

BIOMEDICAL ENGINEERING DIRECTION, level II (master)
Specialization: Manufacturing engineering of implants, hospital and rehabilitation equipment

				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	IbioAIB>MS1ISM21O	g	30	15	0	15	0	0	15		15				2																						
W2	Telematics in Medicine	IbioAIB>MS1TM21O	g	30	15	0	15	0	0	15		15				2																						
W3	Biomaterials and Tissues Testing Methods	IbioAIB>MS1BTTM21O	g	30	15	0	15	0	0	15		15				2																						
W4	Tissue and genetic engineering	IbioAIB>MS3TGE21O	g	30	15	0	0	15	0															15			15			2								
W5	Modeling of Biological Structures and Processes	IbioAIB>MS1MBS21O	g	30	15	0	0	15	0	15			15			2																						
W6	Motor rehabilitation engineering	IbioAIB>MS1LRE21O	g	30	15	0	15	0	0	15		15				2																						
W7	Foreign language	IbioAIB>MS1-2FL21O	e	60	0	60	0	0	0		30					2		30					2															
W8	HES type elective course 1	IbioAIB>MS3HES121O	e	30	15	0	0	15	0															15			15			2								
W9	HES type elective course 2	IbioAIB>MS3HES221O	e	30	15	0	15	0	0															15		15				2								
W10	HES type elective course 3	IbioAIB>MS3HES321O	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	Metal biomaterials	IbioAIB>MS1MB21S	e	45	15	0	30	0	0	15		30			E	4																						
S2	Ceramic and polymer materials in medicine	IbioAIB>MS1CPMS21S	e	45	15	0	30	0	0	15		30				3																						
S3	Innovative methods of surface treatment of biomaterials	IbioAIB>MS2IMSTB21S	e	60	30	0	30	0	0								30		30			E	4															
S4	Designing of surgical instruments	IbioAIB>MS1DSI21S	e	45	15	0	0	30	0	15			30			3																						
S5	Supporting the design of materials used for medical equipment	IbioAIB>MS2SDM21S	e	60	30	0	0	30	0								30			30			3															
S6	Conformity assessment procedures for medical devices	IbioAIB>MS3PCDB21S	e	45	15	0	0	30	0															15			30			1								
S7	Processes of corrosion and degradation of biomaterials	IbioAIB>MS1PCDB21S	e	60	30	0	30	0	0	30	30				E	5																						
S8	Medical and rehabilitation equipment	IbioAIB>MS2MRE21S	e	45	15	0	0	30	0								15			30			3															
S9	Miniaturized implants and surgical tools	IbioAIB>MS2MIST21S	e	60	30	0	0	30	0								30			30		E	4															
S10	Physical methods of tissue stimulation	IbioAIB>MS2PMTS21S	e	30	15	0	15	0	0								15		15				2															
S11	Implants and products in bone surgery	IbioAIB>MS2IPBS21S	e	45	15	0	0	30	0								15			30			2															
S12	Materials for dental prosthetics	IbioAIB>MS1MDP21S	e	45	30	0	15	0	0	30	15					3																						
S13	Virtual imaging techniques	IbioAIB>MS3VIT21S	e	30	15	0	15	0	0															15		15				1								
S14	Diagnostics of the stomatognathic system	IbioAIB>MS2DSS21S	e	30	15	0	15	0	0								15		15				2															
S15	Technical and sanitary-hygienic standards in the health care centers	IbioAIB>MS3TSS21S	e	15	15	0	0	0	0															15						1								
	Other courses			660	300	0	180	180	0	105	0	105	30	0	2	18	150	0	60	120	0	2	20	45	0	15	30	0	0	3								
1	Elective Courses	IbioAIB>MS2-3EC21O	e	105	60	0	30	15	0								30			15			2	30		30				2								
2	Interim project	IbioAIB>MS2IP21M	e	45	0	0	0	45	0										45			3																
3	MS seminar	IbioAIB>MS23MSS21M	e	30	0	0	0	0	30																		30			1								
4	MS thesis	IbioAIB>MS3MST21M	e	0	0	0	0	0	0																					20								
				180	60	0	30	60	30	0	0	0	0	0	0	0	30	0	0	60	0	0	5	30	0	30	0	30	0	23								
	SUM			1155	495	60	285	285	30	180	30	165	45	0	2	30	180	30	60	180	0	2	27	135	0	60	60	30	0	33								
				Hours per week														28							30							19						

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