Transilvania University of Braşov, Romania

Study program: Mechanical Engineering (in English)

Faculty:	Mechanical Engineering
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)

1st Year – is not available in 2021-2022

No. crt.	Course	Code	1st Semester					2nd Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Mathematical Analysis	ANAM	3	2			5					
02	Descriptive Geometry	GD	2		2		5					
03	Chemistry	CHIM	2		1		4					
04	Materials Science and engineering	STM	2		1		3					
05	Technology of materials	TM	2		1		3					
06	Applied informatics	INFA	2		2		5					
07	Communication and ethics	COM	2	1			3					
08	Foreign Language English I+II	LE01/LE02	1	1			2	1	1			2
	Foreign Language French I+II	LF01/Lf02										
	Foreign Language German I+II	LG01/LG02										
09	Physical Training I / II	EF01/EF02		1			(1)		1			(1)
10	Linear Algebra, Analytical and Differential Geometry	AGAD						2	3			5
11	Technical Drawing and Infographics I	DT01						2		2		5
12	Physics	FIZI						2		1		4
13	Mechanics I	MEC1						3	1	1		5
14	Computers Programming and Programming Languages	PCL						2		2		5
15	Electrical Engineering and Electrical Machines	ELME						2		1		4

2nd Year – is not available in 2021-2022

No. crt.	Course	Code	3rd Semester					4th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	General Economics	ECON	1	1			3					
02	Technical Drawing and Infographics II	DT2	1		3		5					
03	Mechanics II	MEC2	3	2	1		6					
04	Strength of materials I	RM1	2	2	2		6					
05	Special Mathematics and Mathematical Statistics	MSSM	2	2			4					
06	Electronics applied	ELEA	2		1		4					

07	Foreign Language English III + IV	LE03/LE04	1	1			2	1	1			2
	Foreign Language French III + IV	LF03/Lf04										
	Foreign Language German III + IV	LG03/LG04										
08	Physical Training and Sport III / IV	EF03/EF04		1			(1)		1			(1)
09	Numerical Methods	MNUM						2		2		3
10	Fluids Mechanics and Hydraulic Machines	MFMH						2		2		4
11	Strength of materials II	RM2						3	1	1		5
12	Mechanisms	MECS						3		1	1	5
13	Computer assisted design	PAC						2		1	1	4
14	Tolerances and Dimensional Control	TCD						2		1		3
15	Technological Practical Placement	PT1						90 hours / semester				4

3rd Year – is not available in 2021-2022

No. crt.	Course	Code	5th Semester					6th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Thermotechnics and Thermal Machines	TMT	2	1	2		5					
02	Machine tools and cutting	MUPA	2		1		3					
03	Mechanical Vibrations	VIBR	2	1	1		5					
04	Hydro-Pneumatic Drives	AHP	2		1		4					
05	Machine Elements II	OM2	2		1	2	5					
06	Elasticity and Plasticity	ELPL	2	2			5					
07	Experimental Methods in Mechanical Engineering	MEIM	2		1		3					
08	Finite Element Method I	MEF1						2		2	1	5
09	Mechanics of Composite Materials	MMC						2	2			5
10	Computer assisted design	PAC						2		1	1	4
11	Manufacturing technology	TEF						1			2	3
12	Tribology	TRIB						2		1		3
13	Vibration of machinery and equipment (O1)	VIMU						2		2		3
	Vibroacoustic diagnosis of mechanical structures (O1)	DIAG										
14	Fatigue of materials (O2)	OBSM						2	1	1		3
	Reliability of mechanical systems (O2)	FIAB										
15	Practical Placement 90 hours/year	PT2						90 hours/ semester				4

4th Year – is not available in 2021-2022

No. crt.	Course	Code	7 th Semester					8th Semester				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Special problems of strength of materials	PSRM	2	2			5					
02	Finite Element Method II	MEF2	2		2	1	5					
03	Technical Acoustics	ACTH	2		1		5					
04	(O3) Stability	STAB	2		2	1	5					
	(O3) Active control of mechanical systems	CASM										
05	(O4) Numerical modeling in fluid mechanics	MNMF	2	2	1		4					
	(O4) Transfer phenomena	FETR										

06	Sustainable development in Mechanical Engineering	DEZD	1	1			3					
07	(O5) Thermal Equipment Design	PECT	2			1	3					
	(O5) Refrigeration and heating installations	IFTE										
08	(O6) Energy efficiency in Mechanical Engineering	EFEN						2	1			3
	(O6) Energy audit	AUDE										
09	Dynamics of Mechanical Structures	DINS						2	1		1	4
10	Plates and shells	PLIN						2	2			3
11	Optimizations in Mechanical Engineering	OPTI						2	1		1	3
12	(O7) Rheology	REOL						2	2			3
	(O7) Contact mechanics	MECO										
13	(O9) Quality Management in Industry	MACA						2	1			4
	(O9) Industrial Project Management	MPI										
14	Diploma Project Develop	PDIP									4	5
15	Practice for Diploma Project	PR3						6 hours x 10 weeks = 60 hours / semester				5