

# Transilvania University of Braşov, Romania

## Study program: Industrial Environmental Engineering and Protection

Faculty: Product Design and Environment  
 Study period: 4 years (bachelor)  
 Academic year structure: 2 semesters (14 weeks per semester)  
 Examination sessions (two): winter session (January/February)  
 summer session (June/July)

Courses per years (C= course; S = seminar; L = laboratory; P = project)

### 1<sup>st</sup> Year

No. crt.	Course	Code	1 <sup>st</sup> Semester					2 <sup>nd</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Mathematical Analysis	DIAM01	2	3			5					
02	Chemistry I	DICH01	2		2		5					
03	Computer Programming and Programming Languages	DIPC01	1		2		4					
04	Descriptive Geometry	DIGD01	2		1		4					
05	Technical Drawing and Infographics I	DIDT01	2		2		4					
06	Materials Science and Engineering	DISM01	3		2		5					
07	Pollution Sources, Processes and Products	DIPC02						1	1			2
08	Technical Drawing and Infographics II	DIDT02						1		2		3
09	Mechanics	DIMC02						3	2			5
10	Physics	DIF02						2	1	1		4
11	Linear Algebra, Analytical and Differential Geometry	DIAGAD						2	2			4
12	Chemistry II	CHIMAN						3		2		5
13	Basics of Economy	DIDC02						1	1			2
14	Practical work I							30				2
15	English Language I (O1)	LS01	1	1			2					
	French Language I (O1)											
16	English Language II (O2)	LS02						1	1			2
	French Language II (O2)											
17	Physical training	EF01/EF02		1			1		1			1
Total			13	5	9		30	14	9	5		30
Total hours/week			27					28				

### 2<sup>nd</sup> Year

No. crt.	Course	Code	3 <sup>rd</sup> Semester					4 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Special Mathematics	DIMS03	2	2			4					
02	Databases and Statistical Processing	DIBDPS	1		1		3					
03	Strength of Materials	DIRM03	3	1	1		5					
04	Chemistry III	SMCO03	3		3		5					

05	Thermodynamics	SMCF03	2		2		5					
06	Applied Informatics	DIM3D						1		1		2
07	Sustainable Development	DIDD04						2		1		3
08	Transfer Phenomena and Unit Operations I	DITMT						2		1		3
09	Elemnts of Electrochemistry and Corrosion	ECHC04						3	1	2		5
10	Mechanical Engineering	DIOM04						3		2		5
11	Fluid Mechanics	DIMF04						2		1		3
12	Practical Work	PR04						60				3
13	Electrotechnics (O3)	DIEA03	2		2		5					
	Electronics (O3)	MAE04										
14	English Language III (O4)	LS03	1	1			2					
	French Language III (O4)											
15	Ecotoxicology (O5)	ECOTOX						2		1		3
	Natural resources (O5)	RESNAT										
16	English Language IV (O6)	LS04						1	1			2
	French Language IV (O6)											
17	Physical Training	EF03/EF04		1			1		1			1
Total			14	5	9		30	16	3	9		30
Total hours/week			28					28				

### 3<sup>rd</sup> Year

No. crt.	Course	Code	5 <sup>th</sup> Semester					6 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Ecological Design of Products I	BPP05	2			2	4					
02	Environmental Chemistry	SMCM5	2		2		4					
03	Soil Science and Soil Depollution Processes	SSPDS06	2		2		4					
04	Information Technology	DIMEF5	2		2		4					
05	Instrumental Analysis	SMAI05	2		3		5					
06	Methods for the Separation and Analysis of Pollutants	SMSEP05	1		1		3					
07	Communication. Ethics and Academic Integrity	DIDC05	1	1			3					
08	Meteorology and climatology	MET05	1		2		3					
09	Chemometry	SMCH05						1	1			2
10	Transfer Phenomena and Unit Operations II	SMFT05						2	1		1	4
11	Ecology	ECOIPMI						1		1		2
12	Ecological Design of Products II	DIDC06						2				2
13	Project – Ecological Design of Products II	DIDCP06									1	2
14	Technological Processes: Analysis and Synthesis	ASPT						2		3		5
15	Technologies and Equipments for Water and Wastewater Treatment I	TRATAP						2		2		4
16	Air Purification Technologies and Equipments	PEPA06						2	1			3
17	Practical work III	PR06						90				3
18	Colloids and Surface Chemistry(O7)	SMSP6						2		2		3
	Interface processes (O7)	INT06										
Total			13	1	12	2	30	14	3	8	2	30
Total hours/week			28					28				

**4<sup>th</sup> Year**

No. crt.	Course	Code	7 <sup>th</sup> Semester					8 <sup>th</sup> Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Ecological Design of Products III	DP07	2			2	4					
02	Biomass Based Energy Systems	BIO07	2		2		4					
03	Technologies and Equipments for Water and Wastewater Treatment II	APE07	2		2		5					
04	Environmental quality: Data Acquisition, Monitoring and Diagnosis	MONIT07	2		2		5					
05	Waste Treatment and Recovery Technologies	COM07	2		2		4					
06	Engineering of Pollution Control Processes	DEPOL07	2	1			3					
07	Project - Engineering of Pollution Control Processes	DEPOLP07				2	2					
08	Environment and Society	MSOC07	1	2			3					
09	Integrated Waste Management							2	2			4
10	Impact Assessment	IMP08						2	2			5
11	Environmental Policies and Regulations	LEG08						1	1			4
12	Development of the diploma project (14 weeks x 4h/week = 56h + 26 h x 4 weeks)	LIC08									4	5
13	Ecological Management (O8)	EIND08						2		2		4
	Implementation of Renewable Energy Systems (O8)	EPE08										
14	Climate Change Mitigation (O9)	MCM08						2	2			4
	Environmental Projects Development and Management (O9)	MNGEC08										
15	Environmental Risk Management (O10)	PRO08						2			2	4
	Health and Safety Management in Industry (O10)	INT08										
Total			13	3	8	4	30	11	7	2	6	30
Total hours/week			28					26				