# *Evaluation – Planning and Approximate Reasoning*

## Master on Artificial Intelligence (MIA)
## Master on Computer Security Engineering and Artificial Intelligence (MESIIA)

## 2023-24

The subject PAR follows a continuous assessment of the students. There are two types of evaluation activities: theoretical (exams) and practical exercises on the computer.

To pass the course, students must pass a series of theoretical and practical exercises (i.e. home works) that will be carried out during the semester. The deadlines and weights are the followings

- Planning practical: consists of 2 exercises: 18/10 – 05/11 (25% grade).
- Planning Theory exam: 08/11 (30% grade)
- Approximate Reasoning practical exercise: 17/12 (15% grade).
- Approximate Reasoning Theory exam: 17/01 (30% grade)

To pass the continuous assessment, we require that:
(1) the practical exercises should be accepted by the lecturers as good enough,
(2) the two theoretical exams must be passed (grade>=5).

* In case some of the practical assignments are not completed or not accepted by the lecturer by the indicated deadline, there will be a second chance to deliver them in January (21/01/2024) with a maximum grade of 8 (out of 10)

* If some exam is failed (less than 5 out of 10), students of MESIIA master will be an opportunity to repeat the exam on January 29th, 2024. This is not available for MIA students, who follow the rules and calendar of UPC and therefore their grades are closed on January 26th.

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**TIMING**

The initial schedule of the course is the following. It may help you to have an idea of the topics studied each week, but the lecturers are free to modify it if necessary for the better development of the course.

| | | Wednesday morning | Wednesday morning |
|---|---|---|---|
| Weeks | Dates | Theory (2h) | Lab/Practise (1h) |
| 1 | 27/09/2023 | Introduction and Planning in Context + PDDL introduction | Lab1 writting PDDL |
| 2 | 04/10/2023 | State-Space Search: Heuristic Search and STRIPS | Lab2 explain FF planner + P1 presentation |
| 3 | 11/10/2023 | Plan-Space Search and Hierarchical Task Network (HTN) Planning | exercises PDDL // doubts Practical 1 |
| 4 | 18/10/2023 | Graphplan and Advanced Heuristics | exercises on Graphplan |
| 5 | 25/10/2023 | Plan Execution and Applications | work on Practical 2 |
| 6 | 01/11/2023 | HOLIDAYS day. | |
| 7 | 08/11/2023 | Exam Planning (2 h) | |
| 8 | 15/11/2023 | Intro Approx Reasoning- Probability + Intro fuzzy | Introduction to Matlab Fuzzy plugin. Definition of vars |
| 9 | 22/11/2023 | fuzzy rules with mamdani, exercises, explain practical ex. | Rules in Matlab with Mamdani |
| 10 | 29/11/2023 | Certainty factors + exercises CF | work on Practical 3 Fuzzy |
| 11 | 06/12/2023 | HOLIDAYS day. | |
| 12 | 13/12/2023 | Bayes Networks | Exercise Bayes Nets |
| 13 | 20/12/2023 | Dempster Shaffer | exercise Dempster Shafer. |
| 14 | 10/01/2024 | Applications of Approx Reasoning + exercises | exercises to prepare exam |
| 15 | 17/01/2024 | Exam Uncertainty (2h) | |