Cracow University of Technology

Course syllabus

binding for the doctoral students of the CUT Doctoral School commencing their studies in the academic year 2022/2023

Information on the course

Name of the course in Polish	Seminarium doktoranckie III
Name of the course in English	Doctoral seminar III
Number of the ECTS points	2
Language of instruction	Polish
Category of the course	Mandatory
Field of education	Engineering and Technology
Discipline of education	Chemical Engineering
Person responsible for the course Contact	Piotr Michorczyk, *doctus habilitatus*, DSc, prof. of CUT piotr.michorczyk@pk.edu.pl

Type of course, number of hours in the study programme curriculum

Semester	Credit type (G / NG)*	Lecture	Practical class	Laboratory	Computer laboratory	Project class	Seminar
2, 3, 4, 5	NG	0	0	0	0	0	15

*G – graded credit, NG – non-graded credit

Course objectives

Code	Objective description
Objective 1	To acquire the ability to critically analyse publications on the subject of the doctoral thesis.
Objective 2	To expand the knowledge of laboratory test methods and physicochemical techniques used in the works in the discipline of Chemical Engineering.

Learning outcomes

Code	Description of the learning outcome adjusted to the specific characteristics of the discipline	Learning outcome symbol in the CUT SD	Methods of verification
OUTCOMES RELATED TO KNOWLEDGE			
EUW1	The doctoral student understands the importance of a scientific discourse in shaping the state of the art in the discipline of Chemical Engineering.	E_W01, E_W02	Involvement in class activities; giving a paper
EUW2	The doctoral student is able to present the results of both their own research and those of other authors and to engage in a scientific discussion on the topic.	E_W01, E_W02	Involvement in class activities, giving a paper
OUTCOMES RELATED TO SKILLS			

EUU1	The doctoral student is able to prepare a paper illustrating research progress in the discipline of Chemical Engineering.	E_U01	Giving a paper
EUU2	The doctoral student is able to prepare a presentation illustrating research progress in the discipline of Chemical Engineering.	E_U01	Delivering a presentation
OUTCOMES RELATED TO SOCIAL COMPETENCES			
EUK1	The doctoral student is prepared to explain to a wider audience the importance of conducting scientific research in the discipline of Chemical Engineering.	E_K01, E_K03 E_K07	Discussion

Course outline

No.	Contents	Learning outcomes for the course	No. of hours
Seminar			
S1	An introductory class (explanation of the credit procedure and the subject matter of the seminar).	EUW1, EUU1, EUK1, EUK2	1
S2	Selection of a scientific publication, an individual discussion.	EUW2, EUU2, EUK1, EUK2	2
S3	An individual critical discussion of selected publications in the form of an oral presentation.	EUW2, EUU2, EUK1, EUK2	12

The ECTS points statement

WORKING HOURS SETTLEMENT	
Type of activity	Average number of hours (45 min.) dedicated to the completion of an activity type
SCHEDULED CONTACT HOURS WITH THE ACADEMIC TEACHER	
Hours allotted in the syllabus	15
Consultations	1
Examination / course credit assignment	2
HOURS WITHOUT THE PARTICIPATION OF THE ACADEMIC TEACHER	
Independent study of the course contents	8
Preparation of a paper, report, project, presentation, discussion	4
ECTS POINTS STATEMENT	
Total number of hours	30
The ECTS points number	2

Preliminary requirements

No.	Requirements
1	Knowledge of physical chemistry at an advanced level and a wide range of physicochemical techniques used in research conducted within the discipline of Chemical Engineering and related disciplines (Chemistry, Materials Science).
2	English language skills.

Course credit assignment conditions / method of the final grade calculation

No.	Delivery of an oral presentation of a written paper prepared by the doctoral student on a reviewed scientific publication related to the subject of the doctoral dissertation.
COURSE CREDIT ASSIGNMENT CONDITIONS	
1	80% attendance in class. Giving a paper and submission of an essay (review).
METHOD OF THE FINAL GRADE CALCULATION	
Weighted average of the essay and presentation grades. Attendance taken into account.	

Additional information

None

The course reading list

1	Any literature item related to the preparation of a publication, e.g. 1) https://authorservices.taylorandfrancis.com/publishing-your-research/writing-your-paper/writing-a-journal-article/ (30.03.2022) 2) https://www.elsevier.com/connect/11-steps-to-structuring-a-science-paper-editors-will-take-seriously (30.03.2022) 3) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5405644/(30.03.2022)
2	A selected publication from a prestigious journal from the publishing houses like RSC, Elsevier, ACS, agreed with the teacher.