



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Business modeling for innovative solutions using AI

Course

Field of study

Year/Semester

Computing

1/2

Area of study (specialization)

Profile of study

Artificial Intelligence

general academic

Level of study

Course offered in

Second-cycle studies

English

Form of study

Requirements

full-time

elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

15

Tutorials

Projects/seminars

15

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

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Prerequisites

The student knows the basic terms concerning the functioning of enterprises in a market economy. Can implement solutions using artificial intelligence (AI) in practice. Demonstrates readiness to develop his/her knowledge and skills. He/she is willing to work in a team.

Course objective

The aim of the course is to gain knowledge and acquire skills and competences in the field of: understanding the essence, principles and analysis of the competitive potential of an enterprise / start-up as well as the competitive environment and the role of an entrepreneurial ecosystem; applying the principles and tools of creating a business model for innovative solutions using artificial intelligence based on the canvas and lean canvas methodology; diagnosing factors and development barriers in the use of artificial intelligence in business solutions in the modern economy.



Course-related learning outcomes

Knowledge

1. Knows the basic economic, legal and social conditions of the activities of IT companies [K2st_W8, K2st_W9]
2. Knows and understands the role of the competitive potential of an enterprise / start-up, the competitive environment and entities of the entrepreneurial ecosystem. [K2st_W8, K2st_W9]
3. Has knowledge of the principles and tools of creating a business model for innovative solutions using AI based on the canvas and lean canvas methodology. [K2st_W9]
4. Has basic knowledge of management / running a business and individual entrepreneurship in a knowledge-based economy. [K2st_W8, K2st_W9]

Skills

1. Can design a concept of a business model for an innovative AI business solution using appropriate methods, techniques and tools. [K2st_U11]
2. Can diagnose factors and development barriers in the application of AI in modern business concepts. [K2st_U1]
3. Can apply information and communication techniques used in the implementation of IT projects. [K2st_U2]
4. Can communicate both in Polish and English using various techniques in a professional life and in other environments, also with the use of IT tools. [K2st_U12]

Social competences

1. Can work in a team and be open to suggestions from other members. [K2st_K4]
2. Is able to recognize cause-and-effect relationships in achieving the set goals and rank the importance of alternative or competitive tasks in the implementation of projects. [K2st_K2]
3. Is aware of the need to expand knowledge on the implementation of artificial intelligence in business solutions for socio-economic development and comply with the rules of professional ethics. [K2st_K4]
4. Is aware of the interdisciplinarity of knowledge and skills needed to solve complex business problems. [K2st_K4]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge acquired during the lecture is verified by one 60-minute colloquium carried out at the last lecture. It consists of 10-15 questions (test and open) with various points depending on their level of difficulty. Passing from: 60% of points. Issues and materials, on the basis of which questions are prepared for the colloquium, will be sent to students by e-mail using the university's e-mail system. The final grade can be raised for the student's active participation in the problem and conversation lecture.



Knowledge, skills and social competences acquired as part of the exercises are verified based on the presentation of the completed project, the developed case study and student activity during classes (participation in the discussion, independent problem solving). Project evaluation criteria will be provided to students in the first class.

Programme content

1. The essence and importance of the competitive potential of an enterprise / start-up and the competitive environment in a knowledge-based economy.
2. The role of the entrepreneurial ecosystem in the development of innovative business solutions with the use of artificial intelligence / creation of academic start-ups.
3. Principles and tools for creating a business model based on the canvas and lean canvas methodology.
4. The use of the canvas methodology in creating a business model for an innovative solution using artificial intelligence:
 - a) Diagnosis of current business / social problem;
 - b) Observations, customer profiles and user tests;
 - c) Defining / generating a unique value proposition using AI;
 - d) Prototyping a business idea, testing and modification (pivot);
 - e) Diagnosis and evaluation of key resources, activities and partners;
 - f) Financing and revenue generation plan;
 - g) Concept presentation (Pitch Deck).
5. Factors and development barriers in the use of AI in business solutions in the modern economy.

Teaching methods

Lecture: multimedia presentation illustrated with examples; problem lecture (discussion on solving a given problem), conversation lecture (discussion moderated by the lecturer).

Exercises: case study method, discussion methods: brainstorming, metaplan (conclusions from discussion in teams presented on the forum in the form of a poster, multimedia presentation); Exercise and practical methods: solving cognitive tasks, teamwork.

Bibliography

Basic

1. Blank S., Dorf B., (2013), The Startup Owner's Manual The Step-By-Step Guide for Building a Great Company, K & S Ranch.



2. Maurya A., (2012), Running Lean. Iterate from Plan A to a Plan That Works. Wydawca: O'Reilly Media.
3. Osterwalder A., Pigneur Y., (2010), Business model generation, John Wiley and Sons Ltd.
4. Ries E., (2017), The Lean Startup, Random House USA Inc, New York.
5. Thompson A., Strickland A.J., (2001), Strategic management. Concepts and cases, McGraw-Hill.

Additional

1. Badzińska E., (2017), Assessing the concept of innovative business model with regard to IT enterprise, Economics and Law, Vol. 16(3), pp. 245-258.
2. Badzińska E., Wyrwicka M. K., (2016), Models of Creation and Development of an Enterprise – a Conceptual Approach, Zeszyty Naukowe Politechniki Poznańskiej. Organizacja i Zarządzanie Nr 70, s. 5-17.
3. Dess G.G., Lumpkin G.T., (2010), Eisner A., Strategic Management. Text and Cases, McGraw-Hill.
4. Pearce J., Robinson R., (2010), Strategic management: Formulation, implementation and control, McGraw-Hill.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	30	1,5
Student's own work (literature studies, preparation for classes/tutorials, preparation for tests/exam, project preparation) ¹	45	1,5

¹ delete or add other activities as appropriate