

STUDY PROGRAMME CURRICULUM

BIOINFORMATICS

2026/2027

Name of study programme	Bioinformatics
Programme characteristics	interdisciplinary
Type	master's
Cycle	master
University of Ljubljana members	• Biotechnical Faculty, Jamnikarjeva ulica 101, 1000 Ljubljana, Slovenija - coordinator • Faculty of Pharmacy, Aškerčeva 7, 1000 Ljubljana, Slovenija • Faculty of Chemistry and Chemical Technology, Večna pot 113, 1000 Ljubljana, Slovenija • Faculty of Computer and Information Science, Večna pot 113, 1000 Ljubljana, Slovenija • Faculty of Medicine, Vrazov trg 2, 1000 Ljubljana, Slovenija
Other organisations	• National Institute of Biology

Year 1, Obvezni predmeti

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0644498	Introduction to bioinformatics	Blaž Zupan , Uroš Petrovič	60		90			150	300	12	1st semester	no
2.	0644501	The use of genomic and next generation sequencing data	Cene Gostinčar, Jernej Jakše, Tomaž Accetto	30	30	15			75	150	6	1st semester	no
3.	0644503	Bioinformatics in medicine	Branimir Leskošek	15	30	30			75	150	6	1st semester	no
4.	0644504	The use of proteomic data	Marko Novinec	15	30	30			75	150	6	1st semester	no
5.	0644505	Molecular modeling	Stanislav Gobec	30	25	60			110	225	9	2nd semester	no

6.	0644506	The use of omic approaches in system biology	Kristina Gruden, Špela Baebler	45	30	30			120	225	9	2nd semester	no
7.	0644507	Project of the interdisciplinary team: data, methods and algorithms in bioinformatics	Iztok Prislan	40					110	150	6	2nd semester	no
8.	0644499	Elective course(s)									6	2nd semester	yes
		Total		235	145	255	0	0	715	1350	60		

Year 2, Obvezni predmeti

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0644509	Analysis and visualization of data and computer learning	Tomaž Curk	60		90			150	300	12	1st semester	no
2.	0644510	Computational approaches in evolution and ecology	Peter Trontelj, Tomaž Skrbinišek	35		40			75	150	6	1st semester	no
3.	0644511	Interdisciplinary Student Teams Projects: independent research project	Matej Butala	40					110	150	6	1st semester	no
4.	0644508	Master Thesis							750	750	30	2nd semester	no
5.	0644500	Elective course(s)									6	1st semester	yes
		Total		135	0	130	0	0	1085	1350	60		

Izbirni predmeti, 1. letnik in 2. letnik

				Contact hours									
	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective

1.	0644512	Design and analysis of experiments	Damijana Kastelec	16	4				130	150	6	1st semester, 2nd semester	yes
2.	0644513	Linearni modeli	Damijana Kastelec	28		14			108	150	6	1st semester, 2nd semester	yes
3.	0644514	Internet of Things	Andrej Kos	45		30			75	150	6	1st semester, 2nd semester	yes
4.	0644515	Statistical methods for high-dimensional data	Rok Blagus	16		7			127	150	6	1st semester, 2nd semester	yes
5.	0644516	Analysis of genetic relatedness using bioinformatics methods	Minja Zorc	30		15			30	75	3	1st semester, 2nd semester	yes
6.	0644517	In silico miRNA prediction approaches	Jernej Jakše	25	15				35	75	3	1st semester, 2nd semester	yes
7.	0644518	Biomedical Imaging Informatics	Tomaž Vrtovec, Žiga Špiclin	30		45			75	150	6	1st semester, 2nd semester	yes
Total				190	19	111	0	0	580	900	36		