

# CURRICULUM

## Master's degree program in Mechatronics

ECTS Subject code T p MEH No													
- T – type of course: B for BEng, M for MEng;													
- p - additional symbol for Plovdiv Branch													
- MEH – specialty “Mechatronics” 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
<b>SEMESTER I</b>													
1	<b>MpMEH01</b>	Lifecycle Management of Mechatronic Products	30	0	30	<b>60</b>	60	<b>120</b>	1			1	<b>4</b>
2	<b>MpMEH02</b>	Innovation and Project Management	30	15	0	<b>45</b>	75	<b>120</b>		1			<b>4</b>
3	<b>MpMEH03</b>	Design of Mechatronic Systems	30	0	30	<b>60</b>	60	<b>120</b>		1			<b>4</b>
4	<b>MpMEH04</b>	Intelligent Measurement Systems	30	0	15	<b>45</b>	75	<b>120</b>	1				<b>4</b>
5	<b>MpMEH05</b>	Engineering Research	30	0	15	<b>45</b>	75	<b>120</b>	1			1	<b>4</b>
6	<b>MpMEH06</b>	Optional subject (List - 1)	30	0	30	<b>60</b>	60	<b>120</b>	1				<b>4</b>
7	<b>MpMEH07</b>	Optional subject (List - 2)	30	0	30	<b>60</b>	60	<b>120</b>		1			<b>4</b>
8	<b>MpMEH08</b>	Course Project (subjects 6 or 7 )	0	0	0	<b>0</b>	60	<b>60</b>			1		<b>2</b>
<b>Total</b>			<b>210</b>	<b>15</b>	<b>150</b>	<b>375</b>	<b>525</b>	<b>900</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>30</b>
<b>SEMESTER II</b>													
9	<b>MpMEH09</b>	Control Systems for Mechatronic Systems and Industrial Networks	30	0	15	<b>45</b>	45	<b>90</b>	1			1	<b>3</b>
10	<b>MpMEH10</b>	Automotive Mechatronics	30	0	15	<b>45</b>	45	<b>90</b>	1			1	<b>3</b>
11	<b>MpMEH11</b>	Integrated Manufacturing	30	0	15	<b>45</b>	45	<b>90</b>	1				<b>3</b>
12	<b>MpMEH12</b>	Optional subject (List - 3)	30	0	15	<b>45</b>	45	<b>90</b>		1	1		<b>3</b>
13	<b>MpMEH13</b>	Optional subject (List - 4)	30	0	15	<b>45</b>	45	<b>90</b>		1	1		<b>3</b>
14	<b>MpMEH14</b>	Diploma project	0	0	0	<b>0</b>	45 0	<b>450</b>	Defense of diploma thesis			<b>15</b>	
<b>Total</b>			<b>150</b>	<b>0</b>	<b>75</b>	<b>225</b>	<b>675</b>	<b>900</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>30</b>

Note:

\*Subjects MpMEH06.1, MpMEH07.1, MpMEH12.1 и MpMEH13.1 form Master Program „Mechatronic Systems in Discrete Production Engineering“

\*Subjects MpMEH06.2, MpMEH07.2, MpMEH12.2 и MpMEH13.2 form Master Program „Optical, Micromechanical and Measuring Devices“

### LIST OF THE OPTIONAL SUBJECTS

<b>List 1</b>		<b>ECTS = 4</b>
1	Assembly Automation	<b>MpMEH06.1</b>
2	Metrological assurance in mechatronics	<b>MpMEH06.2</b>
<b>List 2</b>		<b>ECTS =4</b>
1	Implementation of Mechatronic Systems in Discrete Production Engineering	<b>MpMEH07.1</b>
2	Optical and Laser Devices	<b>MpMEH07.2</b>
<b>List 3</b>		<b>ECTS = 3</b>
1	Motion Control in Mechcatronic Systems	<b>MpMEH12.1</b>
2	Micromechanical Devices	<b>MpMEH12.2</b>
<b>List 4</b>		<b>ECTS = 3</b>
1	Design and Implementation of Automated Mechatronic Complexes in Discrete Production Engineering	<b>MpMEH13.1</b>
2	Accuracy and Reliability of Mechatronic Systems	<b>MpMEH13.2</b>

### LIST OF THE FACULTATIVE SUBJECTS

№	Code	SUBJECT	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA	
<b>SEMESTER I</b>													
1	<b>FaMpMEH01</b>	Micro and Electromechanical Systems	30	0	30	<b>60</b>	60	<b>120</b>		1			<b>4</b>
<b>SEMESTER II</b>													
1	<b>FaMpMEH02</b>	Computer Aided Modeling and Analysis of Mechanical Systems	30	0	30	<b>60</b>	60	<b>120</b>		1			<b>4</b>