

STUDY PROGRAMME CURRICULUM

WATER SCIENCE AND ENVIRONMENTAL ENGINEERING

2024/2025

Name of study programme	Water science and environmental engineering
Programme characteristics	
Type	master's
Cycle	master
University of Ljubljana members	Faculty of Civil and Geodetic Engineering, Jamova 2, 1000 Ljubljana, Slovenija

Year 1, obvezni

				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.	0035019	Hydraulic Modelling	Gašper Rak, Gorazd Novak, Matjaž Četina	45	15	0	60	0	120	240	8	1st semester	no
2.	0035020	Hydrological modelling	Mojca Šraj	30	0	0	60	0	90	180	6	1st semester	no
3.	0035021	Drinking Water Supply and Treatment	Nataša Atanasova	45	15	0	55	5	120	240	8	1st semester	no
4.	0035022	Project Management	Robert Klinec	30	0	0	30	0	60	120	4	1st semester	no
5.	0035029	Basics of Spatial Sociology	Matjaž Uršič	45	0	0	0	0	45	90	3	1st semester	no
6.	0035023	River Engineering	Matjaž Mikoš, Simon Rusjan	60	30	15	0	15	120	240	8	2nd semester	no
7.	0035024	Drainage and irrigation	Mojca Šraj	40	0	0	45	5	90	180	6	2nd semester	no

8.	0035025	Water Protection	Mario Krzyk, Nataša Atanasova	30	15	10	5	0	60	120	4	2nd semester	no
9.	0035026	Open Sea and Coastal Area	Dušan Žagar	30	0	20	0	10	60	120	4	2nd semester	no
10.	0035027	Environmental Geotechnics	Matej Maček	30	0	0	30	15	75	150	5	2nd semester	no
11.	0035028	Remote Sensing in Environmental Civil Engineering	Dejan Grigillo	30	0	0	30	0	60	120	4	2nd semester	no
Total				415	75	45	315	50	900	1800	60		

Year 2, obvezni

				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.	0038712	Elective course		45	0	45	0	0	90	180	6	1st semester	yes
2.	0639886	Modul - BII - VOI		165	30	60	85	20	360	720	24	1st semester	yes
3.	0035030	Masters thesis/work		0	0	0	0	450	450	900	30	2nd semester	no
Total				210	30	105	85	470	900	1800	60		

Izbirni 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.	0037810	Slope stabilisation	Matej Maček, Matjaž Mikoš	35	0	15	0	10	60	120	4	1st semester	yes
2.	0037811	Hydraulic machines and devices	Gašper Rak, Marko Hočevár	30	0	30	0	0	60	120	4	1st semester	yes
3.	0035034	Water policy	Andrej Kryžanowski	30	0	30	0	0	60	120	4	1st semester	yes

4.	0037812	Decision support systems in water management	Primož Banovec	45	15	0	15	0	75	150	5	1st semester	yes
5.	0035012	Landscape Management	Mojca Golobič	30	0	0	30	0	60	120	4	1st semester	yes
6.	0037813	Introduction to research work	Matjaž Mikoš	30	15	0	15	0	60	120	4	1st semester	yes
7.	0035013	Project in infrastructural systems	Maruška Šubic-Kovač	30	30	0	0	0	60	120	4	1st semester	yes
8.	0035014	Selected Topics from Mathematics III	Marjeta Kramar Fijavž	30	0	30	0	0	60	120	4	1st semester	yes
9.	0035015	Ecohydrology	Matjaž Mikoš , Simon Rusjan	30	10	15	0	5	60	120	4	1st semester	yes
10.	0035016	Geotechnics of Infrastructural Facilities	Janko Logar	45	0	45	0	0	90	180	6	1st semester	yes
11.	0035036	Practical Training	Andreja Istenič Starčič, Mario Krzyk	6	0	0	0	120	54	180	6	1st semester	yes
12.	0643355	R software in water management	Mojca Šraj, Nejc Bezak	15	45	0	30	0	90	180	6	1st semester	yes
Total				356	115	165	90	135	789	1650	55		

Hydraulic Engineering (module)

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.	0038710	Hydraulic structures	Andrej Kryžanowski	60	0	60	0	0	120	240	8	1st semester	no
2.	0037809	Water management systems	Mateja Škerjanec	10	15	30	0	5	60	120	4	1st semester	no

3.	0037815	Hydroelectric power	Andrej Kryžanowski	30	0	30	0	0	60	120	4	1st semester	no
4.	0037816	Urban drainage and wastewater treatment	Mario Krzyk, Nataša Atanasova	45	15		55	5	120	240	8	1st semester	no
Total				145	30	120	55	10	360	720	24		

Environmental Engineering (module)

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.	0037816	Urban drainage and wastewater treatment	Mario Krzyk, Nataša Atanasova	45	15		55	5	120	240	8	1st semester	no
2.	0037821	Water management systems	Mateja Škerjanec	10	15	30	0	5	60	120	4	1st semester	no
3.	0037817	Torrent, erosion, rockfall and avalanche control	Matjaž Mikoš	35	0	15	0	10	60	120	4	1st semester	no
4.	0037823	Mathematical modelling of environmental processes	Matjaž Četina	45	0	0	30	0	75	150	5	1st semester	no
5.	0038711	Meteorology	Gregor Skok	30	0	15	0	0	45	90	3	1st semester	no
Total				165	30	60	85	20	360	720	24		

Flood Risk Management (module)

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.	0035017	Spatial Planning for Flood Protection	Alma Zavodnik Lamovšek, Andrej	45	10	20	0	0	75	150	5	1st semester	no

			Kryžanowski, Simon Rusjan										
2.	0035018	Socio- Economical Assessment of Flood Protection	Aleksander Kešeljević, Drago Kos, Matjaž Mikoš	37	38	0	0	0	75	150	5	1st semester	no
3.	0037817	Torrent, erosion, rockfall and avalanche control	Matjaž Mikoš	35	0	15	0	10	60	120	4	1st semester	no
4.	0037818	Numerical methods in fluid dynamics	Matjaž Četina	45	15	0	30	0	90	180	6	1st semester	no
5.	0037819	Environmental technologies	Darja Istenič, Mario Krzyk, Nataša Atanasova	15	15	0	30	0	60	120	4	1st semester	no
		Total		177	78	35	60	10	360	720	24		