

# Transilvania University of Braşov, Romania

## Study program: Command and control systems for motor vehicles

**Faculty:** Mechanical Engineering  
**Study period:** 2 years (master)  
**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

	Course	Code	1 <sup>st</sup> Semester					2 <sup>nd</sup> Semester				
			C	S	L	P	Cr	C	S	L	P	Cr
1	Vehicle dynamics complements	CDA	2	0	1	0	5					
2	Programming and simulation languages	LPS	1	0	2	0	5					
3	Propulsion of electric and hybrid vehicles	PAEH	2	0	2	0	5					
4	Sensors and actuators	SA	1	0	1	0	5					
5	Automatic hydraulic and pneumatic systems for vehicles	SHPA	2	0	2	0	5					
6	Professional practice I	PP1	0	0	0	12	5					
1	Integrated electronic control units	UCI						2	0	1	0	5
2	Energy storage and energy management	SEME						2	0	2	0	5
3	Networks and communication protocols in vehicles	RPCA						2	0	1	0	5
4	Driver assistance systems	SCA						1	0	2	0	5
5	Professional practice II	PP2						0	0	0	12	5
6	Advanced testing and diagnostics	TDA						1	0	2	0	5

### 2<sup>nd</sup> Year

	Course	Code	3 <sup>rd</sup> Semester					4 <sup>th</sup> Semester				
			C	S	L	P	Cr	C	S	L	P	Cr
1	Autonomous and connected vehicles	AAC	2	0	1	0	5					
2	Automotive software development	DSA	1	0	0	2	5					
3	Modeling and simulation in Virtual Reality	MSRV	2	0	2	0	5					
4	Integrated vehicle control	CVI	2	0	1	0	5					
5	Vibrations and noises in electric vehicles	AVZA	1	0	2	0	5					
6	Professional practice III	PP3	0	0	0	12	5					
1	University Ethics	EU						0	1	0	0	2
2	Practical activity and/or scientific research	APCS						0	0	10	0	13
3	Elaboration of the dissertation	ELD						0	0	5	0	10
4	Professional practice IV	PP4						0	0	0	12	5