


**KAPITAŁ LUDZKI**  
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez  
 Unię Europejską w ramach  
 Europejskiego Funduszu  
 Społecznego

**UNIA EUROPEJSKA**  
 EUROPEJSKI  
 FUNDUSZ SPOŁECZNY


<b>Course title</b>		<b>ECTS code</b>	
Engineering seminar - economy		13.3.0736	
<b>Name of unit administrating study</b>			
Faculty of Economics			
<b>Studies</b>			
<b>faculty</b>	<b>field of study</b>	<b>type</b>	all
Faculty of Chemistry	Chemical Business	<b>form</b>	all
		<b>specjalty</b>	all
		<b>specialization</b>	all
<b>Teaching staff</b>			
prof. UG, dr hab. Przemysław Kulawczuk; dr Andrzej Poszewiecki			
<b>Forms of classes, the realization and number of hours</b>		<b>ECTS credits</b>	
<b>Forms of classes</b>		2	
Seminar		classes - 30 h	
<b>The realization of activities</b>		tutorial classes – 5 h	
classroom instruction		student's own work – 15 h	
<b>Number of hours</b>		Total: 50 h - 2 ECTS	
Seminar: 30 hours			
<b>The academic cycle</b>			
2025/2026 winter semester			
<b>Type of course</b>		<b>Language of instruction</b>	
obligatory		polish	
<b>Teaching methods</b>		<b>Form and method of assessment and basic criteria for evaluation or examination requirements</b>	
discussion		<b>Final evaluation</b>	
		Graded credit	
		<b>Assessment methods</b>	
		Engineering examination, defense of engineering thesis (business and technology project)	
		<b>The basic criteria for evaluation</b>	
		The basic criteria for evaluation or exam requirements	
		Quality of the engineering thesis in the business part (feasible, purposeful, cost-effective, with elements of innovation, consistent with the technological part)	
		The scale of grades according to the UG Study Regulations	
<b>Method of verifying required learning outcomes</b>			
<b>Required courses and introductory requirements</b>			
<b>A. Formal requirements</b>			
completed courses on: startups design, startups financing, startups marketing and chemical business design			
<b>B. Prerequisites</b>			
none			
<b>Aims of education</b>			
Aims of education			
Developing a coherent and realistic part of the economic business and technology plan (diploma / engineering thesis)			
<b>Course contents</b>			

<p>Course contents</p> <ol style="list-style-type: none"> <li>1. Formulation of the business model - verification of potential and reality</li> <li>2. Construction of organizational and qualification concept - analysis of matching to the business objectives of the enterprise</li> <li>3. Market, marketing objectives, market activities and market recognition - verification of the concept's coherence with the business model and verification of the rationality of market objectives</li> <li>4. Financing the undertaking - verification of the correctness, rationality and consistency of the proposed financial solutions with the proposed business model</li> <li>5. Anticipation of implementation difficulties and design of remedies for potential problems in the first period of start up</li> <li>6. Checking the cohesion of the economic part with the chemical and technological business and technology plan</li> </ol>	
<p><b>Bibliography of literature</b></p> <p>Bibliography of literature</p> <p>Literature required to pass the course</p> <ol style="list-style-type: none"> <li>1. Jak zostać i pozostać przedsiębiorcą, PARP, 2014</li> <li>2. T. Gołębiewski (red), Modele biznesu polskich przedsiębiorstw, SGH 2008</li> <li>3. Modele biznesowe budowy i rozwoju firm spin off na podbudowie szkoły wyższej, praca zbiorowa, IBnDiPP, Warszawa 2010</li> <li>4. Modele biznesowe przedsiębiorstw tworzonych na bazie szkół wyższych, IBnDiPP, Warszawa 2011</li> </ol> <p>Extracurricular readings</p> <ol style="list-style-type: none"> <li>1. Przedsiębiorczość technologiczna i intelektualna XXI wieku, praca zbiorowa pod red. Mieczysława Baka i Przemysława Kulawczuka, KIG, Warszawa 2009</li> </ol>	
<p><b>The learning outcomes (for the field of study and specialization)</b></p>	<p><b>Knowledge</b></p> <p>Knowledge</p> <p>The student knows how to verify the potential and achievability of the business model</p> <p>The student knows the organizational solutions used in start-ups</p> <p>The student knows the methods of verification of the rationality of market goals</p> <p>The student knows the correct methods of creating financial plans and knows the methods of their verification</p> <p>The student knows the principles and construction of the preparation of business and technology plan</p>
	<p><b>Skills</b></p> <p>Skills</p> <p>The student can verify the potential and reality of the business model</p> <p>The student can apply organizational solutions used in start-ups</p> <p>The student can verify the rationality of market goals</p> <p>The student can draw up financial plans and knows how to verify them</p> <p>The student can prepare a coherent business and technology plan</p>
	<p><b>Social competence</b></p> <p>Social competence</p> <p>Accuracy</p> <p>Regularity</p> <p>creativity</p> <p>Group work</p> <p>The ability to share knowledge and skills with others</p>
<p><b>Contact</b></p> <p>pkl@post.pl</p>	