

University of Oum El Bouaghi

Faculty of Exact Sciences, Natural and Life Sciences

Department of Mathematics and Computer Science

Program name: Master's degree in distributed architectures

- **Level: Master**
- **Domain: Mathematics and Computer Science**
- **Field: Computer Science**
- **Specialty: Distributed Architectures**

1. Program Description:

The first objective of the Master in Distributed Architectures is to complete the initial training acquired as part of the License course with more advanced fundamental knowledge in the field of distributed systems. The Distributed architectures Master's program equips students to address research challenges and questions. Students will learn the theory and practice that underpin these systems with courses ranging from Multi-agent systems, Artificial intelligence and large-scale distributed middleware to the algorithmic of distributed. The program enables students to Learn how to apply these techniques to different fields including cloud computing and the Internet of Things.

2. Entry Requirements

- Bachelor's degree or equivalent certificate

3. Program Units and modules

● Semester 1

Teaching units	Coeff	Credits	Evaluation Mode	
			Continues	Exam
Fundamental Teaching Unit	9	18		
Distributed software engineering	3	6	50%	50%
Artificial intelligence	3	6	50%	50%
Formal tools	3	6	50%	50%
Methodology Teaching Unit	5	9		
English	2	3	50%	50%
Algorithmic methods	3	6	50%	50%
Discovery Teaching Unit	2	2		
Mini-project	2	2	100%	-
Transversal Teaching Unit	1	1		
Communication	1	1	50%	50%

● Semester 2

Teaching units	Coeff	Credits	Evaluation Mode	
			Continues	Exam
Fundamental Teaching Unit	9	18		
TCP/IP networks	3	6	50%	50%
Distributed algorithms	3	6	50%	50%
Constraint programming	3	6	50%	50%
Methodology Teaching Unit	5	9		
Research methodology	1	2	50%	50%
English	1	2	50%	50%
Modeling, Simulation, and Performance Evaluation	3	5	50%	50%

Discovery Teaching Unit	2	2		
Introduction to web application development	2	2	50%	50%
Transversal Teaching Unit	1	1		
Entrepreneurship and project management	1	1	50%	50%

● Semester 3

Teaching units	Coeff	Credits	Evaluation Mode	
			Continues	Exam
Fundamental Teaching Unit	9	18		
Multi-agent systems	3	6	50%	50%
Distributed architectures	3	6	50%	50%
Advanced security of computer systems	3	6	50%	50%
Methodology Teaching Unit	5	9		
Cloud Computing and Virtualization	3	5	50%	50%
English	2	4	50%	50%
Discovery Teaching Unit	2	2		
Service Oriented Architectures	2	2	50%	50%
Transversal Teaching Unit	1	1		
Legislation	1	1	50%	50%

● Semester 4

- End of studies' project Master.