

CURRICULUM

Master's degree program in Mechanical Engineering Equipment and Technologies

ECTS Subject code T p MTT No

- T – type of course: B for BEng, M for MEng;

- p - additional symbol for Plovdiv Branch

- MTT – specialty “Mechanical engineering and technologies” in Bulgarian;

- No – number of the subject;

Lectures (L), Tutorials (Tut.), Labs (Lab.), Auditorium Total (AT), Self-Study (SS), Exam (E),

Continuous Assessment (CA), Semester Project (SP), Semester Assignment (course work) (SA).

№	Code	SUBJECT	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA	
SEMESTER I													
1	MpMTT01	Knowledge of materials and technology of materials - Part III (high-efficiency materials)	30	0	30	60	60	120	1				4
2	MpMTT02	Knowledge of materials and technology of materials - Part IV (high-efficiency technologies)	30	0	15	45	75	120		1			4
3	MpMTT03	Theory of machine design	30	0	30	60	90	150	1				5
4	MpMTT04	Adaptive control and active control in mechanical engineering	30	0	15	45	75	120		1			4
5	MpMTT05	Strength, fracture and computer engineering analysis	30	0	30	60	90	150	1			1	5
6	MpMTT06	Computer design of machines, processes and systems	30	0	30	60	60	120	1		1		4
7	MpMTT07	Optioanl subject from list 1*	30	0	30	60	60	120	1				4
Total			210	0	180	390	510	900	5	2	1	1	30
SEMESTER II													
8	MpMTT08	Optioanl subject from list 2*	30	0	15	45	45	90	1				3
9	MpMTT09	Optioanl subject from list 3*	30	0	15	45	45	90		1			3
10	MpMTT10	Organization of research, design and implementation activities	0	0	0	0	90	90			1		3
11	MpMTT11	Optioanl subject from list 4*	30	0	15	45	45	90	1				3
12	MpMTT12	Optioanl subject from list 5*	30	0	15	45	45	90	1				3
13	MpMTT13	Diploma project	0	0	0	0	450	450	Defense of diploma thesis				15
Total			120	0	60	180	720	900	3	1	1	0	30

LIST OF THE OPTIONAL SUBJECTS

List 1		ECTS = 4
1	Testing and research of production equipment	MpMTT07.1
2	Electrophysical and electrochemical technologies	MpMTT07.2
3	Theoretical bases of plastic deformation processing	MpMTT07.3
4	Polymer and composite materials	MpMTT07.4
List 2		ECTS = 3
1	Theory of foundry processes	MpMTT08.1
2	Automated production technology	MpMTT08.2
3	Numerical methods in the construction of machines	MpMTT08.3
4	Design of tooling for plastic products	MpMTT08.4
List 3		ECTS = 3
1	Quality control and management	MpMTT09.1
2	Automated production complexes and Flexible automated production systems	MpMTT09.2
3	Heat and mass transfer in material processing	MpMTT09.3
4	Technological processes for plastics processing	MpMTT09.4
List 4		ECTS = 3
1	Ensuring the manufacturability of machine-building products	MpMTT11.1
2	Metal cutting machines and systems	MpMTT11.2
3	Modern methods for chemical-thermal treatment	MpMTT11.3
4	Elements for incorporation into plastic and composite products and technological processes for their manufacture	MpMTT11.4
List 5		ECTS = 3
1	Optimization methods in the technological preparation of production	MpMTT12.1
2	Kinematic and strength calculations of metal cutting machines	MpMTT12.2
3	Theory of welding processes	MpMTT12.3
4	Technological processes for the production of tooling for polymeric materials	MpMTT12.4

LIST OF THE FACULTATIVE SUBJECTS

№	Code	SUBJECT	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA	
SEMESTER I													
1	FaMpMTT01	Mechanical Engineering Management	30	15	0	45	75	120		1			4