

# 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)

1<sup>st</sup> Year – is not available in 2019-2020

No. crt.	Course	Code	Semester I					Semester II				
			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 Technology I+II	STM	4		2		6					
05	Applied informatics	INFA	2		2		5					
06	Communication and ethics	COM	2	1			3					
07	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										
08	Physical Training I / II	EF01/EF02		1			(1)		1			(1)
09	Linear Algebra, Analytical and Differential Geometry	AGAD						2	3			5
10	Technical Drawing and Infographics I	DT01						2		2		5
11	Physics	FIZI						2		1		4
12	Mechanics I	MEC1						3	1	1		5
13	Computers Programming and Programming Languages	PCL						2		2		5
14	Electrical Engineering and Electrical Machines	ELME						2		1		4

2<sup>nd</sup> Year – is not available in 2019-2020

No. crt.	Course	Code	Semester III					Semester IV					
			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											
	Foreign Language French III + IV	LF03/Lf04	1	1				2	1	1			2
	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	Machine Elements I	OM1							2		1	1	4
14	Tolerances and Dimensional Control	TCD							2		1		3
15	Technological Practical Placement	PT1							90 hours / semester				4

3<sup>rd</sup> Year – is not available in 2019-2020

No. crt.	Course	Code	Semester III					Semester IV					
			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 (CAD/ CAM)	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 mechanical structures (O2)	OBSM						2	1		1		3
	Reliability of mechanical systems (O2)	FIAB											
15	Practical Placement 90 hours/year	PT2						90 hours/ semester					4

4<sup>th</sup> Year – is not available in 2019-2020

No. crt.	Course	Code	Semester III					Semester IV					
			C	S	L	P	Cred	C	S	L	P	Cred	
01	Special chapters of strength of materials	CSR	2	2			5						
02	Finite Element Method II	MEF2	2		2	1	5						
03	Technical Acoustics	ACT	2		1		5						
04	Assisted design and optimization of mechanical systems	POSM	2	2		1	5						
05	Fluid dynamics	DFL	2	2	1		4						
	(O4) Heat and Mass Exchange	SCM											
06	(O5) Stability	STAB	1	1			3						
	(O5) Calculus of mechanical structures to shock	CSMS											
07	(O6) Plasticity	PLAS	2	1			3						
	(O6) Dynamical systems	SDIN											
08	(O7) Thermal equipment	ATER						2	1				3
	(O7) CAD/CAM	CADM											
09	Dynamics of Structures	DINS						2	1	1	1		4
10	Plates and shells	PLIN						2	2				3
11	Thermal Equipment Design	PRET						2	1		1		3
12	(O8) Rheology	REOL						2		2			3
	(O8) Modal analysis	AMOD											

13	(O9) Industrial Project Management	MPI						2		2		4
	(O9) Quality Management in Industry	MCI										
14	Diploma Project Develop	PDIP									2	5
15	Practice for Diploma Project	PR3						6 hours x 10 weeks = 60 hours / semester			5	