

1.	Field of study	Biology
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	first-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time
7.	Academic year for which the revised course structure applies	2025/2026

Specialization: Biology

Programme modules										year 1						year 2						year 3					
No.	Module	Lang.	E/C	form of teaching			Total ECTS	semester 1			semester 2			semester 3			semester 4			semester 5			semester 6				
				Total	L	O		L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E		
1	Plan your education path	PL	C	5	5		0	5																			
2	Basics of mycology	–	C	15		15	1		15	1																	
3	Biometrics elements	–	C	15		15	1		15	1																	
4	Botany	–	E	70	10	60	6	10	60	6																	
5	Fundamentals of plant cytology and anatomy	–	E	45		45	4		45	4																	
6	General and inorganic chemistry	–	C	40	15	25	3	15	25	3																	
7	General histology	PL	C	45	8	37	4	8	37	4																	
8	Group of optional modules in the semester I <i>*[see description below]</i>	*	*	30		30	2		30	2																	
9	Mathematics in the natural sciences	–	C	45	15	30	3	15	30	3																	
10	Zoology I	–	E	70		70	6		70	6																	
11	Cell biology	PL	E	70		70	5					70	5														
12	Field courses in botany and zoology	–	C	75		75	4					75	4														
13	Group of optional modules in the semester II <i>*[see description below]</i>	*	*	30		30	2					30	2														
14	Information technology in natural science	–	C	30		30	3					30	3														
15	Organic chemistry	PL	C	40	10	30	3				10	30	3														
16	Zoology II	–	E	60	15	45	4				15	45	4														
17	Animal physiology and human health	–	E	70	20	50	4							20	50	4											
18	Biochemistry	–	E	70	25	45	5							25	45	5											
19	Ecology	–	E	60	15	45	4							15	45	4											
20	Group of optional modules in the semester III <i>*[see description below]</i>	*	*	30		30	3								30	3											
21	Human anatomy	–	E	30	10	20	2							10	20	2											
22	Hydrobiology	–	C	45		45	3								45	3											
23	Nature conservation	–	C	30	10	20	2							10	20	2											
24	Plant physiology	–	E	70	16	54	4							16	54	4											
25	Biology of animal and human development	–	C	45	15	30	3										15	30	3								
26	Ecology and nature conservation field courses	–	C	75		75	3											75	3								
27	General microbiology	–	E	60	10	50	4										10	50	4								
28	Genetics	–	E	60	20	40	4										20	40	4								
29	Bachelor's block - modules in semester 5 <i>*[see description below]</i>	*	*	80		80	8													80	8						
30	Biophysics for biologists	–	C	45	10	35	3													10	35	3					
31	BSc laboratory I	–	C	30		30	2														30	2					

Programme modules											year 1						year 2						year 3								
											form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E			
32	BSc seminar I	–	C	15		15	1																			15	1				
33	Fundamentals of molecular biology	–	E	70	14	56	4																			14	56	4			
34	Group of optional modules *[see description below]	*	*	120		120	12																				60	6		60	6
35	Bachelor's block - modules in semester 6 *[see description below]	*	*	80		80	8																						80	8	
36	Basics of plant development biology	–	E	45		45	4																						45	4	
37	BSc laboratory II	–	C	30		30	2																						30	2	
38	BSc seminar II	–	C	15		15	1																						15	1	
39	Vegetation diversity	–	E	30	10	20	3																					10	20	3	
TOTAL Programme modules:				1890	253	1637	140	53	327	30	25	280	21	96	309	27	45	195	14	24	276	24	10	250	24						
Programme co-related modules											year 1						year 2						year 3								
											form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E			
1	The area of “Civil Society and Entrepreneurship: Entrepreneurship”	–	C	30		30	3																								
2	Group of programme co-related modules *[see description below]	*	*	60		60	6																								
3	The area of “Civil Society and Entrepreneurship: Vade mecum on Law”	–	C	30		30	3																								
TOTAL Programme co-related modules:				120		120	12	0	0	0		60	6	0	0	0		60	6	0	0	0		60	6	0	0	0	0	0	0
Open access modules											year 1						year 2						year 3								
											form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E			
1	Physical education	–	C	60		60	0																								
2	English language course 1	EN	C	30		30	3																								
3	English language course 2	EN	C	30		30	3																								
4	English language course 3	EN	C	30		30	3																								
5	Open University Module	–	C	120		120	12																			30	3		60	6	
6	English language course 4	EN	C	30		30	3																				30	3			
TOTAL Open access modules:				300		300	24					60	3		60	3		60	6		60	6		60	6		60	6		60	6
Internship											year 1						year 2						year 3								
											form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E			
1	Internships	PL	C	120		120	4																								
TOTAL Internship:				120		120	4																								
TOTAL:				2430	253	2177	180	380	30	425	30	465	30	480	30	360	30	320	30												
TOTAL EXCLUDING INTERNSHIPS								2310																							
TOTAL								2430																							

The study ends with the awarding of a Bachelor's Degree in the field of Biology: Biology.

* Groups of modules

Bachelor's block - modules in semester 5

Description:					
Student wybiera jeden z sześciu tzw. bloków licencjackich, grup modułów do wyboru, realizowany w dwóch semestrach 5 i 6. Na każdy semestr przypada trzy moduły kierunkowe z łączną liczbą punktów ECTS 8. O uruchomieniu bloku licencjackiego decyduje Dyrektor Kierunku na podstawie liczby zadeklarowanych studentów. Aby uruchomić dany blok licencjacki grupa studencka musi liczyć minimum 8 osób. O przyjęciu będą decydować oceny z zaliczonych modułów wiodących określonych dla każdego bloku. Ostateczną decyzję o liczbie grup w bloku podejmuje Dyrektor Kierunku, biorąc pod uwagę obsadę studentów w innych blokach. Do przedmiotów wiodących dla bloków zalicza się następujący skład przedmiotów, który został zamieszczony w wymaganiach wstępnych modułu. Warianty modułu w semestrze 5: 1BL_BB_1_5 - Blok licencjacki nr 1: Biotechnologia roślin i mikroorganizmów 1BL_23_36 – Cytogenetyka 1BL_23_49 – Rośliny w biotechnologii 1BL_23_43 – Mikroorganizmy w biotechnologii 1BL_BB_2_5 - Blok licencjacki nr 2: Ekologia, monitoring i rekultywacja, 1BL_23_38– Ekologia siedlisk zdegradowanych 1BL_23_41 – Inwazje biologiczne 1BL_23_48 – Rekultywacja terenów zdegradowanych 1BL_BB_3_5 - Blok licencjacki nr 3: Biologia roślin i ochrona bioróżnorodności 1BL_23_50 – Synantropizacja szaty roślinnej i fauny 1BL_23_35 – Biologia roślin w zróżnicowanych siedliskach 1BL_23_37 – Dendrologia 1BL_BB_4_5 - Blok licencjacki nr 4: Biologia zwierząt i człowieka 1BL_23_44 – Morfologia i anatomia owadów 1BL_23_40 – Ewolucyjne zróżnicowanie wybranych narządów kręgowców 1BL_23_46 – Podstawy neurobiologii 1BL_BB_5_5 - Blok licencjacki nr 5: Nanobiologia 1BL_23_54 – Wprowadzenia do nanobiologii 1BL_23_74 – Śmierć komórkowa u roślin i zwierząt 1BL_23_45 – Nanobiotechnologia- zastosowanie nanocząstek w biologii i medycynie 1BL_BB_6_5 - Blok licencjacki nr 6: Struktura i funkcja komórek i tkanek roślinnych i zwierzęcych 1BL_23_52 – Techniki mikroskopowe w badaniu roślin 1BL_23_42– Metody obrazowania komórek i tkanek roślinnych 1BL_23_47 – Regulacja różnicowania i funkcji komórek oraz tkanek roślinnych					
Modules:	Lang.	E/C	L	O	ECTS
Biological invasions	–	C	10	35	3
Cell death in plants and animals	–	C		30	3
Cytogenetics	–	C	7	43	3
Degraded habitats ecology	–	C		45	3
Dendrology	–	C	10	35	3
Evolutionary diversity of selected vertebrate organs	–	C	8	37	3
Fundamentals of neurobiology	–	C	20	25	3
Introduction to nanobiology	–	C	10	35	3
Methods of imaging plant cells and tissues	–	C		30	3
Microorganisms in biotechnology	–	C	5	25	3
Morphology and anatomy of insects	–	C	6	24	3
Nanobiotechnology - application of nanoparticles in biology and medicine	–	C	10	35	3
Plant biology in different habitats	–	C	8	37	3
Plants in biotechnology	–	C	10	35	3

Regulation of the differentiation and function of plant cells and tissues	–	C	15	30	3
Remediation of degraded lands	–	C	8	22	3
Synanthropisation of plant and fauna cover	–	C	10	20	3
Techniques of plant tissues analysis	–	E	5	40	3

Bachelor's block - modules in semester 6

Description:

Student wybiera jeden z sześciu tzw. bloków licencjackich, grup modułów do wyboru, realizowany w dwóch semestrach 5 i 6. Na każdy semestr przypada trzy moduły kierunkowe z łączną liczbą punktów ECTS 8. O uruchomieniu bloku licencjackiego decyduje Dyrektor Kierunku na podstawie liczby zadeklarowanych studentów. Aby uruchomić dany blok licencjacki grupa studencka musi liczyć minimum 8 osób. Ostateczną decyzję o liczbie grup w bloku podejmuje Dyrektor Kierunku, biorąc pod uwagę obsadę studentów w innych blokach.

Warianty modułu w semestrze 6:

1BL_BB_1_6 - Blok licencjacki nr 1: Biotechnologia roślin i mikroorganizmów
1BL_23_65 – Inżynieria genetyczna dla biologów
1BL_23_59 – Biokatalizatory
1BL_23_66 – Od eksperymentu do modelu – wybrane przykłady ze świata roślin

1BL_BB_2_6 - Blok licencjacki nr 2: Ekologia, monitoring i rekultywacja,
1BL_23_71 – Przyroda Górnego Śląska
1BL_23_60 – Biomonitoring
1BL_23_61 – Ekologia gleby

1BL_BB_3_6 - Blok licencjacki nr 3: Biologia roślin i ochrona bioróżnorodności
1BL_23_72 – Botanika użytkowa
1BL_23_76 – Zrównoważony rozwój
1BL_23_70 – Praktyczne aspekty ochrony przyrody

1BL_BB_4_6 - Blok licencjacki nr 4: Biologia zwierząt i człowieka
1BL_23_75 – Techniki mikroskopowe w badaniu zwierząt
1BL_23_64 – Wykorzystanie zwierząt w badaniach naukowych
1BL_23_67 – Podstawy immunologii

1BL_BB_5_6 - Blok licencjacki nr 5: Nanobiologia
1BL_23_73 – Skalowanie w biologii
1BL_23_76 – Techniki wizualizacji nanocząstek
1BL_23_69 – Podstawy nanotoksykologii

1BL_BB_6_6 - Blok licencjacki nr 6: Struktura i funkcja komórek i tkanek roślinnych i zwierzęcych
1BL_23_75 – Techniki mikroskopowe w badaniu zwierząt
1BL_23_63 – Endokrynologia ogólna
1BL_23_67 – Podstawy immunologii

Modules:

	Lang.	E/C	L	O	ECTS
Basics of immunology	–	C	15	15	3
Basics of nanotoxicology	–	C		45	3
Bbiocatalysts	–	C	10	20	3
Biomonitoring	–	C		30	3
Economy botanic	–	C	10	20	3
From experiment to model - selected examples from the plant world	–	C		30	3
General endocrinology	–	C	15	30	3
Genetic engineering for biologists	–	C	10	35	3
Microscopic techniques in animal research	–	C		45	3
Nature of the Upper Silesia	–	C	10	35	3
Practical aspects of nature protection	–	C	15	30	3
Scaling in biology	–	C		30	3

Soil ecology	–	C		30	3
Sustainable development	–	C	10	35	3
Techniques for visualizing nanoparticles	–	C		45	3
Use of animals in scientific research	–	C	5	40	3

Group of optional modules

Description:

A student selects two of the modules offered within a group of modules

Modules:	Lang.	E/C	L	O	ECTS
Basics of immunology	–	C	15	15	3
Basics of nanotoxicology	–	C		45	3
Bbiocatalysts	–	C	10	20	3
Biogeochemistry	–	C	30	15	3
Biological invasions	–	C	10	35	3
Cell death in plants and animals	–	C		30	3
Cytogenetics	–	C	7	43	3
Degraded habitats ecology	–	C		45	3
Dendrology	–	C	10	35	3
Ecological bioenergetics	–	E	15	15	3
Economy botanic	–	C	10	20	3
Ecosystems under anthropogenic pressure	–	C		45	3
Evolutionary diversity of selected vertebrate organs	–	C	8	37	3
From experiment to model - selected examples from the plant world	–	C		30	3
Fundamentals of neurobiology	–	C	20	25	3
General endocrinology	–	C	15	30	3
Genetic engineering for biologists	–	C	10	35	3
Introduction to mutagenesis	–	C	10	35	3
Introduction to nanobiology	–	C	10	35	3
Microorganisms in biotechnology	–	C	5	25	3
Microscopic techniques in animal research	–	C		45	3
Morphology and anatomy of insects	–	C	6	24	3
Nanobiotechnology - application of nanoparticles in biology and medicine	–	C	10	35	3
Plant biology in different habitats	–	C	8	37	3
Plants in biotechnology	–	C	10	35	3
Regulation of the differentiation and function of plant cells and tissues	–	C	15	30	3
Scaling in biology	–	C		30	3
Soil ecology	–	C		30	3
Sustainable development	–	C	10	35	3
Synanthropisation of plant and fauna cover	–	C	10	20	3
Techniques for visualizing nanoparticles	–	C		45	3
Techniques of plant tissues analysis	–	E	5	40	3
Toxicology	–	C	15	30	3
Use of animals in scientific research	–	C	5	40	3

Group of optional modules in the semester I

Description:						
A student selects one of the modules offered within a group of modules						
Modules:	Lang.	E/C	L	O	ECTS	
Chemical fundamentals of life processes	PL	C	10	20	2	
Introduction to microscopy	PL	C	10	20	2	
Theories of modern biology	PL	C		30	2	

Group of optional modules in the semester II

Description:						
Osoba studiująca wybiera jeden moduł zajęć spośród zaproponowanych w grupie modułów						
Modules:	Lang.	E/C	L	O	ECTS	
Introduction to environmental science	–	C	15	15	2	
Methods of field research	–	C	6	24	2	

Group of optional modules in the semester III

Description:						
A student selects one of the modules offered within a group of modules						
Modules:	Lang.	E/C	L	O	ECTS	
Biological weapons - toxins and venoms	–	C		15	3	
Breeding of exotic animals	–	C		30	3	
Fundamentals of in vitro cultures	–	C	10	20	3	
Geoinformation techniques in biology	–	C		30	3	
History of life on Earth	–	C	30		3	
Once upon a time there was life - the history of biological discoveries	–	C		15	3	

Group of programme co-related modules

Description:						
A student selects one of the modules offered within indicated areas						
Modules:	Lang.	E/C	L	O	ECTS	
Module in the "Civil Society and Entrepreneurship" area	–	C		30	3	
Module in the "Creative Expression and Critical Thinking" area	–	C		30	3	
Module in the "Digital World" area	–	C		30	3	
Module in the "Health and Personal Development" area	–	C		30	3	
Module in the "Natural Environment and Technologies" area	–	C		30	3	
Module in the "The Limits of Science" area	–	C		30	3	

Legend

Each semester consists of 15 weeks

E/C - exam/course work

E - ECTS

L - lecture, O - all forms of teaching excluding lecture (practical classes, laboratory classes, discussion classes, seminar, proseminar, language classes, field practice, workshop, internship, tutoring)

1.	Field of study	Biology
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	first-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time
7.	Academic year for which the revised course structure applies	2025/2026

Specialization: Biology, Chemistry and Nature Teacher Training Programme

Programme modules										year 1						year 2						year 3					
No.	Module	Lang.	E/C	form of teaching			Total ECTS	semester 1			semester 2			semester 3			semester 4			semester 5			semester 6				
				Total	L	O		L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E		
1	Plan your education path	PL	C	5	5		0	5																			
2	Basics of mycology	–	C	15		15	1		15	1																	
3	Biometrics elements	–	C	15		15	1		15	1																	
4	Botany	PL	E	70	10	60	6	10	60	6																	
5	Fundamentals of plant cytology and anatomy	–	E	45		45	4		45	4																	
6	General and inorganic chemistry	PL	C	40	15	25	3	15	25	3																	
7	General histology	PL	C	45	8	37	4	8	37	4																	
8	Group of optional modules in the semester I <i>[see description below]</i>	*	*	30		30	2		30	2																	
9	Mathematics in the natural sciences	–	C	45	15	30	3	15	30	3																	
10	Zoology I	PL	E	70		70	6		70	6																	
11	Cell biology	PL	E	70		70	5					70	5														
12	Field courses in botany and zoology	PL	C	75		75	4					75	4														
13	Information technology in teaching biology and natural sciences	PL	C	30		30	2					30	2														
14	Organic chemistry	PL	C	40	10	30	3					10	30	3													
15	Zoology II	PL	E	60	15	45	4					15	45	4													
16	Animal physiology and human health	PL	E	70	20	50	4								20	50	4										
17	Biochemistry	PL	E	70	25	45	5								25	45	5										
18	Ecology	PL	E	60	15	45	4								15	45	4										
19	Human anatomy	PL	E	30	10	20	2								10	20	2										
20	Nature conservation	PL	C	30	10	20	2								10	20	2										
21	Plant physiology	–	E	70	16	54	4								16	54	4										
22	Biology of animal and human development	–	C	45	15	30	3											15	30	3							
23	Ecology and nature conservation field courses	PL	C	75		75	3												75	3							
24	General microbiology	–	E	60	10	50	4											10	50	4							
25	Genetics	–	E	60	20	40	4											20	40	4							
26	Biophysics	PL	C	45	10	35	3														10	35	3				
27	BSc laboratory I	–	C	30		30	2															30	2				
28	BSc seminar I	–	C	15		15	1															15	1				
29	Fundamentals of molecular biology	–	E	70	14	56	4														14	56	4				
30	Hydrobiology	–	C	45		45	3															45	3				
31	Basics of plant development biology	–	E	45		45	4																45	4			

Programme modules										year 1						year 2						year 3					
							form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E		
32	BSc laboratory II	–	C	30		30	2																				
33	BSc seminar II	–	C	15		15	1																				
34	Group of optional modules *[see description below]	*	*	60		60	6																				
35	Vegetation diversity	PL	E	30	10	20	3																10	20	3		
TOTAL Programme modules:				1610	253	1357	112	53	327	30	25	250	18	96	234	21	45	195	14	24	181	13	10	170	16		

Modules preparing for the teaching profession (organized at the programme level)										year 1						year 2						year 3					
							form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E		
1	General and inorganic chemistry II	PL	C	40	10	30	3				10	30	3														
2	Didactics of Biology I	PL	C	30	15	15	2										15	15	2								
3	Didactics of Chemistry	PL	C	30	15	15	2										15	15	2								
4	Didactics of Environmental Science I	PL	C	15		15	1										15	1									
5	Didactics of Biology II	PL	C	30		30	3														30	3					
6	Didactics of Environmental Science II	PL	C	30		30	2														30	2					
7	Organic chemistry II	PL	E	45	15	30	4													15	30	4					
8	General and inorganic chemistry III	PL	C	45		45	4																	45	4		
9	ICT in chemistry education	PL	C	20		20	2																	20	2		
TOTAL Modules preparing for the teaching profession (organized at the programme level):				285	55	230	23				10	30	3				30	45	5	15	90	9		65	6		

Programme co-related modules										year 1						year 2						year 3					
							form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E		
1	The area of "Civil Society and Entrepreneurship: Vade mecum on Law"	–	C	30		30	3													30	3						
2	The area of "Civil Society and Entrepreneurship: Entrepreneurship"	–	C	30		30	3														30	3					
TOTAL Programme co-related modules:				60		60	6													30	3		30	3			

Modules preparing for the teaching profession (organised at the university level)										year 1						year 2						year 3					
							form of teaching			semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E		
1	Kształcenie Nauczycielskie: Pedagogika 1	PL	C	45	15	30	3				15	30	3														
2	Kształcenie Nauczycielskie: Psychologia 1	PL	C	45	15	30	3				15	30	3														
3	Kształcenie Nauczycielskie: Podstawy Dydaktyki	–	C	30	15	15	2							15	15	2											
4	Kształcenie Nauczycielskie: Warsztaty pedagogiczne 1	PL	C	15		15	1									15	1										
5	Kształcenie Nauczycielskie: Warsztaty psychologiczne 1	PL	C	15		15	1									15	1										
6	Kształcenie Nauczycielskie: Emisja głosu	PL	C	30		30	2												30	2							
7	Kształcenie Nauczycielskie: Pierwsza pomoc przedmedyczna	PL	C	15		15	1											15	1								
TOTAL Modules preparing for the teaching profession (organised at the university level):				195	45	150	13				30	60	6	15	45	4			45	3							

Open access modules										year 1						year 2						year 3					
										semester 1			semester 2			semester 3			semester 4			semester 5			semester 6		
										form of teaching																	
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E		
1	Physical education	–	C	60		60	0					30			30												
2	English language course 1	EN	C	30		30	3					30	3														
3	English language course 2	EN	C	30		30	3								30	3											
4	English language course 3	EN	C	30		30	3											30	3								
5	English language course 4	EN	C	30		30	3														30	3					
6	Open University Module	–	C	30		30	3																30	3			
TOTAL Open access modules:				210		210	15					60	3		60	3		30	3		30	3		30	3		

Internship										year 1						year 2						year 3							
										semester 1			semester 2			semester 3			semester 4			semester 5			semester 6				
										form of teaching																			
No.	Module	Lang.	E/C	Total	L	O	Total ECTS	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E	L	O	E				
1	Kształcenie Nauczycielskie: Praktyka zawodowa psychologiczno-pedagogiczna	PL	C	30		30	2								30	2													
2	Mid-Year Teaching Internship in Biology	PL	C	30		30	2										30	2											
3	Mid-Year Teaching Internship in Chemistry	PL	C	30		30	2													30	2								
4	Teaching Internship in Biology at the Primary School Level	PL	C	30		30	3																30	3					
5	Teaching Internship in Chemistry at the Primary School Level	PL	C	15		15	2																15	2					
TOTAL Internship:				135		135	11								30	2		30	2		30	2		45	5				
TOTAL:				2495	353	2142	180	380	30	465	30	480	30	450	30	400	30	320	30										
TOTAL EXCLUDING INTERNSHIPS								2435																					
TOTAL								2495																					

The study ends with the awarding of a Bachelor's Degree in the field of Biology: Biology, Chemistry and Nature Teacher Training Programme.

* Groups of modules

Group of optional modules in the semester I

Description:						
A student selects one of the modules offered within a group of modules						
Modules:						
	Lang.	E/C	L	O	ECTS	
Chemical fundamentals of life processes	PL	C	10	20	2	
Introduction to microscopy	PL	C	10	20	2	
Theories of modern biology	PL	C		30	2	

Group of optional modules

Description:						
A student chooses two modules from among those proposed in the module group.						
Modules:	Lang.	E/C	L	O	ECTS	
Basics of immunology	–	C	15	15	3	
Basics of nanotoxicology	–	C		45	3	
Bbiocatalysts	–	C	10	20	3	
Biogeochemistry	–	C	30	15	3	

Biological invasions	-	C	10	35	3
Biomonitoring	-	C		30	3
Cell death in plants and animals	-	C		30	3
Cytogenetics	-	C	7	43	3
Degraded habitats ecology	-	C		45	3
Dendrology	-	C	10	35	3
Ecological bioenergetics	-	E	15	15	3
Economy botanic	-	C	10	20	3
Ecosystems under anthropogenic pressure	-	C		45	3
Evolutionary diversity of selected vertebrate organs	-	C	8	37	3
Forest ecosystem	-	C	15	15	3
From experiment to model - selected examples from the plant world	-	C		30	3
Fundamentals of neurobiology	-	C	20	25	3
General endocrinology	-	C	15	30	3
Genetic engineering for biologists	-	C	10	35	3
History of life on Earth	-	C	30		3
Introduction to mutagenesis	-	C	10	35	3
Introduction to nanobiology	-	C	10	35	3
Methods of imaging plant cells and tissues	-	C		30	3
Microorganisms in biotechnology	-	C	5	25	3
Microscopic techniques in animal research	-	C		45	3
Morphology and anatomy of insects	-	C	6	24	3
Nanobiotechnology - application of nanoparticles in biology and medicine	-	C	10	35	3
Nature of the Upper Silesia	-	C	10	35	3
Plant biology in different habitats	-	C	8	37	3
Plants in biotechnology	-	C	10	35	3
Practical aspects of nature protection	-	C	15	30	3
Regulation of the differentiation and function of plant cells and tissues	-	C	15	30	3
Remediation of degraded lands	-	C	8	22	3
Scaling in biology	-	C		30	3
Soil ecology	-	C		30	3
Sustainable development	-	C	10	35	3
Synanthropisation of plant and fauna cover	-	C	10	20	3
Techniques for visualizing nanoparticles	-	C		45	3
Techniques of plant tissues analysis	-	E	5	40	3
Toxicology	-	C	15	30	3
Use of animals in scientific research	-	C	5	40	3

Legend

Each semester consists of 15 weeks

E/C - exam/course work

E - ECTS

L - lecture, O - all forms of teaching excluding lecture (practical classes, laboratory classes, discussion classes, seminar, proseminar, language classes, field practice, workshop, internship, tutoring)