

Licence in Branch: Electrotechnical

Speciality: Electrotechnical

Brief

electrical engineering in all its segments (production, transmission, distribution, conversion and control) has occupied a primordial place in the industrial sector of the countries and continues to be the object of particular attention, scientific investment and continuous technological improvement . The training is structured in 6 semesters, the first two of which (Common Base) concern all students in the Science and Technology field. The third semester constitutes a pre-specialization and brings together all the students of the Electrical Engineering family. From semester 4, the lessons become specialized and are mainly oriented towards Electrotechnical.

Field	Branch	Speciality
<i>Sciences and Technologies</i>	Electrotechnical	Electrotechnical

First Semester

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
Fundamental Unit	Mathematics 1	6	3	3h00	1h30		67h30
	Physics 1	6	3	3h00	1h30		67h30
	Structure of matter	6	3	3h00	1h30		67h30
Methodological unit	TP Physics 1	2	1			1h30	22h30
	TP Chemistry 1	2	1			1h30	22h30
	Computer science 1	4	2	1h30		1h30	45h00
	Writing methodology	1	1	1h00			15h00
Discovery unit	Professions in Science	1	1	1h30			22h30

Teaching unit	Matter	Credit	Coefficient	Course	TD	TP	HV
	and Technology 1						
Transversale Unit	Ethical and deontological dimension (the foundations)	1	1	1h30			22h30
	Foreign language 1 (French or English)	1	1	1h30			22h30

Second Semester 2

Teaching unit	Matter	Credit	Coefficient	Courses	TD	Practical Work	Volume (hour)
Fundamental Unit	Mathematics 2	6	3	3h00	1h30		67h30
	Physics 2	6	3	3h00	1h30		67h30
	Thermodynamics	6	3	3h00	1h30		67h30
Methodological unit	TP Physics 2	2	1			1h30	22h30
	TP Chemistry 2	2	1			1h30	22h30
	Computer science 2	4	2	1h30		1h30	45h00
	Presentation methodology	1	1	1h00			15h00
Discovery unit	Professions in Science and Technology 2	1	1	1h30			22h30
Transversale Unit	Foreign language 2 (French and/or English)	2	2	3h			45h00

Third Semester

Teaching unit	Matter	Credit	Coefficient	C	TD	TP	HV
Fundamental Unit FU 2.1.1	Mathematics 3	6	3	3h00	1h30		67h30
	Waves and vibrations	4	2	1h30	1h30		45h00
Fundamental Unit FU 2.1.2	Fundamental Electronics 1	4	2	1h30	1h30		45h00
	Fundamental electrotechnics 1	4	2	1h30	1h30		45h00
Methodological unit	Probability and statistics	4	2	1h30	1h30		45h00
	Computer science 3	2	1			1h30	22h30
	TP Electronics and electrotechnics	2	1			1h30	22h30
	TP Waves and vibrations	1	1			1h00	15h00
Discovery unit	State of the art of electrical engineering	1	1	1h30			22h30
	Energy and environment	1	1	1h30			22h30
Transversale Unit	Technical English	1	1	1h30			22h30

Fourth semester

Teaching unit	Matter	Credit	Coefficient	C	TD	TP	HV
Fundamental Unit	Fundamental electrotechnics 2	6	3	3h00	1h30		67h30
	Combinatorial and sequential logic	4	2	1h30	1h30		45h00
	Numerical methods	4	2	1h30	1h30		45h00
	Signal theory	4	2	1h30	1h30		45h00
Methodological unit	Electrical and electronic measurements	3	2	1h30		1h00	37h302
	TP Fundamental electrotechnics	2	1			1h30	22h30
	TP Combinatorial logic and sequential	2	1			1h30	22h30
	TP Numerical methods	2	1			1h30	22h30
Discovery unit	Production of electrical energy	1	1	1h30			22h30
	Electrical Safety	1	1	1h30			22h30
Transversale Unit	Techniques of expression, information and communication	1	1	1h30			22h30

Fifth semester

Teaching unit	Matter	Credit	Coefficient	C	TD	TP	HV
Fundamental Unit	Electrical Networks	6	3	3h00	1h30		67h30
	Power Electronics	4	2	1h30	1h30		45h00
	Servo Systems	4	2	1h30	1h30		45h00
	Electromagnetic Field Theory	4	2	1h30	1h30		45h00
Methodological unit	Diagrams and electrical equipment	3	2	1h30		1h00	37h30
	TP Electrical Networks	2	1			1h30	22h30
	TP Power Electronics	2	1			1h30	22h30
	TP Servo systems/ TP sensors	2	1			1h30	22h30
Discovery unit	Sensors and Metrology	1	1	1h30			22h30
	Design of electrical systems	1	1	1h30			22h30
Transversale Unit	Simulation software	1	1	1h30			22h30

Six Semester

Teaching unit	Matter	Credit	Coefficient	C	TD	TP	HV
Fundamental Unit	Control of electrical machines	6	3	3h00	1h30		67h30
	Industrial regulation	4	2	1h30	1h30		45h00
	Industrial Automation	4	2	1h30	1h30		45h00
	Materials and introduction to High Voltage	4	2	1h30	1h30		45h00
Methodological unit	final project	4	2		3h00		45h00
	TP Machine control	1	1			1h00	15h00
	TP Industrial Regulation	2	1			1h30	22h30
	TP Automation/ Materials and HV	2	1			1h30	22h30
Discovery unit	Protection of electrical networks	1	1	1h30			22h30
	Industrial maintenance	1	1	1h30			22h30
Transversale Unit	Entrepreneurship and business management	1	1	1h30			22h30