

**Department of Mechanical Engineering University of Engineering & Technology Lahore**  
**Semester Wise Scheme of Studies For B.Sc. Mechanical Engineering**

**1st Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
HU 111	Communication Skills	0	1	0	3	
MA 113	Calculus and Analytic Geometry	3	0	3	0	
Phy 119 & Phy 119L	Engineering Physics	2	1	2	3	
ME 100L	Workshop Practice	0	1	0	3	
ME 111 & ME 111L	Thermodynamics-I	3	1	3	3	
ME 121	Engineering Statics	2	0	2	0	
ME 131	Industrial Materials	2	0	2	0	
<b>Total:</b>		<b>12</b>	<b>4</b>	<b>12</b>	<b>12</b>	

**2nd Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
CS 101 & CS 101L	Computing Fundamentals	2	1	2	3	
IS 101	Islamic & Pakistan Studies-I	3	0	3	0	
MA 129	Vector and Complex Analysis	3	0	3	0	
ME 122	Engineering Graphics	2	0	2	0	
ME 122L	Engineering Drawing	0	2	0	6	
ME 123 & ME 123L	Engineering Dynamics	3	1	3	3	MA 113, ME 121
<b>Total:</b>		<b>13</b>	<b>4</b>	<b>13</b>	<b>12</b>	

**3rd Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
EE 201 & EE 201L	Electrical Engineering and Electronics	2	1	2	3	
IS 201	Islamic & Pakistan Studies-II	3	0	3	0	IS 101
MA 225	Differential Equations and Transforms	3	0	3	0	
ME 211	Fluid Mechanics-I	2	0	2	0	ME 123
ME 221 & ME 221L	Mechanics of Materials-I	3	1	3	3	ME 121
ME 231 & ME 231L	Manufacturing Processes	3	1	3	3	ME 131
<b>Total:</b>		<b>16</b>	<b>3</b>	<b>16</b>	<b>9</b>	

**4th Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
HU 221	Technical Writing & Presentation Skills	3	0	3	0	
MA 242	Engineering Statistics	3	0	3	0	
ME 212 & ME 212L	Thermodynamics-II	3	1	3	3	ME 111, ME 211
ME 213 & ME 213L	Fluid Mechanics-II	2	1	2	3	MA 225, ME 211
ME 222 & ME 222L	Mechanics of Materials-II	3	1	3	3	ME 221
<b>Total:</b>		<b>14</b>	<b>3</b>	<b>14</b>	<b>9</b>	

**5th Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
ME 311 & ME 311L	Hydraulic Machines	2	1	2	3	ME 213
ME 312 & ME 312L	Heat and Mass Transfer	3	1	3	3	ME 212, ME 213
ME 321	Theory of Machines-I	3	0	3	0	ME 123
ME 322 & ME 322L	Machine Design and CAD-I	3	1	3	3	ME 122L, ME 222
ME 331 & ME 331L	Machine Tools and Machining	2	1	2	3	ME 100L, ME131
<b>Total:</b>		<b>13</b>	<b>4</b>	<b>13</b>	<b>12</b>	

**6th Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
MGT 316	Project Management and Economics	3	0	3	0	
MA 345 & MA 345L	Numerical Methods in Computing	3	1	3	3	
ME 323 & ME 323L	Machine Design and CAD-II	3	1	3	3	ME 322
ME 324 & ME 324L	Theory of Machines-II	3	1	3	3	ME 321
ME 332 & ME 332L	Metrology and Quality Assurance	2	1	2	3	MA 242
<b>Total:</b>		<b>14</b>	<b>4</b>	<b>14</b>	<b>12</b>	

**7th Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
ME 411 & ME 411L	IC Engines	2	1	2	3	ME 312
ME 412 & ME 412L	Refrigeration and Air Conditioning	3	1	3	3	ME 312
ME 421	Mechanical Vibrations	2	0	2	0	ME 324
ME 422 & ME 422L	Mechanics of Material-III	2	1	2	3	MA 225, ME 222
ME 441 & ME 441L	Instrumentation and Control	2	1	2	3	EE 201, MA 242
ME 498L	Project I	0	3	0	9	HU 221
<b>Total:</b>		<b>11</b>	<b>7</b>	<b>11</b>	<b>21</b>	

**8th Semester**

Course No.	Title	Credit Hrs		Contact Hrs		Pre-requisites
		Th	Lb	Th	Lb	
ME 413 & ME 413L	Power Plants	3	1	3	3	ME 312
ME 414	Energy Resources and Utilization	2	0	2	0	ME 312
ME 431	Production and Operations Management	2	0	2	0	
ME 451 & ME 451L	Finite Element Analysis	2	1	2	3	MA 345
ME 499L	Project II	0	3	0	9	ME 498L
<b>Total:</b>		<b>9</b>	<b>5</b>	<b>9</b>	<b>15</b>	
<b>Grand Total:</b>		<b>102</b>	<b>34</b>	<b>102</b>	<b>102</b>	
		<b>136</b>		<b>204</b>		