

**ENVIRONMENTAL ENGINEERING REVISED CURRICULUM**

<b>SEMESTER-1</b>	<b>CREDIT</b>	<b>ECTS CREDIT</b>	<b>Prerequisite</b>
MATH-101 Precalculus	(2+0)2	2	
MATH-141 Basic Calculus I	(3+2)4	5	
PHYS-121 General Physics I	(3+2)4	7	
CHEM 121 General Chemistry I	(3+0)3	5	
CHEM 141 General Chemistry Lab I	(0+2)1	2	
ENG-101 Development of Reading and Writing Skills I	(3+0)3	3	
ENV-101 Introduction to Environmental Engineering	(2+0)2	6	
	<b>17</b>	<b>30</b>	

<b>SEMESTER-2</b>	<b>CREDIT</b>	<b>ECTS</b>	<b>Prerequisite</b>
MATH-142 Basic Calculus II	(3+2)4	6	
CHEM 122 General Chemistry II	(3+0)3	5	
CHEM 142 General Chemistry Lab II	(0+2)1	2	
ENG-102 Development of Reading and Writing Skills II	(3+0)3	3	
ENV-112 Technical Drawing	(2+2)3	6	
ENV-104 Computer Programming	(2+2)3	6	
GCC-101 Career Planning and Development	(2+0)NC	2	
	<b>17</b>	<b>30</b>	

<b>SEMESTER-3</b>	<b>CREDIT</b>	<b>ECTS</b>	<b>Prerequisite</b>
MATH-255 Differential Equations	(4+0)4	6	
CHEM-221 Organic Chemistry	(4+0)4	5	
ENV-201 Environmental Chemistry	(3+0)3	5	
ENV-203 Environmental Chemistry Lab	(0+2)1	2	
ENV-215 Environmental Microbiology	(2+2)3	3	
ENV-217 Fluid Mechanics	(3+0)3	5	
HIST-201 Atatürk İlkeleri – 1	(2+0)NC	2	
TURK-201 Türk Dili – 1	(2+0)NC	2	
	<b>21</b>	<b>30</b>	

SEMESTER-4	CREDIT	ECTS	Prerequisite
ENV-214 Occupational Health and Safety	(2+0)2	2	
ENV-216 Statistics	(2+2)3	4	
ENV-218 Hydraulics	(3+0)3	4	ENV-217 Fluid Mechanics
ENV-222 Hydrology	(3+0)3	4	
ENV-224 Principles of Environmental Engineering Processes	(3+0)3	5	
ENG-301 Technical Writing and Communication	(3+0)3	3	
HIST-202 Atatürk İlkeleri – 2	(2+0)NC	2	
TURK-202 Türk Dili – 2	(2+0)NC	2	
Compulsory Elective	(3+0)3	4	
	<b>20</b>	<b>30</b>	

SEMESTER-5	CREDIT	ECTS	Prerequisite
ENV-311 Unit Operations and Processes of Water Treatment	(3+2)4	5	
ENV-313 Thermodynamics	(3+0)3	4	
ENV-315 Water Supply	(3+0)3	4	ENV-218 Hydraulics
ENV-317 Atmospheric Chemistry and Air Pollution	(3+0)3	3	
ENV-319 Fundamentals of Biological Processes	(3+0)3	3	
ENV-321 Water Quality	(3+0)3	3	
ENV-300 Summer Practice-I	(0+0) NC	5	
Non-Technical Elective	(3+0)3	3	
	<b>22</b>	<b>30</b>	

SEMESTER-6	CREDIT	ECTS	Prerequisite
ENV-312 Unit Operations and Processes of Wastewater Treatment	(3+2)4	5	
ENV-314 Transport Processes	(3+0)3	5	
ENV-316 Sewerage	(3+0)3	4	ENV-218 Hydraulics
ENV-318 Sludge Treatment	(3+0)3	4	
ENV-320 Air Pollution Control	(3+0)3	5	
Compulsory Elective	(3+0)3	4	
Non-Technical Elective	(3+0)3	3	
	<b>22</b>	<b>30</b>	

SEMESTER-7	CREDIT	ECTS	Prerequisite
ENV-411 Environmental Engineering Design – 1	(2+4)4	8	
ENV-413 Solid Waste Engineering	(3+0)3	5	
ENV-415 Environmental Modelling	(3+0)3	5	ENV-314 Transport Proc.
MAN-211 Corporate Communication and Management Skills For Engineers	(3+0)NC	3	
Technical Elective	(3+0)3	4	
ENV-400 Summer Practice-II	(0+0) NC	5	
	<b>13</b>	<b>30</b>	

SEMESTER-8	CREDIT	ECTS	Prerequisite
ENV-412 Environmental Engineering Design – 2	(2+4)4	9	ENV-411 Environmental Engineering Design – 1
ENV-414 Environmental Engineering Study	(0+4)2	5	
Technical Elective	(3+0)3	4	
Technical Elective	(3+0)3	4	
Technical Elective	(3+0)3	4	
Technical Elective	(3+0)3	4	
	<b>18</b>	<b>30</b>	

<b>TOTAL</b>	<b>150</b>	<b>240</b>	
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### COMPULSORY ELECTIVES

	CREDIT	ECTS CREDIT
ENV-212 Environmental Economics	(3+0)3	5
ENV-220 Numerical Methods In Environmental Engineering	(3+0)3	5
ENV-350 Materials, Machines and Equipments in Environmental Engineering	(3+0)3	4

CE-203 Engineering Geology	(2+2)3	4
CE-204 Engineering Surveying	(2+2)3	4
CE-221 Engineering Mechanics - I: Statics	(2+2)3	6
CE-222 Engineering Mechanics - II: Dynamics	(3+0)3	5
CE-361 Soil Mechanics-1	(3+2)4	5

### TECHNICAL ELECTIVES

	CREDIT	ECTS CREDIT
ENV-405 Solids and Biosolids Treatment and Disposal	(3+0)3	4
ENV-406 Marine Pollution	(3+0)3	4
ENV-407 Industrial Air Pollution Control	(3+0)3	4
ENV-408 Persistent Organic Pollutants	(3+0)3	4
ENV-410 Environmental Impact of Energy Systems	(3+0)3	4
ENV-440 Industrial Wastewater Treatment	(3+0)3	4
ENV-442 Environmental Legislation	(3+0)3	4
ENV-444 Hazardous Waste Management	(3+0)3	4
ENV-445 Advanced Wastewater Treatment	(3+0)3	4
ENV-450 Geographic Information Systems for Environmental Engineers	(2+2)3	4
ENV-452 River Basin Management	(3+0)3	4
ENV-454 Anaerobic Treatment	(3+0)3	4
ENV-456 Water Reuse	(3+0)3	4
ENV-458 Energy Sustainability and the Environment	(3+0)3	4
ENV-451 Current Topics in Environmental Engineering	(3+0)3	4
ENV-453 Solid Waste Recycling Technologies	(3+0)3	4
ENV-455 Membrane Desalination Technology	(3+0)3	4
ENV-457 Treatment Plant Project Implementation	(3+0)3	4
ENV-459 Automated Process Control Strategies	(3+0)3	4
ENV-461 Prime Movers	(3+0)3	4
ENV-499 Cooperative Education Course	(3+0)3	4
ENV-491 Supplementary Curriculum Course	(3+0)3	4