



## PLAN STUDIÓW:

### First year/Semester 1

No	Subject	Type of course				Point ECTS
		L	E	Lab	Pro	
1	Complex analysis	30	15	0	0	4
2	Applied mathematics	30	0	0	30	6
3	Mechanics	30	30	0	0	5
4	Integrated production systems	30	0	15	0	3
5	Applied physics	15	0	0	30	4
6	Automatic control	15	15	0	0	2
7	Computer programing	15	0	0	45	6
8	P.E	0	30	0	0	0
	SUM	165	90	30	105	30

### First year/Semester 2

No	Subject	Type of course				Point ECTS
		L	E	Lab	Pro	
1	Design theory	15	0	0	15	2
2	Fluid flow computer modelling	15	0	0	15	2
3	Thermodynamics of heat engines	30	15	0	0	4
4	Modelling machines and vehicles	30	0	15	15	6
5	Machine diagnostics	15	0	15	0	2
6	Elective course 1	30	0	0	0	2
7	Elective course 2	30	0	0	0	2
8	Elective course 3	30	0	0	0	2
9	Elective course HES	30	0	0	0	2
10	Interim project	0	0	0	75	6
	SUM	255	15	30	120	30

### Second year/Semester 3

No	Subject	Type of course				Point ECTS
		L	E	Lab	Pro	
1	Elective course HES 2	30	0	0	0	2
2	Elective course HES 3	30	0	0	0	2
3	Elective course 4	30	0	0	0	2
4	Elective course 5	30	0	0	0	2
5	Diploma seminar	0	30	0	0	2
6	Master of science thesis	0	0	0	270	20
7	Practice diploma	4 weeks				4
	SUM	120	30	0	270	30

	Elective courses
1	Design of automotive suspensions
2	Drive control
3	Computer modelling in engineering practice
4	Numerical methods in mechanics
5	Combustion and catalysis
6	Genetic algorithms and neural networks
7	Bodywork design
8	Smart materials
9	Numerical calculations in Ansys
10	Technological systems safety
11	Object-oriented programming
12	Local models of layered structures
13	Active control of vehicle vibrations
14	Computer aided manufacturing II
15	Finite Element Methods
16	Applied gas dynamics and turbocharging systems for internal combustion engines
17	Advanced mechatronics systems design
18	Driving and engine test cycles
19	Application of intelligent materials in vehicles
20	Structural optimisation
21	Powertrains of ecological vehicles
22	Electromechanical hybrid drives
23	Advanced geometrical dimensioning and tolerancing methods

	Elective courses HES
1	Technology Transfer
2	Selected regulations for the exploitation of commercial vehicles
3	Engineering problems solving