

Artificial Intelligence in Communication

Code: 106672
ECTS Credits: 6

2024/2025

Degree	Type	Year
2503873 Interactive Communication	OT	4

Contact

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Teaching groups languages

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

Prerequisites

To be able to take this subject it is necessary to have basic knowledge of the English language to face the reading

104728 - Information Systems

104740 - Programming for Web Technology Applications

104739 - Advanced Web Services

104746 - Information Storage and Recovery

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 the infrastructure needed to store big data.
6. Differentiate between the various types of existing architectures for working with big data.
7. Distinguish the salient features in all types of documents within the subject.
8. 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.
9. Explain the characteristics of the infrastructure needed to recover big data.
10. Explain the explicit or implicit deontological code in your area of knowledge.
11. Explain the infrastructure needed to process big data.
12. Extract large volumes of data from social networks and the new digital media in particular.
13. Identify situations in which a change or improvement is needed.
14. Identify the social, economic and environmental implications of academic and professional activities within one's own area of knowledge.
15. Plan and execute academic projects in the field of big data.
16. Propose new methods or well-founded alternative solutions.
17. 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.
18. Propose projects and actions that incorporate the gender perspective.
19. Propose viable projects and actions to boost social, economic and environmental benefits.
20. Share experiences with the group as a path to learning, in order to work subsequently in multidisciplinary groups.
21. Solve basic problems in big data.
22. Submit course assignments on time, showing the individual and/or group planning involved.
23. 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. Machine learning techniques.
3. Applications of AI in communication.
4. The ethics of AI.
5. AI and business.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Master classes	15	0.6	1, 3, 5, 6, 8, 9, 10, 11, 13, 14
Project	16	0.64	1, 2, 3, 10, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22, 23
Seminars	16	0.64	1, 2, 3, 4, 7, 8, 13, 14, 16, 17, 18, 19, 22, 23
Type: Supervised			
Theoric exam	3	0.12	3, 5, 6, 8, 10, 14, 21
Tutorials (individual or group face-to-face activity aimed at solving learning problems)	10	0.4	1, 2, 7, 13, 22
Type: Autonomous			
Study: Reading and synthesis of text	56	2.24	1, 3, 6, 8, 13, 14, 17

The course is structured based on 3 teaching methodologies: Lectures, theoretical-practical seminars and the development of an AI application project in the field of communication.

The master lessons have as their objective the transmission of the contents of the program.

The theoretical-practical seminars to link the theoretical concepts and their applications.

The project will consist of the development of a web application that incorporates AI as a central element.

The detailed calendar and the content of the different sessions will be displayed on the day of the presentation of the subject and will also be posted on the virtual campus where students will be able to find the detailed description of the exercises and practices, as well as the various teaching materials and any information necessary for the appropriate monitoring of the subject.

Class attendance and participation in the sessions dedicated to the project and seminars is mandatory.

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

This subject contemplates the modalities of unique assessment and continuous assessment. To take advantage of the single assessment option, students will have to communicate this, at the latest, on October 1.

The subject is assessed, in continuous assessment mode, based on 3 axes:

- Individual: Theory test (40% of the final mark)
- Group: Project (30% of the final grade)
- Group: Seminars (30% of the final grade)

The final mark will be the sum of the points obtained in each of these parts.

It is essential to pass or obtain a minimum of 4 out of 10 in the theoretical test in order to pass the subject.

The evaluation system for this subject corresponds to continuous evaluation.

In the single assessment mode, the assessment will be based on:

- Individual: Theory test (40% of the final mark)
- Individual: Project (30% of the final grade)
- Individual: Written essay (30% of the final grade)

The final mark will be the sum of the points obtained in each of these parts.

It is essential to pass or obtain a minimum of 4 out of 10 in the theoretical test in order to pass the subject.

OPTIONAL RECOVERY SYSTEM:

Students will have the right to retake the subject only if they have been assessed for the set of activities. Only the written test and the project can be retrieved. Seminars are not recoverable and therefore cannot be reassessed.

If the exam is suspended with less than a 4, the student will not have the right to re-evaluation.

The maximum mark for both the theoretical test and the re-evaluated projects will be 5 out of 10.

Attendance: Attendance at seminar classes and project practices is mandatory. The student's unexcused absence in these sessions results in a "not presented" in the seminar or specific practice grade, and therefore will not be recoverable.

Bibliography

Ramírez Gil, William A & Ramírez 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 Publicaciones. 2022.

Coromina, Ò., Tsinovoi, A., & Munk, A. K. (2023). Digital marketing as digital methods: Repurposing Google Ads for controversy mapping. *Big Data & Society*, 10(2), 20539517231216955.

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 pensantes, Capitán Swing. 2024.

Rieder, B., Matamoros-Fernández, A., & Coromina, Ò. (2018). From ranking algorithms to 'ranking cultures' Investigating the modulation of visibility in YouTube search results. *Convergence*, 24(1), 50-68.

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

Software

Code-oriented text editor

Language list

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