

Faculty Environmental Engineering and Spatial Management

STUDY CURRICULUM

Course: Environmental Engineering and Protection

Subject/module	Number of ECTS credits	Number of hours						asses-ment ³	Department/Institute
		Total (4+5+6+7+8)	teaching hours			contact hours	ESW ²		
			lectures	pract. classes	others ¹				
1	2	3	4	5	6	7	8	9	11
semester 1									
student's choice course 1	3	77	10	10	0	25	32	EX	Department of Ecology and Environmental protection
Soil science and classification	3	75	10	10	0	25	30	GA	Department of Soil Science and Land Reclamation
Environmental chemistry	3	90	15	15	0	25	35	EX	Department of Soil Science and Land Reclamation
student's choice course 2	2	50	15	0	0	20	15	GA	Department of Ecology and Environmental Protection/Department of Hydraulic and Sanitary Engineering
New trends in civil engineering	5	125	30	30	0	30	35	EX	Institute of Construction and Geoengineering
Statistical analysis of environmental processes	4	100	15	15	0	25	45	EX	Department of Meteorology
student's choice course 3	3	85	15	15	0	20	35	GA	Department of Ecology and Environmental protection
Introduction seminar	4	110	0	15	0	25	70	GA	Department of Meteorology
total semester 1	27	712	110	110	0	195	297		
semester 2									
Climate change and its consequences	3	78	14	14	0	25	25	EX	Department of Meteorology
student's choice course 4	4	105	15	30	0	25	35	GA	Institute of Land Improvement, Environmental Development and Geodesy
Wetland conservation	3	78	14	14	0	25	25	GA	Department of Ecology and Environmental Protection
student's choice course 5	3	75	10	10	0	25	30	GA	Department of Ecology and Environmental Protection
student's choice course 6	3	85	15	30	0	20	20	EX	Department of Ecology and Environmental Protection

student's choice course 7	3	313	15	15	0	25	258	EX	Department of Hydraulic and Sanitary Engineering
Field trip (5 days)	6	150	0	0	40	35	75	GA	Department of Meteorology
Graduate sieminar	4	109	0	14		25	70	GA	Institute of Construction and Geoengineering
total semester 2	29	993	83	127	40	205	538		Department of Hydraulic and Sanitary Engineering
semester 3									
On-site wastewater treatment systems	4	107	14	28	0	30	35	EX	Department of Hydraulic and Sanitary Engineering
student's choice course 8	5	125	15	30	0	35	45	EX	Institute of Land Improvement, Environmental Development adn Geodesy
Biodiversity analyses	3	78	14	14	0	25	25	GA	Department of Ecology and Environmental Protection/Institute of Zoology/Department of Grasslands
student's choice course 9	3	78	14	14	0	25	25	GA	Department of Agricultural Chemistry and Environmental Biogeochemistry
Biological monitoring	3	75	15	15	0	25	20	GA	Department of Ecology and Environmental Protection
student's choice course 10	3	93	14	14	0	30	35	GA	Department of Hydraulic and Sanitary Engineering
student's choice course 11	3	75	15	15		20	25	EX	Department of Ecology and Environmental Protection
Graduate sieminar	4	109	0	14	0	25	70	GA	Department of Hydraulic and Sanitary Engineering
total semester 3	28	740	101	144	0	215	280		
semester 4									
Fundamentals of land improvement	3	80	15	15	0	25	25	EX	Institute of Land Improvement, Environmental Development adn Geodesy
student's choice course 12	3	75	15	15	0	20	25	GA	Department of General and Environmental Microbiology
Soil and groundwater remediation	3	75	10	15	0	25	25	GA	Department of Soil Science and Land Reclamation
Graduate sieminar	5	145	0	30	0	30	85	GA	Department of Ecology and Environmental Protection
Master thesis	22	600	0	0	0	200	400	assessed by Faculty office	
total semester 4	36	975	40	75	0	300	560		
MSc course total	120	3420	334	456	40	915	1675		

¹ any activities other than conversatory, laboratory or design classes (e.g. siite visits, case ctudy visits, excursions and others)

² EX - examination; GA - graded assignment

³ ESW - estimated number of student work hours

Student's choice courses

Course 1	Sustainable development and environmental management
	Environmental Impact Assessment
Course 2	Ecotoxycology
	Ecotoxicological assessment of environment
Course 3	Environmental protection of rural areas
	Mine waters in environment
Course 4	Application of GIS in Hydrology and Water Resource Management
	Remote Sensing in Hydrology and Water Resource Management
Course 5	Applied ecology and nature resources management
	Ecological aspect of nature protection
Course 6	Freshwater ecosystems and their restoration
	River restoration
Course 7	Engineering Hydrology
	Hydrological Processes
Course 8	Spatial planning
	Integrated Development Planning
Course 9	Wastes Recycling and Management
	Agrochemistry and xenobiotics
Course 10	Environmetal Fluid Mechanics
	Free Surface Flows
Course 11	Lake recultivation

	Technics of water bodies recovery
Course 12	Environmental biotechnology
	Microorganisms in plant and soil protection