GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Fundamentals of Emergency Medical Services, PG_00064147		
Field of study	Mechanical and Medical Engineering		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	first-cycle studies	Subject group	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	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 -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	Bartosz Trzeciak	
	Teachers		

Lesson types

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

Acquainting the student with the techniques of pre-medical assistance to victims of injuries, including those in life-threatening situations.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K02] is aware of importance of professional dealing and to fulfill ethics obligations, he/she understands other (nontechnical) 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 understands the non-technical aspects of an engineer's work in a hospital, has the habit of working in order and cleanliness, is vigilant in anticipating potential problems and errors	[SK5] Assessment of ability to solve problems that arise in practice
[K6_U09] is able to use basic medical equipment and devices or has knowledge of medical imaging appropriate for the program	The student is able to use basic medical equipment used in first aid, i.e. oropharyngeal tube, self-inflating bag, automatic defibrillator. Student can treat injuries as part of pre-medical aid.	[SU3] Assessment of ability to use knowledge gained from the subject
[K6_W01] has knowledge in the field of natural sciences, including mathematics, contemporary physics, chemistry, and human anatomy with physiology	The student has knowledge of the structure of human organs and basic medical equipment used in emergency medical services.	[SW1] Assessment of factual knowledge
[K6_U08] is able to assess the human body physic and functioning of the body organs and is able to use medical knowledge to solve mechanical-medical problems in the scope of the study	The student is able to assess the basic parameters of the heart and cardiovascular system. The student knows how to follow the ABC first aid algorithm.	[SU1] Assessment of task fulfilment

Subject contents	Course content – laboratory 1. Assessment of the patient's condition to determine the management. 2. Place the patient in the correct position for the type of illness or injury. 3. Basic cardiopulmonary resuscitation in adults and children. 4. Deviceless restoration of airway patency. 5. Instrumental restoration of airway patency using, in particular, an oropharyngeal tube and a nasopharyngeal tube. 6. Oxygen administration. 7. Supporting breathing or providing replacement ventilation with the use of: face mask, respiratory valve, self-inflating bag. 8. Perform an automatic defibrillation. 9. Monitoring of respiratory system functions. 10. Monitoring the functions of the circulatory system. 11. Assessment of patient awareness according to the Glasgow scale and the assessment of pupil width and their reaction to light. 12. Determination of glucose concentration using a glucometer. 13. Dressing wounds. 14. Immobilization of fractures, sprains and sprains. 15. Immobilizing the spine with particular emphasis on the cervical segment. 16. Medical segregation in case of mass incidents and catastrophes. 17. Practical classes on medical phantoms.
Prerequisites and co-requisites	Knowledge of anatomy, human physiology and propaedeutics of internal diseases.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Colloquium	60.0%	100.0%

Recommended reading

Basic literature	2021 Resuscitation Guidelines Polish Resuscitation Council. Teaching materials discussed in class.
Supplementary literature	OSTRE STANY ZAGROŻENIA ŻYCIA W CHOROBACH WEWNĘTRZNYCH ed. Franciszek Kokot, Publisher: PZWL
eResources addresses	

Example issues/ example questions/ tasks being completed	
Practical activites within the subject	Not applicable

Document generated electronically. Does not require a seal or signature.