

STUDY PROGRAMME CURRICULUM ENVIRONMENTAL PROTECTION

2024/2025

Name of study programme	Environmental Protection
Programme characteristics	interdisciplinary
Type	doctoral
Cycle	doctoral
University of Ljubljana members	<ul style="list-style-type: none"> • Biotechnical Faculty, Jamnikarjeva ulica 101, 1000 Ljubljana, Slovenija • School of Economics and Business, Kardeljeva ploščad 17, 1000 Ljubljana, Slovenija • Faculty of Social Sciences, Kardeljeva ploščad 5, 1000 Ljubljana, Slovenija • Faculty of Civil and Geodetic Engineering, Jamova 2, 1000 Ljubljana, Slovenija • Faculty of Chemistry and Chemical Technology, Večna pot 113, 1000 Ljubljana, Slovenija • Faculty of Mathematics and Physics, Jadranska ulica 19, 1000 Ljubljana, Slovenija • Faculty of Maritime Studies and Transport, Pot pomorščakov 4, 6320 Portorož, Slovenija • Faculty of Mechanical Engineering, Aškerčeva 6, 1000 Ljubljana, Slovenija • Faculty of Arts, Aškerčeva 2, 1000 Ljubljana, Slovenija • Faculty of Medicine, Vrazov trg 2, 1000 Ljubljana, Slovenija • Faculty of Natural Sciences and Engineering, Aškerčeva cesta 12, 1000 Ljubljana, Slovenija • Faculty of Law, Poljanski nasip 2, 1000 Ljubljana, Slovenija • Veterinary Faculty, Gerbičeva ulica 60, 1000 Ljubljana, Slovenija

Year 1

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0020660	Interdisciplinary Scientific Research Work	Katja Vintar Mally	45	15			190		250	10		no
2.	0020661	Core course 1						250		250	10		yes
3.	0020662	Core course 2						250		250	10		yes
4.	0020663	Elective course 1						250		250	10		yes
5.	0020665	Individual research work							500	500	20		no
Total				45	15	0	0	940	500	1500	60		

Year 2

				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.	0020666	Elective course 2						250		250	10		yes
2.	0020667	Doctoral						125		125	5		no
3.	0020668	Individual research work 2						1125		1125	45		no
Total				0	0	0	0	1500	0	1500	60		

Year 3

				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.	0138203	Individual research work 3						1500		1500	60		no
Total				0	0	0	0	1500	0	1500	60		

Year 4

				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.	0138275	Individual Research Work 4						1375		1375	55		no
2.	0138204	Doctoral seminar with presentation of the results of the research work and public defence						125		125	5		no
Total				0	0	0	0	1500	0	1500	60		

Temeljni predmeti

				Contact hours									
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	University Course Code	Course title	Lecturers	Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study	Individual student work	Total hours	ECTS	Semesters	Elective
1.	0020619	ECOLOGY WITH NATURE CONSERVATION	Gorazd Urbanič	30	30				190	250	10		yes
2.	0020620	Economic and Law of Environmental Management	ALEKSANDAR KEŠELJEVIĆ, Senko Pličanič	7	3				240	250	10		yes
3.	0020621	ENVIRONMENTAL CHEMISTRY AND TECHNOLOGY	Andreja Žgajnar Gotvajn	50	10				190	250	10		yes
4.	0020622	Crisis management	Vlado Dimovski	10	30			15	195	250	10		yes
5.	0020623	Disaster medicine	Radko Komadina	20	30			20	180	250	10		yes
6.	0020624	ENVIRONMENT, HEALTH, AND WELLBEING	Ivan Eržen	30	30	15			175	250	10		yes
7.	0020625	ENVIRONMENTAL AND SOCIOLOGICAL ASPECTS OF SUSTAINABLE DEVELOPMENT	Katja Vintar Mally, Marjan Hočevar	45	15				190	250	10		yes
8.	0020626	SEISMOLOGY AND EARTHQUAKE ENGINEERING	Andrej Gosar	10	40	30			170	250	10		yes
9.	0020627	Soils and Environmental Geology	Marjetka Suhadolc	40	20				190	250	10		yes
10.	0020628	Risk Management	Sabina Huč	60	30	30			130	250	10		yes
11.	0020629	Energy and Natural Resource Management	Sašo Medved	40	10	10			190	250	10		yes
12.	0020630	AIR, WATER AND CLIMATE	Matjaž Mikoš	40	20				190	250	10		yes
		Total		382	268	85	0	35	2230	3000	120		

Kandidat skupaj z mentorjem in somentorjem izbere dva temeljna predmeta v skupnem obsegu 20 KT. Glavni cilj temeljnih predmetov, ki so zasnovani interdisciplinarno, je pridobitev in osvojitve tistih znanj, ki jih kandidat potrebuje za izdelavo doktorske disertacije in jih še ni osvojil na 2. stopnji oz. dodiplomskem študiju.

Izbirni predmeti

	University Course Code	Course title	Lecturers	Contact hours					Individual student work	Total hours	ECTS	Semesters	Elective
				Lectures	Seminar	Tutorials	Clinical tutorials	Other forms of study					
1.	0020631	ENVIRONMENTAL ANALYTICAL CHEMISTRY	Helena Prosen	20	20	20			190	250	10		yes
2.	0020632	Biogeochemical cycles	Jadran Faganeli	60	60				130	250	10		yes
3.	0020633	BIOINDICATION AND CONSERVATION OF TERRESTRIAL ECOSYSTEMS	Klemen Eler	30	15			15	190	250	10		yes
4.	0020634	BIOMONITORING	Romana Marinšek Logar	30	30			30	160	250	10		yes
5.	0020635	PLANT ECOPHYSIOLOGY	Dominik Vodnik	30		10		20	190	250	10		yes
6.	0020636	EKOHYDROLOGY	Simon Rusjan	20	10	10			210	250	10		yes
7.	0020637	ECOLOGY OF SUBTERRANEAN HABITATS	Cene Fišer	20	40			30	160	250	10		yes
8.	0020638	Marine ecological processes	Lovrenc Lipej	60	60				130	250	10		yes
9.	0180747	ECOTOXICITY AND ENVIRONMENTAL RISK ASSESSMENT OF CHEMICALS	Anita Jemec Kokalj	15	40	10		60	125	250	10		yes
10.	0020640	The Ethics of Nature	Borut Ošlaj	30	30				190	250	10		yes
11.	0020641	Plant Protection Products and Their Alternatives	Stanislav Trdan	20		60			170	250	10		yes

12.	0020642	Physiology under special conditions	Uroš Kovačič	10	20			60	160	250	10		yes
13.	0020643	Environmental Geochemistry	Nina Zupančič	25	35				190	250	10		yes
14.	0020644	Environmental Geology	Nina Zupančič	25	35				190	250	10		yes
15.	0020645	Geology of living environment	Nina Zupančič	25	30				195	250	10		yes
16.	0020646	Fuels, Combustion and Environment	Andrej Senegačnik	30	30				190	250	10		yes
17.	0020647	WASTE MANAGEMENT	Andreja Žgajnar Gotvajn	25	30	5			190	250	10		yes
18.	0020648	FOREST AND ENVIRONMENT	Andrej Bončina	20	30	10			190	250	10		yes
19.	0020649	HYBRID MODELLING OF ENVIRONMENTAL SYSTEMS	Nataša Atanasova	30	30				190	250	10		yes
20.	0020650	Information Approaches in Science and Technology	Danica Dolničar	30	30				190	250	10		yes
21.	0020651	INDUSTRIAL ECOLOGY	Andreja Žgajnar Gotvajn	50	10				190	250	10		yes
22.	0020652	The Interdisciplinary Aspects of Rural Areas Protection	Majda Černič Istenič	15	15	15			205	250	10		yes
23.	0020653	Engineering Modelling of Ecological Processes in Surface Waters	Matjaž Četina	20	40				190	250	10		yes
24.	0020654	CHEMICAL PROCESSES IN THE ENVIRONMENT	Helena Prosen	20	40				190	250	10		yes
25.	0020655	METALS IN THE ENVIRONMENT	Marija Zupančič	40	20				190	250	10		yes
26.	0020664	Karst and Environment	Mihael Brenčič	30	30				190	250	10		yes
27.	0020657	International Environmental Law	Vasilka Sancin	30	30			30	160	250	10		yes

28.	0020658	Microbial ecology	David Stopar	10	50				190	250	10		yes
29.	0020659	Mineral materials in cultural heritage	Mirijam Vrabec	25	25	10			190	250	10		yes
30.	0020671	DESIGNING ENVIRONMENTALLY-FRIENDLY PRODUCTS AND TECHNOLOGIES	Borut Kosec	20	30	30			170	250	10		yes
31.	0020673	NATURAL HAZARDS IN MOUNTAINOUS ENVIRONMENT	Matjaž Mikoš	20	40				190	250	10		yes
32.	0020686	HAZARDOUS SUBSTANCES IN TEXTILES	Petra Eva Forte Tavčer	30	30				190	250	10		yes
33.	0020687	Renewable energy sources	Sašo Medved	30	30	60			130	250	10		yes
34.	0020688	Conservation Forestry	Jurij Diaci	20	35			5	190	250	10		yes
35.	0020689	Environment, Biosecurity and Animal Production	Štefan Pintarič	20	40				190	250	10		yes
36.	0020690	ENVIRONMENTAL EPIDEMIOLOGY	Ivan Eržen	30	30	15			175	250	10		yes
37.	0020691	ENVIRONMENTAL POLICIES BETWEEN MORAL JUSTIFICATION, ECONOMIC ANALYSIS AND POLITICAL FEASIBILITY	Simon Hajdini	30	30				190	250	10		yes
38.	0020692	Ground Water	Mihael Brenčič	30	30				190	250	10		yes
39.	0020693	Political Ecology	Andrej A. Lukšič	25	35				190	250	10		yes
40.	0020694	Fires and Their Environmental Impacts	Stojan Petelin	20	60	60			110	250	10		yes
41.	0020695	ASSESSING ENVIRONMENTAL IMPACTS AND LANDSCAPE VULNERABILITY	Matej Ogrin	30	15				205	250	10		yes

42.	0020696	Spatial planning and environment	Alma Zavodnik Lamovšek, Gregor Čok	30	60			20	140	250	10		yes
43.	0020697	RECYCLING OF METAL MATERIALS	Boštjan Markoli	30	30	20			170	250	10		yes
44.	0020698	Soil Remediation	Domen Leštan	25	35				190	250	10		yes
45.	0020699	Environmental Changes and Plants	Mateja Germ	20	20	10		10	190	250	10		yes
46.	0020700	Toxicokinetics of Medicinal Products for Use in Veterinary Medicine in an Animal's Organism and the Environment	Tomaž Snoj	40		20			190	250	10		yes
47.	0020701	SUSTAINABLE DEVELOPMENT ORIENTED TECHNOLOGIES OF UNDERGROUND SPACE USED	Željko Vukelić	30	45	20	10		145	250	10		yes
48.	0020702	Course title: PLACEMENT RISKY BUILDINGS IN SOCIAL ENVIRONMENT	Marjan Hočevar	30	30				190	250	10		yes
49.	0020703	Application of Remote Sensing	Krištof Oštir	25	35	10			180	250	10		yes
50.	0020704	SAFETY AND RELIABILITY IN PROCESS ENGINEERING	Ivo Kljenak	30	30				190	250	10		yes
51.	0020705	Landscape conservation	Mojca Golobič	20	40				190	250	10		yes
52.	0020706	Protection of Wooden Objects of Cultural Heritage	Davor Kržišnik	40	5	15			190	250	10		yes

53.	0020707	Land Evaluation and Management	Helena Grčman	30	20	10			190	250	10		yes
54.	0020708	Protection of Hydrosphere	Nataša Atanasova	30	10				210	250	10		yes
55.	0020709	Health ecology	Marjan Bilban	20	40				190	250	10		yes
56.	0020710	COMBUSTION AND HEAT TRANSFER IN METALLURGICAL REACTORS	Borut Kosec	25	30	35			160	250	10		yes
57.	0020711	Science in the social and in the environmental context	Olga Markič	30	30				190	250	10		yes
58.	0020712	INFECTIOUS ANIMAL DISEASES AND THE ENVIRONMENT	Peter Hostnik	50					200	250	10		yes
Total				1605	1700	455	10	280	10450	14500	580		

Doktorandi lahko izbirajo med 58 izbirnimi predmeti, ki so ovrednoteni z 10 KT. Izbirne predmete si izbirajo glede na raziskovalno področje doktorske disertacije. Izbrati morajo najmanj dva predmeta s po 10 KT, enega v prvem in enega v drugem letniku. Izbirni predmeti se izvajajo v raziskovalnih enotah v laboratorijih, oddelkih, katedrah in drugih raziskovalnih enotah članic Univerze v Ljubljani. Doktorandi si lahko v dogovoru z mentorjem in somentorjem izberejo 10 KT izbirnih vsebin iz drugih programov UL, primerljivih programov tujih univerz in iz predmetov, ki jih razpisuje Univerza v Ljubljani in omogočajo osvajanje posebnih znanj in spretnosti (»generic skills«).