

。 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Implants and endoprotheses, PG_00055770								
Field of study	Mechanical and Medical Engineering								
Date of commencement of studies	October 2022		Academic year of realisation of subject			2024/2025			
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study			
Mode of study	Full-time studies		Mode of delivery			at the university			
Year of study	3		Language of instruction			Polish			
Semester of study	6		ECTS credits			3.0			
Learning profile	general academic profile		Assessment form			exam			
Conducting unit	Institute of Manufacturing and Materials Technology -> Faculty of Mechanical Engineering and Ship Technology								
Name and surname	Subject supervisor	dr inż. Michał Bartmański							
of lecturer (lecturers)	Teachers		dr inż. Michał Bartmański						
	dr hab. inż. Agnieszka Ossowska								
Lesson types and methods	Lesson type	Lecture	Tutorial	Laboratory	Project	t	Seminar	SUM	
of instruction	Number of study hours	15.0	0.0	0.0	15.0		0.0	30	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity Participation in classes include plan		didactic Participation in ed in study consultation hours		Self-study SUM				
	Number of study hours	30		10.0		35.0		75	
Subject objectives	The aim of the course is to show the differences between an implant and an endoprosthesis. Learning to design a simple implant, along with the selection of material and coating.								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K6_U10] he/she is able to assess the human body physic and basic functioning of the body organs, he/ she is able to use basic medical knowledge to solve mechanical- medical problems in the scope of the MME study		The student has knowledge of the anatomy and functioning of the human body.			[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information			
	[K6_W13] he/she has knowledge related to application of engineering approaches in medicine or application of medical devices and rehabilitation devices		Can design a simple medical device.			[SW3] Assessment of knowledge contained in written work and projects			
	[K6_K02] he/she is aware of importance of professional dealing and to fulfill ethics obligations, he/ she understands other (non- technical) abilities of mechanical engineering professional, their influence on the society and security of environment, he/she is aware of importance of social cooperation		The student is able to work in a team.			[SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice [SK3] Assessment of ability to organize work			
Subject contents	Lecture: materials for implants and endoprostheses, types for specific medical fields, coatings. Project: Selection of material and design of the implant and endoprosthesis for an indywidual patient.								

Prerequisites and co-requisites	Completed material science course.						
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	Lecture, project	80.0%	100.0%				
Recommended reading	Basic literature English-language articles						
C C	Supplementary literature -						
	eResources addresses	Adresy na platformie eNauczanie:					
		sem.06, I st., sem. letni 2024/2025 e/course/view.php?id=45619					
Example issues/ example questions/ tasks being completed	1. Material selection for a specific implant, endoprosthesis for an individual patient.						
	 Selection of a coating for a specific implant, endoprosthesis for an individual patient. Design of the implant and endoprosthesis for an individual patient. 						
Work placement	Not applicable						

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