

STUDIA II LEVEL, MAGISTERSKIE (3 sem)**DIRECTION: BIOTECHNOLOGY**Specialty: **Bioinformatics** (Prof. A. Sokalski)

Sem.	I	II	III
Godz.	24h / 30 ECTS / 2E	24h / 30 ECTS / 2E	24h / 30 ECTS / 1E
26			
25			
24	Bioprocess project 2p (3ECTS)	Introduction to multimedia in biotechnology 1l (1 ECTS)	Economics and organization of industrial biotechnology 2w (3 ECTS)
23		Principles of business 2w (3 ECTS)	
22	Theoretical chemistry E 2w +2l		Computational genomics E 1w+1l (1+1 ECTS)
21	(4 +2) ECTS	Rational drug design 2w (3 ECTS)	
20			Genetic engineering in analytics and diagnostics 3l (2 ECTS)
19		Molecular modeling E 1w +2l + 1s	
18	Molecular dynamics 2w +2c	(2 + 2 + 1) ECTS	
17	(4 + 2) ECTS		Philosophy of science and technology 1w (2 ECTS)
16			Mathematical methods in design and analysis of experiment 1w (1 ECTS)
15		Instrumental drug analysis 1w + 2l	Graduate laboratory II 14l (10 ECTS)
14	Networks and workstations with UNIX system 2l (2 ECTS)	(2 + 2) ECTS	
13			
12	Bioinformatics E 2w +2l	Methodology of experimental research 2w (3 ECTS)	
11	(4 + 2) ECTS		
10		Bionanotechnology E 2w + 1s	
9		(3 + 1) ECTS	
8	Applied informatics 4l (4 ECTS)		
7		Retrieval of scientific information 1l (1 ECTS)	
6		Advanced programming and numerical methods 2l (2 ECTS)	
5			
4	Foreign language II 3c (2 ECTS)	Graduate laboratory I 4l (4 ECTS)	
3			
2			
1	Foreign language I 1c (1 ECTS)		Graduate seminar and thesis preparation 1s (10 ECTS)
Sem.	I	II	III

Allowable deficit of ECTS credits after each semester **15** credits