GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	FEASIBILITY STUDY, PG_00070751						
Field of study	Engineering Management						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2028/2029			
Education level	first-cycle studies		Subject group	Optional subject group Subject group related to scientific research in the field of study			
Mode of study	Part-time studies		Mode of delivery	at the university			
Year of study	3		Language of instruction	Polish			
Semester of study	5		ECTS credits	5.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Department of Management Engineering and Quality -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Elwira Brodnicka					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	18.0	0.0	0.0	18.0	0.0	36
	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	36		3.0	86.0	125	
Subject objectives	Preparing students to develop feasibility studies of engineering and management projects, based on knowledge of technical, economic, organizational and environmental analyses, as well as shaping entrepreneurial and responsible attitudes in the context of making design decisions.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U06] acquires specialized knowledge in the field of engineering management, demonstrating the ability to effectively plan individual work and pursue lifelong learning.	is able to independently acquire and apply specialised knowledge in engineering management when developing a feasibility study, planning their work in a systematic manner and continuously developing the competences required for technical, economic, and organisational analysis of projects.	[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment [SU5] Assessment of ability to present the results of task
[K6_W01] understands and comprehends the conditions of processes occurring in the analyzed systems at an advanced level and selects appropriate methods for their solution, taking into account the complex relationships between the analyzed phenomena.	knows and understands the principles of developing a feasibility study of engineering and management projects, including the structure, scope and stages of preparation, in the context of technical, economic, organizational and environmental analyses and their importance for making design decisions, taking a responsible and entrepreneurial attitude	[SW3] Assessment of knowledge contained in written work and projects
[K6_K02] is prepared to make competent and ethical decisions to create and maintain economic, social, and environmental values, demonstrating entrepreneurial actions.	is ready to make responsible design decisions regarding the feasibility study of engineering and management projects, taking into account technical, economic, organizational and environmental consequences, in particular by participating in the work of the project team and presenting and defending the assumptions of the feasibility study on the group forum, developing an entrepreneurial and innovative attitude	[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice

Subject contents

Course content – lecture

1. Feasibility study, business plan introduction
2. Application of the feasibility study in the life cycle of an investment project - the investment proces
3. Types, purpose of development and content of individual projects in the investment process, including feasibility studies, technical and executive designs, etc.
4. Determination and selection of the organizational structure of the production system presented in the feasibility study
5. Selection of the location of the production system of the analyzed feasibility study
6. Land development plan
7. Development of interiors of industrial and office buildings
8. Designing the arrangement of workstations in facilities
9. Analysis and assessment of the financial effectiveness of the design solution presented in the feasibility study
10. Sensitivity analysis
11. Implementation guidelines, schedule for the implementation of project activities presented in the feasibility study
12. Risk analysis

Course content – project

1. Development of a feasibility study for launching the production of a product prepared and analyzed on previous subjects (production management, product planning)
2. Using previously prepared projects covering the principles of implementation of production processes for selected products, specify, among others: market conditions for the selected product, and a short characteristics of the product and design production program
3. Characteristics of competitors and the market for the selected product
4. Description of the organizational structure of the designed production system
5. Description of the selected system location

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test in the form of problem questions (written exam)	60.0%	40.0%
Project tasks	60.0%	40.0%
Assessment of the ability to present results and defend the assumptions of the feasibility study in the forum of groups	60.0%	20.0%

Recommended reading	Basic literature	1. Durlik I.: Inżynieria zarządzania. Cz. I oraz cz. II. Wyd. 7; PLACET, 2019 2. Inżynieria produkcji. Kompendium wiedzy. Red. R. Knosala. Wyd. PWE 2017 3. Łada Monika; Kozarkiewicz Alina .: Zarządzanie wartością projektów . Wyd. C.H. Beck 2010 4. Skrzypek J.: Biznesplan w 10 krokach, Wydawnictwo Poltext, Warszawa 2014 5. Pająk E.: Zarządzanie produkcją - Produkt, technologia, organizacja. PWN. Warszawa, wyd. 2, 2021
	Supplementary literature	1. Behrens W., Hawranek P. M.: Poradnik przygotowania przemysłowych studiów feasibility. Wyd. UNIDO 2. Warszawa 2003; Bangs H.D.,Jr.: Biznesplan recepta na sukces Twojej firmy. (tłum. z ang.). Wyd. ACDI, Warszawa 2006
	eResources addresses	
Example issues/ example questions/ tasks being completed	Develop a feasibility study of launching - extending the production of the selected product for the conditions of the selected enterprise. The study should include: - Assessment and conclusions resulting from the existing state - Evaluation of the market in terms of the selected product - Technical and organizational solutions - Implementation guidelines - Estimation of the implementation costs of the proposed design solution	
Practical activites within the subject	Not applicable	

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