

Transilvania University of Braşov, Romania

Study program: Automotive 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

Crt. No.	Course	C ₁ *	C ₂ **	Code	1st Semester							2nd Semester								
					C	S	L	P	SI#	V	Cr	C	S	L	P	SI	V	Cr		
1	<i>Mathematical Analysis</i>	DF	DI	AnaMe	3	2			55	E	5									
2	<i>Descriptive Geometry</i>	DF	DI	GDe	2		2		69	C	5									
3	<i>Chemistry</i>	DF	DI	Chime	2		1		58	E	4									
4	<i>Materials Science</i>	DD	DI	SMe	2		1		33	E	3									
5	<i>Materials Engineering</i>	DD	DI	TMe	2		1		33	E	3									
6	<i>Applied Informatics</i>	DF	DI	InfAe	2		2		69	E	5									
7	<i>(O1) Communiation and Academic Writing</i>	DC	DO	Come	1	1			47	E	3									
	<i>(O1) Etics and Academic Integration</i>	DC	DO	EIAe																
8	<i>Linear Algebra, Analytic and Differential Geometry</i>	DF	DI	AGADe								2	3			55	E	5		
9	<i>Technical Drawing and Infographics - I</i>	DF	DI	DT1e								2		2		69	C	5		
10	<i>Physics</i>	DF	DI	Fizie								2		1		58	E	4		
11	<i>Mechanics - I</i>	DD	DI	MEC1e								3	1	1		55	E	5		
12	<i>Computers Programming and Programming Languages</i>	DF	DI	PCLPe								2		2		69	E	5		
13	<i>Electrical Engineering</i>	DD	DI	ELMEe								2		1		58	E	4		
14	<i>(O2) Foreign Language - French</i>	DC	DO	LF01e/ LF02e	1	1			22	C	2	1	1		22	C	2			
	<i>(O2) Foreign Language - German</i>	DC	DO	LG01e/ LG02e																
15	<i>Physical Training</i>	DC	DI	EF01e/ EF02e		1			11	A/R	(1)		1			11	A/R	(1)		
Total					15	5	7	0	397	E	C	30	14	6	7	0	397	E	C	30
										6	2	(31)						5	2	(31)
Total number of hours per week					27							27								

2nd Year

Crt. No.	Course	C ₁ *	C ₂ **	Code	3rd Semester							4th Semester								
					C	S	L	P	SI*	V	Cr	C	S	L	P	SI	V	Cr		
1	<i>Economics</i>	DC	DI	ECONe	1	1			47	E	3									
2	<i>Technical Drawing and Infographics - II</i>	DF	DI	DT2e	1		3		69	C	5									
3	<i>Mechanics - II</i>	DD	DI	MEC2e	2	2	2		66	E	6									
4	<i>Strength of Materials - I</i>	DD	DI	RM1e	2	2	2		66	E	6									
5	<i>Special Mathematics and Statistics</i>	DF	DI	MSSMe	2	2			44	E	4									
6	<i>Applied Electronics</i>	DD	DI	EleAe	2		1		58	E	4									
7	<i>Numerical methods</i>	DD	DI	MNUMe								2		2		19	E	3		
8	<i>Fluid Mechanics and Hydraulic Machines</i>	DD	DI	MFMHe								2		2		44	E	4		
9	<i>Strength of Materials - II</i>	DD	DI	RM2e								3	1	1		55	E	5		
10	<i>Mechanisms</i>	DD	DI	MECSe								3	1	1		55	E	5		
11	<i>Machine Elements - I</i>	DD	DI	OM1e								2		1	1	44	E	4		
12	<i>Tolerances and Dimensional Control</i>	DD	DI	TCDe								2		1		33	C	3		
13	<i>(O1) Foreign Language - French</i>	DC	DO	LSFe3/ LSFe4	1	1			22	C	2	1	1		22	C	2			
	LSGe3/ LSGe4																			
14	<i>Physical Training</i>	DC	DI	EF03e/ EF034		1			11	A/R	(1)		1		11	A/R	(1)			
15	<i>Practical Placement</i>	DD	DI	PRTH1e	3 weeks x 30 h / week = 90 h											C	4			
Total					11	9	8	0	383	E	C	30	15	4	8	1	283	E	C	30
										5	2	(31)						5	3	(31)
Total number of hours per week					28							28								

3rd Year

Crt. No.	Course	C ₁ [*]	C ₂ ^{**}	Code	5th Semester							6th Semester								
					C	S	L	P	SI*	V	Cr	C	S	L	P	SI	V	Cr		
1	<i>Thermodynamics and Thermal Machines</i>	DD	DI	TMTe	2	1	2		55	E	5									
2	<i>Vibrations</i>	DD	DI	VIBRe	2	1	1		69	E	5									
3	<i>Hydraulic and Pneumatic Actuation</i>	DD	DI	AHPe	2		2	1	55	E	5									
4	<i>Machine Elements - II</i>	DD	DI	OM2e	2		1	1	69	C	5									
5	<i>Automotive Engineering Bases</i>	DS	DI	BIAe	2		2		69	E	5									
6	<i>Vehicle Dynamics I</i>	DD	DI	DA1e	3		2		55	E	5									
7	<i>Vehicle Dynamics II</i>	DD	DI	DA2								2				22	E	2		
8	<i>Vehicle Dynamics II P</i>	DD	DI	DA2										2	22	C		2		
9	<i>Processes and Characteristics of Internal Combustion Engines - I</i>	DS	DI	PCMAI1								2		2	1	55	E	5		
10	<i>Construction and Calculus of Internal Combustion Engines - I</i>	DS	DI	CCMAI1								2		2		44	E	4		
11	<i>Construction and Calculus of Automotive Vehicles - I</i>	DS	DI	CCA1								2		1	1	69	E	5		
12	<i>Computer Aided Design</i>	DD	DI	PACe								2		2		19	C	3		
13	<i>Autonomous Vehicles</i>	DS	DI	VAut								1	1			22	C	2		
14	<i>Automatic Systems Bases</i>	DD	DI	BSAe								2	1	1		19	E	3		
15	<i>Practical Placement</i>	DS	DI	PRTH2e	3 weeks x 30 h / week = 90 h											C	4			
Total					13	2	10	2	372	E	C	30	13	2	8	4	272	E	C	30
									5	1							5	4		
Total number of hours per week					27							27								

Crt. No.	Course	C ₁ *	C ₂ **	Code	7th Semester							8th Semester								
					C	S	L	P	SI*	V	Cr	C	S	L	P	SI	V	Cr		
1	<i>Construction and Calculus of Internal Combustion Engines - II</i>	DS	DI	CCM2e	2		1	1	55	E	5									
2	<i>Processes and Characteristics of Internal Combustion Engines - II</i>	DS	DI	PCM2e	2		1	1	69	E	5									
3	<i>Construction and Calculus of Automotive Vehicles - II</i>	DS	DI	CCA2e	2		1	1	69	E	5									
4	<i>(01) Automotive Fault Diagnosis</i>	DS	DO	DIAGe	2		1	1	44	E	4									
	<i>(01) Structure and Management of Service Stations</i>	DS	DO	ORAUe																
5	<i>(02) Vehicles Testing</i>	DS	DO	INCAe	2		2		44	E	4									
	<i>(02) Road Vehicle Homologation</i>	DS	DO	OMAUe																
6	<i>(03) Finite Element Method</i>	DS	DO	MEFe	2		2		69	E	5									
	<i>(03) Management</i>	DS	DO	Manag																
7	<i>(04) Automotive sensorics and control systems</i>	DC/ DD	DO	SSCAut	1	1			22	C	2									
	<i>(04) History of Science and Technique</i>	DC/ DD	DO	ISTe																
8	<i>Automotive Electric and Electronic Systems</i>	DS	DI	SEEAe								2		2		35	E	3		
9	<i>Road Traffic Management</i>	DS	DI	TRAFe								2		1	1	35	E	3		
10	<i>Manufacturing and Assembling Technologies for Automotive Vehicles</i>	DS	DI	TFAe								2		1	1	35	C	3		
11	<i>(05) Fuels</i>	DS	DO	COMBe								2		2		35	E	3		
	<i>(05) Working Fluids for Motor Vehicles</i>	DS	DO	FLAe																
12	<i>(06) Autovehicule speciale</i>	DS	DO	Ase								2		1	1	35	E	3		
	<i>(06) Tractors</i>	DS	DO	TRAe																
13	<i>(07) Hybrid and Electric Vehicles</i>	DS	DO	AHEe								2		2		35	E	3		
	<i>(07) Components for Electric Vehicles</i>	DS	DO	CEEe																
14	<i>(08) Traffic Accident Reconstruction</i>	DS	DO	RECAe								2		1		20	C	2		
	<i>(08) Life Cycle Analysis of Vehicle Components</i>	DS	DO	ACVAe																
15	<i>Diploma Project Elaboration</i>	DS	DI	EPD										4		69	C	5		
16	<i>Practical Placement for Diploma Project Elaboration</i>	DS	DI	PPD								60 h / sem. (4.285 h / week)					C	5		
Total					13	1	8	4	372	E 6	C 1	30	14	0	14	3	299	E 5	C 4	30
Total number of hours per week					26							31								