



CURRICULUM

Professional orientation: **Machine Engineering**

Program: **Computerized Manufacturing Technologies**

Professional qualification: **Mechanical Engineer**

Educational and qualifical 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	Industrial Management		3			30		15		45	90	135	5
16	Strength of Materials	3				30		15		45	105	150	6
17	Applied Computerized Engineering Calculations		3					45	15	60	90	150	5
18	Machine Elements	3				30		15		45	105	150	6
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	600	885	33
22	Strength of Materials	4				30		30		60	90	150	6
23	Thermal Engineering	4				15		30		45	105	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	Quality Management	5				30		30		60	90	150	6
32	Materials Selection for Engineering Design		5			30		30		60	90	150	6
33	3D Modelling		5			30		30		60	75	135	5
Total for the 5 semester:		3	2	1		135		135	45	315	480	795	31
34	Computer Systems for Mechanical Engineering		6			30		15	15	60	90	150	6
35	Machine Tools	6				30		15		45	60	105	4
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	Reliability and Availability in Engineering Design		6			30		15		45	90	135	5
40	Specialized Practice				6						90	90	3
Total for the 6 semester:		4	2		1	180		120	30	330	585	915	35
41	Manufacturing Technology, part 2	7				30		30		60	90	150	6
42	Elective Subject			7					30	30	30	60	2
42a	Manufacturing Technology, project			7					30	30	30	60	2
42b	Cutting Tools, project			7					30	30	30	60	2
43	Elective Subject		7			30		30		60	90	150	6
43a	Design of Technology Equipment		7			30		30		60	90	150	6
43b	Manufacturing Engineering Processes Design		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	75	105	4
45a	Manufacturing Process Management	7				15		15		30	75	105	4
45b	Optimal Design of Mechanical Elements	7				15		15		30	75	105	4
46	Process and Systems Risk Management	7				30		30		60	90	150	6
Total for the 7 semester:		4	1	1		135		135	30	300	465	765	30
47	Computer Integrated Technologies	8				30		30		60	90	150	6
48	Manufacturing Automation	8				30		15		45	105	150	6
49	Manufacturing Systems	8				30		30		60	90	150	6
50	Elective Subject			8					30	30	45	75	3
50a	Collaborative Product Development, project			8					30	30	45	75	3
50b	PDM Design, project			8					30	30	45	75	3
Total for the 8 semester:		3		1		90		75	30	195	330	525	21

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:		26	13	3	8	1035	75	930	210	2250	3955	6205	240

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 TMTM:

/ Assoc. Prof. PhD Kirov K. /

Dean of Faculty FMET:

/ Assoc. Prof. PhD Antonov G. /