

Transilvania University of Braşov, Romania

Study program: Automotive 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

Crt. No.	Course	Code	Semester I					Semester II					
			C	S	L	P	Cred	C	S	L	P	Cred	
01	Linear Algebra, Analytic and Differential Geometry	ALGADe	2	2			5						
02	Descriptive Geometry	GDe	2		2		4						
03	Mathematical Analysis	ANAMe	3	2			5						
04	Applied Informatics	INFADe	2		2		5						
05	Technical Drawing and Infographics - I	DT1e	2		2		4						
06	Physics	FIZ1e	2		1		4						
07	Foreign Language - English	LSE1e/LSE2e	1	1			3	1	1				3
	Foreign Language - French	LSF1e/LSF2e											
	Foreign Language - German	LSG1e/LSG2e											
08	Physical Training	EDFZ1e/EDFZ2e		1			1		1				1
09	Computers Programming and Programming Languages	PCLPe						2		1			5
10	Communication	COMe						1	1				3
11	Materials Science and Engineering	SIMe						4		2			6
12	Mechanics - I	MEC1e						3	1	1			5
13	Technical Drawing and Infographics - II	DT2e						2		2			4
14	Special Mathematics and Statistics	MSSMe						2	2				4

Year II

Crt. No.	Course	Code	Semester III					Semester IV					
			C	S	L	P	Cred	C	S	L	P	Cred	
01	Economy	ECONE	1	1			3						
02	Chemistry	CHIMe	2		1		4						
03	Mechanics - II	MEC2e	2	2	2		6						
04	Strength of Materials - I	RM1e	2	2	2		6						
05	Electrical Engineering	ELMEe	3	2			4						
06	Industrial Management	MNG1e	2	1			4						
07	Foreign Language - English	LSE3e/LSE4e	1	1			3	1	1				2
	Foreign Language - French	LSF3e/LSF4e											
	Foreign Language - German	LSG3e/LSG4e											
08	Numerical methods	MNUMe						2		2			4
09	Fluid Mechanics and Hydraulic Machines	MFMHe						2		2			4
10	Strength of Materials - II	RM2e						3	1	1			4
11	Mechanisms	MECSe						3		1	1		5
12	Machine Elements - I	OM1e						2		1	1		4
13	Tolerances and Dimensional Control	TCDe						2		1			3
14	Practical Placement	PRTH1e	90 hours/ year										4

Year III

Crt. No.	Course	Code	Semester V					Semester VI				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Thermodynamics and Thermal Machines	TMTe	2	1	2		5					
02	Automotive Engineering Bases	BIAe	2		2		5					
03	Vibrations	VIBRe	2	1	1		5					
04	Hydraulic and Pneumatic Actuation	AHPe	2		2	1	5					
05	Machine Elements - II	OM2e	2		1	1	5					
06	Vehicle Dynamics I	DA1e	3		2		5					
07	Processes and Characteristics of Internal Combustion Engines - I	PCM1e						2		2	1	5
08	Vehicle Dynamics II	DA2e						2			2	4
09	Construction and Calculus of Automotive Vehicles - I	CCA1e						2		1	1	5
10	Construction and Calculus of Internal Combustion Engines - I	CCM1e						2		2		4
11	Computer Aided Design	PACe						2		2		3
12	Automatic Systems Bases	BSAe						2	1	1		3
13	Quality Assurance Methods	MACe						1	1			2
14	Practical Placement	PRTH2e	90 hours/ year									4

Year IV

Crt. No.	Course	Code	Semester VII					Semester VIII				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Construction and Calculus of Internal Combustion Engines - II	CCM2e	2		1	1	5					
02	Processes and Characteristics of Internal Combustion Engines - II	PCM2e	2		1	1	5					
03	Construction and Calculus of Automotive Vehicles - II	CCA2e	2		1	1	5					
04	(O1) Automotive Fault Diagnosis	DIAGe	2		1	1	4					
	(O2) Structure and Management of Service Stations	ORAUe										
05	(O1) Vehicles Testing	INCAe	2		2		4					
	(O2) Road Vehicle Homologation	OMAUe										
06	(O1) Finite Element Method	MEFe	2		2		5					
	(O2) Computer Based Engineering	IACe										
07	(O1) Marketing	MARe	1	1			2					
	(O2) History of Science and Technique	ISTe										
08	Automotive Electric and Electronic Systems	SEEAe						2		2		3
09	Road Traffic Management	FRAFe						2		1	1	3
10	(O1) Fuels	COMBe						2		2		3
	(O2) Working Fluids for Motor Vehicles	FLAe										
11	Manufacturing and Assembling Technologies for Automotive Vehicles	TFAe						2		1	1	3
12	(O1) Special Automotive Vehicles	ASe						2		1	1	3
	(O2) Tractors	TRAe										
13	(O1) Hybrid-Electric Vehicles	AHEe						2		2		3
	(O2) Components for Electric Vehicles	CEEe										
14	(O1) Life Cycle Analysis of Vehicle Components	ACVAe						2		1		3
	(O2) Traffic Accident Reconstruction	RECAe										
15	Diploma Project Elaboration	EPD						120 hours/semester			5	
16	Practical Placement for Diploma Project Elaboration	PPD						60 hours/semester			5	