Evaluation of Introduction to Multi-Agent Systems (MEISISI, MESIIA, MIA), course 2016-17

This subject has 4.5(MEISISI-MESIIA)/5(MIA) credits, with a 2-hours weekly theoretical lecture and a 1-hour weekly lab. The theoretical lectures will cover the basic material of the course (intelligent agents and multi-agent systems). The lab sessions will be devoted to the following activities:

- Description of the practical exercise to be developed during the term.
- Explanation of the programming environment to be used (JADE).
- Description of teamwork tools.
- Oral and written discussion on agent architectures, properties and types.
- Oral and written discussion on agent cooperation/negotiation mechanisms.
- On-line presentation of a first executable version of the practical exercise.
- Periodic evaluation of the group e-portfolio.
- Work sessions on the practical exercise.
- Written and oral presentation of the final implementation of the practical exercise.

Students have to form work teams of 4-5 people. All the members of the group should go to the same lab session. There should be one coordinator of each group, who is the main contact between the team and the lab assistant.

Each group has the following tasks:

- Design, implement and write a report on a solution to the practical exercise.
- Participate on a discussion on agent architectures, properties and types.
- Participate on a discussion of the most appropriate coordination techniques for the practical exercise.
- Prepare an initial executable version of the system.
- Make a final oral and written presentation of the practical exercise.
- Document, with as much detail as possible, all the activities of the group members.

To evaluate the work of the groups during the term, each of them has to keep an electronic portfolio (e-portfolio) that reports in detail all the work developed by the group, both individually and globally. Some items that the e-portfolio should include are the following:

- Minutes of the meetings held by the group (date, time, place, length, topics covered in the meeting, discussions, task distribution, deadlines, etc.).
- Agent technology material studied by the group (summaries, comments, discussion, applicability to the practical exercise, time needed to study each item, person that has found and reviewed the material, etc.).
- Material related to the practical exercise (modules in development, finished modules, files used in tests, discussion of the state of development of the system, options studied in the design and implementation phases, task distribution and deadlines, etc.).

The lab assistant will periodically review the e-portfolio of each group and will give the appropriate indications.

The evaluation of the course will have the following components:

- 40%: individual theory exam (minimum score required: 5).
- 60%: development of the practical exercise, divided as follows:
    - 10%: oral and written presentation of the agent architectures, properties and types associated to the practical exercise (October 26th).
    - 20%: oral and written presentation of the most appropriate coordination and negotiation mechanisms (December 14th) and presentation of the first executable version of the system (November 23rd).
    - 30%: final implementation of the practical exercise, written and oral report, e-portfolio
    - The final version of the practical exercise must be accepted by the lab assistant in order to pass the course.

To obtain a grade on the first call, it is necessary to finish and present the practical exercise not later than January 18th. For the second call, the deadline is February 2nd. The theoretical exam is on January 18th (first call) and February 2nd (second call).

The evaluation will measure to which degree each student has obtained the competences defined in the teaching guide. Some of them are the following:

- Design and develop intelligent systems.
- Solve problems.
- Apply critical, logical and creative thinking.
- Work in collaboration within a team.
- Decision making.
- Planning and management.
- Analysis and synthesis skills.
- Understanding of a foreign language.
- Correct written and oral expression.

At the end of the term, each student should have the following abilities:

- Have a good knowledge of the different kinds of intelligent agents and diverse kinds of coordination mechanisms, and know when to use each of them.
- Work in collaboration within a team to solve a specific problem using agent technology.