People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research

National Education Committee on Science and Technology

HARMONIZATION
Academic Master's Program Offer

National Program

Field	branch	Speciality
Science and Technology	***Automation***	***Automation and Systems***

I – Identity card of Master's program

Entry Requirements

(Indicate the Bachelor's Degree Specializations that Grant Access to the Master's Program)

Branch	Harmonized Master's Program	Bachelor's Degrees Granting Access to the Master's Program	Classification According to Bachelor's Degree Compatibility	Weight Assigned to the Bachelor's Degree
Automation	Automation and systems	Automation	**1**	**1.00**
		Electronic	**2**	**0.80**
		Electrical Engineering	**2**	**0.80**
		Other Bachelor's Degrees in the field ST	**3**	**0.60**

II – SEMESTER ORGANIZATION SHEET FOR TEACHING

Semester 1

Teaching unit	Courses	Credits	Coefficient	Weekly HV			Semester Hour Load (15 weeks)	**Supplementary Work** (15 weeks)	**Assessment method**	
	Title			**Lecture**	**Directed Work**	**Lab**			**Continuous**	**Exam**
Fundamental Teaching Unit Credits: 10 Coefficients: 5	Multivariable Linear Systems	6	3	3h00	1h30		67h30	82h30	40%	60%
	Signal processing	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Teaching Unit Credits: 8 Coefficients: 4	Converter-Machine Association	4	2	1h30	1h30		45h00	55h00	40%	60%
	Optimization	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodology Teaching Unit Credits: 9 Coefficients: 5	Identification Techniques	3	2	1h30		1h00	37h30	37h30	40%	60%
	Multivariable Linear Systems Lab	2	1			1h30	22h30	27h30	100%	
	Signal Processing Lab / Optimization Lab	2	1			1h30	22h30	27h30	100%	
	Converter-Machine Association Lab	2	1			1h30	22h30	27h30	100%	
Discovery Teaching Unit Credits : 2 Coefficients : 2	Elective courses	1	1	1h30			22h30	02h30		100%
	Elective courses	1	1	1h30			22h30	02h30		100%
Transversale Teaching Unit Credits : 1 Coefficients : 1	Technical English and terminology	1	1	1h30			22h30	02h30		100%

Total Semester 1		**30**	**17**	**13h30**	**6h00**	**5h30**	**375h00**	**375h00**		

Semester 2

Teaching unit	Courses	Credits	Coefficient	Weekly HV			Semester Hour Load (15 weeks)	**Supplementary Work** (15 weeks)	**Assessment method**	
	Title			**Lecture**	**Directed Work**	**Lab**			**Continuous**	**Exam**
Fundamental Teaching Unit Code : UEF 1.2.1 Credits : 10 Coefficients : 5	Nonlinear Systems	6	3	3h00	1h30		67h30	82h30	40%	60%
	Optimal Control	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Teaching Unit Credits : 8 Coefficients : 4	Applied Electronics	4	2	1h30	1h30		45h00	55h00	40%	60%
	PLC and supervision	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodology Teaching Unit Credits : 9 Coefficients : 5	Concepts and Graphical Programming Language	3	2	1h30		1h00	37h30	37h30	40%	60%
	Nonlinear Systems Lab/ Optimal Control Lab	2	1			1h30	22h30	27h30	100%	
	Applied Electronics Lab	2	1			1h30	22h30	27h30	100%	
	PLC and supervision Lab	2	1			1h30	22h30	27h30	100%	

Discovery Teaching Unit Credits : 2 Coefficients : 2	Elective courses	1	1	1h30			22h30	02h30		100%
	Elective courses	1	1	1h30			22h30	02h30		100%
Transversale Teaching Unit Credits : 1 Coefficients : 1	Adherence to Standards, Ethics, and Integrity Guidelines	1	1	1h30			22h30	02h30		100%
Total Semester 2		**30**	**17**	**12h00**	**6h00**	**7h00**	**375h00**	**375h00**		

Semester 3

Teaching unit	Courses	Credits	Coefficient	Weekly HV			Semester hour Load (15 weeks)	**Supplementary Work** (15 weeks)	**Assessment method**	
	Title			**Lecture**	**Directed Work**	**Lab**			**Continuous**	**Exam**
Fundamental Teaching Unit Credits : 10 Coefficients : 5	Predictive and Adaptive Control	6	3	3h00	1h30		67h30	82h30	40%	60%
	Intelligent Control	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental Teaching Unit Credits : 8 Coefficients : 4	System Diagnostics	4	2	1h30	1h30		45h00	55h00	40%	60%
	Manipulation Robot Control	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodology Teaching Unit Credits : 9 Coefficients : 5	Real-Time Systems	3	2	1h30		1h00	37h30	37h30	40%	60%
	Predictive and Adaptive Control Lab/ Intelligent Control Lab	2	1			1h30	22h30	27h30	100%	

	System Diagnostics Lab	2	1			1h30	22h30	27h30	100%	
	Manipulation Robot Control Lab	2	1			1h30	22h30	27h30	100%	
Discovery Teaching Unit Credits : 2 Coefficients : 2	Elective courses	1	1	1h30			22h30	02h30		100%
	Elective courses	1	1	1h30			22h30	02h30		100%
Transversale Teaching Unit Credits : 1 Coefficients : 1	Documentary Research and Dissertation Design	1	1	1h30			22h30	02h30		100%
Total Semester 3		**30**	**17**	**13h30**	**6h00**	**5h30**	**375h00**	**375h00**		