



MODULE DESCRIPTION

Module code	full-time studies:	Z-ZIP1-E-731
	part-time studies:	Z-ZIPN1-E-731
Module name	Technological Entrepreneurship	
Module name in Polish	Przedsiębiorczość technologiczna	
Valid from academic year	2019/2020	

MODULE PLACEMENT IN THE SYLLABUS

Field of study	MANAGEMENT AND PRODUCTION ENGINEERING
Level of education	1st degree
Studies profile	General
Form and method of conducting classes	Full-time and Part-time
Specialisation	Production and Innovation Management
Unit conducting the module	Department of Production Engineering
Module co-ordinator	Bożena Kaczmarska, PhD, DSc
Approved by:	Dariusz Bojczuk, PhD, DSc

MODULE OVERVIEW

Type of subject / group of subjects	Specialist subject
Module status	Non-compulsory
Language of conducting classes	English
Module placement in the syllabus - semester	Semester VII
Initial requirements	No requirements
Examination (YES/NO)	NO
Number of ECTS credit points	2

Method of conducting classes		Lecture	Classes	Laboratory	Project	Other
Per semester	full-time studies:	10		20		
	part-time studies:	6		12		

TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

Category	Symbol	Learning outcomes	Assignations to the directional learning outcomes
Knowledge	W01	Has the knowledge needed to establish a new business entity in a market economy.	ZIP1_W03 ZIP1_W13
	W02	Has the established knowledge needed to assess the market potential of new products.	ZIP1_W15 ZIP1_W16
	W03	Has knowledge of innovative activities and development trends in management	ZIP1_W18
Skills	U01	Can prepare and present documentation of a new venture, taking into account technical and non-technical conditions.	ZIP1_U03 ZIP1_U04 ZIP1_U15
	U02	Can perform economic analysis and develop business strategy, taking into account technical and legal conditions.	ZIP1_U11 ZIP1_U13
Social competences	K01	He is ready to work independently and in a team - as a team member and leader.	ZIP1_K04
	K02	He is aware of the responsibility for the consequences of his activity.	ZIP1_K02 ZIP1_K05

TEACHING CONTENTS

Method of conducting classes	Teaching contents
Lecture	<p>The essence of entrepreneurship, technology entrepreneurship. Traits and skills of new venture leaders. From an idea to launching a company.</p> <p>Specifics of new technological ventures. New technological ventures - the essence and scale of the phenomenon. Start-up enterprises. Sources of new tech-solutions. Identification, selection and verification of ideas for new tech-solutions. Methods of analysis and evaluation of technical potential of new products.</p> <p>Issues of intellectual property protection. Methods of analysis and evaluation of market potential of new products, competition, competing products, potential market and market interest in a new product.</p> <p>Financing of technological ventures. Use of the INN SME method in the evaluation of new ventures. Strategies for commercialization of technological ventures.</p> <p>Forms of technological entrepreneurship support, institutions of innovative business environment. Kielce Technology Park - study visit.</p>
Laboratory	<p>Projects for conducting technological enterprises on the basis of new products - students' own concepts.</p> <p>The concept of creating a new business entity, legal forms of enterprises.</p> <p>Analysis of sources of business financing. Financial and accounting system. Key decisions on the financial and accounting system.</p> <p>Issues of tax law.</p> <p>Employment of employees and settlement of their wages.</p> <p>Issues of market analysis.</p> <p>Information systems in business operations. Presenting individual projects</p>

METHODS OF ASSESSING TEACHING RESULTS

Symbol	Methods of checking the learning outcomes <i>(select X)</i>					
	Oral exam	Written exam	Test	Project	Statement	Other
W01				X		X
W02				X		X
W03				X		X
U01				X		X
U02				X		X
K01				X		X
K02				X		

FORM AND CONDITIONS OF PASSING

Form of classes	Form of credit	Passing conditions
Lecture	Credit with grade	Obtaining at least 50% of points from the developed project, presentation of the selected theoretical issue and activity during the classes.
Laboratory	Credit with grade	Obtaining at least 50% of points from the developed project, presentation of the selected theoretical issue and activity during the classes.

STUDENT WORKLOAD

Balance of ECTS points												
No.	Type of student's activity	Student's workload										Unit
		full-time					part-time					
		Lc	C	Lb	P	O	Lc	C	Lb	P	O	
1.	Participation in the activities	10		20			6		12			h
2.	Other (consultation, exam)	2		2			2		2			h
3.	Number of hours of a student's as- sisted work	34					22					h
4.	Number of ECTS credit points which are allocated for assisted work	1,4					0,9					ECTS
5.	Number of hours of a student's un- assisted work	16					28					h
6.	Number of ECTS credit points which a student receives for unassisted work	0,6					1,1					ECTS
7.	Work input connected with practical classes	33					33					h
8.	Number of ECTS credit points which a student receives for practical classes	1,3					1,3					ECTS
9.	Total number of hours of a stu- dent's work	50					50					h
10.	Punkty ECTS za modul <i>1 ECTS=25 hours</i>	2										ECTS

LITERATURE

1. Grayson D., Coulter C., Lee M. (2022), *The Sustainable Business Handbook, A Guide to Becoming More Innovative, Resilient and Successful*, Kogan Page.
2. Evers N. (2020), *Technology Entrepreneurship: Bringing Innovation to the Marketplace*, Red Globe Pr.
3. Guerrero M., Urbano D. (2022), *Technology Transfer and Entrepreneurial Innovations*, Springer Nature Switzerland AG.
4. Kaczmarska B., Gierulski W., Zajac J., Bittner A. (2021), *Modelling of Technology Valuation in the Process of its Commercialization*, Management and Production Engineering Review, Volume 12, Number 1, s. 85–93 (online: <https://journals.pan.pl/Content/119523/art08.pdf>)