Faculty of Mechanical Engineering										
Field of study	Biomedical Engineering and prograty								Bachelor	
Specialization/ diploma path	Medical Constructions and Materials Study profile									
Course name	Prosthetics and Orthotics							Course code	IS-FME-00146W	
								Course type	L	
Forms and	L	С	LC	Р	SW	FW	S	Semester	winter	
number of hours of tuition	30							No. of ECTS credits	2	
Entry requirements	Anatomy and Physiology, Medical Equipment Design, Fundamentals of Biomedical Constructions									
Course objectives	Introduction to issues related to the technical compensation of the loss of elements of the movement system or the limitation of its functions - supportive and replacement systems of the human locomotor system. To acquaint students will be introduced with the basics of the methodology of selecting, designing, manufacturing and exploitation orthopaedic supply items.									
Course content	Basic diseases and injuries, including musculoskeletal amputations. Principles for evaluating the functionality of lower and upper limb stumps. Therapeutic goals of using orthopaedic objects. Limbs prosthesis, its structure and principles of operation, classification. Principles of choosing, designing, manufacturing, adjusting and using orthopaedic prosthesis and spine orthosis. The role and tasks of a biomedical engineer in the process of team treatment of musculoskeletal disorders and injuries. Anatomical orthosis classification.									
Teaching methods	Lecture									
Assessment method	Written exam									
Symbol of learning outcome	Learning outcomes learn th								Reference to the learning outcomes for the field of study	
LO1	stud	ent: di and inj	iscusses elementary issues pertaining to diseases njuries, including musculoskeletal amputations							
L02	stuo sup	dent: li plies a	sts and nd cor	d desc rectly a P	ribes t associa ourpos	he bas ates th e of us	ic type em wit e	s of orthopaedic h the therapeutic	IBK_W17_KMM	
LO3	stud	ent: kr	nows th tre	ne curr ends o	rent sta f the m	ate and nedical	l the la devic	test development es	IBK_W18_KMM	
LO4	stude	ent: pr	operly	select	s mate	rials fo	or the b	oasic construction	IBK_W15_KMM	

COURSE DESCRIPTION CARD

	elements of orthopaedic objects								
LO5									
LO6									
Symbol of		Type of tui	tion during						
learning	Methods of assessing the learning outcomes	which the outcome is							
outcome		assessed							
L01	Written exam	L							
LO2	Written exam	L							
LO3	Written exam	L							
LO4	Written exam	Written exam L							
LO5									
LO6									
	No. of hours								
	Participation in lectures	30							
	Participation in consultations	5							
	Preparation for the exam and participation in it	15							
Calculation									
	TOTAL:	50							
	Quantitative indicators	HOURS	No. of ECTS credits						
Student wor	35	1							
	0	0							
Basic references	1. Prosnak M: Basics of orthopaedic prosthetics (auxiliary materials). Methodological Center for the Education of Secondary Schools of Medical Education. Warsaw 1988. 2. Przezdziak B .: Clinical application of prostheses, orthoses and auxiliary agents. Via Medica - Medical Publisher, Gdańsk 2008.								
	1. Vitali M., Robinson K.P., Andrews B.G., Harris E .: Amputations and prosthesis.								
Supplementary	PZWL, Warsaw 1985. 2. Bowker H.K., Michael J.K .: Atlas o	f Limb Prost	hetics:						
references	Surgical, Prosthetic, and Rehabilitation Principles. Rosemont, IL, American Academy								
	of Orthopedic Surgeons, edition 2, 1992, reprint	ed 2002.							
Organisational									
unit conducting	cting Institute of Biomedical Engineering 21.10.2020								
the course									
Author of the	Eugeniusz Sajewicz, PhD. DSc								
programme	,								

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work,

S – seminar