

Transilvania University of Braşov, Romania

Study program: Industrial Safety Engineering

Faculty:	Materials Science and Engineering
Study period:	4 years
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)

1st Year

No. crt.	Course	Code	1 st Semester					2 nd Semester					
			C	S	L	P	Cred	C	S	L	P	Cred	
1	Mathematical Analysis	SMAMA1	2	2			4						
2	Computer Basics	SMBUC1	3		1		5						
3	Descriptive Geometry	SMGDE1	2		1		4						
4	Materials science and engineering I	SMINM1	2		1		4						
5	General chemistry	SMCGB1	2		1		4						
6	Materials Technology I	SMTHM1	1		2		3						
7	Physics	SMFIZ1	2		1		4						
8	Materials Technology II	SMTHM2	2		1		5						
9	Materials science and engineering II	SMINM2	2		1		5						
10	Materials Technology II	SMTHM2						2		1		5	
11	Materials science and engineering II	SMINM2						2		1		5	
12	Linear Algebra, Analytical Geometry and Differential Equation	SMALG1						2	1			4	
13	Technical Drawing	SMDEST						1		2		3	
14	Numerical methods	SMMEN1						2		2		4	
15	Mechanics	SMMEC1						2	1			3	
16	Data Processing and Informatic Systems	SMPDS1						2		2		4	
17	English language	SMLE01/ SMLE02	1	1			2	1	1			2	
18	Physic education	SMEDF01 SMEDF02			1		1			1		1	

2nd Year

No. crt.	Course	Code	1 st Semester					2 nd Semester					
			C	S	L	P	Cred	C	S	L	P	Cred	
1	Special mathematics	SMMS01	2	1			4						
2	Strength of Materials I	SMRM01	2	1	1		5						
3	Ecology and environmental protection	SMECOL	2		2		5						
4	Probability theory and statistics	SMTPSM	1		3		4						
5	Technical devices	SMDIST	2		2		5						
6	Dimensional control	SMCODI	3		2		5						
7	Electrotechnics	SMETH1	2		1		4						

8	Quality Control and Assurance	SMASCA						2		2		5
9	Strength of Materials II	SMRM02						2	1	1		4
10	Machine components	SMOM01						2		1		4
11	Thermodynamics	SMTERM						2		1		4
12	Bases of Technical Computer Assisted Design	SMBPTA						3		2		5
13	Practical Activity	SMPR11								30		2
14	English language	SMLE03/ SMLE04	1	1			2	1	1			2
15	Physic education	SMEDF03 SMEDF04					1	1			1	1

3rd Year

No. crt.	Course	Code	1 st Semester					2 nd Semester					
			C	S	L	P	Cred	C	S	L	P	Cred	
1	Elements of Electronics in Industrial Engineering	SMEEII	2		2		5						
2	Theory of Welding Processes	SMTPS1	3		3		6						
3	Mechanical Processing	SMPRM1	2		2		4						
4	Heat treatments	SMTRTE	2		2		4						
5	Testing of Materials and Equipment for Protection	SMTMMP	2		2		4						
6	Ergonomics	SMERGS	2		1	1	5						
7	Ventilation and Air Conditioning Equipment	SMEVC1	2		1	1	5						
8	Techniques for Purification of Industrial Liquid	SMTPD1						2		2		5	
9	Waste Processing Technologies	SMTPLI						2		2		4	
10	Safety Assessment in Industry	SMESI1						2		1		4	
11	Radiation Protection in Industry	SMRPI1						2		1		4	
12	Reliability	SMFIAB						2	2			4	
13	Risk Management	SMRIT1						2	1	1		4	
14	Practical Activity	SMPR22								30		2	

4th Year

No. crt.	Course	Code	1 st Semester					2 nd Semester					
			C	S	L	P	Cred	C	S	L	P	Cred	
1	Safety in Primary Sectors	SMSSP1	2	2			5						
2	Safety Systems for Mechanical Industry	SMSSPM	2	1	1		5						
3	Management and Safety for Industrial Transport	SMMSTI	2	1	1		5						
4	Safety of Advanced Production Systems	SMSSAP	2	1			4						
5	Occupational Safety Legislation	SMLSM1	2	2			4						
6	Industrial Emissions	SMNIND	3	2			5						
7	Elements of Social Medicine	SMEMM1	1	1			2						
8	Electro-security	SMELS1						2		1	1	4	
9	Initiation and Conduct of Business	SMICAF						2		2		3	
10	Audit and Certification of Safety Engineering in Industry	SMACSI						2		2		3	
11	Bases of Experimental Research	SMBCEX						3		2		3	
12	Statistical Control of Processes and Accidents	SMCSPR						2		2		3	
13	High Level Design	SMMAPR						2		2		3	
14	Practical Activity	SMPR23								30		2	
15	Research for the Diploma Project	SMPPD2						26				10	