

。 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Professional Practice, PG_00049757							
Field of study	Power Engineering, Power Engineering							
Date of commencement of studies	October 2022		Academic year of realisation of subject			2025/2026		
Education level	first-cycle studies		Subject group			Optional subject group		
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			6.0		
Learning profile	general academic profile		Assessment form			assessment		
Conducting unit	Division of Fluid-Flow Machinery -> Institute of Energy -> Faculty of Mechanical Engineering and Ship Technology -> Wydziały Politechniki Gdańskiej							
Name and surname	Subject supervisor		dr inż. Marzena Banaszek					
of lecturer (lecturers)	Teachers							
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0		0.0	0
	E-learning hours included: 0.0							
	eNauczanie source addresses: Moodle ID: 46048 Professional Practice, ET, sem.6, summer 25/26 (PG_00049757) https://enauczanie.pg.edu.pl/moodle/course/view.php?id=46048							
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	0		5.0		155.0		160
Subject objectives	Diploma internships give the opportunity to expand the acquired knowledge with practical skills to apply it in industrial conditions and allow students to test the acquired theoretical knowledge in practical situations. They allow you to learn the rules of operation of various enterprises, the specifics of work in various positions, the requirements of future employers and adapt your knowledge and skills to the technical problems of a given enterprise. Internships develop skills necessary in future professional work, e.g. analytical, organizational and teamwork skills. Internships are to help in the selection of further individual interests and are to develop interest in future directions of expanding theoretical knowledge.							

Learning outcomes	Course outcome	Subject outcome	Method of verification				
	[K6_U04] is able to design a simple device structure and prepare the accompanying technical documentation, conduct a basic technical and economic analysis of energy systems, including technologies using renewable and pro-ecological energy sources as well as conventional and nuclear energy, design energy installations for them and their basic elements (including electric lighting)); select, operate and control the most commonly used electrical devices and drive systems.	is able to design a simple energy system based on renewable energy sources and prepare a preliminary design specification of the system elements	[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools				
	[K6_U05] is able to formulate and carry out energy balances in devices and energy systems, also perform an energy audit of a simple building object, is able to perform a preliminary profitability analysis of a planned energy investment	is able to conduct thermodynamic, energy and technical-economic analysis of energy devices and systems	[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools				
	[K6_U14] can use properly selected methods and devices for hydraulics and hydrology, enabling determination of basic parameters characterizing the flow of medium in channels, pipelines and flow objects and can design installations, networks in the field of sanitary engineering	is able to use appropriately selected methods and devices enabling the measurement of basic quantities characterizing energy elements and systems	[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information				
	[K6_K01] is aware of the need for training and self-improvement in the profession of energy and the possibility of further education; can think and act in a creative and entrepreneurial manner; can define priorities for the implementation of an individual or group task	understands the need and knows the possibilities of continuous training, improving professional, personal and social competences	[SK5] Assessment of ability to solve problems that arise in practice				
	[K6_U12] can correctly choose tools (analytical or numerical) to solve engineering problems filtration processes, and data analysis; is able to use photogrammetric and remote sensing tools in engineering tasks in the field of geodetic techniques and metrology	is able to select the method, technique and tools used to solve complex engineering tasks in the field of energy-related issues	[SU4] Assessment of ability to use methods and tools				
Subject contents	Place of internship: specialist energy industry companies or relevant departments in offices. The scope of the internship depends on the place of internship and gives the student the opportunity to familiarize themselves with:						
	a) work related to the design, diagnostics and maintenance as well as operation of energy machines and devices,						
	b) issues of automation, process control using modern computer technologies important in the process of supporting production processes, as well as analysis of measurement results,						
	c) technology and operation of facilities such as: conventional and unconventional power plants and devices such as turbines (heat, water and wind), heat exchangers, boilers, etc.						
	d) issues related to the design of control systems and automation of energy devices.						
Prerequisites and co-requisites	Knowledge of subjects taught in semesters I-VI, with particular emphasis on vocational subjects.						
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	Internship report	100.0%	100.0%				

Recommended reading	Basic literature	https://wimio.pg.edu.pl/en/students/internships-and-work-placements			
		also:			
		https://wimio.pg.edu.pl/studenci/praktyki-i-staze			
		https://wimio.pg.edu.pl/studenci/praktyki-i-staze/energetyka			
	Supplementary literature	https://pg.edu.pl/en/careers-and-alumni-office			
	eResources addresses				
Example issues/ example questions/ tasks being completed	 Describe the basic structures and organization of work in a company. Discuss exemplary work on the operation, control, repair, installation and start-up of power equipment. 				
	3. Discuss the principles of safe work in the company.				
	4. Describe the procedures for performing work on the repair and commissioning of power equipment.				
	5. Explain the principles of making technical documentation and instructions for power equipment.				
Work placement	Not applicable				

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