

Program (modules to be taught)

Semester 3

Teaching Unit	Title	Credits	Coefficient	Weekly Hourly Volume			Semester Hourly Volume (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation Method	
				Course	Tutorials	Practical work			Continuous Assessment	Exam
Fundamental TU Code : FTU 2.1.1 Credits : 10 Coefficients : 5	Mathematics 3	6	3	3h00	1h30		67h30	82h30	40%	60%
	Waves and vibrations	4	2	1h30	1h30		45h00	55h00	40%	60%
Fundamental TU Code : FTU 2.1.2 Credits : 8 Coefficients : 4	Fundamental electronics 1	4	2	1h30	1h30		45h00	55h00	40%	60%
	Fundamental electrotechnical 1	4	2	1h30	1h30		45h00	55h00	40%	60%
Methodology TU Code : MTU 2.1 Credits : 9 Coefficients : 5	Probability and statistics	4	2	1h30	1h30		45h00	55h00	40%	60%
	Informatics 3	2	1			1h30	22h30	27h30	100%	
	Electronics and electrotechnical lab	2	1			1h30	22h30	27h30	100%	
	Waves and vibrations lab	1	1			1h00	15h00	10h00	100%	
Discovery TU Code : DTU 2.1 Credits : 2 Coefficients : 2	State of the art of electrical engineering	1	1	1h30			22h30	2h30		100%
	Energy and environment	1	1	1h30			22h30	2h30		100%
Transversal TU Code : TTU 2.1 Credits : 1 Coefficients : 1	Technical English	1	1	1h30			22h30	2h30		100%
Total semester 3		30	17	13h30	7h30	4h00	375h00	375h00		

Semester 4

Teaching Unit	Title	Credits	Coefficient	Weekly Hourly Volume			Semester Hourly Volume (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation Method	
				Course	Tutorials	Practical work			Continuous Assessment	Exam
Fundamental TU Code : FTU 2.2.1 Credits : 10 Coefficients : 5	Linear and continuous control systems	6	3	3h00	1h30		67h 30	82h 30	40%	60%
	Combinatorial and sequential logic	4	2	1h30	1h30		45h 00	55h 00	40%	60%
Fundamental TU Code : FTU 2.2.2 Credits : 8 Coefficients : 4	Numerical methods	4	2	1h30	1h30		45h 00	55h 00	40%	60%
	Signal theory	4	2	1h30	1h30		45h 00	55h 00	40%	60%
Methodology TU Code : MTU 2.2 Credits : 9 Coefficients : 5	Electrical and electronic measurements	3	2	1h30		1h00	37h 30	37h 30	40%	60%
	Linear and continuous control systems lab	2	1			1h30	22h 30	27h 30	100%	
	Combinatorial and sequential logic lab	2	1			1h30	22h 30	27h 30	100%	
	Numerical methods lab	2	1			1h30	22h 30	27h 30	100%	
Discovery TU Code : DTU 2.2 Credits : 2 Coefficients : 2	Automated systems architecture	1	1	1h30			22h 30	2h30		100%
	Electrical safety	1	1	1h30			22h 30	2h30		100%
Transversal TU Code : TTU 2.2 Credits : 1 Coefficients : 1	Techniques of expression, information and communication	1	1	1h30			22h 30	2h30		100%
Total semester 4		30	17	13h30	6h00	5h30	375h00	375h00		

Semester 5

Teaching Unit	Title	Credits	Coefficient	Weekly Hourly Volume			Semester Hourly Volume (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation Method	
				Course	Tutorials	Practical work			Continuous Assessment	Exam
Fundamental TU Code : FTU 3.1.1 Credits : 10 Coefficients : 5	Linear systems control	4	2	1h30	1h30		45h00	55h00	40%	60%
	Power electronics	4	2	1h30	1h30		45h00	55h00	40%	60%
	Systems modelling and identification	2	1	1h30			22h30	27h30		100%
Fundamental TU Code : FTU 3.1.2 Credits : 8 Coefficients : 4	Microprocessors and microcontrollers	6	3	3h00	1h30		67h30	82h30	40%	60%
	Programming in C++	2	1	1h30			22h30	27h30		100%
Methodology TU Code : MTU 3.1 Credits : 9 Coefficients : 5	Linear systems control lab	2	1			1h30	22h30	27h30	100%	
	Power electronics lab	2	1			1h30	22h30	27h30	100%	
	Systems modelling and identification lab	2	1			1h30	22h30	27h30	100%	
	Microprocessors and microcontrollers lab	2	1			1h30	22h30	27h30	100%	
	Programming in C++ lab	1	1			1h00	15h00	10h00	100%	
Discovery TU Code : DTU 3.1 Credits : 2 Coefficients : 2	Standards and certification	1	1	1h30			22h30	2h30		100%
	Renewable energies: production and storage	1	1	1h30			22h30	2h30		100%
Transversal TU Code : TTU 3.1 Credits : 1 Coefficients : 1	English in automation	1	1	1h30			22h30	2h30		100%
Total semester 5		30	17	13h30	4h30	7h00	375h00	375h00		

Semester 6

Teaching Unit	Title	Credits	Coefficient	Weekly Hourly Volume			Semester Hourly Volume (15 weeks)	Additional Work in Consultation (15 weeks)	Evaluation Method	
				Course	Tutorials	Practical work			Continuous Assessment	Exam
Fundamental TU Code : FTU 3.2.1 Crédits : 10 Coefficients : 5	Sampled control systems	4	2	1h30	1h30		45h00	55h00	40%	60%
	Actuators	4	2	1h30	1h30		45h00	55h00	40%	60%
	Sensors and measurement chains	2	1	1h30			22h30	27h30		100%
Fundamental TU Code : FTU 3.2.2 Credits : 8 Coefficients : 4	Programmable logic controllers	6	3	3h00	1h30		67h30	82h30	40%	60%
	Communication buses and industrial networks	2	1	1h30			22h30	27h30		100%
Methodology TU Code : MTU 3.2 Credits : 9 Coefficients : 5	End of cycle project	4	2			3h00	45h00	55h00	100%	
	Sensors and actuators lab	2	1			1h30	22h30	27h30	100%	
	Programmable logic controllers lab	2	1			1h30	22h30	27h30	100%	
	Communication buses and industrial networks lab	1	1			1h00	15h00	10h00	100%	
Discovery TU Code : DTU 3.2 Credits : 2 Coefficients : 2	Automated electrical installations	1	1	1h30			22h30	2h30		100%
	Maintenance and reliability	1	1	1h30			22h30	2h30		100%
Transversal TU Code : TTU 3.2 Credits : 1 Coefficients : 1	Entrepreneurship and company management	1	1	1h30			22h30	2h30		100%
Total semester 6		30	17	13h30	4h30	7h00	375h00	375h00		