



## Subject card

Subject name and code	Engineering problems in laryngology, PG_00055754						
Field of study	Mechanical and Medical Engineering						
Date of commencement of studies	October 2023	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	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		Waldemar Narożny				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	0.0	0.0	15
	E-learning hours included: 0.0						
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		1.0		9.0	25
Subject objectives	Obtaining basic knowledge in the field of ENT, necessary in the work of a medical engineer.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[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 aware of the importance of professional conduct and compliance with the rules of professional ethics, understands the non-technical aspects of a mechanical engineer's activity		[SK5] Assessment of ability to solve problems that arise in practice		
	[K6_W12] he/she has basic knowledge in the field of fundamental medical sciences, human body anatomy, and physiology, salvage service		The student is aware of the importance of combining knowledge in the field of otolaryngology with the knowledge of the operation and use of basic equipment and medical devices		[SW1] Assessment of factual knowledge		
	[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 is able to describe the structure of the human body and the functioning of the head and neck organs to a basic degree. He can explain the principles of operation of the organs of the head and neck to the extent that allows to combine medical knowledge with the knowledge of the polytechnic		[SU3] Assessment of ability to use knowledge gained from the subject		
Subject contents	Physiology, pathophysiology of the basic diseases of the ear, nose, throat, larynx. Urgency in otolaryngology. Basic procedures in otolaryngology. Basic instruments in the diagnosis and surgical treatment of head and neck diseases.						
Prerequisites and co-requisites	Basic knowledge of the anatomy of the head and neck. Basic information on the construction of diagnostic devices in medicine.						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Assessment work – written	50.0%	50.0%
	Final credit – oral	50.0%	50.0%
Recommended reading	Basic literature	Niemczyk K. Wykłady z otolaryngologii. MedPage, 2012	
	Supplementary literature	Iwaszkiewicz J. Otolaryngologia dla studentów medycyny . PZWL 1967.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Surgical drills used in otolaryngology - structure, principle of operation. Medical lasers used in otolaryngology - structure, principle of operation, the most common causes of failure. Da Vinci robot in otolaryngology - indications, structure, principle of operation. Endoscopes in otolaryngology - structure, principle of operation. Devices for heating the laryngeal mirror - prototype.		
Work placement	Not applicable		