



Subject card

Subject name and code	, PG_00053197						
Field of study	Electrical Engineering						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2024/2025		
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						
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 and methods of instruction	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						
	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_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		
	K6_W10		Uses knowledge of economic calculations in practical calculations		[SW3] Assessment of knowledge contained in written work and projects		
Subject contents	<p>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.</p> <p>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.</p>						
Prerequisites and co-requisites	No requirements						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Project		100.0%		50.0%		
	Midterm colloquium		50.0%		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., Voegele 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	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Economic fundamentals of industry	
	Investments process issues.	
	Investment evaluation processes	
Work placement	Not applicable	

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