

POLITECHNIKA KRAKOWSKA IM. TADEUSZA KOŚCIUSZKI

KARTA PRZEDMIOTU

obowiązuje studentów rozpoczynających studia w roku akademickim 2017/2018

Wydział Inżynierii i Technologii Chemicznej

Kierunek studiów: Inżynieria Chemiczna i Procesowa

Profil: Ogólnoakademicki

Forma studiów: stacjonarne

Kod kierunku: I

Stopień studiów: II

Specjalności: Engineering of Technological Processes (IPT, IPB, IOZE)

1 INFORMACJE O PRZEDMIOCIE

NAZWA PRZEDMIOTU	SIa-2_Master's_thesis
NAZWA PRZEDMIOTU W JĘZYKU ANGIELSKIM	Master's thesis
KOD PRZEDMIOTU	WITCh ICHIP oIIS E20 17/18
KATEGORIA PRZEDMIOTU	Przedmioty związane z dyplomami
LICZBA PUNKTÓW ECTS	20.00
SEMESTRY	3

2 LICZBA GODZIN

SEMESTR	LICZBA GODZIN
3	200.00

3 CELE PRZEDMIOTU

Cel 1 Verification of the knowledge and skills gained during the course of studies by means of an independent performance of a technological and process research or project work and writing a competence test.

Cel 2 Gaining the ability of unassisted processing of the study results or engineering calculations in a form of a Masters thesis.

Cel 3 Gaining the ability of public presentation of the study and research results.

4 WYMAGANIA WSTĘPNE W ZAKRESIE WIEDZY, UMIEJĘTNOŚCI I INNYCH KOMPETENCJI

- 1 Preliminary requirements concerning knowledge, skills and other competencies: - Before the practical part of the diploma dissertation, a student may have some uncompleted elements of the curriculum of within the second cycle qualification. These lacking elements cannot exclude a student from the graduation within the specified deadline.

5 EFEKTY KSZTAŁCENIA

EK1 Umiejętności Skills: a student is able to find bibliography sources concerning the studied subject of the research and briefly process them in a theoretical part of the Masters thesis.

EK2 Umiejętności Skills: a student is able to prepare works schedule and plan the experiments necessary for the study of the subject of the research. A student carries out all the experiments, analyses, calculations and works out technological and process documentation independently.

EK3 Umiejętności Skills: a student processes the results of the research carried out in the experimental part of the Masters dissertation. On the basis of these results, a student draws correct conclusions.

EK4 Kompetencje społeczne Social competencies: a student is able to discuss briefly the results of their own research or their own project study supporting the discussion with a presentation prepared independently.

6 TREŚCI PROGRAMOWE

PRACA DYPLOMOWA

LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
PD1	Collection of the bibliography data pertaining to the subject of the research and processing them in the bibliographic part of the Masters thesis.	40
PD2	Preparation of the works schedule and carrying out the planned experiments or theoretical research or project calculations in accordance with the plan.	120
PD3	The analysis of the obtained results and processing them in the experimental or the project part. The preparation of the results presentation.	40

7 NARZĘDZIA DYDAKTYCZNE

N1 laboratory or project classes

N2 consultations

N3 test

8 OBCIĄŻENIE PRACĄ STUDENTA

FORMA AKTYWNOŚCI	ŚREDNIA LICZBA GODZIN NA ZREALIZOWANIE AKTYWNOŚCI
Godziny kontaktowe z nauczycielem akademickim, w tym:	
Godziny wynikające z planu studiów	0
Konsultacje przedmiotowe	49
Egzaminy i zaliczenia w sesji	1
Godziny bez udziału nauczyciela akademickiego wynikające z nakładu pracy studenta, w tym:	
Przygotowanie się do zajęć, w tym studiowanie zalecanej literatury	100
Opracowanie wyników	70
Przygotowanie raportu, projektu, prezentacji, dyskusji	30
realisation of an experiment, project	150
SUMARYCZNA LICZBA GODZIN DLA PRZEDMIOTU WYNIKAJĄCA Z CAŁEGO NAKŁADU PRACY STUDENTA	400
SUMARYCZNA LICZBA PUNKTÓW ECTS DLA PRZEDMIOTU	20.00

9 SPOSOBY OCENY

The student's involvement in the thesis and the knowledge of the learning outcomes of the given course are assessed

OCENA FORMUJĄCA

F1 Competency test (not less than 40%)

F2 Evaluation of the preparation of literature review of thesis

F3 Evaluation of the planning and execution of the experimental or design part of the diploma thesis

OCENA PODSUMOWUJĄCA

P1 The rating given by the promoter on the basis of the evaluations

WARUNKI ZALICZENIA PRZEDMIOTU

W1 Positive test of competence (minimum 40%)

W2 Positive rating by the promoter

W3 Graduation of the diploma seminar

W4 Submission of the finished diploma thesis in the dean's office

KRYTERIA OCENY

EFEKT KSZTAŁCENIA 1	
NA OCENĘ 3.0	A student is able to find appropriate bibliography sources, but is unable to interpret them independently in a correct way.
NA OCENĘ 3.5	A student is able to find appropriate bibliography sources and prepare a draft of thesis on the basis of these sources.
NA OCENĘ 4.0	A student is able to find appropriate bibliography sources and on the basis of the draft of thesis, begin the preparation of the theoretical part of the Masters thesis.
NA OCENĘ 4.5	A student independently searches for bibliography on the subject and is able to process it briefly in the theoretical part of the thesis, with some few mistakes.
NA OCENĘ 5.0	A student independently searches for bibliography on the subject and is able to process it briefly in the theoretical part of the diploma thesis, without any essential mistakes.
EFEKT KSZTAŁCENIA 2	
NA OCENĘ 3.0	A student is able to prepare the works or calculations schedule and carry out experiments planned in accordance with the subject of the thesis, yet this requires significant help from the thesis supervisor.
NA OCENĘ 3.5	A student is able to prepare the works or calculations schedule and carry out experiments planned in accordance with the subject of the thesis, yet this requires some slight help from the thesis supervisor.
NA OCENĘ 4.0	A student is able to prepare the works or calculations schedule and carry out experiments planned in accordance with the subject of the thesis independently, yet commits numerous mistakes in this process.
NA OCENĘ 4.5	A student is able to prepare the works or calculations schedule and carry out experiments planned in accordance with the subject of the thesis independently, yet commits slight mistakes in this process which, however, do not affect the obtained results.
NA OCENĘ 5.0	A student is able to prepare the works or calculations schedule and carry out experiments planned in accordance with the subject of the thesis independently, without committing any mistakes in the process.
EFEKT KSZTAŁCENIA 3	
NA OCENĘ 3.0	A student is able to analyse the obtained results, but is unable to process them independently in the experimental part of the Masters thesis. A student has also large problems in drawing correct conclusions.
NA OCENĘ 3.5	A student is able to analyse correctly the obtained results, and to work out independently the experimental part of the Masters thesis with few mistakes. A student has problems at the stage of summarising the research and drawing correct conclusions.
NA OCENĘ 4.0	A student is able to analyse correctly the obtained results, and to work out independently the experimental part of the Masters thesis with few mistakes. A student clearly summarises the research, but requires some slight assistance of the supervisor for drawing correct conclusions.

NA OCENĘ 4.5	A student is able to analyse correctly the obtained results, and to work out independently the experimental part of the Masters thesis. A student clearly summarises the research, but at the stage of drawing conclusions a student commits some few mistakes.
NA OCENĘ 5.0	A student is able to analyse correctly the obtained results, and to work out independently the experimental part of the Masters thesis with few mistakes. A student clearly summarises the research. At the stage of drawing conclusions a student does not commit any significant mistakes.
EFEKT KSZTAŁCENIA 4	
NA OCENĘ 3.0	At working out the thesis presentation, a student requires significant corrections from the supervisor; it is also necessary for the supervisor to impose on the student the elements included in the presentation.
NA OCENĘ 3.5	At working out the thesis presentation, a student requires corrections from the supervisor; and the preparation of the presentation is not completely independent.
NA OCENĘ 4.0	Working out the presentation of the results is independent, yet it requires some corrections from the supervisor.
NA OCENĘ 4.5	Working out the presentation of the results is independent, and it requires some slight corrections from the supervisor.
NA OCENĘ 5.0	A student is able to present concisely the results of their own research supporting the discussion with the presentation prepared independently.

10 MACIERZ REALIZACJI PRZEDMIOTU

EFEKT KSZTAŁCENIA	ODNIESIENIE DANEGO EFEKTU DO SZCZEGÓŁOWYCH EFEKTÓW ZDEFINIOWANYCH DLA PROGRAMU	CELE PRZEDMIOTU	TREŚCI PROGRAMOWE	NARZĘDZIA DYDAKTYCZNE	SPOSOBY OCENY
EK1	K_U01	Cel 1	PD1 PD2	N1 N2	F2 P1
EK2	K_W02 K_W05 K_W07 K_U10 K_U11 K_U15	Cel 1 Cel 2	PD2	N1 N2	F3 P1
EK3	K_W08 K_U03 K_U07 K_U09 K_U11 K_U14 K_U16	Cel 1 Cel 2	PD2 PD3	N1 N2	F3 P1

EFEKT KSZTAŁCENIA	ODNIESIENIE DANEGO EFEKTU DO SZCZEGÓŁOWYCH EFEKTÓW ZDEFINIOWANYCH DLA PROGRAMU	CELE PRZEDMIOTU	TREŚCI PROGRAMOWE	NARZĘDZIA DYDAKTYCZNE	SPOSOBY OCENY
EK4	K_U03 K_U04 K_K02	Cel 3	PD3	N2	F3 P1

11 WYKAZ LITERATURY

LITERATURA PODSTAWOWA

[1] Komentarz

LITERATURA DODATKOWA

[1] The bibliography compliant with the subject of the diploma thesis allowing for specifying of the state of the art concerning the subject and allowing for planning the experimental part of the dissertation and its correct processing.

12 INFORMACJE O NAUCZYCIELACH AKADEMICKICH

OSOBA ODPOWIEDZIALNA ZA KARTĘ

dr inż. Otmar Vogt (kontakt: ozvogt@pk.edu.pl)

OSOBY PROWADZĄCE PRZEDMIOT

1 prof. dr hab inż. Bolesław Tabiś (kontakt: btabis@pk.edu.pl)

13 ZATWIERDZENIE KARTY PRZEDMIOTU DO REALIZACJI

(miejscowość, data)

(odpowiedzialny za przedmiot)

(dziekan)

PRZYJMUJĘ DO REALIZACJI (data i podpisy osób prowadzących przedmiot)

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