

STUDIA II STOPNIA, MAGISTERSKIE (3 sem)**KIERUNEK: BIOTECHNOLOGIA**Specjalność: **Bioinformatics**

Sem.	I	II	III
Godz.	24h / 30 ECTS / 2E	24h / 30 ECTS / 2E	24h / 30 ECTS / 1E
26			
25			
24	Bioprocess project 2p (3ECTS)	Managerial course 2w (3 ECTS)	Economics and organization of industrial biotechnology 2w (3 ECTS)
23			
22	Theoretical chemistry 2w +2l (4 +2) ECTS	Rational drug design 2w (3 ECTS)	Computational genomics 1w+1l (1+1 ECTS)
21			
20		Molecular modeling 1w +2l + 1s (2 + 2 + 1 ECTS)	Molecular engineering in genomic analyses 3l (2 ECTS)
19			
18	Molecular dynamics 2w +2l (4 + 2) ECTS		Managerial course 1w (2 ECTS)
17			
16		Instrumental drug analysis 1w + 2l (2 + 2) ECTS	Mathematical methods in the experiment design and analysis 1w (1 ECTS)
15			Graduate laboratory II 14l (10 ECTS)
14	Networks and workstations with UNIX system 2l (2 ECTS)		
13		Methodology of experimental research 2w (3 ECTS)	
12	Bioinformatics 2w +2l (4 + 2 ECTS)	Bionanotechnology 2w + 1s (3 + 1 ECTS)	
11			
10			
9			
8	Applied informatics 4l (4 ECTS)	Retrieval of scientific and technical information II (1 ECTS)	
7		Advanced programming and numerical methods 3l (3 ECTS)	
6			
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 1s (10 ECTS)
Sem.	I	II	III

Dopuszczalny deficyt punktów ECTS po każdym semestrze: **15 ECTS**