

## Interdisciplinary studies: Control, Electronic and Information Engineering

### Specialization program: Automatic Control

#	COURSE	HOURS						Sem.1						EC TS	Sem.2						EC TS	Sem.3						ECTS	
		Σ	Lec	T	Lab	P	S	Lec	T	Lab	P	S	E		Lec	T	Lab	P	S	E		Lec	T	Lab	P	S	E		
1	Advanced optimization methods	60	30	0	30	0	0	2		2				4															
2	Advanced Topics in Numerical Methods	45	15	0	15	15	0	1		1	1			3															
3	Advanced Control	90	30	30	30	0	0	2	2	2				E 5															
4	System Identification	75	45	0	30	0	0	3		2				E 5															
5	Computer Integrated Manufacturing	45	30	0	15	0	0	2		1				3															
6	Expert Systems	30	15	0	0	15	0	1			1			3															
7	Optional course A1	45	30	0	15	0	0	2		1				3															
8	Foreign Language	60	0	60	0	0	0		2					2		2					2								
9	Computer System Security	30	15	0	15	0	0								1		1									2			
10	Industrial Project	45	0	0	0	30	15											2	1						4				
11	Modeling and Simulation of Industrial Systems	60	30	0	30	0	0								2		2								5				
12	Biotechnical Systems	45	30	0	15	0	0								2		1								3				
13	Programmable Controllers	90	30	0	30	30	0								2		2	2			E			5					
14	Sensors and Actuators	75	30	0	45	0	0								2		3							5					
15	Optional course A2	45	30	0	15	0	0							2		1								4					
16	Project Managements (HES)	45	15	0	0	30	0																		1			2	3
17	Programming and diagnostics of PLCs																								1			2	2
18	Master Thesis Seminar	30	0	0	0	0	30																				2	2	
19	Master Thesis	0	0	0	0	0	0																					E	20
20	Optional course A3	45	30	0	15	0	0																		2		1		3
21	Social sciences (HES), optional course	15	15	0	0	0	0	1						2															
		975	420	90	300	120	45	14	4	9	2	0	2	30	11	2	10	4	1	1	30	4	0	1	4	2	1	30	
	Weekly instruction hours							29							28							11							
	Number of exams							2							1							1							
	Number of non-exam crediting							6							7							5							

Selected Optional courses

Humanities/Economic/Social courses

Fig. 1. CEIE Automatic Control specialization study program

Lec – Lecture, T – Tutorial Exercises, Lab – laboratory classes, P- Project, S – Seminar