

Degree programme	Type	Course
Bachelor in Artificial Intelligence	OP	3

Contact lecturer

Name : Carlos Lamelo Varela

Email : carlos.lamelo@uab.cat

Teaching staff

Estel·la Oncins Noguer

Group languages

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

Prerequisites

They are not defined.

Objectives

This subject aims to provide the student with a broad vision of the main challenges and applications of artificial intelligence in the different areas of application.

Learning outcomes

- CM21 (Propose alternatives to minimise ethical risks in the design and development of an AI project, complying with existing regulations.) Propose alternatives to minimise ethical risks in the design and development of an AI project, complying with existing regulations.
- CM22 (Organise the configuration of work teams and the distribution of tasks and responsibilities in an equitable manner, avoiding discrimination and bias of any kind.) Organise the configuration of work teams and the distribution of tasks and responsibilities in an equitable manner, avoiding discrimination and bias of any kind.
- CM23 (Work in coordination with the rest of the development team of an AI project by assuming the individual roles and tasks assigned with responsibility and autonomy.) Work in coordination with the rest of the development team of an AI project by assuming the individual roles and tasks assigned with responsibility and autonomy.
- KM38 (Identify the needs, challenges and opportunities in the application of AI to different sectors and fields.) Identify the needs, challenges and opportunities in the application of AI to different sectors and fields.
- SM49 (Identify the risks from an ethical and legal point of view and the challenges and opportunities at a societal level, in the development of an AI project.) Identify the risks from an ethical and legal point of

view and the challenges and opportunities at a societal level, in the development of an AI project.

- SM50 (Present the summary, results, and conclusions of the development of an AI project.) Present the summary, results, and conclusions of the development of an AI project.

Contents

AI and communication

AI and social challenges

AI and accessible communication

AI in health

AI and social institutions

AI and business management

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Thematic Workshops on Artificial Intelligence Challenges and Applications	33	1.32	CM21, KM38, SM49
Project Definition Workshop: AI Challenges and Use Case Design	114	4.56	CM22, CM23, KM38, SM49

Training Activities and Methodology

TitleHoursECTSLearning Outcomes

Type: Guided

Theory Sessions 12 0,48 6, 5

Type: Supervised

Project Monitoring 10 0,4 1, 4, 6, 5, 8

Type: Independent

Project Development 114 4,56 1, 2, 4, 3, 10, 6, 5, 7, 8

The course will be organized around the development of a practical project based on a real use case of AI in some of the application areas that will be worked on in the subject. At the beginning of the subject, the challenges, opportunities, and potential problems of the application of AI in each of the areas will be introduced. From this introduction, the use cases will be defined that students will work on in small groups to carry out an analysis of the use case and propose alternative solutions. The subject will actively invite students to come into contact with the sector in which they are proposing a process, becoming "consultants" who provide AI implementation solutions in realistic professional scenarios.

Class activities will be organized in two types of sessions:

- Follow-up sessions of the project development work based on the use case.

- Theoretical sessions in which we will introduce the challenges and opportunities in each area of application.

Students will have to expand the work done in class sessions with their own work at home in order to complete the project. The main body of work necessary for the development of the project will have to be done autonomously, apart from class hours.

All information about the subject and related documents that students need will be available on the virtual campus (cv.uab.cat).

Note: 15 minutes of a class will be reserved, within the calendar established by the center/degree, for students to complete the surveys to evaluate the performance of the teaching staff and the subject/module.

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	Weight	Hours	ECTS	Learning outcomes
Project Progress Monitoring	20%	3	0.12	CM21, CM22, CM23, KM38, SM49, SM50

Continuous assessment activities

Title Weight ECTS hours Learning outcomes

Project report 20% 10 0,4 1, 2, 4, 3, 10, 6, 5

Oral presentation 20% 2 0,08 4, 3, 7

Project follow-up 20% 2 0,08 1, 2, 4, 3, 10, 6, 5, 7, 8, 9

The project grade is calculated by weighting the evidence collected in each of the following activities:

- Follow-up sessions (20%): some class sessions will be held to monitor and assess the progress of the work carried out by the students.

- Written report (20%): students must prepare a final report describing the analysis of the use case and the proposed solution.

- Oral presentation (20%): students must give a final oral presentation presenting the work carried out during the course.

- Quality of the implemented solution (40%): this evidence will correspond to the assessment of the quality of the analysis and discussion of the use case and the proposed solution alternatives.

In the assessment of this evidence there will be a group grade, but also an individual grade based on the contribution of each student observed in the follow-up sessions and oral presentations.

In the event that the minimum grade does not reach 5, there will be the possibility of recovery by submitting a new improved version of the report and the proposed solution. There will be no option to recover the grade of the oral presentation and follow-up sessions.

Bibliography

N/A

Software

No specific software is defined.

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(TE) Theory	1	English	first semester	afternoon
(PAUL) Classroom practices	1	English	first semester	afternoon