University of Gdańsk

Subject card

Subject name and code	Engineering seminar - economy, PG_00080695						
Field of study	Chemical Business						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2028/2029		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group Humanistic-social 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	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Faculty of Economics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Przemysław Kulawczuk				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	30.0	30
	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	30		5.0		15.0	50
Subject objectives	Developing a coherent and realistic economic part of the business and technology plan (diploma/engineering thesis).						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BCHINŻ_K01] Identifies the level of her/his own knowledge and skills as well as the need to update engineering knowledge, continuous professional training and personal development.	Identifies the level of knowledge and skills as well as the need to update engineering knowledge for use in writing a diploma thesis.	[SK3] text preparation/written work
[BCHINŻ_U07] Performs a preliminary economic analysis of designed and implemented engineering tasks.	Performs a preliminary economic analysis of designed and implemented engineering tasks in order to verify the advisability of starting a business.	[SU3] text preparation/written work
[BCHINŻ_U12] Is able to participate in the analyses and evaluation of alternative solutions to economic problems and choose methods and instruments to rationally resolve them.	In engineering work, he is able to use alternative analyzes and assessments of solutions to economic problems and select methods and instruments that allow them to be resolved rationally.	[SU3] text preparation/written work
[BCHINŻ_U09] Using the acquired knowledge, skills and various sources of scientific information independently prepares written papers and oral presentations.	Using the acquired knowledge, skills and various sources of scientific information, he independently prepares an engineering thesis	[SU3] text preparation/written work
[BCHINŻ_U04] In the course of carrying out engineering tasks, s/he uses basic statistical methods, IT techniques and uses application software packages to describe chemical processes and experimental data.	In the course of carrying out engineering tasks, he uses statistical methods, IT techniques and application software packages to write his diploma thesis.	[SU3] text preparation/written work
[BCHINŻ_W01] Describes the relationship between the economy and the functioning of the chemical industry.	It describes at an advanced level the relations between economics and the functioning of the chemical business in the diploma thesis.	[SW3] text preparation/written work
[BCHINŻ_W11] Enumerates the basic legal and ethical aspects related to scientific, research and didactic work.	Applies legal and ethical aspects related to scientific and research work in writing an engineering thesis.	[SW3] text preparation/written work
[BCHINŻ_K03] Independently sets or implements a set action plan specifying priorities for its implementation; critically assesses its progress.	Independently establishes or implements an established action plan, specifying priorities for writing an engineering thesis.	[SK3] text preparation/written work
[BCHINŻ_K05] Is convinced of the importance of behaving in a professional manner in every situation, taking full responsibility in the field of engineering activities and their impact on the natural environment and compliance with the principles of professional ethics.	Przy pisaniu pracy dyplomowej posiada przekonanie o istotności zachowywania się w sposób profesjonalny w każdej sytuacji, ponoszenia pełnej odpowiedzialności w zakresie działań inżynieryjnych i ich wpływu na środowisko naturalne oraz przestrzegania zasad etyki zawodowej.	[SK3] text preparation/written work
[BCHINŻ_U11] Uses the acquired economic knowledge in undertaking independent business activities and resolving dilemmas of professional work.	When writing a diploma thesis, he is convinced of the importance of behaving professionally in every situation, taking full responsibility for engineering activities and their impact on the natural environment, and observing the principles of professional ethics.	[SU3] text preparation/written work

Subject contents

1. Formulation of the business model - verification of potential and feasibility2. Construction of the organizational and qualification concept - analysis of fit to the company's business goals3. Market, marketing goals, market activities and market reconnaissance - verification of the consistency of the concept with the business model and verification of the rationality of market goals4. Financing the project - verification of the correctness, rationality and consistency of the proposed financial solutions with the proposed business model5. Anticipating implementation difficulties and designing remedies for potential problems in the first period of the startup's operation6. Checking the consistency of the economic and chemical-technological parts of the business and technology plan

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="2">A. Formal requirementscompleted subjects: startup design, startup financing, startup marketing and chemical business designB. Entry requirementsnone</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Quality of the economic part 80%, Activity during seminars 20%</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>A.1. used during classes

1.Jak zostać i pozostać przedsiębiorcą, PARP , 2014

2. T. Gołębiewski (red), Modele biznesu polskich przedsiębiorstw, SGH 2008

3. Modele biznesowe budowy i rozwoju firm spin off na podbudowie szkoły wyższej, praca zbiorowa, IBnDiPP, Warszawa 2010

4. Modele biznesowe przedsiębiorstw tworzonych na bazie szkół wyższych, IBnDiPP, Warszawa 2011

5. Electronic materials provided by the lecturer</td></tr>
<tr><td>Supplementary literature</td><td>A.2. studied independently by the studentB. Additional literature

1.Przedsiebiorczość technologiczna i intelektualna XXI wieku, praca zbiorowa pod red. Mieczysława Baka i Przemysława Kulawczuka, KIG, Warszawa 2009</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Justification of the advisability of starting a business using a given chemical technologyRescaling the scale of laboratory tests to a business-justified scaleDescription of main business processesOrganization of the enterpriseCalculation of investment and business costsRevenue estimation and profitability calculationIntellectual property protection</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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