

BIOMEDICAL ENGINEERING, 2nd CYCLE (MASTER)  
 Specialty: DESIGN AND MANUFACTURING OF MEDICAL PRODUCTS

	Hours						I						II						III							
	Suma	W	C	L	P	S	W	C	L	P	E	ECTS	W	C	L	P	S	E	ECTS	W	C	L	P	E	ECTS	
<b>Common courses</b>																										
1 Foreign language	60		60					30				2		30					2							
2 HES 1	30	15			15		15			15	2		15			30			3							
3 HES 2 (Education and science in the economic system)	45	15			30																					
4 Modeling of biological structures and process	30	15			15		15			15	E 2															
5 Mathematics in information processing	30	15	15				15	15			E 2															
6 Comprehensive problems regarding regulatory issues of medical devices	45	15			30		15			30	3															
7 Current methods and devices supporting the diagnosis of musculoskeletal system	45	15		30			15		30		3															
8 UBZO	30	30																		30					2	
<b>Specialty: DESIGN AND MANUFACTURING OF MEDICAL PRODUCTS</b>	<b>315</b>	<b>120</b>	<b>75</b>	<b>30</b>	<b>90</b>		<b>75</b>	<b>45</b>	<b>30</b>	<b>60</b>	<b>14</b>	<b>15</b>	<b>30</b>		<b>30</b>			<b>5</b>	<b>30</b>					<b>2</b>		
1 Mechanical and biological methods of testing biomaterials and tissues	45	15		15	15							4	15		15	15			3							
2 Corrosion and degradation processes of biomaterials	60	30		30			30		30										2							
3 Additive technologies in biomedical engineering	30	15		15									15		15											
4 Bionanomaterials	60	30		30			30		30		3															
5 Material aspects in dental prosthetics	60	30		30			30		30		3															
6 Stomatognathic system diagnosis	30	15		15									15		15				2							
7 Physical methods of testing surface layers	60	15		15		30							15		15		30	E	4							
8 Biophysical basis of implantology	45	15			30								15			30			3							
9 Bionanotechnologies	60	30		30									30		30			E	4							
10 Engineering design of medical devices	60	30			30								30			30			4							
11 Miniaturized implants and surgical instruments	60	30		30																30			30	E	3	
12 Design of implantation systems	45	15			30								15			30			3							
13 Innovative methods of surface treatment of biomaterials	60	30		30																30		30		E	3	
14 Advanced porous materials	30	15		15																15		15			2	
15 PBL	75				75					75	6															
16 Master diploma seminar	30				30																		30		20	
<b>Total</b>	<b>810</b>	<b>315</b>	<b>75</b>	<b>225</b>	<b>240</b>	<b>30</b>	<b>90</b>	<b>90</b>	<b>75</b>	<b>16</b>	<b>150</b>	<b>30</b>	<b>165</b>	<b>30</b>	<b>90</b>	<b>105</b>	<b>30</b>	<b>25</b>	<b>75</b>	<b>45</b>	<b>60</b>	<b>60</b>	<b>60</b>	<b>30</b>		
	<b>1125</b>	<b>435</b>	<b>75</b>	<b>255</b>	<b>330</b>	<b>30</b>	<b>165</b>	<b>45</b>	<b>120</b>	<b>135</b>	<b>31</b>	<b>450</b>	<b>30</b>	<b>90</b>	<b>135</b>	<b>30</b>	<b>30</b>	<b>165</b>	<b>28</b>	<b>210</b>	<b>45</b>	<b>60</b>	<b>60</b>	<b>14</b>		
	<b>Total/Hours per week</b>																									

Programme valid from the academic year: 2024/2025