

STUDIA II LEVEL, MAGISTERSKIE (4 sem)**DIRECTION: CHEMISTRY**Specialty: **Medicinal Chemistry** (prof. R. Gancarz)**Electives II:**

Selected reactions in organic chemistry 2 w (2 ECTS)

Principles of physiological chemistry 2w (2ECTS)

Self-organization in chemistry 2w (2ECTS)

Combinatorial chemistry 2w (2 ECTS)

Sem.	complementary engineering	I	II	III
Godz.	26h / 30 ECTS / 2E	25h / 30 ECTS / 3E	24h / 30 ECTS / 3E	23h / 30 ECTS
26	Electives I 2w(2 ECTS)	Electives II 2w (2 ECTS)	Principles of business 2w (3 ECTS)	Quality management systems 1w (1 ECTS)
25				
24	Chemical informatics 2l (2 ECTS)	Physical organic chemistry 1w (2 ECTS)		
23		Introductory statistics 1c (1 ECTS)	Retrieval scientific information 1l (1 ECTS)	Polymers in medicine 1w (2 ECTS)
22	Environment protection 2w (2 ECTS)	Crystallography 2w +1c (3 +2) ECTS	Rational drug design 2w (3 ECTS)	Multistep organic synthesis 2l (2 ECTS)
21	Introduction to materials science and engineering 2w (2 ECTS)	Spectroscopy 2w +2l (2 +2) ECTS	Molecular modeling 1w +2l (2 +2) ECTS	Inorganic drugs 2w (2 ECTS)
20				
19	Technical safety 1w (3 ECTS)			
18	Technical drawing 2l (2 ECTS)			Philosophy of science and technology 1w (2ECTS)
17			Instrumental drug analysis 1w +2l (2 +2) ECTS	Mathematical methods in the experiment design and analysis 1w (1 ECTS)
16	Recycling of materials 2w (2 ECTS)			Graduate laboratory II 14l (10 ECTS)
15		Analytical methods in drug design and technology 1w +4l (2 +4) ECTS	Medicinal natural products 1w +2l (2 +2) ECTS	
14	Biotechnology with introduction to industrial microbiology 2w + 1p (2 + 1 ECTS)			
13				
12	Fundamentals of chemical technology 2w +2p (2+2 ECTS)	Theoretical chemistry 2w +1c+ 2l (4 +1+ 2) ECTS	Synthetic organic drugs 2w +4l (3 +4) ECTS	
11				
10				
9				
8	Measurements in chemical equipment 1w + 2l (2 + 2 ECTS)	Foreign language II 3c (2 ECTS)	Graduate laboratory I 4l (4 ECTS)	
7				
6				
5				
4	Introduction to chemical engineering 2w + 1c (2 + 2 ECTS)	Foreign language I 1c (1 ECTS)		Graduate seminar 1s (10 ECTS)
3				
2				
1				
Sem.	complementary engineering	I	II	III

Allowable deficit of ECTS credits after each semester 15 credits

Electives I: CHC020054w Fundamentals of physical chemistry 2w 2ECTS,**BTC020013w Molecular biology 2w 2ECTS****TCC020024w Basic unit processes in chemical technology 2w 2ECTS**