



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Innovation Processes and Patents

Course

Field of study

Engineering Management

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

4/7

Profile of study

general academic

Course offered in

English

Requirements

elective

Number of hours

Lecture

15

Tutorials

15

Laboratory classes

Projects/seminars

Other (e.g. online)

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

Ph.D., Jakub Pawlak

Mail to:jakub.pawlak@put.poznan.pl

Faculty of Engineering Management

ul. J. Rychlewskiego 2 , 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

Basic knowledge of economics, innovation and analyzing social phenomena



Course objective

Provide basic knowledge of the area of innovation in a market economy, conditions of innovation, including intellectual property as a driver of economic development in order to master the basic skills needed to initiate innovative projects. Developing teamwork skills in students

Course-related learning outcomes

Knowledge

The student identifies and characterizes various sources and types of innovation, including the significance of intellectual property protection, in the context of supporting the economy's innovativeness [P6S_WG_01].

The student describes the role of science and knowledge in innovative processes and their impact on economic development, considering various criteria for evaluating innovations [P6S_WG_03].

The student analyzes different models of innovation and patent policy at the national and EU levels, assessing their effectiveness and impact on innovation development [P6S_WG_10].

The student explains the character and place of management sciences in the context of contextual and ergologic sciences, identifying and analyzing their connections and impact on innovative processes and patent policy [P6S_WG_11].

Skills

The student uses theoretical knowledge to analyze specific cases of innovation in enterprises, including innovative strategies and their implementation [P6S_UW_01].

The student interprets and evaluates different strategies for financing innovations, considering their efficiency and impact on economic development [P6S_UW_06].

The student analyzes the infrastructure supporting innovation, such as entrepreneurship incubators and technology parks, assessing their role in creating innovativeness [P6S_UW_07].

Social competences

The student develops innovative competencies, searching for and selecting appropriate sources of knowledge and training to enrich their understanding of innovative processes [P6S_KK_01].

The student demonstrates awareness of the ethical and cultural aspects of innovation, including the impact of patent policy on cultural diversity and professional ethics [P6S_KR_02].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lectures: evaluation of active participation in classes, preparation of the team-work project

Exercise: Grading based on: test, active participation in class

Programme content



Innovation, innovation processes. Sources of innovation: the importance of intellectual property protection. The role of science in building innovative knowledge economy. Criteria for assessment of innovation and innovation (EIS, GIS, IUS). Financing innovation. . Role of the State: Polish innovation policy and the European Union. Innovation policy, including patent policy (Intellectual property). Invention and innovation. Infrastructure innovation: business incubators and innovation centers, technology parks, etc. Innovation in enterprises. Competence of innovative managers. Regional innovation strategies.

Teaching methods

information lecture, problem lecture;

methods of independent learning: classic problem method (problem formulation, verification, student work assessment), case study method;

discussion methods: seminar, student's lecture, brainstorming, metaplan (conclusions from discussions in teams presented on the forum in the form of a poster, multimedia presentation);

practical and practical methods: auditory exercises, solving cognitive tasks.

Bibliography

Basic

1. M.Zajączkowski Podstawy innowacji i ochrony własności intelektualnej, Economicus, Szczecin 2003
2. J.Tidd, J.Bessant, Zarządzanie innowacjami . Integrowanie zmian technologicznych, rynkowych i organizacyjnych, Oficyna Kluwer i Wolters, Warszawa 2015
3. R.Knosala, A.Boratyska-Sala, M.Jurczyk-Bunkowska, A.Moczała, Zarządzanie innowacjami, PWE, Warszawa 2014
4. J.Cieślik Przedsiębiorczość dla ambitnych. Jak uruchomić własny biznes WAIp Warszawa 2008
5. <http://www.uprp.pl/strona-glowna/Menu01,9,0,index,pl/>

Additional

1. Pawlak J., Intellectual Property. Inżynier Przyszłości - Wzmocnienie potencjału dydaktycznego Politechniki Poznańskiej, 2019
2. Vasina S, Domańska-Baer A., Literatura patentowa jako źródło informacji w pracach naukowych, badawczych i działalności innowacyjnej : wprowadzenie do wyszukiwań w patentowych bazach danych na przykładzie internetowej bazy Europejskiego Urzędu Patentowego ESPACENET
3. Tytyk E., Bezpieczeństwo i higiena pracy, ergonomia i ochrona własności intelektualnej, Poznań, Wydawnictwo Politechniki Poznańskiej, 2017
4. http://www.pi.gov.pl/PARP/chapter_86000.asp



5. P.F.Drucker, Innowacja i przedsiębiorczość. Praktyka i zasady, PWE, Warszawa 1992

6. J. Antoszkiewicz, Innowacje w firmie. Praktyczne metody wprowadzania zmian, Poltext, Warszawa 2008

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests, project preparation) ¹	45	2,0

¹ delete or add other activities as appropriate