

PROGRAMME and PLAN OF PhDSTUDIES AT FACULTY OF CHEMISTRY GDANSK UNIVERSITY OF TECHNOLOGY (GUT) – valid from the academic year 2016/2017

No.	Module code	Subject (generally)	Subject (detail)	Numer of hours and ECTS points								Numer of hours (total)	Numer of ETCS points (total)	Form of completion
				I year		II year		III year		IV year				
				hours	ECTS	hours	ECTS	hours	ECTS	hours	ECTS			
1	1a O	a)Basic classes	Obligatory lectures (from the list of lectures)	30 hours of lectures (two cycles each 15 hours) 3 ECTS for one cycle of lecture								30	6	pass or grade
	1b F	b)Detailed classes	Optional lectures	60 hours of lectures (four cycles each 15 hours) 3 ECTS for one cycle of lecture								60	15	pass or grade
			participation in classes dedicated to PhD students	instead of some lectures or extra optional (min. 10 hours classes – 1 ECTS)								30		confirmation
2	2 O/F	Facultative classes that develop teaching and transferable skills	from the list of subjects	30	4	15	3	15	2	15	2	75		12
3	3 O	presentation of scientific research	Departmental seminar (participation and presentation)	1	0	1	0	1	0	1	0	4	0	pass
														confirmation of presentation
4	4 O	PhD reporting session		10	1	10	1	10	1	10	1	40	4	Head of PhD School opinion
total											239	37		
5	5 O	Professional practice in the form of teaching classes (number of hours)		60	0	90	0	90	0	90	0			settlement of hours

O – obligatory classes; F – facultative classes

Module 1a) –obligatory lectures (15 hours each cycle of lecture)

NO.	SUBJECT	Numer of ETCSpoints
1	Lecture in the „bio” area	3
2	Lecture in the „chemistry” area	3
3	Lecture in the „technology” area	3

Module 1b) –optional lectures (15hourseachcycle of lecture)

NO.	SUBJECT	LEADER	Numer of ETCSpoints
1	Molecular and cellular biology		3
2	Chemistry of materials for electric energy storage and conversion	A. Lisowska-Oleksiak	3
3	Physics of materials	M. Gazda	3
4	The progress in technology of biodegradable polymers	H. Janik	3
5	Introduction to computational biology	K. Giaro	3
6	Introduction to numerical simulations	M. Rewieński	3
7	Introduction to bioorganic chemistry	D. Witt	3
8	Solid-state and surface chemistry		3
9	Hyphenated techniques. Capabilities, state of the art. And trends.	B. Zygmunt	3
10	Methods in molecular biophysics	M. Bagiński	3
11	Advances in protein science and enzymology	S. Milewski	3
12	Essays on human genetics	P. Sachadyn	3
13	Archaeological and forensic chemistry	M. Śliwka-Kaszyńska	3
14	Selected aspects of modern X-ray structural analysis	J. Chojnacki	3
15	Coordination chemistry with selected topics in bioorganic chemistry	A. Dołęga	3
16	Health effects of food components	A. Bartoszek	3
17	Recent trends in sample preparation	A. Kot-Wasik	3
18	Properties of novel materials	T. Klimczuk	3
19	Coating and linings	A. Miszczyk	3
20	Corrosion monitoring	J. Orlikowski	3

Notice: It is planned to give lectures by foreign professors and lectures organized by the other faculties within the PhD studies - topics and dates of lectures will be given at the Faculty of Chemistry PhD website in due time.

Module 2 – Facultative classes that develop teaching and transferable skills

(min. 5 hours each class)

Name of the area and activities	Numer of hours	Numer of ETCSpoints	Form of classes: lect/class/sem/
Area I. Classes that develop teaching skills.			
1. Podstawy metodyczne prowadzenia zajęć dydaktycznych (only in Polish)	15	2	lecture
2. Nowoczesne metody i techniki prowadzenia zajęć dydaktycznych (only in Polish)	10	1	lect/class
3. Techniki prowadzenia zajęć na odległość (np. platforma Moodle) (only in Polish)	15	2	classes
Area II. Classes in additional subjects connected with doctoral exam from main and additional discipline			
1. Wybrane zagadnienia filozofii (only in Polish)	15	2	lecture
2. Wybrane zagadnienia ekonomii (only in Polish)	15	2	lecture
3. Wybrane zagadnienia psychologii (only in Polish)	15	2	lecture
4. Wybrane zagadnienia socjologii (only in Polish)	15	2	lecture
5. Wybrane zagadnienia z historii techniki (only in Polish)	15	2	lecture
Other subjects can be made according to needs (min. number of PhD students 12-15 persons)	15	2	lecture
Area III. Classes that develop vocational skills.			
1. Patentowe bazy danych (only in Polish)	5	1	classes
2. Literaturowe bazy danych (only in Polish)	5	1	classes
3. Ochrona własności intelektualnej (only in Polish)	5	1	lecture
4. Podstawy komercjalizacja wyników badań naukowych (only in Polish)	5	1	seminar
5. Etyka w badaniach naukowych (only in Polish)	5	1	lecture
6. Dobre praktyki w prowadzeniu badań naukowych (only in Polish)	5	1	lecture
7. Pisanie wniosków projektowych (only in Polish)	5	1	lecture
8. Ergonomia i wzornictwo przemysłowe (only in Polish)	5	1	lecture
9. Techniki prezentacji wyników naukowych* (only in Polish)	5	1	seminar
10. Metodologia prowadzenia badań naukowych (metodologia nauk, logika) (only in Polish)	5	1	lecture
11. Przygotowanie zgłoszenia patentowego (wzoru użytkowego)(only in Polish)	5	1	seminar
12. Writing scientific publications (only for PhD students from Faculty of Chemistry)	5	1	seminar

* without writing scientific publications because of different specificity of academic disciplines.

This classes should be taught part on each faculties.

Uwaga: Classes from module 2 will be planned as common classes for all PhD students of GUT.

Information will be given before start of each semester.

PLAN OF PhD STUDIES AT FACULTY OF CHEMISTRY AT GUT (SCHEDULE)

	SEMESTER							
	1	2	3	4	5	6	7	8
Basic classes related to the topic of doctoral thesis and academic disciplines	→	→	→					
Detailed classes related to the topic of doctoral thesis and academic disciplines	→	→	→	→	→	→		
Facultative classes that develop teaching and transferable skills as well as social competences	→	→	→	→	→	→	→	→
Required element <ul style="list-style-type: none"> Block of classes prepared for teaching classes 	→	→						
Module of skills prepared for presentation of scientific research <ul style="list-style-type: none"> Doctor al seminar Specialistic seminar no. 1 		→	→	→	→	→	→	→
Complementary classes (without ECTS points) for PhD students - graduates other fields of study than Chemistry, Biotechnology and Chemical Technology (max. 90 hours). Notice: complementary classes should be planned before the end of second semester	→	→	→	→				
Professional practice in the form of teaching classes– without ECTS points	→	→	→	→	→	→	→	→

Notice: realization is indicated in the semester indicated or in the semester following it