



People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
Sétif 1 University – Ferhat Abbas

Faculty of Technology
Department of Automatic and artificial intelligence

Training Canvas

Master's Degree in Automation and systems

● Semester 01

Teaching Unit	Subject	Credits	Coefficient	Weekly hourly volume			half-yearly (15 weeks) Hourly volume	Complementary Work in Consultation (15 weeks)	Evaluation mode	
				Course	GW	PW			Continuous monitoring	Exam
TU Fundamental Code : TUF 1.1.1 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%
TU Fundamental Code : TU F 1.1.2 Credits : 8 Coefficients : 4	Combination of converters and machines	4	2	1h30	1h30		45h00	55h00	40%	60%
	Optimisation	4	2	1h30	1h30		45h00	55h00	40%	60%
TU Methodological Code : TUM 1.1 Credits : 9 Coefficients : 5	Industrial communication networks and protocols	3	2	1h30		1h00	37h30	37h30	40%	60%
	PW Signal processing	2	1			1h30	22h30	27h30	100%	
	PW Multivariable linear systems / PW Optimisation	2	1			1h30	22h30	27h30	100%	
	PW Combination of converters and machines	2	1			1h30	22h30	27h30	100%	
TU Discovery Code : TUD 1.1 Credits : 2 Coefficients : 2	Operational safety	1	1	1h30			22h30	02h30		100%
	hydraulic and pneumatic	1	1	1h30			22h30	02h30		100%
TU Transversal Code : TUT 1.1 Credits : 1 Coefficients : 1	English technical and terminology	1	1	1h30			22h30	02h30		100%
Total semester 1		30	17	13h30	6h00	5h30	375h00	375h00		

● Semester 02

Teaching Unit	Subject	Credits	Coefficient	Weekly hourly volume			half-yearly (15 weeks) Hourly volume	Complementary Work in Consultation (15 weeks)	Evaluation mode	
				Course	GW	PW			Continuous monitoring	Exam
TU Fundamental Code : TUF 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%
TU Fundamental Code : TU F 1.2.2 Credits : 8 Coefficients : 4	Applied Electronics	4	2	1h30	1h30		45h00	55h00	40%	60%
	API and supervision	4	2	1h30	1h30		45h00	55h00	40%	60%
TU Methodological Code : TUM 1.1 Credits : 9 Coefficients : 5	Concepts and graphic programming language	3	2	1h30		1h00	37h30	37h30	40%	60%
	PW Nonlinear Systems / PW Optimal Control	2	1			1h30	22h30	27h30	100%	
	PW Applied Electronics	2	1			1h30	22h30	27h30	100%	
	PW PLC and supervision	2	1			1h30	22h30	27h30	100%	
TU Discovery Code : TUD 1.2 Credits : 2 Coefficients : 2	Robotic	1	1	1h30			22h30	02h30		100%
	Image processing and vision	1	1	1h30			22h30	02h30		100%
TU Transversal Code : TUT 1.2 Credits : 1 Coefficients : 1	Ethics, deontology and intellectual property	1	1	1h30			22h30	02h30		100%
Total semester 2		30	17	12h00	6h00	7h00	375h00	375h00		

● Semester 03

Teaching Unit	Subject	Credits	Coefficient	Weekly hourly volume			half-yearly (15 weeks) Hourly volume	Complementary Work in Consultation (15 weeks)	Evaluation mode	
				Course	GW	PW			Continuous monitoring	Exam
TU Fundamental Code : TUF 2.1.1 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%
TU Fundamental Code : TU F 2.1.2 Credits : 8 Coefficients : 4	Diagnostic	4	2	1h30	1h30		45h00	55h00	40%	60%
	Robotic	4	2	1h30	1h30		45h00	55h00	40%	60%
TU Methodological Code : TUM 2.1 Credits : 9 Coefficients : 5	Real time systems	3	2	1h30		1h00	37h30	37h30	40%	60%
	PW Advanced Control/PW Intelligent control	2	1			1h30	22h30	27h30	100%	
	PW Diagnostic	2	1			1h30	22h30	27h30	100%	
	PW Robotic	2	1			1h30	22h30	27h30	100%	
TU Discovery Code : TUD 2.1 Credits : 2 Coefficients : 2	Intelligent vision/ Electric vehicles	1	1	1h30			22h30	02h30		100%
	Maintenance management	1	1	1h30			22h30	02h30		100%
TU Transversal Code : TUT 2.1 Credits : 1 Coefficients : 1	Documentary research and dissertation conception	1	1	1h30			22h30	02h30		100%
Total semester 3		30	17	13h30	6h00	5h30	375h00	375h00		

- Semester 04

Internship in a company sanctioned by a dissertation and a defence.

	SHV	Coefficients	Credits
Personal work	550	09	18
Internship in a company	100	04	06
Seminars	50	02	03
Other (supervision)	50	02	03
Total semester 4	750	17	30