# uc3m Universidad Carlos III de Madrid

## Agents and multi-agent systems

Academic Year: (2020 / 2021) Review date: 28-06-2020

Department assigned to the subject:

Coordinating teacher: MOLINA LOPEZ, JOSE MANUEL

Type: Electives ECTS Credits: 3.0

Year: 1 Semester: 1

### REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

None

#### **OBJECTIVES**

Understand the concept of agent and multiagent

Analyze problems of agents cooperation

Analyze the communication needs to reach a cooperative behavior between agents

Design a distributed solution to a problem

Design execution, communication and cooperation skillsto solve a real problem

Discuss various approaches to the development of multiagent systems

Knowing platforms multiagent systems development

## **DESCRIPTION OF CONTENTS: PROGRAMME**

The concept of Agent

Mulltiagente systems

Organization of Multiagent Systems

communication

coordination

collaboration

Distributed Problem Resolution

Methodology of multiagent systems development

Multiagent systems applications

## LEARNING ACTIVITIES AND METHODOLOGY

Theoretical lectures: To achieve the specific cognitive competences of the course evaluated

Practical Case: The student proposes a project according to the teachers guidance to go deeply into some aspect of the course

The home work (theoretical and practical case) will be supervised by personalized tutoring

## ASSESSMENT SYSTEM

The evaluation system (ordinary and extraodinary convocatory) includes the assessment of guided academic activities (final exam) and practical cases on Multiagent Systems. The work is oriented to research themes and student should do a oral presentation or a exam related to home works to be evaluated.

% end-of-term-examination: 50

% of continuous assessment (assigments, laboratory, practicals...): 50