



Water Engineering and Environment Department



Training offer 2024-2025

Head of Department:
Vice-Head of Department:
International Coordinator:

Geneviève Feuillade, genevieve.feuilleade@unilim.fr
Virginie Pallier, virginie.pallier@unilim.fr
Virginie Pallier, virginie.pallier@unilim.fr



Fall semester from September to January

Spring semester from January to June

C: courses-lectures / T: tutorials-exercises / L: laboratory-practical works

Year 3 – Semester 5 – EEE3005R

		C	T	L	
Humanities and Social Sciences	60h	ETC315UE	13.5h	46.5	5 ECTS
English		ETC3105E	1.5h	22.5h	40%
Foreign language 2		ETC3115E		12h	20%
Health and safety		ETC3125E	12h	3h	20%
Communication - expression		ETC3135E		9h	20%

Basic Sciences	87h	ETC325UE	36h	51h	8 ECTS
Numerical tools + MatLab		ETC3205E		15h	16%
Mathematics		ETC3215E	12h	12h	28%
Metrology and statistics		ETC3225E	12h	12h	28%
Computer science 1		ETC3235E	12h	12h	28%

Engineering Science	84h	ETC335UE	36h	48h	7 ECTS
Technical drawing and industrial design		ETC3325E	4.5h	16.5h	25%
Electrotechnical science 1		ETC3335E	7.5h	7.5h	17%
Strength of materials		ETC3305E	12h	12h	29%
Heat sciences		ETC3315E	12h	12h	29%

Environmental Sciences	174h	EEE395UE	84.5h	53.5h	36h	10 ECTS
Water chemistry		EEE3945E	13.5h	16.5h	24h	32%
Biochemistry		EEE3965E	24h	4h	12h	20%
Thermodynamics		EEE3925E	13.5h	13.5h		16%
Fluid mechanics		EEE3905E	12h	12h		14%
Chemical kinetics		EEE3915E	8.5h	7.5h		10%
Inorganic chemistry		EEE3935E	13h			8%

Year 3 – Semester 6 – EEE3006R

Humanities and Social Sciences	63.5h	ETC316UE	9.5h	54h	5 ECTS
English		ETC3106E	2h	22.5h	40%
Foreign language 2		ETC3116E		12h	20%
Financial accounting		ETC3126E	7.5h	4.5h	20%
Communication – Oral presentations		ETC3136E		15h	20%

Basic Sciences	51h	ETC326UE	12h	15h	24h	4 ECTS
Numerical analysis		ETC3206E	9h	15h		44%
Design of experiments		ETC3216E	3h		9h	22%
Experimental physics for engineers		ETC3226E			15h	34%



Engineering Science	70h	ETC336UE	16h	15h	39h	5 ECTS
Industrial automations		ETC3306E	6h	3h	15h	34%
Industrial IT		ETC3336E			21h	30%
Automatic 1		ETC3316E	7h	6h		19%
Sensors		ETC3326E	3h	6h	3h	17%

Environmental Sciences 1	119h	EEE306UE	57h	21h	41h	7 ECTS
Cell physiology		EEE3046E	14h	6h	24h	45%
Microbial regulation		EEE3006E	15h	3h		15%
Water resources		EEE3036E	10h	12h		13%
Ecology		EEE3016E	8h		6h	12%
Ecotoxicology		EEE3026E	10h		6h	12%
Visits of companies		EEE3056E			5h	3%

Environmental Sciences 2	111h	EEE316UE	49h	39h	23h	7 ECTS
Electrochemical kinetics		EEE3116E	8.5h	7.5h	8h	24%
Electrical engineering		EEE3136E	10.5h	10.5h	9h	22%
Organic chemistry		EEE3106E	8h	12h		20%
Chemical analysis		EEE3A26E	10h	6h		16%
Instrumental analysis		EEE3B26E	8h			10%
Automatic 2		EEE3146E	4h	3h	6h	8%

Industrial Internship S6	1-2 months	EEE326US	Practical Work			2 ECTS
---------------------------------	-------------------	-----------------	-----------------------	--	--	---------------

Year 4 – Semester 7 – EEE4007R

Humanities and Social Sciences	95h	ETC407UE	30h	65h		6 ECTS
English		ETC4017E	2h	21h		25%
Foreign language 2		ETC4027E		12h		12%
Communication for professional insertion		ETC4037E		12h		12%
Project management tools		ETC4047E	9h	6h		15%
Quality tools		ETC4097E	4h	4.5h		10%
Reliability of data		ETC4057E	5.5h	4.5h		10%
Business economics		ETC4067E	5.5h	3h		10%
Industrial ecology		ETC4077E	4h	2h		6%

Environmental Sciences 1	68h	EEE417UE	38h	20h	10h	7 ECTS
Water treatment		EEE4107E	20h	8h	10h	55%
Remineralization/Softening		EEE4137E	8h	8h		24%
Oxydation		EEE4117E	8h	4h		16%
Water treatment project		EEE4127E	2h			5%

Environmental Sciences 2	68h	EEE427UE	18h	6h	44h	7 ECTS
Biological analysis		EEE4207E	18h	6h	10h	50%
Chemical and instrumental analysis		EEE4217E			34h	50%

Environmental Sciences 3	96h	EEE407UE	58.5h	25h	12.5h	6 ECTS
Pump		EEE4017E	24h	6h		30%
Hydraulics and networks		EEE4027E	24h	10h		30%
Flowmeter		EEE4037E	8h	6h	5h	25%
Industrial automation		EEE4007E	2.5h	3h	7.5h	15%



Technical Project – Part 1	20h	EEE437UE	Practical Work	4 ECTS
-----------------------------------	------------	-----------------	-----------------------	---------------

Year 4 – Semester 8 – EEE4008R

Humanities and Social Sciences	102.5h	ETC408UE	33.5h	69h		6 ECTS
English		ETC4018E	1.5h	21h		23%
Foreign language 2		ETC4028E		12h		12%
Company law		ETC4078E	12h			12%
Databases		ETC4048E	4.5h	13.5h		17%
Management accounting		ETC4058E	7.5h	4.5h		12%
Financial mathematics		ETC4068E	6h	6h		12%
Communication – Oral presentations		ETC4038E	2h	12h		12%

Environmental Sciences 1	101h	EEE418UE	49h	26h	26h	5 ECTS
Industrial visits		EEE4148E			26h	27%
Hydrogeology and soil science		EEE4108E	15h	10h		25%
Waste management		EEE4128E	10h	7.5h		17%
Biological treatment of waste		EEE4138E	14h	4h		17%
Thermal treatment of waste		EEE4118E	10h	4.5h		14%

Environmental Sciences 2	81h	EEE408UE	38h	10h	33h	5 ECTS
Process engineering		EEE4008E	20h	10h	10h	55%
Field practicals		EEE4048E			20h	23%
Biochemical engineering		EEE4028E	8h			9%
Membrane processes		EEE4018E	4h		3h	7%
Corrosion		EEE4038E	6h			6%

Technical Project – Part 2	20h	EEE428UE	Practical Work	4 ECTS
-----------------------------------	------------	-----------------	-----------------------	---------------

Industrial Internship S8	3-4 months	EEE408US	Practical Work	10 ECTS
---------------------------------	-------------------	-----------------	-----------------------	----------------

Year 5 – Semester 9 – EEE5009R

Humanities and Social Sciences	97h	ETC509UE	60.5h	36.5h		7 ECTS
English		ETC5019E		24h		25%
Team management		ETC5039E	4.5h			5%
Management of innovation - Ethics		ETC5049E	21h			22%
Commercial law		ETC5059E	12h			12%
QSE		ETC5069E	8.5h	4.5h		13%
Project management		ETC5079E	1h	3h		4%
Professionalization		ETC5099E	1.5h	5h		7%
Marketing		ETC5089E	12h			12%

Environmental Sciences 1	98h	EEE509UE	95h	3h		5 ECTS
Environmental law		EEE5009E	14h			20%
Installations classified as environmental protection		EEE5019E	12h	3h		20%
Environmental management		EEE5039E	20h			20%
Waste management		EEE5059E	15h			15%
Public services		EEE5029E	12h			15%
Conferences and visits		EEE5049E	22h			10%



Environmental Sciences 2	159h	EEE519UE	28h	64h	67h	5 ECTS
Waste water treatment		EEE5109E	24h	24h		30%
Implantation		EEE5079E	4h	20h		20%
Water treatment processes		EEE5139E			50h	20%
Conferences and visits		EEE5129E			5h	10%
Civil engineering		EEE5119E			12h	10%
Informatic geographic system		EEE5069E		20h		10%

Options	60h	EEE539UE	60h total			4 ECTS
Option 1			25h	32h	3h	
Simulation		EEE5209E		30h		
Smart water and water efficiency		EEE5219E	25h	2h	3h	
Option 2			44h	16h		
Soils pollution and rehabilitation		EEE5309E	14h	16h		
Sanitary risks		EEE5319E	30h			
Option 3			44h	0h	16h	
Waste management 1 (theoreticals, anaerobic digestion, circular economy...)		EEE5409E	30h			
Waste management 2 (life cycle analysis, eco-conception...)		EEE5419E	14h		16h	
Option 4			44h	16h		
Research Master		EEE559UE				

Technical Project	20h	EEE569UE	Practical Work		9 ECTS
--------------------------	------------	-----------------	-----------------------	--	---------------

Year 5 – Semester 10 – EEE5009R

Industrial Internship S10	4-6 months	EEE51AUS	Practical Work		30 ECTS
----------------------------------	-------------------	-----------------	-----------------------	--	----------------