cooperative and collaborative learning.
MD6	Academic tutoring.

Course content

Content	<p>Introduction to the fundamentals of acoustics and electronics in relation to the generation and spread of sound, knowledge that is essential to the capture, register, treatment and reproduction of sound. Analysis of the range of audio systems and techniques. Advanced sound capture techniques that provide optimum results, allowing the postproduction department to give the work a professional finish.</p> <ol style="list-style-type: none"> 1. Sound signals. 2. The human auditory system. 3. Acoustics. Architecture and acoustic conditioning. 4. Behavior of sound in different sounds. Reverberation. 5. Analogic and digital acoustics. 6. Electroacoustics. 7. Analysis and breakdown of the screenplay and shooting script. 8. Analysis of film locations. 9. The sound department on a shoot. Paperwork. 10. Advanced direct sound capture techniques. Workflow and formats. Microphonics. Recorders. Headphones. Booms.
---------	---

Learning activities

AF1	Theoretical and theoretical-practical classes.	24 hours
AF2	Classroom/laboratory exercises and practices.	15 hours
AF3	Design and execution of artistic creation projects (individual or group).	3 hours
AF4	Art appreciation activities: attendance at seminars, visits to exhibitions or viewing of visual/audiovisual works.	12 hours
AF5	Search and selection of documentation, reading of supporting material and bibliographic and visual references.	50 hours
AF6	Academic tutoring.	3 hours
AF7	Evaluation.	3 hours
AF8	Autonomous study of theoretical content and autonomous preparation of practical work and activities.	70 hours

** The distribution of hours between training activities may undergo changes due to the academic needs of the course, the group and/or the teaching team.*

Assessment

GENERAL ASSESSMENT CRITERIA

ATTENDANCE

The classes are in-person, and attendance is mandatory, as it is a determining factor in the continuous assessment system, as well as in class attitude and participation. However, in exceptional cases due to health situations or family reconciliation, students may request online access as a methodological adaptation (for more information, please contact the student department).

MARKS

Continuous Assessment is a comprehensive assessment of each student's results judged on the assessment criteria described in the following section, on a scale of 0 to 10 as provided in current legislation.

Students wishing to bring up their grade in the extraordinary/re-assessment period must first contact the Registrar's Office to expressly waive in writing all of the marks they obtained in the regular assessment period. Their final assessment mark will be the mark obtained in re-assessment.

SPELLING AND EXPRESSION

Spelling and written expression are taken into account in the marking of written examinations and assignments. Written examinations cannot contain more than 2 spelling errors or 10 accent errors (omitted or misplaced). Assignments completed outside of the classroom may not contain more than 1 error.

UNIVERSITY WRITTEN REPORTS

These must have a title page, table of contents and bibliography listing at least 4 sources. These works must be original. Excerpts from other authors must be properly cited. Demonstrable plagiarism is an academic offense. If one student copies the work of another student, both shall be held accountable.

SPECIFIC ASSESSMENT CRITERIA

REGULAR ASSESSMENT PERIOD

The teaching team will provide the details/specifications on the content or submission of assessment tasks; this information will be given in class or in a document made available to the student on the Virtual Course Space (in Spanish, *Aula Virtual*).

Assignments not submitted by the deadlines set by the teaching team will receive an assessment mark of 0..

<i>Assessment task (*)</i>	<i>Revaluable/non-revaluable</i>	<i>Minimum mark yes/no</i>	<i>% of final mark</i>
SE1 In-class tests and examinations (oral and/or written)	Reevaluable	Yes	40%
SE3 Continuous assessment: weekly tasks and homework, periodical reports, problem resolution	Non reevaluable	No	50%
SE5 Attitude and participation	Non reevaluable	No	10%
			100%

(*) Records and evidence of all of the assessment tasks (writings, recordings, etc.) listed in this table will be kept and filed in the Registrar's Office.

EXTRAORDINARY/RE-ASSESSMENT PERIOD

Students that do not pass the course in the term it is delivered can attempt again in the extraordinary/re-assessment period, except in cases where the characteristics of the course make this impossible.

The teaching team will inform the student of the assessment tasks that will need to be done in re-assessment. The teaching team can decide whether to maintain the marks of 5.0 and above the student received over the course and in the regular assessment period.

REVIEW OF ASSESSMENT MARKS

As set out in the TAI School of the Arts Student Handbook.

Resources

RECOMMENDED BIBLIOGRAPHY

RECOMMENDED FILMOGRAPHY

RECOMMENDED WEBSITES

REQUIRED MATERIALS FOR THE COURSE

VISITS, MASTER CLASSES, EVENTS AND ADDITIONAL WORKSHOPS