

ELECTRICAL ENERGY AND AUTOMATIC CONTROL

TIMETABLES AND TABLES OF COEFFICIENTS

FIRST YEAR

SEMESTER 1:

UE	CODE	Module	ECTS	Total	Lectures	Tutorials	Practical work	Total/semester
UE11	M1101	Energy	3	12	15	24	21	60
	M1102	Digital electronics	3		18	20	22	60
	M1103	Computing	3		12	20	28	60
	M1104	Electronic systems	3		15	24	21	60
Total UE11:					60	88	92	240
	M1201	Software tools	2	10	2	4	24	30
	M1202	Digital electronics, logical synthesis	2		3	2	25	30
	M1203	Studies and production	2		2	2	26	30
	M1204	Personal and professional project	1			5	10	15
	M1205	Methodology				15	15	30
	M1206	Introduction to project management	1		8	7		15
	M1207	Tutored project: communication and documentation	2					85
Total UE12					15	35	100	235
UE13	M1301	English	2	8		20	10	30
	M1302	Mathematics	2		10	20		30
	M1303	Communication	2			12	18	30
	M1304	Mechanics - Electromagnetism	2		6	20	4	30
Total UE13					16	72	32	120
TOTAL SEMESTER 1:				30	91	195	224	595

FIRST YEAR

SEMESTER 2:

UE	CODE	Module	ECTS	Total	Lectures	Tutorials	Practical work	Total/ semester
UE21	M2101	Energy	3	12	16	24	20	60
	M2102	Industrial Automation & Networks	3		12	20	28	60
	M2103	Embedded Computing	3		12	20	28	60
	M2104	Electronic systems	3		15	24	21	60
Total UE21:					55	88	97	240
UE22	M2201	Software tools	1.5	9	2	4	24	30
	M2203	Digital electronics, logical synthesis	3		5	4	51	60
	M2204	Personal and professional project	1			5	10	15
	M2206	Introduction to project management	1.5		15	15		30
	M2207	Tutored project: project planning	2					85
Total UE22:					22	28	85	220
UE23	M2301	English	2	9		20	10	30
	M2302	Mathematics	3		15	30		45
	M2303	Communication	2			12	18	30
	M2304	Electromagnetism - sensors	2		7	14	9	30
Total UE23					22	76	37	135
TOTAL SEMESTER 2:				30	99	192	219	595

SECOND YEAR

SEMESTER 3:

UE	CODE	Module	ECTS	Total	Lectures	Tutorials	Practical work	Total/semester
UE31	M3101	Energy	2	11	10	14	21	45
	M3102	Automation	2		15	15	15	45
	M3103	Networks	2		14	10	21	45
	M3104	Electronic systems	2		10	14	21	45
	M3105C	Object-oriented programming	1.5		6	14	10	30
	M3106C	Renewable energy: production and storage	1.5		6	14	10	30
Total UE31					61	81	98	240
UE32	M3201	Software tools	2	11	2	4	24	30
	M3203	Digital electronics, logical synthesis	3		5	4	51	60
	M3204	Personal and professional project	1			5	10	15
	M3206	Product life cycle	1		8	7		15
	M3207	Tutored project: integrating & communicating in a professional environment	2					85
	M3208C	Supervision	2		6	14	10	30
Total UE32					21	34	95	235
UE33	M3301	English	2	8		20	10	30
	M3302	Mathematics	2		10	20		30
	M3303	Communication	2			12	18	30
	M3304	Propagation - CEM	2		10	12	8	30
Total UE33					20	64	36	120
TOTAL SEMESTER 3:				30	102	179	229	595

SECOND YEAR

SEMESTER 4:

UE	CODE	Module	ECTS	Total	Lectures	Tutorials	Practical work	Total/semester	
UE41	M4101	Internship	12	Minimum 10 weeks					
UE41			12						
UE42	M4203	Digital electronics, logical synthesis	3	12	2	3	40	45	
	M4204	Personal and professional project: professional experience	1			5	10	15	
	M4207	Tutored project: professional situations	2					45	
	M4209C	Implementation of "Field Programmable Gates Arrays" (FPGA)	1.5		6	14	10	30	
	M4210C	Industrial networks	1.5		6	14	10	30	
	M4211C	Digital signal processing	1.5		6	14	10	30	
	M4212C	Electrical distribution NFC 15-100	1.5		6	14	10	30	
Total UE42					26	64	90	225	
UE43	M4301	English	2	6		20	10	30	
	M4303	Communication	1			9	6	15	
	M4305	Company knowledge	1			15		15	
	M4306C	Statistical methods – reliability	2		6	14	10	30	
TotalUE43					6	58	26	90	
TOTAL SEMESTER 4:				30	32	122	116	315	

Electrical Energy and Automatic Control

List of complementary modules

3rd semester (4-free choice modules) & 4th semester (6-others) in the lists below (1 or 2):

Two courses of study according to the PPP (Personal & Professional Project):

1. Professional integration or continuation of short studies:

Modules “Alternative Learning”

MC-M3: Probabilities & inferential statistics

MC-A1: Certification in English

MC-ET5: Renewables energies

MC-EN3: Telecommunications, Analogue signals

MC-EN5: Digital filtering

MC-ARS21: Fieldbus networks

MC-II1: Object-oriented programming

MC-II2: Multitasking systems, real time control systems

MC-II5: Databases

MC-M: Electronic & Automatic Control Engineering Profession

2. Continuation of studies or continuation of short studies:

Modules “Alternative Learning”

MC-M2: Linear algebra & Application

MC-P1: Propagation phenomena

MC-A1: Certification in English

MC-ET2: Power converters associated to DC machines

MC-EN2: Antenna & hyperfrequencies circuits

MC-EN4: Telecommunications, digital signals

MC-AS21: Modelling & digital linear system control

MC-ARS22: Ethernet industrial & TV-Control by the internet

MC-II4: implementation of “Field Programmable Gate Arrays” (FPGA)

MC-M: The job of an Electronic & Automatic Control Engineer