

## MECHATRONICS ENGINEERING (2021) CURRICULUM

1. Semester / Fall	Credits	L+PS+L	ECTS
<a href="#">MATH1111</a> ( <i>MATH1101</i> ) Calculus-I	4	4+1+0	5
<a href="#">PHYS1111</a> ( <i>PHYS1101</i> ) Physics-I (Mechanics)	3	3+0+0	5
<a href="#">PHYS1113</a> ( <i>PHYS1103</i> ) Physics-I Lab. (Mechanics)	1	0+0+2	1
<a href="#">ENGL1101</a> Academic English-I	3	4+0+0	4
<a href="#">ITEC1001</a> Computer Literacy	0	0+0+0	1
<a href="#">CORE0101</a> ( <i>HIST1101</i> ) History of Turkish Republic-I (*)	2	2+0+0	2
<a href="#">CORE0103</a> ( <i>TURK1201</i> ) Turkish-I (**)	2	2+0+0	2
<a href="#">CORE0105</a> Orientation	0	0+1+0	1
<a href="#">CORE0201</a> Nature Science Human-I	3	3+0+0	5
<a href="#">CORE0401</a> Society Science Human	3	3+0+0	4
<b>Total</b>	<b>21</b>		<b>30</b>

(\*) [CORE1001](#) (*HIST1103*) for Foreigners

(\*\*) [CORE1003](#) (*TURK2201*) for Foreigners

2. Semester / Spring	Credits	L+PS+L	ECTS
<a href="#">MATH1112</a> ( <i>MATH1102</i> ) Calculus-II	4	4+1+0	5
<a href="#">COMP1103</a> ( <i>COMP1101</i> ) Int. Computer Programming	4	3+0+2	5
<a href="#">ENGL1102</a> Academic English-II	3	4+0+0	4
<a href="#">CORE0102</a> ( <i>HIST1102</i> ) History of Turkish Republic-II (*)	2	2+0+0	2
<a href="#">CORE0104</a> ( <i>TURK1202</i> ) Turkish-II (**)	2	2+0+0	2
<a href="#">CORE0106</a> Career Planning	0	1+0+0	1
<a href="#">CORE0108</a> Major Works	2	2+0+0	3
<a href="#">CORE0202</a> Nature Science Human-II	3	3+0+0	5
<a href="#">CORE0501</a> Art Society Human	2	2+0+0	3
<b>Total</b>	<b>22</b>		<b>30</b>

(\*) [CORE1002](#) (*HIST1104*) for Foreigners

(\*\*) [CORE1004](#) (*TURK2202*) for Foreigners

3. Semester / Fall	Credits	L+PS+L	ECTS
<a href="#">MECH1120</a> Engineering Drawing	4	2+0+4	6
<a href="#">MATH2104</a> Linear Algebra	3	3+0+0	5
<a href="#">MATH2105</a> Calculus-III	4	4+1+0	6
<a href="#">PHYS1112</a> ( <i>PHYS1102</i> ) Physics-II (Electricity)	3	3+0+0	5
<a href="#">PHYS1114</a> ( <i>PHYS1104</i> ) Physics-II Lab. (Electricity)	1	0+0+2	1
<a href="#">CORE0107</a> Creative Thinking & Problem Solving	2	2+0+0	3
<a href="#">CORE0402</a> ( <i>HUSS1002</i> ) Ethics Law Society	2	2+0+0	3
<b>Total</b>	<b>19</b>		<b>29</b>

4. Semester / Spring	Credits	L+PS+L	ECTS
<a href="#">MATH2107</a> Differential Equations	4	4+1+0	6
<a href="#">MATH2205</a> Probability & Statistics for Engineers	3	3+1+0	6
<a href="#">ELEC1411</a> ( <i>ELEC1401</i> ) Logic Design	3	3+1+0	4
<a href="#">ELEC1402</a> Logic Design Laboratory	1	0+0+2	2
<a href="#">MECT2520</a> Materials & Manufacturing	4	4+1+0	6
<a href="#">ELEC2205</a> Electrical Circuits	3	4+0+0	5
<a href="#">ELEC2207</a> Electrical Circuits Laboratory	1	0+0+2	2
<a href="#">OHES4412</a> Occupational Health & Safety-II	0	2+0+0	2
<b>Total</b>	<b>19</b>		<b>31</b>

5. Semester / Fall	Credits	L+PS+L	ECTS
<u>MECT2211</u> Engineering Mechanics-I	3	3+1+0	5
<u>MECH3111</u> Measurements & Instrumentation Lab.	2	1+0+2	3
<u>CHEM1101</u> General Chemistry	3	3+0+0	5
<u>MECH2130</u> ( <i>MECH2120</i> ) Computational Meth. in Eng.	3	2+0+2	5
<u>MECH3422</u> Dynamic System Modelling & Control	3	3+1+0	5
<u>ECON1005</u> Macro Economics	3	3+0+0	5
<u>MECT3920</u> ( <i>MECT2910</i> ) Industrial Training-I	0	0+160+0	2
<b>Total</b>	<b>17</b>		<b>30</b>

6. Semester / Spring	Credits	L+PS+L	ECTS
<u>MECT3122</u> Mechatronics Engineering Laboratory	2	1+0+2	3
<u>MECT2222</u> Engineering Mechanics-II	3	3+1+0	5
<u>MECT3445</u> ( <i>MECT3444</i> ) Control System Design	3	2+0+2	5
<u>MECT3322</u> Fundamentals of Thermal Sciences	3	3+1+0	5
<u>ELEC3305</u> Electronics	3	3+1+0	5
<u>ELEC3307</u> Electronics Lab	1	0+0+2	2
<u>MECT-GE-1</u> (General Elective-1)	3	3+0+0	5
<b>Total</b>	<b>18</b>		<b>30</b>

7. Semester / Fall	Credits	L+PS+L	ECTS
<u>MECH3211</u> Machine Design-I	4	3+2+0	6
<u>MECT4470</u> Modern Control Theory	3	3+0+0	5
<u>ENGR2105</u> ( <i>MECH3311</i> ) Fluid Mechanics	3	3+1+0	5
<u>OHES4411</u> Occupational Health & Safety-I	0	2+0+0	2
<u>ENGR4901</u> Introduction to Design Project	1	1+0+0	1
<u>MECT-AE-1</u> Area Elective-1	3	3+0+0	5
<u>MECT-GE-2</u> (General Elective-2)	3	3+0+0	5
<b>Total</b>	<b>17</b>		<b>29</b>

8. Semester / Spring	Credits	L+PS+L	ECTS
<u>MECT4902</u> Graduate Design Project (Capstone)	3	0+6+0	6
<u>MECT4411</u> ( <i>MECT4410</i> ) Mechatronics System Design	3	2+0+2	5
<u>MECT-AE-2</u> Area Elective-2	3	3+0+0	5
<u>MECT-AE-3</u> Area Elective-3	3	3+0+0	5
<u>MECT-AE-4</u> Area Elective-4	3	3+0+0	5
<u>OHES4412</u> Occupational Health & Safety-II	0	2+0+0	2
<u>MECT4920</u> ( <i>MECT3910</i> ) Industrial Training-II	0	0+160+0	3
<b>Total</b>	<b>15</b>		<b>31</b>
<b>Program Total</b>	<b>148</b>		<b>240</b>

(Note: *Red italic* codes in parentheses are indicating the prior codes of the courses, if any)