

**Ministry of Higher Education and Scientific Research
University of Oum El Bouaghi**

Faculty of Exact Sciences, Natural and Life Sciences

Academic Year 2023/2024

Department of Mathematics and Computer Science

First Semester Organization Card, level: Bachelor Branch: Mathematics, Specialty: Mathematics

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		11	7				Fundamental Teaching Unit1
40%	60%	6	4	-	2	2	analysis 1
40%	60%	5	3	-	1	1	Algebra1
		11	7				Fundamental Teaching Unit2
40%	60%	6	4	2	1	2	Algorithms and data structures1
40%	60%	5	3	-	1	1	Machine structure
		4	2				Methodology Teaching Unit
-	100%	2	1	-	-	1	Scientific terms and oral written expression
-	100%	2	1	-	-	1	English
		4	2				Transversal Teaching Unit
40%	60%	2	2	-	1	1	Physics 1

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Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		11	7				Fundamental Teaching Unit1
40%	60%	6	4	-	2	2	analysis 1
40%	60%	5	3	-	1	1	Algebra1
		11	7				Fundamental Teaching Unit2
40%	60%	6	4	2	1	2	Algorithms and data structures1
40%	60%	5	3	-	1	1	Machine structure
		4	2				Methodology Teaching Unit
-	100%	2	1	-	-	1	Scientific terms and oral written expression
-	100%	2	1	-	-	1	English
		4	2				Transversal Teaching Unit
40%	60%	2	2	-	1	1	Physics 1

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Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		11	7				Fundamental Teaching Unit1
40%	60%	6	4	-	2	2	analysis 1
40%	60%	5	3	-	1	1	Algebra1
		11	7				Fundamental Teaching Unit2
40%	60%	6	4	2	1	2	Algorithms and data structures1
40%	60%	5	3	-	1	1	Machine structure
		4	2				Methodology Teaching Unit
-	100%	2	1	-	-	1	Scientific terms and oral written expression
-	100%	2	1	-	-	1	English
		4	2				Transversal Teaching Unit
40%	60%	2	2	-	1	1	Physics 1

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Third Semester Organization Card, level: 2nd year, Branch: Computer Science,

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		11	6				Fundamental Teaching Unit1
40%	60%	5	3	1	1	1	Computer architecture
40%	60%	6	3	1	1	2	Algorithmic and data structure 3
		9	5				Fundamental Teaching Unit2
40%	60%	5	3	1	1	1	Information system
40%	60%	4	2	-	1	1	Graph theory
		6	4				Methodology Teaching Unit
40%	60%	4	2	1		1	Numerical methods
40%	60%	2	2	-	1	1	Mathematical logic
		2	1				Transversal Teaching Unit
	100%	2	1	-	-	1	Foreign language 2

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Department of Mathematics and Computer Science**

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First Semester Organization Card, level second year bachelor Branch : Mathematics specialty : Mathematics

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
							Fundamental Teaching Unit
40%	60%	5	3	/	1	1	Module 1:Algebra 3
40%	60%	7	4	/	1	2	Module 2:Analysis 3
40%	60%	6	3	/	1	2	Module 3:Introduction to topology
							Methodological Teaching Unit
40%	60%	4	3	1	1	1	Module 1:Numericalanalysis 1
40%	60%	3	2		1	1	Module 2:Mathematicallogic
40%	60%	3	1	1	/	1	Module 3:Programming Tools 2
							Discovery Teaching Unit
	100%	2	1	/	/	1	Module 1:History of Mathematics

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Department of Mathematics and Computer Science

First Semester Organization Card, level: Bachelor Branch: Computer Science, Specialty: Information Systems and Software Engineering

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		10	6				Fundamental Teaching Unit1
40%	60%	6	4	1	1	1	Distributed information systems
40%	60%	4	2	1	-	1	Decision support system
		10	6				Fundamental Teaching Unit2
40%	60%	6	4	1	1	1	Software engineering
40%	60%	4	2	1	1	1	Human machine interface
		8	4				Methodology Teaching Unit
40%	60%	4	2	-	1	1	Information systems administration
40%	60%	4	2	-	1	1	Advanced programming for the web
		2	1				Transversal Teaching Unit
100%		2	1	-	1	-	Digital economy and strategic foresight

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Department of Mathematics and Computer Science

First Semester Organization Card, level third year bachelor Branch : Mathematics - specialty: Mathematics

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
							Fundamental Teaching Unit1
40%	60%	6	4	/	1	2	Module 1:Measure and integration
40%	60%	5	3	/	1	1	Module 2:Normedvectorspaces
							Fundamental Teaching Unit2
40%	60%	6	4	/	1	2	Module 1:Differentialequations
40%	60%	5	2	/	1	1	Module 2:Equations of mathematical physics
							Methodological Teaching Unit
40%	60%	5	2	1	1	1	Module 1:Optimization without constraints
							Discovery Teaching Unit
	100%	3	1	/	/	1	Module 1:Introduction to didactics of Mathematic

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Department of Mathematics and Computer Science

First Semester Organization Card, level: Bachelor Branch: Computer Science, Specialty: Informatic Systems

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		10	6				Fundamental Teaching Unit1
40%	60%	5	3	1	1	1	Operating system 2
40%	60%	5	3	1	1	1	Compilation
		10	6				Fundamental Teaching Unit2
40%	60%	5	3	1	1	1	Software engineering
40%	60%	5	3	1	1	1	Human machine interface
		8	4				Methodology Teaching Unit
40%	60%	4	2	-	1	1	Linear programming
40%	60%	4	2	-	1	1	Probability and statistics
		2	1				Transversal Teaching Unit
100%		2	1	-	1	-	Digital economy and strategic foresight

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Faculty/Institute: Faculty of Exact Sciences, Natural and Life Sciences

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Department: Department of Mathematics and Computer Science

First Semester Organization Card, level Master 1 Branch: Computer Science specialty: distributed architectures

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		18	9				Fundamental Teaching Unit
%50	%50	6	3	1	1	1	Module 1: Distributed software engineering
%50	%50	6	3	1	1	1	Module 2: Artificial intelligence
%50	%50	6	3	1	1	1	Module 2: Formal tools
		9	5				Methodological Teaching Unit
%50	%50	3	2	0	0	1	Module 1: English
%50	%50	6	3	1	1	1	Module 2: Algorithmic methods
		2	2				Discovery Teaching Unit
%0	%100	2	2	0	0	2	Module 1 : Mini-project
		1	1				Transversal Teaching Unit
%50	%50	1	1	0	0	1	Module 1: Communication

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Department of Mathematics and Computer Science

First Semester Organization Card, level Master 1 - Branch : Mathematics - Specialty : Applied mathematics (MA)

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
							Fundamental Teaching Unit
40%	60%	6	3		1	2	Module 1: Complement to probability theory
40%	60%	6	3		1	2	Module 2: Functional analysis 1
40%	60%	6	3		1	2	Module 3: Complements on integration and Lebesgue spaces
							Methodological Teaching Unit
40%	60%	5	2		1	2	Module 1: Numerical methods
40%	60%	4	2		1	1	Module 2: Linear programming
							Discovery Teaching Unit
100%	/	2	1			2	Module 1: English
							Transversal Teaching Unit
100%	/	1	1			1	Module 1: Ethics and professional conduct

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Department of Mathematics and Computer Science

First Semester Organization Card, level Master 1 Branch: Computer Science specialty: Artificial Vision (AV)

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
							Fundamental Teaching Unit
40%	60%	6	3	1	1	1	Module 1: Digital Imaging
40%	60%	6	3	1	1	1	Module 2: Geometric modeling
40%	60%	6	3	1	1	1	Module 3: Artificial Intelligence Tools
							Methodological Teaching Unit
40%	60%	5	3	1	1	1	Module 1: Statistical data processing
30%	70%	4	2	1	/	1	Module 2: Cybersecurity
							Discovery Teaching Unit
100%	/	2	1	/	/	1	Module 1: English
							Transversal Teaching Unit
100%	/	1	1	/	/	1	Module 1: Communication

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Faculty/Institute: Faculty of Exact Sciences, Natural and Life Sciences

Academic Year 2023/2024

Department: Department of Mathematics and Computer Science

First Semester Organization Card, level Master 2 Branch: Computer Science specialty: distributed architectures

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
		18	9				Fundamental Teaching Unit
50%	50%	6	3	1	1	1	Module 1: Multi-agent systems
50%	50%	6	3	1	1	1	Module 2: Distributed architectures
50%	50%	6	3	1	1	1	Module 2: Advanced security of computer systems
		9	5				Methodological Teaching Unit
50%	50%	5	3	0	0	2	Module 1: Cloud Computing and Virtualization
50%	50%	4	2	0	0	1	Module 2: English
		2	2				Discovery Teaching Unit
50%	50%	2	2	0	0	2	Module 1: Service Oriented Architectures
		1	1				Transversal Teaching Unit
50%	50%	1	1	0	0	1	Module 1: Legislation

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Department of Mathematics and Computer Science

First Semester Organization Card, level Master 2 - Branch : Mathematics - Specialty : Applied mathematics (MA)

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
							Fundamental Teaching Unit
40%	60%	6	3		1	2	Module 1: Distributions 2
40%	60%	6	3		1	2	Module 2: Variational theory of elliptic equations
40%	60%	6	3		1	2	Module 3: Random Processes and System Reliability
							Methodological Teaching Unit
40%	60%	4	2		1	1	Module 1: Control theory
40%	60%	5	2		1	2	Module 2: Dynamical systems and introduction to chaos
							Discovery Teaching Unit
100%	/	1	1			1	Module 1: Seminars
							Transversal Teaching Unit
100%	/	2	1			2	Module 1: Scientific writing

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Department of Mathematics and Computer Science

First Semester Organization Card, level Master 2 Branch: Computer Science specialty: Artificial Vision (AV)

Weights		Credits	coefficients	Number of weekly practical sessions	Number of weekly tutorials	Number of weekly lectures	Units and their components
tutorial	lecture						
							Fundamental Teaching Unit
40%	60%	6	3	1	1	1	Module 1: Pattern recognition
40%	60%	6	3	1	1	1	Module 2: Motion detection and estimation
40%	60%	6	3	1	1	1	Module 3: Augmented reality
							Methodological Teaching Unit
40%	60%	5	3	1	1	1	Module 1: Imaging of the living
30%	70%	4	2	1	/	1	Module 2: Industrial imaging
							Discovery Teaching Unit
100%	/	2	1	/	/	1	Module 1: English
							Transversal Teaching Unit
100%	/	1	1	/	/	1	Module 1: Entrepreneurship and project management