

SDAŃSK UNIVERSITY 的 OF TECHNOLOGY

Subject card

Subject name and code	Term Project, PG_00042137								
Field of study	Power Engineering, Power Engineering, Power Engineering, Power Engineering, Power Engineering								
Date of commencement of studies	October 2020		Academic year of realisation of subject			2022/2023			
Education level	first-cycle studies		Subject group			Optional 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			4.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Department of Energy and Industrial		Apparatus -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname	Subject supervisor		dr inż. Wojciech Włodarski						
of lecturer (lecturers)	Teachers		dr inż. Wojciech Włodarski						
			dr hab. inż. M	ski					
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	30.0		0.0	30	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity Participation in classes include plan		ı didactic Participation in ed in study consultation hours		Self-study SUM				
	Number of study hours	30		3.0		67.0		100	
Subject objectives	The practical use of knowledge of the design and construction of turbomachinary.								
Learning outcomes	Course out	Subject outcome			Method of verification				
	K6_U01		The student assesses the usefulness and correctly selects the methods and tools best suited to solving engineering tasks typical for the specialization.			[SU1] Assessment of task fulfilment			
	K6_U02		The student is able to describe and evaluate system and non- technical aspects when solving engineering tasks in the field of design, technology and operation of machines.			[SU2] Assessment of ability to analyse information			
Subject contents	Gas or steam turbine project. Calculation of thermodynamic cycle. Calculation of the main design parameters of the turbine flow. Preliminary calculation of the flow of gas turbine or steam turbine. Calculations detailed flow and strength of the selected turbine stage. Drawings of selected parts of the designed turbine.								
Prerequisites and co-requisites	Knowledge items: thermodynamics, turbomachinary, technical drawing.								
Assessment methods	Subject passing criteria		Passing threshold			Percentage of the final grade			
and criteria	project		60.0%			100.0%			

Recommended reading	Basic literature	 Kosowski K. at al "Steam and Gas Turbines Power Plants" Alstom, France-Switzerland-United Kingdom-Poland, 2007; Leizerovich A. S. "Steam Turbines for Modern Fossil-fuel Power Plants" Inc NetLibrary, 2007; Logan E., Ro R. "Handbook of Turbomachinery" Arizona State University, Marcel Dekker Inc. New York, Basel, 2003; 			
	Supplementary literature	1. Giampaolo T. "Gas Turbine Handbook: Principles and Practices 3rd Edition, Fairmont Press, 2006;			
		2. Woodyard D. "Pounder s Marine Diesel Engines and Gas Turbines Elsevier Butterworth-Heinemann, 2004;			
		 Boyce M. P. "Gas Turbine Engineering Handbook Gulf Professional Publishing an imprint of ButterworthHeinemann, Boston, Oxford, Auckland, Johannesburg, Melbourne, New Delhi, 2002; 			
		4. Horlock J. H. "Advanced Gas Turbine Cycles An imprint of Elsevier Science, Amsterdam, Boston, Heidelberg, London, New York, Oxford, Paris, San Diego, San Francisco, Singapore, Sydney, Tokyo, 2003;			
	eResources addresses	Adresy na platformie eNauczanie: Praca przejściowa, P, Energetyka, sem. 6, letni 22/23 - Moodle ID:			
		29727 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=29727			
Example issues/ example questions/ tasks being completed	selection of the blade profile of a steam turbine rotor				
Work placement	Not applicable				