

Academic Syllabus

1<sup>st</sup> YEAR

No.	Course name	CODE	Hours per week								Type of Evaluation								ECTS credits					
			Sem. I				Sem. II				E		C		V		P		S I	S II				
			C	S	L	P	C	S	L	P	S I	S II	S I	S II	S I	S II	S I	S II						
1.	Advanced mathematics for automotive engineering	F.20.01	2	1																		5		
2.	Applied mechanics	F.20.02	2	1	1																		6	
3.	Applied thermodynamics and energy conversion	F.20.03	2	2																			6	
4.	Documentation and capitalization of information	C.20.04	1	1																			3	
5.	Documentation and capitalization of information	C.20.05				1																	2	
6.	Operations management	C.20.06	2	1																			4	
7.	Operations management	C.20.07				1																	2	
8.	English language	C.20.08		2																			2	
9.	Materials and sustainable manufacturing	D.20.09					2		1														4	
10.	Road vehicle dynamics	D.20.10					2		1														5	
11.	Road vehicle dynamics	D.20.11								1													2	
12.	Engine calibration	D.20.12					2		2														8	
13.	Transmissions and alternative drivetrains. Hybrid vehicles	D.20.13					2		1														4	
14.	Numerical analysis in problems of fluid-structure interaction	F.20.14					2	2															5	
15.	English language (facultative)	C.20.15							2														2	
<b>TOTAL HOURS</b>																			<b>30</b>	<b>30</b>				

2<sup>nd</sup> YEAR

No.	Course name	CODE	Hours per week								Type of Evaluation								ECTS credits					
			Sem. III				Sem. IV				E		C		V		P		S III	S IV				
			C	S	L	P	C	S	L	P	S III	S IV	S III	S IV	S III	S IV	S III	S IV						
13.	Vehicle mechatronics CD	D.20.16	2	2																			8	
14.	Vehicle thermal comfort IM	D.20.17	2		2																		7	
15.	Environmental problems of automotive engineering IF	D.20.18	2		2																		8	
16.	Vehicle reliability BA	D.20.19	2		2																		7	
17.	Research semester:																							
	Option 1.																							
	A	CFD simulation of internal combustion engine (AVL Fire)AC	D.20.20							4														10
		Simulation of vehicles (AVL Cruise, Simulink) ZC	D.20.21							4														10
	B	Structural analysis (Matlab, LS Dyna) TSt	D.20.22							4														10
		Simulation of vehicle thermal management (Theseus) IM	D.20.23							4														10
		Option 2. Internship in a research center or lab	D.20.24							8														20
<b>TOTAL HOURS</b>																			<b>30</b>	<b>30</b>				

RECTOR  
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