COURSE DESCRIPTION CARD - SYLLABUS

Course name
Technological Entrepreneurship

Course

Field of study
Engineering Management

Year/Semester
2/3

Area of study (specialization)
Managing Enterprise of the Future

Profile of study
general academic

Level of study
Second-cycle studies

Course offered in
English

Form of study
full-time

Requirements
elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials
15

Projects/seminars

Number of credit points

1

Lecturers

Responsible for the course/lecturer:
Ewa Badzińska, Ph.D.

Faculty of Engineering Management

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Responsible for the course/lecturer:

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. 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.

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 relations and business-science relationships.

3. Knows the rules of creating and developing forms of individual entrepreneurship using knowledge of technology, economics and management.

4. Has knowledge about the impact of the R&D sector and academic entrepreneurship on the development of technological entrepreneurship.

Skills

1. Is able to design the concept of a business model for an innovative technological solution.

2. Is able to indicate the impact of the quality of the entrepreneurial ecosystem on the development of technological entrepreneurship.

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.

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.

Social competences

1. 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.

2. Is able to make substantive contribution to the preparation of social projects and manage tasks resulting from these projects.

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.

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.

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, 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

1. Multidimensionality of technological entrepreneurship - interdisciplinary concepts.

2. Key determinants of technological entrepreneurship and their characteristics.

3. Entrepreneurship 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.

4. Academic entrepreneurship and technology start-ups as a bridge for building business-science relationships.

5. The 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 technological entrepreneurship.

6. Creating a business model for an innovative technological solution based on the diagnosis of entrepreneurial opportunities - case studies.

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. (2012), Technology Entrepreneurship: Overview, Definition, and Distinctive Aspects, Technology Innovation Management Review, 2(2), p. 5-12.

2. Chyba Z., (2015), Rola potencjału technologicznego w kreowaniu przedsiębiorczości technologicznej, Kwartalnik Nauk o Przedsiębiorstwie, 28 (4), s. 27-35.

3. Kordel P., (2014), Przedsiębiorczość technologiczna jako mechanizm rozwoju strategicznego organizacji, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu Management Forum, nr 356, s. 19-28.

4. Lachiewicz S., Matejun M., Walecka A. (2013) (red.), Przedsiębiorczość technologiczna w małych i średnich firmach. Czynniki rozwoju, Warszawa, Wydawnictwo WNT.

5. Staniec I., (2016), Koncepcja szansy w przedsiębiorczości technologicznej, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, nr 419, Imperatyw przedsiębiorczości a odpowiedzialność przedsiębiorcy.

6. Badzinska E., (2016), The Concept of Technological Entrepreneurship: The Example of Business Implementation, Entrepreneurial Business and Economics Review 4 (3), pp. 57-72.

7. Rostek K., Skala A., Perspektywa rozwoju przedsiębiorczości technologicznej w Polsce w kontekście KET, „Przegląd Organizacji" 2016, nr 1.

8. Kwiatkowski S. [2000], Przedsiębiorczość intelektualna. Bogactwo z wiedzy, Warszawa, PWN.

9. Chyba Z., Grudzewski W., (2011), Przedsiębiorczość akademicka w Polsce. Osiąganie przewagi konkurencyjnej w wyniku komercjalizacji technologii, Warszawa, WSZiP im. H. Chodkowskiej.

10. Matusiak K. B. (2010), Budowa powiązań nauki z biznesem w gospodarce opartej na wiedzy. Rola i miejsce uniwersytetu w procesach innowacyjnych, SGH, Warszawa.

11. A Guiding Framework for Entrepreneurial Universities, OECD (2012), https://www.oecd.org/site/cfecpr/EC-OECD%20Entrepreneurial%20Universities%20Framework.pdf

Additional

1. Poznańska K. (2010), Przedsiębiorczość technologiczna. http://www.pol-nord.eu/IP_Workshop/Prof._Krystyna_Poznanska_-_Przedsiebiorczosc_technologiczna.pdf

2. Petti C. (red.) (2009), Cases in technological entrepreneurship: Converting ideas into value, Edward Elgar Publishing, Northampton, MA.

3. Badzińska E., (2017), Potencjał start-upów technologicznych w zakresie rozwoju przedsiębiorczości technologicznej – ujęcie badawczo-koncepcyjne, Przedsiębiorczość i Zarządzanie 18, 12(2), s. 477–492.

4. Gregoire D., Shepherd D., (2012), Technology-market Combinations and the Identification of Entrepreneurial Opportunities: An Investigation of the Opportunity-individual Nexus, „Academy of Management Journal" 2012, no. 4.

5. Blank S., Dorf B., (2013), Podręcznik startupu. Budowa wielkiej firmy krok po kroku. Wydawca: One Press / Helion.

6. Osterwalder A., Pigneur Y., (2012), Tworzenie modeli biznesowych. Podręcznik wizjonera. Wydawca: One Press / Helion.

7. Cieślik J., (2006), Przedsiębiorczość dla ambitnych. Jak uruchomić własny biznes , Wydawnictwa Akademickie i Profesjonalne.

8. Badzińska E., (2017), Assessing the concept of innovative business model with regard to IT enterprise, Ekonomia i Prawo. Economics and Law, 16 (3), pp. 245-258.

Breakdown of average student's workload

	Hours	ECTS
Total workload	30	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]	15	0,5

[1] delete or add other activities as appropriate