

**Mechanical Engineering**

<b>Semester-III</b>											
Subject Code	Subject	Nature of Subject	Teaching Scheme			Examination Scheme Marks				Total Credits	Total Marks
			L	T	Lab	Practical	CA	ESE			
									Int		
07214301	Engineering Mathematics-III	ES	4	2	0	0	0	50	75	5	125
07214302	Strength of materials	C	4	0	0	0	0	40	60	4	100
07214303	Applied Thermodynamics	C	4	0	0	0	0	40	60	4	100
07214304	Measurement and Metrology	C	4	0	0	0	0	40	60	4	100
07214305	Theory of Machines-I	C	4	0	0	0	0	40	60	4	100
07214306	Strength of materials Lab	C	0	0	2	10	15	0	0	1	25
07214307	Machine Drawing Lab	C	0	0	4	20	30	0	0	2	50
07214308	Applied Thermodynamics Lab	C	0	0	2	10	15	0	0	1	25
07214309	Measurement and Metrology Lab	C	0	0	2	10	15	0	0	1	25
07214310	Theory of Machines-I Lab	C	0	0	2	10	15	0	0	1	25
07214311	Integrated Disaster Management#	PD	3	0	0	0	0	75	0	3#	75
		<b>Total</b>	<b>20</b>	<b>2</b>	<b>12</b>	<b>60</b>	<b>90</b>	<b>210</b>	<b>315</b>	<b>27</b>	<b>675</b>
<b>Semester -IV</b>											
Subject Code	Subject	Nature of Subject	Teaching Scheme			Examination Scheme Marks				Total Credits	Total Marks
			L	T	Lab	Practical	CA	ESE			
									Int		
07214401	Fluid Mechanics	C	4	0	0	0	0	40	60	4	100
07214402	Machine Design – I	C	4	0	0	0	0	40	60	4	100
07214403	Heat Transfer	C	4	0	0	0	0	40	60	4	100
07214404	Manufacturing Processes	C	4	0	0	0	0	40	60	4	100
07214405	Theory of Machines –II	C	3	0	0	0	0	30	45	3	75
07214406	Fluid Mechanics Lab	C	0	0	2	10	15	0	0	1	25
07214407	Machine Design – I Lab	C	0	0	2	10	15	0	0	1	25
07214408	Heat Transfer Lab	C	0	0	2	10	15	0	0	1	25
07214409	Manufacturing Practices Lab	C	0	0	4	20	30	0	0	2	50
07214410	Computer Graphics Lab	C	0	0	4	20	30	0	0	2	50
07214411	Theory of Machines –II Lab	C	0	0	2	10	15	0	0	1	25
		<b>Total</b>	<b>19</b>	<b>0</b>	<b>16</b>	<b>80</b>	<b>120</b>	<b>190</b>	<b>285</b>	<b>27</b>	<b>675</b>

**Mechanical Engineering**

<b>Semester –V</b>											
Subject Code	Subject	Nature of Subject	Teaching Scheme			Examination Scheme Marks				Total Credits	Total Marks
			L	T	Lab	Practical		CA	ESE		
						Int	Ext				
07214501	Automobile Engineering	C	4	0	0	0	0	40	60	4	100
07214502	Industrial Engineering	C	4	0	0	0	0	40	60	4	100
07214503	Machine design – II	C	4	0	0	0	0	40	60	4	100
07214504	CAD& CAM	C	4	0	0	0	0	40	60	4	100
07214505	Fluid Machinery	C	4	0	0	0	0	40	60	4	100
07214506	Mechatronics	C	3	0	0	0	0	30	45	3	75
07214507	Automobile Engineering Lab	C	0	0	2	10	15	0	0	1	25
07214508	Machine design – II Lab	C	0	0	2	10	15	0	0	1	25
07214509	Fluid Machinery Lab	C	0	0	2	10	15	0	0	1	25
07214510	CAD& CAM Lab	C	0	0	2	10	15	0	0	1	25
07214511	Mechatronics Lab	C	0	0	2	10	15	0	0	1	25
		Total	<b>23</b>	<b>0</b>	<b>10</b>	<b>50</b>	<b>75</b>	<b>230</b>	<b>345</b>	<b>28</b>	<b>700</b>

<b>Semester –VI-A</b>											
Subject Code	Subject	Nature of Subject	Teaching Scheme			Examination Scheme Marks				Total Credits	Total Marks
			L	T	Lab	Practical		CA	ESE		
						Int	Ext				
07214601	Ext. Project	PD	0	0	0	0	0	400	0	16	400
07214602	Presentation & Seminar	PD	0	0	0	0	0	100	0	4	100
		Total	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>500</b>	<b>0</b>	<b>20</b>	<b>500</b>

OR

<b>Semester –VI-B</b>											
Subject Code	Subject	Nature of Subject	Teaching Scheme			Examination Scheme Marks				Total Credits	Total Marks
			L	T	Lab	Practical		CA	ESE		
						Int	Ext				
07214603	Internship	PD	0	0	0	0	0	150	00	6	150
07214604	Industrial Automation	C	3	0	0	0	0	30	45	3	75
07214605	Entrepreneurship	PD	3	0	0	0	0	30	45	3	75
07214606	Project	PD	4	0	0	50	0	50	0	4	100
07214607	Liberal Arts	GP	0	0	4	50	0	0	0	2	50
07214608	Service Learning	GP	0	0	4	50	0	0	0	2	50
		Total	<b>10</b>	<b>0</b>	<b>8</b>	<b>150</b>	<b>0</b>	<b>260</b>	<b>90</b>	<b>20</b>	<b>500</b>

**Mechanical Engineering**

<b>Semester-VII</b>											
Subject Code	Subject	Nature of Subject	Teaching Scheme			Examination Scheme Marks				Total Credits	Total Marks
			L	T	Lab	Practical		CA	ESE		
						Int	Ext				
07214701	Industrial Fluid Power	C	4	0	0	0	0	40	60	4	100
07214702	Mechanical System Design	C	4	0	0	0	0	40	60	4	100
07214703	Advance Thermal Engineering.	C	4	0	0	0	0	40	60	4	100
07214704	Numerical Methods in Engineering	ID	4	0	0	0	0	40	60	4	100
07214705-7	Elective – I	C	4	0	0	0	0	40	60	4	100
07214708	Total Quality Management	PD	3	0	0	0	0	35	40	3	75
07214709	Humanities and Social science (Elective)	GP	1	0	0	0	0	0	25	1	25
07214710	Industrial Fluid Power Lab	C	0	0	2	10	15	0	0	1	25
07214711	Mechanical System Design Lab	C	0	0	2	10	15	0	0	1	25
07214712	Advance Thermal Engineering Lab	C	0	0	2	10	15	0	0	1	25
07214713	Numerical Methods in Engineering Lab	ID	0	0	2	10	15	0	0	1	25
		<b>Total</b>	<b>24</b>	<b>0</b>	<b>8</b>	<b>40</b>	<b>60</b>	<b>235</b>	<b>365</b>	<b>28</b>	<b>700</b>

<b>Semester-VIII</b>											
Subject Code	Subject	Nature of Subject	Teaching Scheme			Examination Scheme Marks				Total Credits	Total Marks
			L	T	Lab	Practical		CA	ESE		
						Int	Ext				
07214801	Finite Element Methods	C	4	0	0	0	0	40	60	4	100
07214802	Refrigeration & Air conditioning	C	4	0	2	0	0	40	60	4	100
07214803	Refrigeration & Air conditioning Lab	C	0	0	2	10	15	0	0	1	25
07214804-06	Elective –II	C	4	0	0	0	0	40	60	4	100
07214807	Project & Presentation	C	0	0	16	60	90	50	0	8	200
07214808	Finite Element Methods Lab	C	0	0	2	10	15	0	0	1	25
		<b>Total</b>	<b>12</b>	<b>0</b>	<b>20</b>	<b>80</b>	<b>120</b>	<b>170</b>	<b>180</b>	<b>22</b>	<b>550</b>
<b>Grant Total (excluding First year)- VII -A</b>			<b>86</b>	<b>2</b>	<b>46</b>	<b>310</b>	<b>465</b>	<b>1535</b>	<b>1490</b>	<b>152</b>	<b>3800</b>
<b>Grant Total (excluding First year)- VII -B</b>			<b>96</b>	<b>02</b>	<b>54</b>	<b>460</b>	<b>465</b>	<b>1295</b>	<b>1580</b>	<b>152</b>	<b>3800</b>

**Mechanical Engineering****ElectiveSubjects:**

Sr. No.	Elective –I (Sem –VII)		Elective –II (Sem – VIII)	
	Course Code	Course Name	Course Code	Course Name
1.	07214705	Non-conventional Energy Sources	07214804	Power Plant Engineering
2.	07214706	Tribology	07214805	Computational Fluid Dynamics
3.	07214707	Mechanical Vibration	07214806	Operation Research

All the students of B. Tech. will study one inter institutional course of 2 credits during semester III and semester IV

L- Lecture , T-Tutorial,

C - Core Subject

ES - Engineering Science Subject

GP - General Proficiency Subject

ID - Inter Disciplinary Subject

PD - Professional Development Subject

CA- Continuous Assessment, ESE- End Semester Examination

Practical, CA, ESE are separate heads of Passing

Int- Internal (Practical)

Ext- External (Practical)

Practical external examination may be conducted by alternate internal faculty

# - Credits Over & above 200