

Transilvania University of Braşov, Romania

Study program: Mechanical Engineering (in English)

Faculty	Mechanical Engineering
Study program (Curriculum)	
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

Year I

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

Year II

No. crt.	Course	Code	Semester III					Semester IV					
			C	S	L	P	Cred	C	S	L	P	Cred	
01	Economics	ECON	1	1				3					
02	Technical Drawing and Infographics II	DT2	2		2			4					
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	Applied electronics	ELEA	2		1			4					
07	Foreign Language English III + IV	LE03/LE04	1	1			3	1	1				2
	Foreign Language French III + IV	LF03/Lf04											
	Foreign Language German III + IV	LG03/LG04											
08	Numerical Methods	MNUM						2		2			3
09	Fluids Mechanics and Hydraulic Machines	MFMH						2		2			4
10	Strength of materials II	RM2						3	1	1			5
11	Mechanisms	MECS						3		1	1		5
12	Machine Elements I	OM1						2		1	1		4
13	Tolerances and Dimensional Control	TCD						2		1			3
14	Practical Placement	PT1						90 hours/ semester					4

Year III

No. crt.	Course	Code	Semester V					Semester VI				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Thermodynamics and Thermal Machines	TMT	2	1	2		5					
02	Machine tools and mechanical processing	MUPA	2		2		5					
03	Vibrations	VIBR	2	1	1		5					
04	Hydro-Pneumatic Drives	AHP	2		2		5					
05	Machine Elements II	OM2	2		1	2	5					
06	Experimental Methods in Mechanical Engineering	MEIM	3		2		5					
07	Finite Element Method I	MEF1						2		2	1	5
08	Fatigue of Mechanical Structures	OST						2	2			5
09	Mechanics of Composite Materials	MECC						3	2		2	5
10	Optimizing Computer-Assisted Mechanical Structures	OPTS						2		2		4
11	(01) Calculation of Mechanical Structures in Shock	CSMS						2	2			3
	(01) Mechanical Structures Collapse	COLS										
12	(02) Elements of Structural Elasticity	ELAS						2	2			4
	(02) Contact Mechanics	MECO										
13	Practical Placement	PT2						90 hours/ semester			4	

Year IV

No. crt.	Course	Code	Semester VII					Semester VIII				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Fracture Mechanics	MECR	2		2		5					
02	Finite Element Method	MEF2	2		2	1	5					
03	Technical Acoustics	ACT	2		2		5					
04	Advanced Elements of Strength of Materials	EARM	2	2		1	5					
05	(O3) Thermoelasticity	TERM	2	1			4					
	(O3) Aeroelasticity	AERO										
06	(O4) Mechanical Structures Stability	STAB	1	1			3					
	(O4) Dynamic Machines Foundation Design	PFMD										
07	(O5) Plasticity	PLAS	2	2			3					
	(O5) Viscoelasticity	VASC										
08	Diagnosis Vibroacustica of Mechanical Structures	DIAG						2		2		3
09	Dynamics of Machines and Mechanical Structures	DINM						2		2	1	4
10	Plates and Shells	PLIN						2	2			3
11	Reliability of Mechanical Structures	FIAM						2	2			3
12	(O6) Rheology	REOL						2	2			3
	(O6) Industrial Projects Management	MANA										
13	(O7) Quality Management in Industry	MANI						2	2		1	4
	(O7) Mechanical structures Identification	IDEN										
14	Diploma Project	PDIP									2	5
15	Practical Placement for Diploma Project	PR3						90 hours/ semester			5	