Transilvania University of Braşov, Romania

Study program: Welding 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.	Course	Code		1 st	Sem	este	2r		2 nd Semester				
crt.	Course	Couc	С	S	L	Р	Cred	С	S	L	Р	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.	Course	Codo		3 rd S	Sem	este	er .	4 th Semester					
crt.	Course	Code	С	S	L	Р	Cred	С	S	Г	Р	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					m		2		5
13	Practical Activity	SMPR11							30		2
14	English language SMLE03/	SMLE03/	1	1		7	1	1			2
14		SMLE04	'	I		2	'	'		1	2
15	Dh. sia advastica	SMEDF03			1	1				1	1
15	Physic education	SMEDF04			1	I				'	'

3 rd Year

No.	C	Codo		5 th S	Sem	este	<u>e</u> r	6 th Semester					
crt.	Course	Code	C	S	L	Р	Cred	C	S	L	Р	Cred	
1	Elements of Electronics in Industrial Engineering	SMEEII	2		2		5						
2	Theory of Welding Processes	SMTPS1	3		m		6						
3	Control joints and welded products	SMCIPS	2		2		5						
4	Heat treatments	SMTRTE	2		2		4						
5	Thermal cutting	SMTATE	2		2		5						
6	Ergonomics in welding	SMERGS	2		1		5						
7	Welding Equipment (I)	SMESU1	2		1		4						
8	Fusion welding technology (I)	SMTST1						3		1		4	
9	Pressure welding technology (I)	SMTSP1						2		1		4	
10	Mechanical Processing	SMPRM1						2		2		4	
11	Design of welded structures (I)	SMPSS1						2		1	1	4	
12	Computerization and optimization of welding	SMIOPS						2	2			1.	
12	processes	SIVIIUPS						2				4	
13	Pneumatic drives	SMAPN1						2	1			4	
14	Practical Activity	SMPR12								30		2	

4^{th} Year

No.	Course	Codo	7 th Semester						8 th Semester					
crt.	Course	Code	C	S	L	Р	Cred	C	S	L	Р	Cred		
1	Welding Equipment (II)	SMESU2	2		2		5							
2	Fusion welding technology (II)	SMTST2	2		٦	2	6							
3	Pressure welding technology (II)	SMTSP2	2		1	1	5							
4	Mechanization and automation of welding processes (I)	SMMAP1	2		2		4							
5	Design of welded structures (II)	SMPSS2	2		2		4							
6	Materials and heat treatments for welding	SMMTTS	3		2		6							
7	Mechanization and automation of welding processes (II)	SMMAP2						2		1	1	3		
8	Welding Related Processes	SMPCS1						3		2		3		
9	Damage analysis of welded structures	SMAASS						2		2		3		
10	Bases of experimental research	SMBCEX						3		2		3		
11	Verification of welding procedures	SMVPRS						2		2		3		
12	Finite element method in welding	SMMEFS						2		2		3		
13	Practical Activity	SMPR13								30		2		
14	Research for the Diploma Project	SMPPD1									26	10		