

# POLITECHNIKA KRAKOWSKA IM. TADEUSZA KOŚCIUSZKI

## KARTA PRZEDMIOTU

obowiązuje studentów rozpoczynających studia w roku akademickim 2015/2016

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 15/16
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

**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
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PD2	Preparation of the works schedule and carrying out the planned experiments or theoretical research or project calculations in accordance with the plan.	120
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## PRACA DYPLOMOWA

LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
<b>PD2</b>	Preparation of the works schedule and carrying out the planned experiments or theoretical research or project calculations in accordance with the plan.	120
<b>PD2</b>	Preparation of the works schedule and carrying out the planned experiments or theoretical research or project calculations in accordance with the plan.	120
<b>PD3</b>	The analysis of the obtained results and processing them in the experimental or the project part. The preparation of the results presentation.	40
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## 7 NARZĘDZIA DYDAKTYCZNE

**N1** laboratory or project classes

**N2** consultations

## 8 OBCIĄŻENIE PRACĄ STUDENTA

FORMA AKTYWNOŚCI	ŚREDNIA LICZBA GODZIN NA ZREALIZOWANIE AKTYWNOŚCI
<b>Godziny kontaktowe z nauczycielem akademickim, w tym:</b>	
Godziny wynikające z planu studiów	0
Konsultacje przedmiotowe	50
Egzaminy i zaliczenia w sesji	0
<b>Godziny bez udziału nauczyciela akademickiego wynikające z nakładu pracy studenta, w tym:</b>	
Przygotowanie się do zajęć, w tym studiowanie zalecanej literatury	150
Opracowanie wyników	170
Przygotowanie raportu, projektu, prezentacji, dyskusji	30
<b>SUMARYCZNA LICZBA GODZIN DLA PRZEDMIOTU WYNIKAJĄCA Z CAŁEGO NAKŁADU PRACY STUDENTA</b>	<b>400</b>
SUMARYCZNA LICZBA PUNKTÓW ECTS DLA PRZEDMIOTU	20.00

## 9 SPOSOBY OCENY

### OCENA FORMUJĄCA

**F1** Sugerowana ocena promotora zawarta w opinii do pracy

**F2** Sugerowana ocena recenzenta zawarta w recenzji do pracy

### OCENA PODSUMOWUJĄCA

**P1** Ocena uzgodniona recenzenta i promotora

### WARUNKI ZALICZENIA PRZEDMIOTU

**W1** Formative assessment:

**W2** F1 The assessment proposed by the Masters thesis supervisor included in the thesis evaluation.

**W3** F2 The assessment suggested by the reviewer included in the review of the thesis.

**W4** Summative assessment:

**W5** P1 The assessment agreed by the supervisor and the reviewer.

### 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 SZCZEGÓLOWYCH EFEKTÓW ZDEFINIOWANYCH DLA PROGRAMU	CELE PRZEDMIOTU	TREŚCI PROGRAMOWE	NARZĘDZIA DYDAKTYCZNE	SPOSOBY OCENY
EK1		Cel 2		N1 N2	F1 F2 P1
EK2		Cel 1 Cel 2		N1 N2	F1 F2 P1
EK3		Cel 1 Cel 2		N1 N2	F1 F2 P1
EK4		Cel 3		N2	F1 F2 P1

## 11 WYKAZ LITERATURY

### 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)

## 13 ZATWIERDZENIE KARTY PRZEDMIOTU DO REALIZACJI

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(miejsowość, data)

(odpowiedzialny za przedmiot)

(dziekan)