Democratic and Popular Republic of Algeria

Ministry of Higher Education and Scientific Research

University of Jijel

Faculty of Exact Sciences and Computer Science

Department of Computer Science

Full Curriculum for Bachelor's Degree in Computer Science

Specialty: Computer Systems

Duration of training: 3 years (6 semesters)

1st Year – Semester 1

Teaching Unit	Title of subjects	Credits	Coefficients	Hours per week			Hours per semester (14 Weeks)	Other*	Assessment method	
				Course	TW*	PW*			CA*	Exam
Fundamental 1	Analysis 1	6	4	3h00	3h00	-	84h00	42h00	40%	60%
	Algebra 1	5	3	1h30	1h30	-	42h00	42h00	40%	60%
Fundamental 2	Algorithms and Data Structure 1	6	4	3h00	1h30	3h00	105h00	42h00	40%	60%
	Machine structure 1	5	3	1h30	1h30	-	42h00	42h00	40%	60%
Methodology	Scientific terminology and written and oral expression	2	1	1h30	-	-	21h00	28h00	-	100%
	Foreign language 1 (English 1)	2	1	1h30	-	-	21h00	28h00	-	100%
Discovery	Electronics and system components	4	2	1h30	1h30	-	42h00	28h00	40%	60%
Total Semester 1		**30**	**18**	**13h30**	**9h00**	**3h00**	**357h00**	**252h00**		

TW = Tutorial work ; PW = Practical work ; Other* = Additional work in half-yearly consultations; CA* = Continuous Assessment.

1st Year – Semester 2

Teaching Unit	Title of subjects	Credits	Coefficients	Hours per week			Hours per semester (14 Weeks)	Other*	Assessment method	
				Course	TW*	PW*			CA*	Exam
Fundamental 1	Analysis 2	6	4	3h00	1h30	-	63h00	42h00	40%	60%
	Algebra 2	4	2	1h30	1h30	-	42h00	42h00	40%	60%
Fundamental 2	Algorithms and Data Structure 2	6	4	1h30	1h30	1h30	63h00	42h00	40%	60%
	Machine structure 2	4	2	1h30	1h30	-	42h00	42h00	40%	60%
Methodology	Introduction to probability and descriptive statistics	3	2	1h30	1h30	-	42h00	28h00	40%	60%
	Information and Communication Technology	2	1	1h30	-	-	21h00	28h00	-	100%
	Programming tools for mathematics	2	1	1h30	-	1h30	42h00	28h00	40%	60%
Transversal	Physics 2 (general electricity)	3	2	1h30	1h30	-	42h00	28h00	40%	60%
Total Semester 2		**30**	**18**	**13h30**	**9h00**	**3h00**	**357h00**	**280h00**		

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2nd Year – Semester 3

Teaching Unit	Intitulé des matières	Credits	Coefficients	Hours per week			Hours per semester (14 Weeks)	Other*	Assessment method	
				Course	TW*	PW*			CA*	Exam
Fundamental 1	Computer architectures	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
	Algorithms and Data Structure 3	6	3	3h00	1h30	1h30	84h00	42h00	40%	60%
Fundamental 2	Information systems	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
	Graph theory	4	2	1h30	1h30	-	42h00	42h00	40%	60%
Methodology	Numerical methods	4	2	1h30	-	1h30	42h00	21h00	40%	60%
	Mathematical Logic	4	2	1h30	1h30	-	42h00	21h00	40%	60%
Transversal	Foreign Language 2 (English 2)	2	1	1h30	-	-	21h00	28h00	-	100%
Total Semester 3		**30**	**16**	**12h00**	**7h30**	**6h00**	**357h00**	**238h00**		

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2nd Year – Semester 4

Teaching Unit	Title of subjects	Credits	Coefficients	Hours per week			Hours per semester (14 Weeks)	Other*	Assessment method	
				Course	TW*	PW*			CA*	Exam
Fundamental 1	Language theory	5	2	1h30	1h30	1h30	63h00	42h00	40%	60%
	Operating System 1	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
Fundamental 2	Databases	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
	Networks	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
Methodology	Object-oriented programming	4	2	1h30	-	1h30	42h00	21h00	40%	60%
	Web Application Development	4	2	1h30	-	1h30	42h00	21h00	40%	60%
Transversal	Foreign Language 3 (English 3)	2	1	1h30	-	-	21h00	28h00	-	100%
Total Semester 4		**30**	**16**	**10h30**	**6h00**	**9h00**	**357h00**	**238h00**		

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3rd Year – Semester 5

Teaching Unit	Title of subjects	Credits	Coefficients	Hours per week			Hours per semester (14 Weeks)	Other*	Assessment method	
				Course	TW*	PW*			CA*	Exam
Fundamental 1	Operating System 2	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
	Compilation	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
Fundamental 2	Software Engineering	5	3	1h30	1h30	1h30	63h00	42h00	40%	60%
	Human Machine Interface	5	3	1h30	1h30	1h30	63h00	63h00	40%	60%
Methodology	Linear Programming	4	2	1h30	1h30	-	42h00	42h00	40%	60%
	Probability and Statistics	4	2	1h30	1h30	-	42h00	42h00	40%	60%
Transversal	Digital Economy and Strategic Monitoring	2	1	-	1h30	-	21h00	28h00	100%	-
Total Semester 5		**30**	**17**	**9h00**	**10h30**	**6h00**	**357h00**	**301h00**		

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3rd Year – Semester 6

Teaching Unit	Title of subjects	Credits	Coefficients	Hours per week			Hours per semester (14 Weeks)	Other*	Assessment method	
				Course	TW*	PW*			CA*	Exam
Fundamental 1	Mobile Applications	5	3	1h30	-	1h30	42h00	42h00	40%	60%
	Computer Security	5	3	1h30	1h30	-	42h00	42h00	40%	60%
Fundamental 2	Artificial intelligence	5	3	1h30	-	1h30	42h00	42h00	40%	60%
	Semi-structured data	5	3	1h30	-	1h30	42h00	42h00	40%	60%
Methodology	Project	6	3	-	-	-	-	140h00	-	100%
	Scientific Writing	2	1	-	1h30	-	21h00	42h00	100%	-
Transversal	Create and develop a startup	2	1	1h30	-	-	21h00	42h00	-	100%
Total Semester 6		**30**	**17**	**7h30**	**3h00**	**4h30**	**210h00**	**392h00**		

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