

Basic Communication Technologies

Code: 107750
ECTS Credits: 6

2025/2026

Degree	Type	Year
Communication in Organisations	FB	1

Contact

Name: Daniel Arrebola Concejero

Email: daniel.arrebola@uab.cat

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

To enroll in this course, it is recommended that students have:

- Reading comprehension in Spanish and English, as well as communication and written expression skills in Catalan and Spanish, appropriate for a first-year university student.
- The ability to adapt to technological changes and the communication environment.
- Basic skills for teamwork and participation in group projects.
- Basic knowledge of audio and video editing, which will facilitate better use of the course content.

It is not necessary to have specific prior technical knowledge, but these skills and competencies will help students follow and benefit from the course.

Objectives and Contextualisation

The main objectives of the course are:

- To introduce students to the physical and logical foundations of image, audiovisual media, and sound, from processing to the explanation of different formats and standards.
- To present the basic concepts of work routines in the main production environments: television studio, radio booth, and video editing room.
- To facilitate understanding of the technological processes involved in the creation and transmission of audiovisual content, as well as the functioning of the fundamental instruments and equipment used in these environments.
- To foster the ability to adapt to technological evolution and innovations that impact the production and dissemination of communicative messages.
- To enhance practical learning through activities in audiovisual spaces, encouraging familiarity with the handling of image and sound equipment used for the production of journalistic and multimedia content.

These objectives provide a solid foundation for understanding the technological dimension of communication and prepare students to face the professional challenges of the sector.

Learning Outcomes

1. CM01 (Competence) Introduce the most significant theories from the discipline and the historical and structural foundations of communication in any of the organisation's communication activities, while assessing the impact of stereotypes and gender roles.
2. CM01 (Competence) Introduce the most significant theories from the discipline and the historical and structural foundations of communication in any of the organisation's communication activities, while assessing the impact of stereotypes and gender roles.
3. CM03 (Competence) Work as a team in the processes of conceptualising, materialising and implementing the communicative proposals of organisations within the framework of a professional practice that is sensitive to social problems and challenges.
4. CM03 (Competence) Work as a team in the processes of conceptualising, materialising and implementing the communicative proposals of organisations within the framework of a professional practice that is sensitive to social problems and challenges.
5. KM03 (Knowledge) Relate the impact of communication technologies on society with their influence on the development of the different types of messages of organisations.
6. SM02 (Skill) Use the technological instruments that are usually used to compose and edit textual, graphic, sound and audiovisual messages generated by organisations.
7. SM02 (Skill) Use the technological instruments that are usually used to compose and edit textual, graphic, sound and audiovisual messages generated by organisations.

Content

The course is structured into several thematic blocks that address the technological foundations of audiovisual and sound communication, combining a historical, conceptual, and practical perspective. Critical reflection is encouraged through references to authors, contemporary examples, and relevant historical cases.

1. Audiovisual Technology: Basic Concepts

- Concept of technique and technology.
- Evolution of audiovisual technologies: from photography and cinema to digital media.
- Reflection on technophobia and technophilia through authors such as Yuval Noah Harari, Neil Postman, Raymond Kurzweil, Steve Jobs, Elon Musk, and Jacques Ellul.

2. Sound: Physical Characteristics and Production

- Physical foundations of sound: waves, intensity, pitch, timbre.
- Recording and reproduction of sound: history and evolution of systems (from radio to digital formats).
- Basic sound production routines in professional environments (radio booth, recording studios).

3. Image and Video: Physical Characteristics and Production

- Physical principles of the image: light, color, and visual perception.
- History of photography (Niepce, Lumière brothers) and cinema.

- Audiovisual recording and reproduction: formats, standards, and technological evolution.
- Basic audiovisual production routines (television studio, ENG, video studios).

4. Audiovisual and Sound Composition

- Image composition: shots, camera movements, visual composition criteria.
- Sound composition: sound planes, ambience, sound editing.

5. Editing: Basic Concepts

- Sound and audiovisual editing techniques.
- Cuts and transitions: tools and criteria for audiovisual narrative.
- Introduction to workflow and the use of digital platforms for editing.

6. Current Contexts and Debates

- Impact of technology on communication: artificial intelligence, mobile journalism, and new multimedia formats.
- Bibliographic and audiovisual references for the critical analysis of technological processes.

The contents are accompanied by practical examples, videos, and case studies, as well as a selection of readings and resources to deepen each topic.

Note: The content of the subject will be sensitive to aspects related to the gender perspective and the use of incl

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures	15	0.6	CM01, KM03, CM01
Various activities	9	0.36	CM01, KM03, CM01
Type: Autonomous			
Radio studio practical preparation:	18	0.72	CM03, SM02, CM03
Readings	16	0.64	CM01, KM03, CM01
Study	26	1.04	CM01, KM03, SM02, CM01
TV practical preparation	18	0.72	CM03, SM02, CM03

The course combines different teaching modalities with the aim of ensuring a solid theoretical and practical education, adapted to the needs of the audiovisual communication sector.

Theoretical sessions

- Lectures in the classroom to present fundamental concepts, supported by multimedia presentations and practical examples.
- Active student participation is encouraged through questions, debates, and the analysis of real cases.

Practical sessions

- Practical work constitutes the central part of the course and is carried out in work groups organized by the teaching staff.
- Activities include handling audiovisual and sound equipment, content production in television studios, radio studios, and mobile devices, as well as basic audio and video editing.
- The objective is to become familiar with the techniques and professional routines typical of audiovisual and sound production environments.

Guest lectures

- Throughout the course, at least one lecture will be scheduled by a professional or expert related to the course content.
- This activity is mandatory, and students must complete a reflection or activity related to the lecture, which will be part of the assessment.

Organization and resources

- The detailed schedule of sessions, as well as the description of activities and practical work, will be provided on the first day of class and published on the Virtual Campus.
- All teaching materials, additional resources, and relevant information for following the course will be available on the Virtual Campus.

Other aspects

- Fifteen minutes of one class, within the schedule established by the center, will be reserved for completing the teacher and course evaluation surveys.
- The methodology may be adapted if institutional or health circumstances require it.

This combination of methodologies promotes active learning and the acquisition of transversal skills, both individually and in teamwork.

Note: Fifteen minutes of one class, within the schedule established by the center/degree program, will be reserved for students to complete the evaluation surveys regarding the teaching staff's performance and the course evaluation.

Should the teaching modality change for reasons of force majeure according to the competent authorities, the teaching staff will inform students of any modifications to the course schedule and teaching methodologies.

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

Continuous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
-------	-----------	-------	------	-------------------

Practical sessions	60	33	1.32	CM03, SM02
Theory (Exam + In-class activities)	40	15	0.6	CM01, KM03, SM02

The assessment of the course is divided into two main areas: theory and practice, with the aim of evaluating both conceptual knowledge and technical and applied skills.

A) Practical assessment (60%)

- Includes radio, television, and audiovisual editing practicals.
- Students will work in groups and must submit the exercises and projects assigned in each practical block.
- Active participation and the quality of the work submitted will be fundamental assessment criteria.

B) Theoretical assessment (40%)

- Final exam: 30% of the overall grade. Assesses the theoretical content covered in class.
- Mandatory activities (10%): includes participation in debates, class activities, and the reflection or assignment related to the guest expert's lecture.

Optional improvement assignments

- At the end of the course, students will have the opportunity to complete optional assignments if they wish to improve their final grade as much as possible.

General criteria

- To pass the course, students must obtain a minimum grade of 5 in both the theoretical and practical parts.
- Students will have the right to retake the course as long as they have participated in all assessment activities. To be eligible for the retake, a minimum average grade of 3.5 is required.
- Both the exam and the practicals are eligible for reassessment.
- This course does not provide for single assessment.

The detailed schedule of assessment activities and their dates will be published at the beginning of the course on the Virtual Campus, along with the rubrics and specific criteria for each activity.

Artificial Intelligence

In this course, the use of Artificial Intelligence (AI) technologies is permitted as an integral part of assignment development, provided that the final outcome demonstrates a significant contribution from the student in terms of analysis and personal reflection. Students must clearly identify any content generated using AI, specify the tools employed, and include a critical reflection on how these technologies have influenced both the process and the final result of the assignment. Failure to disclose the use of AI in this assessed activity 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.

PLAGIARISM

If a student commits any irregularity that may lead to a significant variation in the grade of an assessment activity, that activity will be graded with a 0, regardless of any disciplinary proceedings that may be initiated. If multiple irregularities occur in the assessment activities of the same course, the final grade for that course will be a 0.

Bibliography

Basic bibliography

- Bonet, Montse (coord.). (2016). *El imperio del aire. Espectro radioeléctrico y radiodifusión*. UOC.
- Cardon, Dominique. (2018). *Con qué sueñan los algoritmos: nuestros sueños en el tiempo de los big data*. Dado Ediciones.
- Castells, Manuel. (2009). *Communication Power*. Oxford University Press.
- Chie, S., Zambrano, M., & Medina, C. (2016). Estándares actuales de televisión digital: Una breve reseña. *Prisma Tecnológico*, 6(1), 19-23. Recuperado de <https://revistas.utp.ac.pa/index.php/prisma/article/view/606>
- Domínguez, Juan José. (2019). *Teoría y técnica del sonido*. Editorial Síntesis.
- Ellul, Jacques. (1980). *La técnica o el desafío del siglo*. Ediciones Península.
- Fernández-Lores, S., Martínez-Navarro, G., & Gavilán, D. (2021). Factores de éxito en las webs de contenidos audiovisuales. Análisis cualitativo comparado. *Profesional De La Información*, 29(6). <https://doi.org/10.3145/epi.2020.nov.39>
- Fernández-Quijada, David. (2013). *La innovación tecnológica. Creación, difusión y adopción de las TIC*. UOC.
- Harari, Yuval Noah. (2018). *21 lecciones para el siglo XXI*. Debate.
- Kurzweil, Raymond. (2005). *The Singularity Is Near: When Humans Transcend Biology*. Viking.
- López-García, Xosé; Silva-Rodríguez, Alba; Vázquez-Herrero, Jorge. (2023). Evolution, trends and future of native media: From avant-garde to the epicenter of the communications ecosystem. *Profesional de la Información*, 32(2), e320202.
- Morales Morante, Fernando. (2013). *Montaje audiovisual: teoría, técnica y métodos de control*. Síntesis.
- Niepce, Joseph Nicéphore. (Referencias históricas sobre la fotografía).
- Postman, Neil. (1993). *Technopoly: The Surrender of Culture to Technology*. Vintage.
- Lumière, Auguste y Louis. (Referenciès històriques sobre el cinema).
- John Logie Baird. (Referenciès històriques sobre la televisió).

Supplementary bibliography

- Bonet, Montse (coord.). (2016). *El imperio del aire. Espectro radioeléctrico y radiodifusión*. UOC.
- Castillo, José María. (2016). *Televisión, Realización y Lenguaje Audiovisual*. IORTV.
- Fernández-Quijada, David. (2011). *Medi@TIC. Análisis de casos de tecnología y medios*. UOC.
- Gutiérrez García, María & Perona Páez, Juan José. (2002). *Teoría y técnica del lenguaje radiofónico*. Bosch.

- López Martínez, A. (2022). Estudio por operador del mantenimiento, cobertura, costes e interferencias del despliegue 4G en España. Recuperado de <http://hdl.handle.net/10017/52150>
- Martínez Pinzón, G. (2018). Compartición del Espectro Radioeléctrico entre Tecnologías Inalámbricas de Última Generación en la Banda de la Televisión Digital Terrestre. Recuperado de <https://riunet.upv.es/handle/10251/102644?show=full>
- McStay, Andrew. (2010). *Digital Advertising*. Palgrave Macmillan.
- Neira, Elena. (2015). *La otra pantalla*. UOC.
- Niqui, Cinto. (2011). *Fonaments i usos de tecnologia audiovisual digital*. UOC.
- Peirano, Marta. (2019). *El enemigo conoce el sistema*. Debate.

Software

For audiovisual and sound editing practices and activities, the main software used will be Audacity and DaVinci Resolve, which are installed and available in the Faculty's classrooms.

However, students are allowed to use other programs with which they feel more comfortable, especially in cases where they work from home or already have previous experience with other audio and video editing tools. This flexibility facilitates adaptation to different workflows and personal preferences, as long as the correct completion of activities and practical assignments is ensured.

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	1	Catalan	first semester	afternoon
(PLAB) Practical laboratories	2	Catalan	first semester	afternoon
(TE) Theory	1	Catalan	first semester	afternoon