



## Subject card

Subject name and code	Environment Protection and Management, PG_00060682						
Field of study	Transport and Logistics						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2027/2028		
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	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Division of Marine Structural Engineering -> Institute of Naval Architecture -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Anna Dembicka				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	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	30		5.0		15.0	50
Subject objectives	Learning about the directions of environmental protection in transport						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W08] has knowledge of the principles of sustainable development		The student acquired knowledge about the principles of sustainable development		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_U04] is skilled in self-educating in order to develop his professional qualifications, is prepared to work in an industrial environment, applies the principles of occupational health and safety		The student is able to develop his/her competences and work in accordance with occupational health and safety rules		[SU2] Assessment of ability to analyse information [SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_K03] understands non-technical aspects and effects of activity in the profession of an engineer and its impact on the environment; is aware of the responsibility for decisions made		The student understands the effects of environmental impact. He is responsible for the decisions made as an engineer.		[SK5] Assessment of ability to solve problems that arise in practice [SK3] Assessment of ability to organize work [SK1] Assessment of group work skills		

Subject contents	Environmental protection then and now		
	Circular economy (circular economy)		
	Contemporary environmental management in transportEcology and transportSustainable transport development strategy until 2030 (reducing the negative impact of transport on the environment)Low and zero emissions in transportSmart city and automobility goals and barriers		
	Artificial intelligence in supporting ecology		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	lecture - test	60.0%	50.0%
	aboratory - assessment in accordance with the instructor's guidelines	60.0%	50.0%
Recommended reading	Basic literature	Innowacje w transporcie, red. nauk. K. Wojewódzka-Król, PWN, Warszawa 2021.	
		B. Tundys, Zielony łańcuch dostaw, CeDeWu, Warszawa 2018.	
		Kowal E., Kucińska-Landwójtowicz A., Miziołek A.: Zarządzanie środowiskowe. PWE, Warszawa 2013.	
	Supplementary literature	Indicated on an ongoing basis by the instructor	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	ecology, sustainable transport, green supply chain, green transport		
Work placement	Not applicable		

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