

COURSE CATALOGUE 2016-2017

Field: **Environmental Engineering**

Programme: **Bachelor's Degree Programme in Environmental Engineering**

Length of studies: **4 years (8 semesters)**,

Total number of ECTS credits: **230 + 10 for the B.Sc. Thesis**

Language of teaching: **Romanian (English/French tutoring available for Erasmus students)**

Form of education: **Full-time**

Course Code	Course Title	Type of course/ tuition hours	Semester	ECTS
M101	Mathematical Analysis	Compulsory, 56 tuition hours	Autumn	5
M102	Linear Algebra and Analytical and Differential Geometry	Compulsory, 56 tuition hours	Autumn	5
M103	Physics	Compulsory, 42 tuition hours	Autumn	4
M104	Chemistry	Compulsory, 56 tuition hours	Autumn	5
M105	Descriptive Geometry	Compulsory, 56 tuition hours	Autumn	4
M106	The Analysis and Synthesis of the Technological Processes	Compulsory, 56 tuition hours	Autumn	5
M107	Foreign Languages 1	Compulsory, 28 tuition hours	Autumn	2
M108	Sport 1	Compulsory, 28 tuition hours	Autumn	1
M109	Special Mathematics	Compulsory, 56 tuition hours	Summer	4
M110	Technical Mechanics	Compulsory, 56 tuition hours	Summer	4
M111	Ecology	Compulsory, 56 tuition hours	Summer	4
M112	Environmental Chemistry	Compulsory, 56 tuition hours	Summer	4
M113	Atmospheric Physics	Compulsory, 28 tuition hours	Summer	3
M114	Technical and Cartographic Drawing	Compulsory, 42 tuition hours	Summer	3
M115	General Geology	Compulsory, 56 tuition hours	Summer	3
M116	Foreign Languages 2	Compulsory, 28 tuition hours	Summer	2
M117	Sport 2	Compulsory, 28 tuition hours	Summer	1
M118	Practice	Compulsory, 60 tuition hours	Summer	3
M201	Soil Science	Compulsory, 56 tuition hours	Autumn	5
M202	Computer Programming and Numerical Methods	Compulsory, 56 tuition hours	Autumn	4
M203	Analytical Chemistry and Instrumental Analysis	Compulsory, 56 tuition hours	Autumn	5
M204	Materials Strength	Compulsory, 56 tuition hours	Autumn	4
M205	Fluid Mechanics	Compulsory, 56 tuition hours	Autumn	5
M206	Foreign Languages 3	Compulsory, 28 tuition hours	Autumn	2

M207	Sport 3	Compulsory, 28 tuition hours	Autumn	1
M208	Structural and Economic Geology	Elective (1 out of 2): 56 tuition hours	Autumn	5
M209	Transfer phenomena and unit operations	Elective (1 out of 2): 56 tuition hours	Autumn	5
M210	Economics	Compulsory, 14 tuition hours	Summer	2
M211	Mineral Resources Management	Compulsory, 56 tuition hours	Summer	4
M212	Materials Science and Engineering	Compulsory, 56 tuition hours	Summer	4
M213	Hydraulics	Compulsory, 42 tuition hours	Summer	4
M214	Thermodynamics	Compulsory, 42 tuition hours	Summer	4
M215	Topography	Compulsory, 56 tuition hours	Summer	4
M216	Foreign Languages 4	Compulsory, 28 tuition hours	Summer	2
M217	Sport	Compulsory, 28 tuition hours	Summer	1
M218	Practical Activities 2 - 3 weeks	Compulsory, 90 tuition hours	Summer	3
M301	Info-graphics	Compulsory, 56 tuition hours	Autumn	4
M302	Waste Water Treatment and Recovery	Compulsory, 56 tuition hours	Autumn	4
M303	GIS applied to environmental engineering	Compulsory, 56 tuition hours	Autumn	4
M304	Meteorology and Climatology	Compulsory, 56 tuition hours	Autumn	4
M305	Electrotechnics	Compulsory, 42 tuition hours	Autumn	4
M306	Hydrology and Hydrogeology	Elective (1 out of 2): 42 tuition hours	Autumn	4
M307	Geo-Ecology	Elective (1 out of 2): 42 tuition hours	Autumn	4
M308	Technologies for Environmental Protection	Elective (1 out of 2): 70 tuition hours	Autumn	6
M309	Underground Water Engineering	Elective (1 out of 2): 70 tuition hours	Autumn	6
M310	Environmental Protection Law	Compulsory, 56 tuition hours	Summer	4
M311	Waste Water Treatment and Recovery I	Compulsory, 56 tuition hours	Summer	4
M312	Land Reclamation	Compulsory, 56 tuition hours	Summer	4
M313	Hydro-technical Designs of Constructions and Facilities	Compulsory, 56 tuition hours	Summer	4
M314	Electronics	Compulsory, 56 tuition hours	Summer	4
M315	Radiation sources and safety techniques	Compulsory, 56 tuition hours	Summer	5
M316	GIS Applied in Environmental Engineering	Compulsory, 28 tuition hours	Summer	2
M317	Practical Activities	Compulsory, 90 tuition hours	Summer	3
M401	Monitoring the Environment Components through Sensor Systems	Compulsory, 56 tuition hours	Autumn	4

M402	Remote Sensing and Photo Interpretation	Compulsory, 42 tuition hours	Autumn	4
M403	Advanced techniques for Waste Water Treatment and Recovery	Compulsory, 56 tuition hours	Autumn	4
M404	Environmental Risk Assessment	Compulsory, 42 tuition hours	Autumn	4
M405	Environmental Impact Assessment	Compulsory, 70 tuition hours	Autumn	6
M406	Food Safety	Elective (1 out of 2): 56 tuition hours	Autumn	4
M407	Wind engineering	Elective (1 out of 2): 56 tuition hours	Autumn	4
M408	Land Management	Elective (1 out of 2): 56 tuition hours	Autumn	4
M409	Urban and Spatial Planning	Elective (1 out of 2): 56 tuition hours	Autumn	4
M410	Environmental Management and Ecological Restoration	Compulsory, 48 tuition hours	Summer	4
M411	Electrochemistry and corrosion science	Compulsory, 48 tuition hours	Summer	4
M412	Waste Recovery and Conversion Technologies	Compulsory, 72 tuition hours	Summer	5
M413	Automation of technological and biotechnological processes	Compulsory, 48 tuition hours	Summer	4
M414	Unconventional sources of energy	Compulsory, 48 tuition hours	Summer	4
M415	Rehabilitation and protection Technologies for Buildings and Protected Areas	Elective (1 out of 2): 48 tuition hours	Summer	4
M416	Indoor Climate Systems for Industrial and Commercial Environments	Elective (1 out of 2): 48 tuition hours	Summer	4
M417	BSc. Thesis	Compulsory, 60 hours	Summer	5