



# Work Plan

Multi-Agent Systems  
2024/2025

MESIIA / MIA

1<sup>st</sup> semester

## Instructor Information

### Instructor

Dr. Jordi Pascual Fontanilles

### Email

jordi.pascual@urv.cat

## Course Schedule

Week	Topic	Labs
Week 1 [Sep 23 – Sep 29]	Welcome Unit 1: Introduction to agents and MAS	Lab 1: Presentation of the labs
Week 2 [Sep 30 – Oct 6]	Unit 2: Agent architectures	Lab 2: Defining agents and tasks
Week 3 [Oct 7 – Oct 13]	Unit 3: Agent properties	Lab 3: Using tools
Week 4 [Oct 14 – Oct 20]	Unit 3: Agent types	Lab 4: Creating custom tools Start working with Task 1
Week 5 [Oct 21 – Oct 27]	Unit 4: Agent communication	Lab 5: Leveraging tasks
Week 6 [Oct 28 – Nov 3]	Unit 5: Cooperation in MAS – PGP-GPGP	Lab 6: Agent collaboration I <b>03/11/2024</b> Deliver Task 1
Week 7 [Nov 4 – Nov 10]	<b>06/11/2024</b> Presentations Task 1	<b>06/11/2024</b> Presentations Task 1
Week 8 [Nov 11 – Nov 17]	Unit 6: Cooperation in MAS – Coalition formation	Lab 7: Agent collaboration II Start working with Task 2
Week 9 [Nov 18 – Nov 24]	Unit 7: Cooperation in MAS – Negotiation via auctions	Lab 8: Organising and training complex MAS projects
Week 10 [Nov 25 – Dec 1]	Unit 8: Cooperation in MAS – Voting protocols	Lab 9: Pipelines and routers

Week	Topic	Labs
Week 11 [Dec 2 – Dec 8]	Unit 9: Cooperation in MAS – Implicit methods	Work in class / Practical work doubts session <b>08/12/2024</b> Deliver Task 2
Week 12 [Dec 9 – Dec 15]	<b>11/12/2024</b> Presentations Task 2	<b>11/12/2024</b> Presentations Task 2
Week 13 [Dec 16 – Dec 22]	Unit 10: Industrial applications of MAS	Work in class / Practical work doubts session

## Evaluation Schedule

To pass the subject in the continuous assessment, students must pass a theoretical exam and deliver a practical exercise that will be carried out in teams of 4-5 students during the semester. Both the theoretical and practical parts of the course must be passed separately (grade equal or above 5/10). The practical exercise is also divided into several activities.

To pass the course in the final assessment, the student must also pass separately the theoretical and practical parts of the course. This is **only available for MESIIA students**, as MIA students follow the rules and calendar of UPC and therefore their grades are closed on January 24th. In case some of the practical assignments are not completed or not accepted by the lecturer by the indicated deadline, there will also be a second chance to deliver them in January (28/01/2025) with a maximum grade of 8 (out of 10).

Date	Subject	Grade weight
November 3	Task 1 presentation	10%
December 12	Task 2 presentation	10%
January 15	Theoretical exam	40%
January 15	Practical work presentation	35%
January 28	2nd call ( <i>Only available for MESIIA students</i> )	
All semester	Teamwork during the semester	5%