



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technological Entrepreneurship

Course

Field of study

Engineering Management

Area of study (specialization)

Managing Enterprise of the Future

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

15

Number of credit points

1

Lecturers

Responsible for the course/lecturer:

Ph.D., Ewa Badzińska

Responsible for the course/lecturer:

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Faculty of Engineering Management

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Prerequisites

The student has theoretical knowledge of microeconomics, management and functioning of enterprises



in a market economy. Is able to identify problems of managing a modern enterprise focusing on technological innovations and requirements of industry 4.0. Has the ability to understand and analyze basic socio-economic phenomena and is willing to take entrepreneurial activities. Demonstrates readiness to develop knowledge and teamwork skills.

Course objective

The aim of the course is to gain knowledge and acquire skills and competences in the field of: theoretical concepts and implications of technological entrepreneurship; the role of intellectual capital and entrepreneurial university in the transfer of knowledge into business and commercialization of research results; the impact of the R&D sector, academic entrepreneurship and the entrepreneurial ecosystem on the development of technological entrepreneurship; formulating own opinions on socio-economic phenomena and critical data selection and methods of analysis; using acquired knowledge in various fields and forms in business practice.

Course-related learning outcomes

Knowledge

1. Student knows the basic principles and assumptions regarding technological entrepreneurship as a process of knowledge transfer from universities and research institutes to business and commercialization of research results. [P7S_WG_06]
2. Has knowledge of the entrepreneurial university model (e.g. according to OECD, 2012) and its role in the process of creating and implementing innovations, entrepreneurship education, supporting academic entrepreneurship, building international collaboration and business-science relationships. [P7S_WG_06]
3. Knows the rules of creating and developing forms of individual entrepreneurship using knowledge of technology, economics and management. [P7S_WK_03]
4. Has knowledge of the entities within the entrepreneurial ecosystem and the connections occurring in network organizations. [P7S_WG_06]

Skills

1. Student has the ability to independently propose solutions to a specific management problem in the context of technological entrepreneurship. [P7S_UW_04]
2. Is able to indicate the impact of the quality of the entrepreneurial ecosystem on the development of technological entrepreneurship. [P7S_UW_03, P7S_UW_06]
3. Has the ability to use the acquired knowledge in various areas and forms, extended by a critical analysis of the effectiveness and usefulness of applied knowledge. [P7S_UW_03, P7S_UO_01]
4. Is able to properly analyze the causes and course of socio-economic processes and phenomena, formulate own opinions on this subject, and put up simple research hypotheses and verify them. [P7S_UW_07]



Social competences

1. Student is aware of the importance of creating, discovering and using technological opportunities, the skills needed to solve complex problems of technological entrepreneurship, and the need to create interdisciplinary teams. [P7S_KK_01]
2. Is able to make substantive contribution to the preparation of social projects and manage tasks resulting from these projects. [P7S_KO_03]
3. Is able to recognize the cause-and-effect relationships in achieving the set goals and rank the importance of alternative or competitive tasks in the implementation of projects. [P7S_KK_02]
4. Is aware of the need to expand knowledge of entrepreneurial behaviour and innovative solutions in the context of industry 4.0 due to the high variability of the socio-political and economic environment. [P7S_KK_01]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge, skills and social competences acquired as part of tutorials are verified based on the presentation of the completed project/assignment carried out independently and in a team, the developed case study and student activity during classes (participation in the discussion, independent problem solving). Criteria for evaluation of the project / assignment will be provided to students in the first class.

Programme content

Tutorials: Multidimensionality of technological entrepreneurship - interdisciplinary concepts. The key determinants of technological entrepreneurship and their characteristics. Entrepreneurial University model: mission and strategy, intellectual capital, creation and implementation of innovations, entrepreneurship education, supporting academic entrepreneurship and start-ups, building international relationships, cooperation with business through knowledge transfer and commercialization of research results. Academic entrepreneurship and technology start-ups as a bridge for building business-science relationships. Business incubators – scope of services offered and forms of support. Impact of the quality of the entrepreneurial ecosystem (e.g. incubators, science and technology parks, business environment institutions in the field of incubation, etc.) on the development of entrepreneurship in the region.

Teaching methods

Tutorials: 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. Bailetti T., Technology Entrepreneurship: Overview, Definition, and Distinctive Aspects, *Technology Innovation Management Review*, 2012, 2(2), p. 5-12.
2. Badzińska E., The Concept of Technological Entrepreneurship: The Example of Business Implementation, „*Entrepreneurial Business and Economics Review*” 2016, 4 (3), pp. 57-72.
3. Badzińska E., The Entrepreneurial University: conceptualisation, models and challenges for operationalisation of the concept, [in:] A. Michałkiewicz, W. Mierzejewska (eds.), *Contemporary organisation and management. Challenges and trends*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź, 2020, s. 443-459.
4. Lachiewicz, S., Matejun, M., The role of External Environment in Creating Technology Entrepreneurship in Small and Medium-Sized Enterprises, „*Management*”, 2010, 14(1), 187-202.
5. Nacu C.M., Avasilcăi S., Technological ecopreneurship: conceptual approaches. *Procedia - Social and Behavioral Sciences*, 2014, 124, 229-235.
6. Beckman C, Eisenhardt K., Kotha S., Meyer A., Rajagopalan N., Technology Entrepreneurship, „*Strategic Entrepreneurship Journal*” 2012, vol. 6, no. 2, s. 89-93.
7. A Guiding Framework for Entrepreneurial Universities, OECD (2012), <https://www.oecd.org/site/cfecpr/EC-OECD%20Entrepreneurial%20Universities%20Framework.pdf>

Additional

1. Petti C. (red.), *Cases in technological entrepreneurship: Converting ideas into value*, Edward Elgar Publishing, Northampton, MA, 2009.
2. Gregoire D., Shepherd D., Technology-market Combinations and the Identification of Entrepreneurial Opportunities: An Investigation of the Opportunity-individual Nexus, „*Academy of Management Journal*” 2012, no. 4.
3. Badzińska E., Potencjał start-upów technologicznych w zakresie rozwoju przedsiębiorczości technologicznej – ujęcie badawczo-koncepcyjne, „*Przedsiębiorczość i Zarządzanie*” 2017, 18, 12(2), s. 477–492.
4. Poznańska K., *Przedsiębiorczość technologiczna*, 2010. http://www.pole-nord.eu/IP_Workshop/Prof._Krystyna_Poznanska_-_Przedsiębiorczosc_tehnologiczna.pdf
5. Kordel P., *Przedsiębiorczość technologiczna*, Wydawnictwo Politechniki Śląskiej, Gliwice, 2018.
6. Staniec, I., Klimczak, K. M., Machowiak, W., Shachmurove, Y., *Przedsiębiorczość technologiczna: istota, znaczenie, wybrane kierunki badań*. *Studia i Prace Kolegium Zarządzania i Finansów SGH w Warszawie, Zeszyt Naukowy 168*, 2018, s. 101-112.



Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	15	0,5
Student's own work (literature studies, preparation for lectures, preparation for colloquium) ¹	10	0,5

¹ delete or add other activities as appropriate