ELECTIVE COURSES

Year of study: II
Semester: third

Name of the subject/course	O/W/ OzW*	Form of course Number of class hours							Way to verify learning outcomes	ECTS credits	The discipline(s) to which the course relates	Organizational unit conducting the course
		W	E	S	C	L	Other	Total				
Elective courses for ECTS points	W									**9**		
Histological techniques	W	10				20		30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences
Introduction to cytogenetics	W	30						30	Zo	3	biological sciences	Faculty of Biological Sciences
Evolutionary innovations of land plants	W		20	10				30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences
Methodology of designing scientific research	W	10	20					30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences

Experimental ecology and ecotoxicology	W		22					22	Zo	2	biological sciences	Faculty of Biological Sciences
Dynamics and regulation of microbial growth	W	10						10	Zo	1	biological sciences	Faculty of Biological Sciences

Year of study: III
Semester: fifth

Name of the subject/course	O/W/ OzW*	Form of course Number of class hours							Way to verify learning outcomes	ECTS credits	The discipline(s) to which the course relates	Organizational unit conducting the course
		W	E	S	C	L	Other	Total				
Elective courses for ECTS points	W									**9**		
Genomic engineering	W					50		50	Zo	5	biological sciences	Faculty of Biological Sciences
Plants secondary metabolites and their practical application	W	10		10		20		40	Zo/Zo/ Zo	4	biological sciences	Faculty of Biological Sciences
Population genetics	W	15				15		30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences
Infectious parasitic diseases	W	10				20		30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences
Bioinformatic analysis of genes and proteins	W		20					20	Zo	2	biological sciences	Faculty of Biological Sciences

Journal club	W			15				15	Zo	2	biological sciences	Faculty of Biological Sciences
Research project	W					100		100	Zo	10	biological sciences	Faculty of Biological Sciences

Year of study: III
Semester: sixth

Name of the subject/course	O/W/ OzW*	Form of course Number of class hours							Way to verify learning outcomes	ECTS credits	The discipline(s) to which the course relates	Organizational unit conducting the course
		W	E	S	C	L	Other	Total				
Elective courses for ECTS points	W									**6**		
Developmental biology of model and non-model invertebrates	W	15	15					30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences
Applied data analysis in biology	W		20					20	Zo	3	biological sciences	Faculty of Biological Sciences
Molecular and biochemical principles of plant nutrition	W	10				20		30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences
Human genetics	W	15			15			30	Zo/Zo	3	biological sciences	Faculty of Biological Sciences
High-throughput data analysis	W				30			30	Zo	3	biological sciences	Faculty of Biological Sciences

Research project	W					100		100	Zo	10	biological sciences	Faculty of Biological Sciences
The research project is carried out within the IPS framework during the 5th or 6th semester. This option is available exclusively to students with a minimum grade point average of 4.5. In semesters 5 and 6, the student is required to complete language training, work on the diploma thesis, and design an individual study plan in such a way as to achieve a minimum of 30 ECTS credits in each semester. The research project may not constitute an integral part of the diploma thesis												

* Subject/Course:
mandatory – O
elective – W
mandatory with choice – OzW

General subjects - occupational health and safety, foreign language, physical education, Polish language - to be entered in the table with the study plan

EXPLANATIONS

Forms of conducting classes:
W - lecture
E - exercices
S - seminar
L - laboratory classes
C - conversion course

Ways of verification of learning outcomes:
E- exam
Z - pass
Zo – pass with grade