

MECHANICAL ENGINEERING

Subjects available to choose from on each year/semester are marked with ECTS points and highlighted in colour.

Lp	SUBJECT NAME	1st Year		2nd Year		3rd Year		4th year
		1st semester (winter)	2nd semester (summer)	3rd semester (winter)	4th semester (summer)	5th semester (winter)	6th semester (summer)	7th semester (winter)
General								
1	Foreign language	2	2	2	2			
2	Intellectual property protection	1						
3	Economy law							1
4	Elective: History of Aviation / History of technology / Technical Innovations	2						
5	Health and safety training							
6	IT	2						
7	Physical Education	1	1					
Fundamental Sciences								
8	Physics	4						
9	Mathematics	4	4	2				
10	Mathematical Statistics			2				
11	General mechanics		4	4				
12	Fluids mechanics				4	2		
13	Durability of materials			4	4			
Specialised sciences								
14	Machine diagnostics					4		
15	Engineering Graphics	3	3					
16	Ecological engineering	2						
17	Material Engineering	4	2					
18	Computer-aided design of machines			3	3			
19	Pneumatics and hydraulics					1		
20	Fundamentals of automation			3	1			
21	Fundamentals of chemistry	1						
22	Fundamentals of machine exploitation					2		
23	Fundamentals of electrical engineering and electronics		6					
24	Fundamentals of computer science		4					
25	Fundamentals of Computer Science (programming languages)			2				

26	Machine construction basics				4	7		
27	Fundamentals of technological machines			1	1			
28	Technology	1						
29	Elective: Basics of aviation / technology in the automotive industry)				2			
30	Processing of plastics						4	
31	Recycling		2					
32	Techniques and Measurement Systems	3	2					
33	Machine technology			4	3			
34	Thermodynamics Engineering			3	2			
35	Techniques of manufacturing				4	2		
SPECIALITY 1 AVIATION ENGINEERING								
36	Aerodynamics					5	5	
37	Diagnosis of power units						5	
38	exploitation of aircraft powertrains							6
39	Electronics in the control of power units						6	
40	Computer Aided Engineering						3	
41	Aviation powertrains					5		
42	Organization of aviation infrastructure							2
43	Engineering traineeship (4 weeks)						5	
44	aviation regulations					1		
45	Facilities and equipment of aircrafts							3
46	Diploma seminar					1	2	3
47	Engineering Thesis							15
SPECIALITY 2: MECHATRONICS AND VEHICLE DIAGNOSTICS								
48	Alternative vehicle drives						2	2
49	Vehicle diagnostics						3	2
50	Electronic equipment for internal combustion engines						3	3
51	Computer Aided Engineering					3		
52	Mechatronic control systems in vehicles						2	3
53	Vehicle body and chassis					2		
54	Fuels and lubricants							1
55	Fundamentals of mechatronics					1	1	
56	On-board diagnostic systems						3	
57	Engineering traineeship (4 weeks)						5	

58	Vehicle motors					3	5	
59	Safety and comfort systems in vehicles					2		
60	Diploma seminar					1	2	3
61	Engineering Thesis							15