



CURRICULUM

Professional orientation: **Machine Engineering**

Program: **Manufacturing Engineering and Technologies**

Professional qualification: **Mechanical Engineer**

Educational and qualificational degree: **Bachelor**

Form of study: **Full - Time**

Term of study: **4 years / 8 semesters**

No	Subject Name	Types of term control				Semester auditorium load					Unsupervised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Mathematics, part 1	1				30	15		15	60	115	175	7
2	Engineering Graphics and Technical Drawing		1			30		30		60	90	150	6
3	Information Technologies and Systems		1			15		30		45	105	150	6
4	Material Science	1				30		30		60	90	150	6
5	English				1		45			45	45	90	3
6	Elective Subject				1						30	30	1
6a	Specialized Sport Activities, part 1				1						30	30	1
6b	Sport and Social Adaptation, part 1				1						30	30	1
7	Practical Training, part 1				1						30	30	1
Total for the 1 semester:		2	2		3	105	60	90	15	270	505	775	30
8	Mathematics, part 2	2				30	15		15	60	90	150	6
9	Introduction to the Speciality	2				15		30		45	90	135	5
10	Materials Technology	2				30		30		60	90	150	6
11	Applied Geometry and Technical Documentation		2			30		30		60	75	135	5
12	Technical Mechanics	2				30		15	15	60	90	150	6
13	Elective Subject				2						30	30	1
13a	Specialized Sport Activities, part 2				2						30	30	1
13b	Sport and Social Adaptation, part 2				2						30	30	1
14	Practical Training, part 2				2						30	30	1
Total for the 2 semester:		4	1		2	135	15	105	30	285	495	780	30
15	Strength of Materials	3				30		15		45	105	150	6
16	Economics		3			30		15		45	90	135	5
17	Machine Elements	3				30		15		45	105	150	6
18	Applied Computerized Engineering Calculations		3					45	15	60	75	135	5
19	Fluid Mechanics	3				30		15		45	90	135	5
20	Basics of Computer Aided Design in Mechanical Engineering		3			15		30		45	90	135	5
21	Elective Subject				3						30	30	1
21a	Specialized Sport Activities, part 3				3						30	30	1
21b	Sports Management, part 1				3						30	30	1

No	Subject Name	Types of term control				Semester auditorium load					Unsupervised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Total for the 3 semester:		3	3		1	135		135	15	285	585	870	33
22	Thermal Engineering	4				15		30		45	105	150	6
23	Strength of Materials	4				30		30		60	90	150	6
24	Theory of Mechanisms and Machines		4			30		15	15	60	90	150	6
25	Electrical Engineering and Electronics	4				15		30		45	90	135	5
26	Interchangeability and Technical Measurements		4			30		30		60	90	150	6
27	Elective Subject				4						30	30	1
27a	Specialized Sport Activities, part 4				4						30	30	1
27b	Sports Management, part 2				4						30	30	1
Total for the 4 semester:		3	2		1	120		135	15	270	495	765	30
28	Machine Elements, project			5					30	30	30	60	2
29	Cutting of Materials	5				30		15		45	105	150	6
30	Cutting Tools	5				15		30	15	60	90	150	6
31	Welding Technology	5				30		30		60	90	150	6
32	Casting	5				30		30		60	90	150	6
33	3D Modelling		5			30		30		60	75	135	5
Total for the 5 semester:		4	1	1		135		135	45	315	480	795	31
34	Plastic Forming of Metals		6			30		15	15	60	90	150	6
35	Machine Tools	6				30		15		45	90	135	5
36	Heat Treatment of Metals	6				30		15	15	60	90	150	6
37	Programming for CNC Machines	6				30		30		60	75	135	5
38	Manufacturing Technology, part 1	6				30		30		60	90	150	6
39	Elective Subject			6					30	30	30	60	2
39a	Welding, project			6					30	30	30	60	2
39b	Casting Technology, project			6					30	30	30	60	2
40	Specialized Practice				6						90	90	3
Total for the 6 semester:		4	1	1	1	150		105	60	315	555	870	33
41	Manufacturing Technology, part 2	7				30		30		60	90	150	6
42	Technical Safety		7			30		15		45	90	135	5
43	Elective Subject		7			30		30		60	90	150	6
43a	Repairing and Rehabilitation Technologies		7			30		30		60	90	150	6
43b	Methods and Technologies in Casting Production		7			30		30		60	90	150	6
44	Programming for CIM and CNC	7				30		30		60	90	150	6
45	Elective Subject	7				15		15		30	45	75	3
45a	Optimal Design of Mechanical Elements	7				15		15		30	45	75	3
45b	Design of Technology Equipment	7				15		15		30	45	75	3
46	Technology and Equipment for Heat Treatment	7				30		30		60	90	150	6
Total for the 7 semester:		4	2			165		150		315	495	810	32
47	Testing of Materials and Non-destructive Control	8				30		30		60	90	150	6
48	Manufacturing Automation	8				30		15		45	105	150	6
49	Technology, Machines and Equipment for Plastic Processing	8				30		30		60	90	150	6
50	Elective Subject			8					30	30	30	60	2
50a	Manufacturing Technology, project			8					30	30	30	60	2
50b	Cutting Tools, project			8					30	30	30	60	2
Total for the 8 semester:		3		1		90		75	30	195	315	510	20

No	Subject Name	Types of term control				Semester auditorium load					Unsuper vised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Total for all courses of education:		27	12	3	8	1035	75	930	210	2250	3925	6175	239

Facultative subjects

No	Subject Name	Types of term control				Semester auditorium load incl:					Unsuper-vised load	Total work hours	ECTS credits
		E	PA	CP	A	L	S	L	CP CPR	Total			
1	2	3	4	5	6	7	8	9	10	11	12	13	14

Types of graduation	Semester	Unsupervised load	ECTS credits
Preparation of Diploma Thesis / Preparation for State Examination	8	300	10
Defence of Diploma Thesis / State Examination	8		

Accepted from AU with

Protocol No 41 / 22.04.2019

Valid from the 2019 / 2020 academic year.

The weekly allocation of the classes is fixed according to the "Structure of the Learning Process" Academic Board adopted for the current academic year.

Head of Department MST:

/ Assoc. Prof. PhD /

Dean of Faculty FMET:

/ Assoc. Prof. PhD Antonov G. /