



Subject card

Subject name and code	Biochemistry, PG_00039317						
Field of study	Medical and Mechanical Engineering, Mechanical and Medical Engineering						
Date of commencement of studies	October 2020		Academic year of realisation of subject		2021/2022		
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Institute of Mechanics and Machine Design -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		Julian Świerczyński				
	Teachers		Julian Świerczyński				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	8.0	0.0	0.0	0.0	7.0	15
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie: Biochemia - Moodle ID: 22279 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22279						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	15		3.0		7.0	25
Subject objectives	To get knowledge about: a) chemical composition of human body; b) structure and function of enzymes; c) metabolic pathways of carbohydrates, lipids, proteins and nucleic acids; d) human bioenergetics processes; e) structure and functions of hormones and vitamins; f) aparatus used in biochemicals studies.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_U01		Student is able to find new biochemical information, make correct interpretation and express correct conclusion.		[SU4] Assessment of ability to use methods and tools		
	K6_W03		Student has basic knowledge about metabolic processess undergoing in human body and understand the effect of external environment on these processess.		[SW1] Assessment of factual knowledge		
Subject contents	Chemical composition of human body. Structure and function of enzymes. Structure and metabolism of carbohydrates, lipids, proteins and nucleic acids. Structure and function of some hormones and vitamins. Effect of external environment on human metabolism. Aparatus used in biochemical studies .						
Prerequisites and co-requisites	Basic chemistry and biology						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	At the end of course student will have to write test containing 30 questions (for example: see below). The minimum pass mark is 18 correct answers .		60.0%		100.0%		
Recommended reading	Basic literature		Edward Bańkowski, Biochemia. Podręcznik dla studentów studiów licencjackich i magisterskich. Wydanie II. MedPharm Polska, 2013rok.				

	Supplementary literature	<p>1. Biochemia Harpera, Redakcja naukowa tłumaczenia: Franciszek Kokot, Aleksander Koj, Andrzej Kozik, Tadeusz Wilczok PZWL, 2008 rok</p> <p>2. Medical Biochemistry, John W Baynes, Marek H. Dominiczak, Second Edition, Elsevier/Mosby 2005 rok</p>
	eResources addresses	<p>Biochemia - Moodle ID: 22279 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22279</p>
Example issues/ example questions/ tasks being completed	<p>Urea is the main end catabolic product of:</p> <p>a) carbohydrates</p> <p>b) lipids</p> <p>c) proteins</p> <p>d) nucleic acids</p> <p>e) xenobiotics</p>	
Work placement	Not applicable	