Artificial Intelligence in Communication

Code: 106672
ECTS Credits: 6

2025/2026

Degree	Type	Year
Interactive Communication	OT	4

Contact

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Teaching groups languages

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

Prerequisites

The course is taught in English. This means that lectures will be delivered in English and that reading materials w

It is essential that students enrolled in the Interactive Communication degree have completed, passed, and acqui

104728 - Information Systems

104740 - Programming for Web Technology Applications

104739 - Advanced Web Services

104746 - Information Storage and Recovery

For participants in Erasmus or other mobility programs, specific admission criteria will apply. Prior technical knowledge and motivation to experiment with digital technologies will be particularly valued.

Objectives and Contextualisation

- Situate the state of development of Artificial Intelligence (AI) in the historical context.
- Understand the different techniques for learning and training AIs.
- Know the main applications of AI in the field of Communication.

- Understand the ethical, social and economic challenges posed by AI.
- Understand business models linked to AI applications.

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.
- Determine and plan the technological infrastructure necessary for the creation, storage, analysis and distribution of interactive multimedia and social-networking products.
- 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.
- Promote and launch new products and services based on massive-scale mining and analysis of data from the Media.
- Search for, select and rank any type of source and document that is useful for creating messages, academic papers, presentations, etc.
- 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 be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.

Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Communicate using language that is not sexist or discriminatory.
3. Critically analyse the principles, values and procedures that govern the exercise of the profession.
4. Cross-check information to establish its veracity, using evaluation criteria.
5. Describe and explain the theoretical and practical particularities of articifial intelligenve in communicative spaces.
6. Describe the infrastructure needed to store big data.
7. Differentiate between the various types of existing architectures for working with big data.
8. Distinguish the salient features in all types of documents within the subject.
9. Evaluate the impact of problems, prejudices and discrimination that could be included in actions and projects in the short or medium term in relation to certain people or groups.
10. Explain and define machine learning, deep learning and data science in the area of communication.
11. Explain the characteristics of the infrastructure needed to recover big data.
12. Explain the explicit or implicit deontological code in your area of knowledge.
13. Explain the infrastructure needed to process big data.
14. Extract large volumes of data from social networks and the new digital media in particular.
15. Identify situations in which a change or improvement is needed.
16. Identify the social, economic and environmental implications of academic and professional activities within one's own area of knowledge.
17. Plan and execute academic projects in the field of big data.
18. Propose new methods or well-founded alternative solutions.
19. 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.
20. Propose projects and actions that incorporate the gender perspective.
21. Propose viable projects and actions to boost social, economic and environmental benefits.

22. Share experiences with the group as a path to learning, in order to work subsequently in multidisciplinary groups.
23. Solve basic problems in big data.
24. Submit course assignments on time, showing the individual and/or group planning involved.
25. Weigh up the risks and opportunities of both one's own and other people's proposals for improvement.

Content

1. The Artificial Intelligence (AI) ecosystem
2. The ethics of AI
3. Machine learning
4. Applications of AI in communication
5. AI and business

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Master classes	15	0.6	3, 1, 6, 7, 12, 13, 11, 16, 15, 9
Practical exercises	16	0.64	3, 1, 22, 2, 12, 14, 16, 15, 17, 25, 24, 18, 20, 21, 23
Seminars	16	0.64	3, 1, 2, 4, 8, 16, 15, 25, 24, 18, 19, 20, 21, 9
Type: Supervised			
Theoric exam	3	0.12	3, 6, 7, 12, 16, 23, 9
Tutorials (individual or group face-to-face activity aimed at solving learning problems)	10	0.4	1, 2, 8, 15, 24
Type: Autonomous			
Study: Reading and synthesis of text	56	2.24	3, 1, 7, 16, 15, 19, 9

The course is structured around three teaching methodologies: lectures, theoretical-practical seminars, and practical exercises focused on the application of artificial intelligence (AI) in communication contexts.

- Lectures aim to convey the core contents of the syllabus and provide a solid theoretical foundation.

- Theoretical-practical seminars are designed to connect theoretical concepts with their application through case analysis, discussion, and problem-solving.

- Practical exercises will allow students to apply the knowledge acquired by designing and developing solutions that integrate AI in real or simulated communication scenarios.

The detailed schedule and session contents will be presented on the first day of class and will also be available on the virtual campus. There, students will find descriptions of the practical exercises, teaching materials, and all necessary information to successfully follow the course.

Attendance and active participation in the seminar and practical exercise sessions are mandatory.

Fifteen minutes of one class session, within the calendar established by the faculty or degree program, will be reserved for students to complete the surveys evaluating the teaching performance and the course or module.

The course content will be sensitive to issues related to gender perspective and the use of inclusive language.

The course proposes a project using the Challenge-Based Learning (CBL) methodology, which starts from a real-world challenge posed by an organization or institution with which students will interact. This will require teamwork to propose possible solutions, which are planned and developed in three phases: Connection/Engagement, Investigation/Prototyping, and Implementation/Evaluation.

Various methodologies will be used to work through challenges (CBL), involving a range of activities such as: reading articles, analyzing documents, conducting surveys and interviews, bibliographic research, presentations, videos, prototyping, app development, implementing proposals, process and progress reflections, and proposal evaluations.

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
Practical exercises	30%	20	0.8	1, 22, 2, 4, 6, 8, 7, 13, 11, 14, 16, 15, 17, 25, 24, 18, 19, 20, 21, 23, 9
Seminars	30%	11	0.44	1, 2, 6, 8, 12, 13, 11, 16, 15, 17, 25, 24, 18, 21
Theoric Exams	40%	3	0.12	3, 1, 4, 5, 6, 7, 12, 10, 13, 11, 16, 15, 9

This course includes both continuous assessment and single assessment options. To choose the single assessment option, students must notify the teaching staff by October 1st at the latest.

Continuous assessment will be based on four components:

- Theoretical Exam I (20% of the final grade)

- Theoretical Exam II (20% of the final grade)

- Practical Exercises (30% of the final grade)

- Theoretical-Practical Seminars (30% of the final grade)

The final grade will be the sum of the scores obtained in each component.

To pass the course, students must achieve a passing grade or a minimum average of 4 out of 10 across the theoretical exams.

This course will propose completing some of the assessment items using the Challenge-Based Learning (CBL) methodology. It involves addressing real and complex problems identified by professionals, with the goal of properly defining them and suggesting possible solutions. Challenge-Based Learning is now a widely recognized methodology that not only allows students to work with real case studies, but also to immerse themselves in environments where they may develop their professional careers in the future.

In the unique assessment mode, the evaluation will be structured as follows:

- Individual activity: Theoretical exam (40% of the final grade)

- Individual activity: Project (30% of the final grade)

- Individual activity: Theoretical-practical seminar (30% of the final grade)

The final grade will be the sum of the scores obtained in each component.

To pass the course, it is necessary to pass or obtain at least 4out of 10 on the theoretical exam.

Optional resit system:

Students will have the right to resit the course only if they have been assessed in the theoretical exams and in 2/3 of the seminars and practical exercises.

Only the theoretical exam is resit-eligible. Seminars and practical exercises cannot be resat unless force majeure is duly justified.

If the average score of the two theoretical exams is below 3, the student will not be eligible for resit.

The maximum grade for the resit theoretical exam will be 6 out of 10.

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.

Bibliography

Ramírez Gil, William A & Ramiréz Gil, Carlos Mario. Introducción a la inteligencia artificial aplicada al marketing. Ra-Ma. 2023.

Alto, Valentina. Inteligencia artificial generativa con modelos de ChatGPT y OpenAI. Anaya. 2023.

Barceló, Miquel. La intel·ligència Artificial. Editorial UOC. 2005.

Boden, Margaret A. Inteligencia Artificial. Turner Publicaciónes. 2022.

Girón Sierra, José M. Introducción a la Inteligencia Artificial. Editorial Almuzara. 2023.

Ireland, Amy. Filosofía-ficción. Inteligencia Artificial, tecnología oculta y el fin de la humanidad. Holobionte Ediciones. 2022.

López de Mántaras i Badia, Ramon. 100 coses que cal saber sobre intel·ligència Artificial. Cossetània. 2023.

Mitchell, Melanie. Inteligencia Artificial. Guía para seres pensaantes, Capitán Swing. 2024.

Specific bibliography for the seminars will be provided during the course.

Software

Code-oriented text editor

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	English	first semester	afternoon
(TE) Theory	6	English	first semester	afternoon