


**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>	
Commercialization of research outcomes		13.3.0492	
<b>Name of unit administrating study</b>			
Faculty of Chemistry			
<b>Studies</b>			
<b>faculty</b>	<b>field of study</b>	<b>type</b>	drugiego stopnia
Wydział Chemii	Chemia	<b>form</b>	stacjonarne
		<b>specjalty</b>	chemia biomedyczna, chemia i technologia środowiska, analityka i diagnostyka chemiczna, chemia obliczeniowa
		<b>specialization</b>	wszystkie
<b>Teaching staff</b>			
dr hab. Karol Krzymiński, profesor uczelni			
<b>Forms of classes, the realization and number of hours</b>		<b>ECTS credits</b>	
<b>Forms of classes</b>		1	
Lecture		Classes: 5 hours	
<b>The realization of activities</b>		Consultation: 2 hours	
classroom instruction		Student's own work: 18 hours	
<b>Number of hours</b>		TOTAL: 25 hours - 1 ECTS	
Lecture: 5 hours			
<b>The academic cycle</b>			
2022/2023 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>	
multimedia-based lecture		<b>Final evaluation</b>	
		Graded credit	
		<b>Assessment methods</b>	
		assignment work – project or presentation	
		<b>The basic criteria for evaluation</b>	
<b>Method of verifying required learning outcomes</b>			
<b>Required courses and introductory requirements</b>			
<b>A. Formal requirements</b> <b>B. Prerequisites</b> Communicative English skills; Ability to use MS Excel spreadsheet for simple calculations and any program for the presentation of results and ideas (e.g. MS PowerPoint).			
<b>Aims of education</b>			
To familiarize students with the issues listed in the course content; To acquaint students with the assumptions of the knowledge-based economy; To acquaint students with intellectual and industrial property issues; To acquaint students with the problems and formal issues of patent applications; Acquaintance with the principles of cooperation within the research group; Acquainting with problems of financing of research projects; The criteria for selecting the innovative research results for further funding targeted for implementation; Acquainted with the criteria for assessing the commercial potential of the project; Acquainting with the way of presenting the results of scientific research; Acquainting with the method of preparing research plan and its commercialization. Acquaintance with the project management in the organization.			
<b>Course contents</b>			
Basic concepts of commercialization and the research and development sector; Models and examples of commercialization; Stages of commercialization of innovative research; Knowledge-based economy; Financing research and scientific implementations; Patent law and patents; Marketing in science. Diagnosis of the situation in Poland in the R&D sector; Managerial competence; Management of scientific research and development.			

**Bibliography of literature**

Literature required to pass the course

**A.1. Used during meetings**

1. Original materials presented during lectures, prepared on the basis of the resources of the "Competence for Science and Business Cooperation", the project financed by the European Union under the European Social Funds (EU/ESF, 2012).
2. Problem issues, delivered in electronic form by the teacher necessary to complete the final thesis.

**A.2. Extracurricular/additional readings**

1. Nidzworski D., Kuźbicki M., Kowalczyk I., Matusiak K., Przybyłowski M., Kipiel K., Muzalewska M., Ciesielski S., "Bio Bussines School - Guide to the commercialization of research results from the life science industry", Chroma Publishing House, Gdańsk, Poland, 2010.
2. S. Łobejko, A. Sosnowska (ed.), "Commercialization of scientific research results. A practical guide for scientists", a collective work financed by the EU / EFZ, published by the Marshal's Office of the Mazowieckie Voivodeship, Warsaw, Poland 2013.

**The learning outcomes (for the field of study and specialization)**
**Knowledge**

Student describes stages of commercialization; Knows the mechanisms and models of commercialization; Identifies and recognizes recent market features; Knows basic requirements for patent application; Distinguishes between types of intellectual property; Knows the sources of financing of research projects; Understands the principles of cooperation in research team and effective communication in the group. Knows and understands Belbin's theory of individual roles in a group

**Skills**
**Social competence**
**Contact**

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