

COURSE OFFERED IN THE DOCTORAL SCHOOL

Code of the course	4606-EW-0000000-0141	Name of the course	Polish	Ochrona własności intelektualnej i komercjalizacja wyników badań		
			English	Protection of Intellectual Property and Commercialisation of Results of Scientific Research		
Type of the course	Researcher's workshop (<i>warsztat badacza</i>)					
Course coordinator	Janusz Marszalec, Ph.D. (Eng.), MBA					
Implementing unit		Scientific discipline / disciplines*				
Level of education	Doctoral Program	Semester	Winter and summer semesters			
Language of the course	English					
Type of assessment:	Credit with grade	Number of hours in a semester	20	ECTS credits	2	
Minimum number of participants	10	Maximum number of participants	20	Available for students (BSc, MSc)	No	
Type of classes		Lecture	Auditory classes	Project classes	Laboratory	Seminar
Number of hours	in a week	2		2		
	in a semester	14		6		

* does not apply to the Researcher's Workshop

1. Prerequisites

There are no prerequisites.

2. Course objectives

1. Learning and understanding what is intellectual property, what are categories of intellectual property and how to identify elements of intellectual property in scientific research.
2. Learning and understanding protection of intellectual property and the methods used for protection, with their benefits and limitations.
3. Learning and understanding how to deal with open access in research, how to share the results of research for the benefits of society and balance traditional intellectual property rights and open access.
4. Learning and understanding methods of commercialisation of results of research with their benefits and limitations.
5. Learning and understanding the principles of commercialisation by developing relationships with industry in scientific research-industrial consortia.
6. Learning and understanding the basic principles of commercialisation by creation of spin-off and spin-out startup businesses.

3. Course content (separate for each type of classes)

Lecture

1. Overview of intellectual property. Categories of intellectual property. Understanding differences of intellectual property and identifying elements of intellectual property in scientific research.
2. Protection of intellectual property – different methods and their benefits and limitations.

3. Open Access. Balance of traditional intellectual property rights and open access.
4. Methods of commercialisation of results of scientific research and their benefits and limitations. Choosing the right commercialisation method.
5. Commercialisation of research results by development of relationships with businesses. Scientific research-industrial consortia.
6. Commercialisation of research results by creation of spin-off and spin-out startup businesses – basic principles and practical perspective.
7. Students' final projects presentations.

Project classes

The final project scope is to prepare a presentation and to deliver a short talk to discuss a doctoral candidate's research and then to answer on three questions: 1) How you can protect your IPR and why you choose these methods; 2) What is the value of your research results for economy and society; and 3) How you can commercialise results of your scientific research.

4. Learning outcomes

	Learning outcomes description	Reference to the learning outcomes of the WUT DS	Learning outcomes verification methods*
Knowledge			
K01	Gaining knowledge on transferring knowledge to economic and social sphere, on commercialisation of results of scientific research, and on dissemination the results of scientific activity, also in the open access mode.	SD_W5	Assessment of activity during classes and the final project
Skills			
S01	The ability to correctly infer on the basis of scientific research results and to make decisions about transfer the results of research work to the economic and social sphere, including proper protection of intellectual property and choosing the most appropriate commercialisation method.	SD_U3	Assessment of activity during classes and the final project
Social competences			
SC01	Thinking and acting in innovative and entrepreneurial way to commercialise the scientific research results and to share them with society.	SD_K4	Assessment of activity during classes and the final project
SC02	Behaving in a professional manner, observing the rules of professional ethics, maintaining and developing the ethos of research and creative communities, including conducting scientific activity in an independent manner and respecting the principle of public ownership of the results of scientific activity, taking into account the principles of protecting intellectual property.	SD_K5	Assessment of activity during classes and the final project

*Allowed learning outcomes verification methods: exam; oral exam; written test; oral test; project evaluation; report evaluation; presentation evaluation; active participation during classes; homework; tests

5. Assessment criteria

Credit with a grade on the basis of attendance (80% attendance required), activity during classes and execution of the final project.

The final project scope is to prepare a presentation and to deliver a short talk to discuss a doctoral candidate's research and then to answer on three questions: 1) How you can protect your IPR and why you choose these methods; 2) What is the value of your research results for economy and society; and 3) How you can commercialise results of your scientific research.

After the presentation there will be a short Q and A, so that participants have a possibility to discuss the issues they consider important.

6. Literature

1. Howard B. Rockman, *Intellectual Property Law for Engineers, Scientists, and Entrepreneurs*, Wiley-IEEE Press, 2nd edition, 2020.
2. Abbe Brown, Smita Kheria, Jane Cornwell, Marta Iljadica, *Contemporary Intellectual Property: Law and Policy*, Oxford University Press, 5th Edition, 2019.
3. Steve Blank, Bob Dorf – *The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company*, K & S Ranch, 2012. (wydanie polskie: *Podręcznik Startupu. Budowa wielkiej firmy krok po kroku*. Helion, 2013).
4. Stephen Spinelli Jr., Robert J. Adams Jr., *New Venture Creation: Entrepreneurship for the 21st Century*, McGraw Hill Education, 2016.
5. Janusz Marszalec – *Jak zostać przedsiębiorcą. Zbuduj własną firmę i odnieś sukces!*, Centrum Edisona, 2014.
6. Ray Oakey, *High-Technology Entrepreneurship*, Routledge, 2012.

7. PhD student's workload necessary to achieve the learning outcomes**

No.	Description	Number of hours
1	Hours of scheduled instruction given by the academic teacher in the classroom	20
2	Hours of consultations with the academic teacher, exams, tests, etc.	5
3	Amount of time devoted to the preparation for classes, preparation of presentations, reports, projects, homework	20
4	Amount of time devoted to the preparation for exams, test, assessments	15
Total number of hours		60
ECTS credits		2

** 1 ECTS = 25-30 hours of the PhD students work (2 ECTS = 60 hours; 4 ECTS = 110 hours, etc.)