



## Subject card

Subject name and code	, PG_00054588						
Field of study	Engineering Management						
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	exam				
Conducting unit	Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Marek Wirkus					
	Teachers	dr hab. inż. Marek Wirkus					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	15.0	0.0	0.0	45
	E-learning hours included: 0.0						
STUDIUM WYKONALNOŚCI - Moodle ID: 30239 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=30239">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=30239</a>							
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	6.0	49.0	100		
Subject objectives	a) presenting a conceptual base for the realization and use of the feasibility study,  b) presenting selected issues and trends in the realization and use of the feasibility study,  c) acquiring some practical skills in the preparation and application of a feasibility study,						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes	The student designs technical and organizational solutions and the principles of implementing the production system of any industry, using previously developed production processes. The student develops and demonstrates the adopted solutions in the form of a feasibility study for taking managerial decisions regarding the profitability of investment activities, taking into account pro-quality and pro-environmental aspects as well as safety of work processes	[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject
	[K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems	The student analyzes the technical, organizational and financial profitability of investing and the possibility of launching a system producing specific products. The student describes the principles of preparation and implementation of the production system for the selected product and production process in the form of a feasibility study. The student designs and describes selected elements that make up the future investment facilities, the principles of its implementation and calculates the financial profitability of launching the designed system	[SW3] Assessment of knowledge contained in written work and projects
Subject contents	<p>LECTURE Feasibility study, business plan - introduction. Application of a feasibility study in the life cycle of an investment project - investment process. Types, purpose of development and content of individual projects in the investment process, including feasibility studies, technical and working designs, etc. Determination and selection of the organizational structure of the production system presented in the feasibility study. Selection of the location of the production system of the analyzed feasibility study. Land development plan. Interior design of industrial and office facilities. Designing the arrangement of workstations in facilities. Analysis and evaluation of the financial effectiveness of the design solution presented in the feasibility study. Sensitivity analysis. Implementation guidelines</p> <p>LABORATORY Development of a feasibility study for launching the production of a product prepared and analyzed on previous subjects (production management, product planning). Using previously completed projects, including the principles of implementation of production processes for selected products, determine, among others: market conditions for the selected product, and a short description of the product and the design production program. Characteristics of competitors and the market for the selected product. Description of the organizational structure of the designed production system. Description of the selected location of the production system. Land development plan. Development plan for the facility where the production process is carried out. Characteristics of implementation guidelines, i.e. Gantt schedule and network chart. Estimation of production start-up costs and analysis of financial efficiency and indicators. Risk analysis</p>		
Prerequisites and co-requisites	Production management, Production processes design; project management.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	attendance at lectures	70.0%	10.0%
	test	60.0%	40.0%
	preparation of a feasibility study	60.0%	50.0%

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