

## Course guide

### 270735 - AIS - Artificial Intelligence Seminar

Last modified: 04/02/2025

**Unit in charge:** Barcelona School of Informatics  
**Teaching unit:** 1042 - URV - Universitat Rovira i Virgili.  
**Degree:** MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE (Syllabus 2017). (Optional subject).  
**Academic year:** 2024    **ECTS Credits:** 3.0    **Languages:** English

#### LECTURER

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**Coordinating lecturer:** ANTONIO MORENO RIBAS

**Others:**

#### PRIOR SKILLS

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Knowledge of the basic concepts in AI. It is not necessary to have previous knowledge on the topic of the seminar.

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

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**Specific:**

CEA7. Capability to understand the problems, and the solutions to problems in the professional practice of Artificial Intelligence application in business and industry environment.  
CEA8. Capability to research in new techniques, methodologies, architectures, services or systems in the area of ??Artificial Intelligence.  
CEP2. Capability to solve the decision making problems from different organizations, integrating intelligent tools.  
CEP3. Capacity for applying Artificial Intelligence techniques in technological and industrial environments to improve quality and productivity.  
CEP4. Capability to design, write and report about computer science projects in the specific area of ??Artificial Intelligence.

**Transversal:**

CT3. TEAMWORK: Being able to work in an interdisciplinary team, whether as a member or as a leader, with the aim of contributing to projects pragmatically and responsibly and making commitments in view of the resources that are available.  
CT4. EFFECTIVE USE OF INFORMATION RESOURCES: Managing the acquisition, structuring, analysis and display of data and information in the chosen area of specialisation and critically assessing the results obtained.  
CT6. REASONING: Capability to evaluate and analyze on a reasoned and critical way about situations, projects, proposals, reports and scientific-technical surveys. Capability to argue the reasons that explain or justify such situations, proposals, etc..  
CT7. ANALISIS Y SINTESIS: Capability to analyze and solve complex technical problems.

#### TEACHING METHODOLOGY

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The following teaching methodologies will be employed:

- \* Lectures.
- \* Participative sessions.
- \* Team work.
- \* Autonomous work.

## LEARNING OBJECTIVES OF THE SUBJECT

1. Understand the basic concepts of a relevant area within AI and its relationship with the business world.
2. Solve in an effective way a problem related to the field presented in the seminar.

## STUDY LOAD

Type	Hours	Percentage
Self study	48,0	64.00
Hours small group	5,0	6.67
Guided activities	2,0	2.67
Hours large group	10,0	13.33
Hours medium group	10,0	13.33

**Total learning time:** 75 h

## CONTENTS

### Theoretical content

**Description:**

Presentation of an advanced research topic in the AI field.

### Practical content

**Description:**

Solve or analyze a specific problem within the field presented in the seminar.

## ACTIVITIES

### Lectures

**Description:**

Presentation of the theoretical content of the seminar.

**Specific objectives:**

1

**Related competencies :**

CEA7. Capability to understand the problems, and the solutions to problems in the professional practice of Artificial Intelligence application in business and industry environment.

CEP3. Capacity for applying Artificial Intelligence techniques in technological and industrial environments to improve quality and productivity.

CEP2. Capability to solve the decision making problems from different organizations, integrating intelligent tools.

CT4. EFFECTIVE USE OF INFORMATION RESOURCES: Managing the acquisition, structuring, analysis and display of data and information in the chosen area of specialisation and critically assessing the results obtained.

**Full-or-part-time:** 75h

Self study: 52h 30m

Theory classes: 22h 30m

### Practical component of the seminar

**Description:**

Study of the state of the art in the seminar's topic or completion of exercises/problems.

**Specific objectives:**

2

**Related competencies :**

CEP4. Capability to design, write and report about computer science projects in the specific area of ??Artificial Intelligence.

CEA8. Capability to research in new techniques, methodologies, architectures, services or systems in the area of ??Artificial Intelligence.

CT6. REASONING: Capability to evaluate and analyze on a reasoned and critical way about situations, projects, proposals, reports and scientific-technical surveys. Capability to argue the reasons that explain or justify such situations, proposals, etc..

CT3. TEAMWORK: Being able to work in an interdisciplinary team, whether as a member or as a leader, with the aim of contributing to projects pragmatically and responsibly and making commitments in view of the resources that are available.

CT7. ANALISIS Y SINTESIS: Capability to analyze and solve complex technical problems.

## GRADING SYSTEM

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The evaluation will be based on a written report, to be made individually or in pairs (depending on the number of enrolled students), where students will show that they have understood the topics discussed in the seminar and they are able to analyze their applicability in a specific problem.

## BIBLIOGRAPHY

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**Basic:**

- Moreno, A. Basic material on the topic of the seminar.

**Complementary:**

- Moreno, A. Complementary material on the topic of the seminar.

## RESOURCES

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**Hyperlink:**

- <https://campusvirtual.urv.cat>