Appendix No 3 to Resolution No 5 of the NCU Senate of 5 February 2019.

S t u d y p l a n

Faculty offering the field of study:	Faculty of Chemistry
Field of study:	chemistry
Level of study:	first cycle (BSc)
Level of the Polish Qualifications Framework:	Level 6
Degree profile:	general academic
Mode of study:	full-time programme
Number of semesters:	6
Number of ECTS credit necessary for completing a field of study on a given level:	180
Total number of teaching hours:	2130 + university-wide courses

Semester 1

Name of a course module	Course name	Course code in USOS	ECTS credits	Number of hours of direct contact with the teacher or tutor – compliant with a class type[1]			Form of crediting a course[2]
				L	P/S	Lab	
Basic	Mathematics	0600-S1-EN-MATa	6		45		C
	Informatics in chemistry (+USOS)	0600-S1-EN-IC	6	15		45	C, E
	Occupational Safety, Health and Ergonomics	9001-BHP-	1		8		C
General chemistry	General chemistry (basic level)*	0600-S1-EN-PC	16	45	60	90	C, C, E
	General chemistry (advanced level)*	0600-S1-EN-PC.R	17	45	60	105	C, C, E
		Total:	**29-30**	**60**	**105+8**	**135**	

* Each subsequent semester must be described in compliance with this Semester I template.
[1] A class type in individual courses must comply with NCU regulations for determining the scope of duties of the academic staff, types of courses to be taught under these duties and the rules for calculating teaching hours.
[2] Graded credit, examination

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Semester 2

Name of a course module	Course name	Course code in USOS	ECTS credits	Number of hours of direct contact with the teacher or tutor – compliant with a class type			Form of crediting a course
				L	P/S	Lab	
Basic	Mathematics	0600-S1-EN-MATb	6	30	45		C, E
	Fundamentals of analytical chemistry	0600-S1-EN-FAC	12	30	15	90	C, C, E
	Physics	0600-S1-EN-Ph	6	30	15	30	C, C, E
Elective	Bioethics/ nature philosophy**	0600-S1-O-B	4	30			E
	University-wide courses**	0000-OG-	2-3				C/E
		Total:	**30-31**	**120**	**75**	**120**	

During the first year of studies, student have to choose levels of study and university courses to gain at least 60 ECTS during the whole academic year.

Semester 3

Name of a course module	Course name	Course code in USOS	ECTS credits	Number of hours of direct contact with the teacher or tutor – compliant with a class type			Form of crediting a course
				L	P/S	Lab	
Basic	Physical chemistry	0600-S1-EN-PhC	10	30	15	45	C, C, E
	Fundamentals of quantum chemistry	0600-S1-EN-FQC	5	25	25	10	C, C, E
Major	Instrumental analysis	0600-S1-EN-IA	3	30	15		C, E
	Environmental chemistry and ecology	0600-S1-EN-ECE	7	15	15	45	C, C, E
	Applied and material chemistry	0600-S1-EN-AMC	2	30			E
Elective	English in chemistry	4100-	3		60		C
	Sport	4200-			30		
		Total:	**30**	**130**	**160**	**100**	

Semester 4

Name of a course module	Course name	Course code in USOS	ECTS credits	Number of hours of direct contact with the teacher or tutor – compliant with a class type			Form of crediting a course
				L	P/S	Lab	
Basic	Organic chemistry	0600-S1-EN-OCa	4	45	15		C, C
	Physical chemistry	0600-S1-EN-PhC	9	45	30	45	C, C, E
Major	Instrumental analysis	0600-S1-EN-IA	5			75	C, E
	Chemical technology and chemical engineering	0600-S1-EN-CTI	3	10		35	C, E
Elective	English in chemistry	4100-	3		60		C, E
	Sport	4200-			30		
	Course related to chemistry studies	0600-S1-EN-SP/W	2	30			C
Internship	Professional internship	0600-S1-EN-PI	4			120*	C
		Total:	**30**	**130**	**135**	**155**	

Semester 5

Name of a course module	Course name	Course code in USOS	ECTS credits	Number of hours of direct contact with the teacher or tutor – compliant with a class type			Form of crediting a course
				L	P/S	Lab	
Basic	Organic chemistry	0600-S1-EN-OCb	12	30	15	105	C, C, E
	Inorganic chemistry	0600-S1-EN-INORGC	2	30			C
Major	Fundamentals of chemistry of biological processes and bioanalitycs	0600-S1-EN-FCBPB	4	30		30	C, E
Elective	Blocks of items to choose	0600-S1-EN-SP-	6	25		50	C, E
	Blocks of items to choose	0600-S1-EN-SP-	6	25		50	C, E
Diploma work	Diploma project*	0600-S1-EN-DP				40*	C
		Total:	**30**	**140**	**15**	**235**	

Semester 6

Name of a course module	Course name	Course code in USOS	ECTS credits	Number of hours of direct contact with the teacher or tutor – compliant with a class type			Form of crediting a course
				L	P/S	Lab	
Basic	Inorganic chemistry	0600-S1-EN-INORGC	10	60		90	C, E
Elective	Blocks of items to choose from	0600-S1-EN-SP-	6	25		50	C, E
Diploma work	Diploma laboratory	0600-S1-EN-DL	6			75	C
	Diploma seminar	0600-S1-EN-DS	1		15		C
	Diploma project*	0600-S1-EN-DP	7			160*	E
		Total:	**30**	**85**	**15**	**215**	

Course related to chemistry studies (to be chosen from the available list)*:

Course code in USOS system	Module/course title	Class type	Hours	ECTS credits	Assessment method
0600-S1-EN-W-JM	Jewellery materials	Lecture	30	2	C
0600-S1-EN-W-OC	Organic compounds – isolation, structure determination and applications	Lecture	30	2	C
0600-S1-EN-W-SCE	Structural chemistry of elements	Lecture	30	2	C
0600-S1-EN-W-PT	Proecological Technologies	Lecture	30	2	C
0600-S1-EN-W-BTM	Basics of membrane techniques	Lecture	30	2	C
0600-S1-EN-W-CM	Carbon materials – preparation, properties and applications	Lecture Laboratory	15 15	2	C
0600-S1-EN-W-BB	Basics of Bioanalytics	Lecture	30	2	C

Courses related to the chosen specialty:

Course code in USOS system	Module/course title	Class type	Hours	ECTS credits	Assessment method
0600-S1-EN-Spec-BC	Biomedical Chemistry	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-BC	Biomedical Chemistry - chosen problems	Lecture Laboratory	75	6	E C
0600-S1-EN-Spec-CFA	Chemistry and Food Analysis	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W- CFA	Chemistry and Food Analysis - chosen problems	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-CNIM	From cosmochemistry to new reactants and inorganic materials	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-BMIC	Biological and medicinal applications of inorganic chemistry	Lecture Laboratory	75	6	E C
0600-S1-EN-Spec-EC	Environmental Chemistry	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-EC	Environmental Chemistry - chosen problems	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-ST	Separation Techniques in Trace Analysis	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-PP	Basics of polymers physicochemistry	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-PSP	The basics of polymer synthesis and processing	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-FP	Fundamentals of the photochemistry	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-CM	Cosmetic raw materials and fundamentals of cosmetics	Lecture Laboratory	75	6	E C
0600-S1-EN-Spec-NN	Nanomaterials and nanostructures	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-CN	Chemistry of Nanomaterials – intruduction	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-CSC	Computer simulations in chemistry	Lecture Laboratory	75	6	E C
0600-S1-EN-Spec-CS	Computer Science for Molecular Modeling	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-CS	Computer Science for Molecular Modeling - chosen problems	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-EE	Engineering of environment	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-SSA	Sensors and sensory analysis	Lecture Laboratory	75	6	E C
0600-S1-EN-SP/W-SMAC	Spectroscopic methods in analytical chemistry	Lecture Laboratory	75	6	E C

This study plan is effective from the winter semester of the academic year 2019/2020

This study plan was adopted by the Council of Faculty of Chemistry on 13 march 2019.

/-/ Prof. dr hab. Edward Szłyk

(podpis Dziekana)