

# Faculty of Mechatronics - winter semester

## First-cycle studies

### I semester

abbreviation	subject	method of crediting	ECTS	L	T	L	P
ELEC1/OPA	Elective Lecture 1	C	3	30		15	
CAL1	Calculus I	E	7	30	45		
ALG	Algebra and Geometry	C	4	15	30		
ENG	Engineering Graphics	C	2	15	15		
MAT	Materials	C	2	30			
CS1	Computer Science I	C	6	30	30		
EPH	Engineering Physics	E	4	30	30		

### III semester

ELEC3	Elective Lecture 3	C	2	30			
MOS1	Mechanics of Structures I	E	4	30	15		
CAL3	Calculus III	E	6	15	30		
MNT1	Manufacturing Technology I	C	4	30			30
FMD1	Fine Machine Design I	C	3	15			30
ELC2	Electric Circuits II	C	3			30	
BAC1	Basics of Automation and Control I	E	4	30		15	

### V semester

ROB	Robotics	C	3	30		15	
EMTR	Electric Metrology	C	2	30			
FLM	Fluid Mechanics	C	3	30		15	
FMD3	Fine Machine Design III	C	3	15			30
IAD	Industrial automata and devices	E	4	30			15
MPR	Matlab programming	C	2	15			15
3DCA	3D CAD applications	C	2		30		
MDR	Mechatronic Drives	E	5	30		15	15

### VII semester

IDE	Industrial Design	C	3	15			15
MVI	Machine vision	C	3	15		15	15

## Second-cycle studies – Master’s degree programme

### I semester Mechatronic Devices and Systems

abbreviation	subject	method of crediting	ECTS	L	T	L	P
	Design methodologies		3	30		15	
	Experimets - practice and theory		3	30		15	
	Advanced Measurements		3	15		15	15
	Advanced manufacruring techniques		3	15		15	15
	Simulations and models of mechatronic devices		5	45		15	15
	Elective lecture 1		2				
	Parametric CAD		2		30		
	Advanced microcontrollers		4	30	30		
	Creative project		5				

### III semester

	Micromechatronic devices		4	30		15	15
	Optimization		2	15			15

# Faculty of Mechatronics - summer semester

## First-cycle studies

### II semester

abbreviation	subject	method of crediting	ECTS	L	T	L	P
PHE2	Physical Education and Sports	C	0		30		
HES2	HES2/ Economics	C	2	30			
ELEC2	Elective Lecture 2/Virtual and Augmented Reality	C	3	30			
CAL2	Calculus II	E	5	30	30		
ENGCad	Engineering Graphics - CAD	C	2				30
CS2	Computer Science II	C	3	15	15		
MCH	Mechanics	E	6	45	30	15	
MTR	Metrology	C	4	30		30	
EPHL	Engineering Physics Lab	C	2			15	
ELC1	Electric Circuits I	E	3	30	15		

### IV semester

FOL2	Foreign Language	C	4		60		
ELEC4	Elective Lecture 4	C	2	30			
HES3	HES 3/ Entrepreneurship	C	3	30			
OMCS	Optomechatronics	C	4	30		15	
ELT1	Electronics	E	4	30	15	15	
FMD2	Fine Machine Design II	E	4	30		15	15
MNT2	Manufacturing Technology II	C	2			30	
MOS2	Mechanics of Structures II	C	4	15	30		15
GDT	Geometric dimensioning and tolerancing	C	3	15	15		15

### VI semester

FOL3	Foreign Language	C	4		60		
ROB	Robotics	C	3	30		15	
EMTR	Electric Metrology	C	2	30			
FLM	Fluid Mechanics	C	3	30		15	
FMD3	Fine Machine Design III	C	3	15			30
IAD	Industrial automata and devices	E	4	30			15
3DCA	3D CAD applications	C	2		30		
MDR	Mechatronic Drives	E	5	30		15	15
ELEC4	Elective lecture 4	C	2	30			

## Second-cycle studies – Master’s degree programme

### II semester

abbreviation	subject	method of crediting	ECTS	L	T	L	P
	Elective lecture 2		2				
	HES / Entrepreneurship		2	30			
	Physics		3	30	15		
	Mathematics		3	30		15	
	HES		2	30			
	Mechatronic Devices Automated Control		3	30		15	15
	Mechatronic Systems		6	30	15		30
	Vending Machines		5	30			15
	Diagnostics of industrial objects		4	30		15	15