

**DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

SUPERVISOR/TEAM/ DECLARING/CONDUCTING COURSE: JÓZEF HOFFMANN
DEPARTMENT: Chemical Department
SCIENTIFIC DISCIPLINE: Chemical Engineering

COURSE CARD

Course name in Polish: Projektowanie przemysłowych przedsięwzięć technologicznych

Course name in English: Designing of industrial technology projects

Course language Polish / ~~English~~*

University-wide general course type*:

The course is intended for all PhD students: YES / NO

1) BASIC COURSE

~~2) SPECIALIST COURSE~~

~~3) SEMINAR~~

~~4) HUMANISTIC COURSE~~

~~5) LANGUAGE~~

Subject code: CIQ100094W

* delete as applicable

	Lecture	Foreign language course	Seminar	Mixed forms
Number of hours of organized classes in university (ZZU)	30			
Grading	Exam	Exam	Oral presentation	Exam, inspection, evaluation classes
Number of ECTS points				

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basics of chemical technology
2. Chemical technology
3. Technological design

COURSE OBJECTIVES

C1 Learning of the conditions of development of technological processes

C2 Learning of the principles of developing investment projects

C3 Obtaining knowledge about the types and methods of calculating economic efficiency assessment indicators of a technological enterprise

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PROGRAM CONTENTS

Form of classes – lecture (Lec)		Number of hours
Lec1	Economic, environmental and qualitative conditions for the development of technological processes	2
Lec2	Types of technological process design documentation	2
Lec3	Investment project cycle and types of pre-investment studies	2
Lec4	Characteristics of pre-investment studies	2
Lec5	Restructuring and expansion projects	2
Lec6	Executive design - evaluation report	2
Lec7	Origin and concept of the project	2
Lec8	Marketing research	2
Lec9	Technology enterprise strategy	2
Lec10	Choice of location - environmental conditions	2
Lec11	Material outlays	2
Lec12	Production program - production capacity	2
Lec13	Business organization, workers resources	2
Lec14	Planning and balancing project implementation	2
Lec15	Financial analysis and project evaluation	2
Total hours:		30

Form of classes – foreign language course (Lng)		Number of hours
Lng1		
Lng2		
Lng3		
..		
Total hours:		

Form of classes – seminar (Sem)		Number of hours
Sem1		
Sem2		
Sem3		
...		
Total hours:		

Form of classes – mixed forms (mix)		Number of hours
Mix1		
Mix2		
Mix3		
...		
Total hours:		

TEACHING TOOLS USED

- N1. Lecture with multimedia presentation
 N2. Design consultations
 N3. Own work

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ACHIEVED SUBJECT LEARNING OUTCOMES		
Type of learning outcome	Code of learning outcome	Assessment of learning outcome
Knowledge	P8U_W	rules of operation aimed at obtaining patents for inventions, protection rights for utility models and trademarks, rights from registration of designs industrial
Knowledge	P8S_WG	advanced level knowledge of major subjects in a given discipline and interdisciplinary subjects
Knowledge	P8S_WK	preparation in relation to the environment socio-economic in relation to improving the applicability of the results of own scientific research
Skills	P8S_UW	can creatively interpret the results obtained and look for their application
Skills	P8S_UW	is prepared to intensify scientific research with commercial potential
Skills	P8S_UK	can participate in innovative research and development projects
Social competence	P8S_KK	recognizing the importance of knowledge in solving cognitive and practical problems
Social competence	P8S_KO	Awareness of the need to develop contacts between the scientific unit and the socio-economic environment
Social competence	P8S_KO	the ability to think and act in an entrepreneurial manner
Social competence	P8S_KR	recognition of regulations regarding fair public use and issues related to the protection and distribution of intellectual property rights developed as part of research

PRIMARY AND SECONDARY LITERATURE
<p><u>PRIMARY LITERATURE:</u></p> <p>[1] J. Ciborowski, Podstawy inżynierii chemicznej, WNT, Warszawa, 1982 [2] W. Behrens, P. M. Hawranek, Poradnik Przygotowania przemysłowych studiów feasibility, UNIDO, Warszawa, 1993 [3] U. Bröckel, W. Meir, G. Wagner, Product design and engineering, Basics and technologies, Wiley, 2007 [4] A. Bogucki, Techniczne stadium wykonalności, PRESSCOM, Warszawa, 2015</p> <p><u>SECONDARY LITERATURE:</u></p> <p>[1] A. C. Dimian, C. S. Bildea, Chemical Process Design, computer aide case studiem, Wiley, 2008 [2] D. Sussman, COMFAR III Expert, Business Planer for Windows, UNIDO, Vienna, 2003 [3] F. Borys, Przedsięwzięcia techniczno-ekonomiczne. Metodyka organizacji i zarządzania, Of. Wyd. PWr, Wrocław, 2002</p>
SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)
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