

BIOMEDICAL ENGINEERING DIRECTION, level II (master)
Specialization: Processing and Analysis of Biomedical Information

			Hours							I							II							III								
	General courses	Type	Sum	L	E	L	P	S	L	E	L	P	S	E	ECTS	L	E	L	P	S	E	ECTS	L	E	L	P	S	E	ECTS			
W1	Information Systems in Medicine	g	30	15	0	15	0	0	15		15				2																	
W2	Telematics in Medicine	g	30	15	0	15	0	0	15		15				2																	
W3	Biomaterials and Tissues Testing Methods	g	30	15	0	15	0	0	15		15				2																	
W4	Tissue and genetic engineering	g	30	15	0	0	15	0															15			15			2			
W5	Modeling of Biological Structures and Processes	g	30	15	0	0	15	0	15				15		2																	
W6	Motor rehabilitation engineering	g	30	15	0	15	0	0	15		15				2																	
W7	Foreign language	e	60	0	60	0	0	0		30					2		30					2										
W8	HES type elective course 1	e	30	15	0	0	15	0															15			15			2			
W9	HES type elective course 2	e	30	15	0	15	0	0															15		15				2			
W10	HES type elective course 3	e	15	15	0	0	0	0															15						1			
	Specialization courses		315	135	60	75	45	0	75	30	60	15	0	0	12	0	30	0	0	0	0	2	60	0	15	30	0	0	7			
S1	Biosensors and bioelectronic systems	e	60	15	0	15	30	0	15		15	30			4																	
S2	Advanced biomedical control and measurement systems	e	75	30	0	15	30	0								30		15	30		E	5										
S3	Diagnostic and therapeutic systems	e	60	30	0	15	15	0	30		15	15		E	4																	
S4	Advanced techniques of biomedical signal processing	e	75	30	0	15	30	0								30		15	30		E	4										
S5	Computational intelligence methods	e	45	15	0	0	30	0															15			30		E	2			
S6	Embedded and mobile systems in biomedicine	e	60	15	0	15	30	0															15		15	30			2			
S7	Operating room equipment and ICU systems	e	15	15	0	0	0	0								15						1										
S8	Bioinformatics and computational biology	e	60	30	0	30	0	0	30		30			E	4																	
S9	Electromedical equipment	e	60	30	0	0	30	0	30			30		E	4																	
S10	Phyton. Programming	e	30	15	0	0	15	0	15			15			2																	
S11	Machine learning	e	15	0	0	0	15	0											15			1										
S12	Hybrid and artificial organs engineering	e	30	15	0	0	15	0								15			15			2										
S13	Analytical and laboratory equipment	e	30	15	0	0	15	0								15			15			2										
S14	Data mining	e	45	15	0	30	0	0								15		30				2										
	Other courses		660	270	0	135	255	0	120	0	60	90	0	3	18	120	0	60	105	0	2	17	30	0	15	60	0	1	4			
1	Elective Courses	e	105	60	0	15	30	0								45		15	15			5	15			15			1			
2	Interim project	e	45	0	0	0	45	0										45			3											
3	MS seminar	e	30	0	0	0	0	30																		30			1			
4	MS thesis	e	0	0	0	0	0	0																					20			
			180	60	0	15	75	30	0	0	0	0	0	0	0	45	0	15	60	0	0	8	15	0	0	15	30	0	22			
	Sum		1155	465	60	225	375	30	195	30	120	105	0	3	30	165	30	75	165	0	2	27	105	0	30	105	30	1	33			
			Hours per week														30								29							

Type g – general course

Type e – elective course

HES type 1 elective course in the field of intellectual property protection

HES type 2 elective course in the field of establishing and running a business

HES type 3 elective subject in the field of Healthcare Economics / Negotiation / Bioethics