



Subject card

Subject name and code	Environmental management and ecology, PG_00040195						
Field of study	Mechanical Engineering						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2024/2025		
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			English		
Semester of study	6	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Institute of Energy -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor						
	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		6.0		14.0	50
Subject objectives	To acquaint students with multiple the environmental aspects of industrial processes and green technologies.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_K02] understands ex-technical aspects of the activities included in the profession of a mechanical engineer, among others its social impact and influence on the condition of an environment; is aware of the responsibility connected with the decisions made in connection with engineering activity		Student lists pollutants emitted into the atmosphere. Student defines and distinguishes between waste and hazardous waste. Student lists basic legislation on environmental protection.		[SK5] Assessment of ability to solve problems that arise in practice		
	K6_W12						
	K6_U11						
Subject contents	<ul style="list-style-type: none">Principles of Sustainable DevelopmentPrinciples of EcologyPrinciples of Environmental ProtectionEffect of Global Warming on Climate ChangePollution and Causes of Climate ChangeRenewable Energy ResourcesEffect Of Using Fossil Fuels On Climate ChangeHydro power, Wind power, Geothermal Energy, Solar Power, Biomass, Nuclear energyInternational Environmental Agreements/Convection						
Prerequisites and co-requisites	General and basic technical knowledge						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Oral test		0.0%		0.0%		
Recommended reading	Basic literature		1. A. Farmer. Handbook of Environmental Protection and Enforcement. Principles and Practice. Earthscan. London. 2007 2. D.H.F. Liu, B.G. Liptak, P.A. Bouis. Environmental Engineers Handbook. Lewis Publishers. 1997. 3. F.R. Spellman. Handbook of Environmental Engineering. CRC Press. 2015.				
	Supplementary literature		www.mos.gov.plwww.ure.gov.plwww.cire.plwww.eea.europa.euwww.iea				
	eResources addresses						

Example issues/ example questions/ tasks being completed	1. What is the principle of sustainable development? 2. List the most important pollutants emitted into the atmosphere by burning fossil fuels. 3. Give some examples of techniques used in the clean-burning boilers. 4. What is a trading system for CO2 emissions
Work placement	Not applicable