



Subject card

Subject name and code	Economic accounting and energy management, PG_00053197						
Field of study	Electrical Engineering						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2025/2026		
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	3	Language of instruction			Polish		
Semester of study	6	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Electrical Power Engineering -> Faculty of Electrical and Control Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Paweł Bućko					
	Teachers	dr hab. inż. Paweł Bućko dr inż. Izabela Prażuch					
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	30.0	0.0	0.0	0.0	45
	E-learning hours included: 0.0						
	eNauczanie source addresses: Moodle ID: 3739 RACHUNEK EKONOMICZNY I ZARZĄDZANIE ENERGIĄ [ET][2025/26] https://enauczanie.pg.edu.pl/2025/course/view.php?id=3739						
Additional information: Lectures issued in stationary.							
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	45	3.0	27.0	75		
Subject objectives	The goal of this course is to gain the knowledge on the profitability assessment of energy investments.						
Learning outcomes	Course outcome	Subject outcome	Method of verification				
	K6_W10	Uses knowledge of economic calculations in practical calculations	[SW3] Assessment of knowledge contained in written work and projects				
	[K6_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems in a social environment	Performs economic analysis taking into account social and legal aspects	[SU5] Assessment of ability to present the results of task				

Subject contents	Course content – lecture Lecture: Discounting. Time value of money. Basic indicators used in investment and financial analysis. Methods of selecting a variant based on technical and economic calculation. Principles of investment financing and the impact of the financing variant on profitability. Calculation of operating costs. Risk calculation. Engineering management. Cost and economic consequences of engineering decisions.		
	Course content – exercises Exercises: Application of discounting in investment profitability calculations. Determination of the freezing factor and averaging of cash flows over time. Calculation of fixed asset depreciation. Preparation of an investment loan repayment schedule. Determination of indicators used in investment analysis. Preparation of a business plan for a selected investment.		
Prerequisites and co-requisites	No requirements		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Midterm colloquium	60.0%	50.0%
	Project	60.0%	50.0%
Recommended reading	Basic literature	<p>1. Behrens, Hawranek: Poradnik przygotowywania przemysłowych studiów feasibility, UNIDO</p> <p>2. Warnecke H.J., Bullinger H.J., Hichert R., Voegelé A.: Rachunek kosztów dla inżynierów. WNT, Warszawa 1993.</p> <p>3. Siegel J.G., Shim J.K., Hartman S.W.: Przewodnik po finansach. Wydawnictwo Naukowe PWN, Warszawa 1995. 4. Górzyński J.: Audyting energetyczny. Fundacja Poszanowania Energii, Warszawa 2002.</p> <p>5. Kamrat W.: Metody oceny efektywności inwestowania w elektroenergetyce. Monografia. Politechnika Gdańska 2004.</p> <p>6. Rogowski W.: Rachunek efektywności inwestycji. Wydawnictwo Nieoczywiste. 2019</p>	
	Supplementary literature	Energy investment projects available	
	eResources addresses		
Example issues/ example questions/ tasks being completed	<p>Economic fundamentals of industry</p> <p>Investments process issues.</p> <p>Investment evaluation processes</p>		
Practical activities within the subject	Not applicable		

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