

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	Language of instruction	1 st Semester					2 nd Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
1	Mathematical Analysis	SMAMA1	Romanian	2	2			4						
2	Computer and Programming languages	SMPRGO	Romanian	3		1		5						
3	Materials science and engineering I	SMINM1	Romanian	2		1		4						
4	Descriptive Geometry	SMGDE1	Romanian	2		1		4						
5	General chemistry	SMCGB1	Romanian	2		1		4						
6	Materials Technology I	SMTHM1	Romanian	1		2		3						
7	Mechanics	SMMEC1	Romanian	2		1		4						
8	Physics	SMFIZ1	Romanian						2		1			4
9	Materials Technology II	SMTHM2	Romanian						2		1			4
10	Materials science and engineering II	SMINM2	Romanian						2		1			4
11	Linear Algebra, Analytical Geometry, and Differential Geometry	SMALG1	Romanian						2	1				4
12	Technical Drawing and Infographics	SMDEST	Romanian						1		2			3
13	Numerical methods	SMMEN1	Romanian						2		2			4
14	Data Processing and Informatic Systems	SMPDS1	Romanian						2		1			4
15	Academic Writing	SMACAD	Romanian						1					1
16	English language	SMLE01/ SMLE02	English	1	1			2	1	1				2
17	Physic education	SMEDF01 SMEDF02	Romanian			1		1			1			1

2nd Year

No. crt.	Course	Code	Language of instruction	3 rd Semester					4 th Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
1	Special mathematics	SMMSO1	Romanian	2	1			4						
2	Strength of Materials I	SMRMO1	Romanian	2	1	1		5						
3	Ecology and environmental protection	SMECOL	Romanian	2		2		5						
4	Technical devices	SMDIST	Romanian	2		2		5						
5	Dimensional control	SMCODI	Romanian	3		2		5						
6	Electrotechnics	SMETH1	Romanian	2		1		4						
7	Machine components	SMOMO1	Romanian						2		1			3
8	Thermodynamics	SMTERM	Romanian						2		1			4

9	Bases of Technical Computer Assisted Design	SMBPTA	Romanian						3		2		5
10	Strength of Materials II	SMRM02	Romanian						2	1	1		4
11	Machine components - project	SMOM02	Romanian									1	2
12	Probability Theory and Mathematical Statistics	SMTPSM	Romanian						1		2		3
13	Field Practice (90 hours)	SMPR11	Romanian										2
14	English language	SMLE03/ SMLE04	English	1	1				2	1	1		2
15	Physic education	SMEDF03 SMEDF04	Romanian			1			1			1	1

3rd Year

No. crt.	Course	Code	Language of instruction	5 th Semester					6 th Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
1	Elements of Electronics in Industrial Engineering	SMEEII	Romanian	2		2		5						
2	Mechanical Processing	SMPRM1	Romanian	2		2		4						
3	Heat treatments	SMTRTE	Romanian	2		2		4						
4	Testing of Materials and Equipment for Protection	SMTMMP	Romanian	2		2		4						
5	Ergonomics	SMERGS	Romanian	2		1	1	5						
6	Ventilation and Air Conditioning Equipment	SMEVC1	Romanian	2		1	1	5						
7	Waste Processing Technologies	SMTPLI	Romanian						2		2		4	
8	Safety Assessment in Industry	SMESI1	Romanian						2		1		4	
9	Radiation Protection in Industry	SMRPI1	Romanian						2		1		4	
10	Reliability	SMFIAB	Romanian						2	2			4	
11	Risk Management	SMRIT1	Romanian						2	1	1		4	
12	Practical Activity	SMPR22	Romanian										2	

4 Year

No. crt.	Course	Code	Language of instruction	7 th Semester					8 th Semester					
				C	S	L	P	Cred	C	S	L	P	Cred	
1	Safety in Primary Sectors	SMSSP1	Romanian	2	2			5						
2	Safety Systems for Mechanical Industry	SMSSPM	Romanian	2	1	1		5						
3	Management and Safety for Industrial Transport	SMMSTI	Romanian	2	1	1		5						
4	Safety of Advanced Production Systems	SMSSAP	Romanian	2	1			4						
5	Occupational Safety Legislation	SMLSM1	Romanian	2	2			4						
6	Industrial Emissions	SMNIND	Romanian	3	2			5						
7	Elements of Social Medicine	SMEMM1	Romanian	1	1			2						
8	Electro-security	SMELS1	Romanian						2		1	1	4	
9	Initiation and Conduct of Business	SMICAF	Romanian						2		2		3	
10	Audit and Certification of Safety Engineering in Industry	SMACSI	Romanian						2		2		3	
11	Statistical Control of Processes and Accidents	SMCSPR	Romanian						2		2		3	
12	High Level Design	SMMAPR	Romanian						2		2		3	