

**STUDY & EVALUATION SCHEME**  
**B.TECH: MECHANICAL ENGINEERING (LATERAL)**  
**II YEAR: III SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
<b>THEORY</b>									
1	BMA3001/ ---	Mathematics-III/ Science Based Open Elective	3	2	0	40	60	100	4
2	BHU3018/BHU3019	Organizational Psychology/ Organizational Sociology	2	0	0	40	60	100	2
3	BME3001	Fluid Mechanics	3	2	0	40	60	100	4
4	BME3002	Material Science in Engineering	3	1	0	40	60	100	3
5	BME3003	Mechanics of Machines and Mechanisms - I	3	2	0	40	60	100	4
6	BME3004	Basics of Thermodynamic	3	1	0	40	60	100	3
<b>PRACTICAL/TRAINING/PROJECT</b>									
7	BME3501	Fluid Mechanics Lab	0	0	2	80	20	100	1
8	BME3502	Material Science Lab	0	0	2	80	20	100	1
9	BME3503	Machine Drawing Practices-I	0	0	3	80	20	100	1
10	BME3504	Thermodynamics Lab	0	0	2	80	20	100	1
11	BME3505	Industrial Visit-I	0	0	0	100	-	100	1
<b>TOTAL</b>			<b>17</b>	<b>8</b>	<b>9</b>	<b>660</b>	<b>440</b>	<b>1100</b>	<b>25</b>

L - Lecture  
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**B.TECH: MECHANICAL ENGINEERING (LATERAL)**  
**II YEAR: IV SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
<b>THEORY</b>									
1	----/ BMA4001	Science Based Open Elective/ Mathematics-III	3	2	0	40	60	100	4
2	BHU4019/ BHU4018	Organizational Sociology / Organizational Psychology	2	0	0	40	60	100	2
3	BME4001	Mechanics of Machines and Mechanisms-II	3	2	0	40	60	100	4
4	BME4002	Mechanics of Material	3	2	0	40	60	100	4
5	BME4003	Manufacturing Science-I	3	1	0	40	60	100	3
6	BME4004	Measurement and Metrology	2	1	0	40	60	100	2
<b>PRACTICAL/TRAINING/PROJECT</b>									
7	BME4501	Mechanics of Machinery and Mechanisms Lab	0	0	2	80	20	100	1
8	BME4502	Mechanics of Material Lab	0	0	3	80	20	100	1
9	BME4503	Manufacturing Science Lab-I	0	0	3	80	20	100	1
10	BME4504	Measurement and Metrology Lab	0	0	2	80	20	100	1
11	BME4505	Industrial Visit-II	0	0	0	100	-	100	1
<b>TOTAL</b>			<b>16</b>	<b>8</b>	<b>10</b>	<b>660</b>	<b>440</b>	<b>1100</b>	<b>24</b>

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**III YEAR: V SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
<b>THEORY</b>									
1	BMG5006/ BMG5007	Engineering and Managerial Economics / Principles of Management	3	0	0	40	60	100	3
2	BME5001	Design of Machine Elements –I	3	2	0	40	60	100	4
3	BME5002	Heat and Mass Transfer	3	2	0	40	60	100	4
4	BME5003	Manufacturing Science-II	3	1	0	40	60	100	3
5	BME5004	Computer Aided Design	3	1	0	40	60	100	3
6	BME5005	Applied Thermodynamics	3	2	0	40	60	100	4
<b>PRACTICAL/TRAINING/PROJECT</b>									
7	BME5501	Machine Design-I Practice	0	0	3	80	20	100	1
8	BME5502	Heat and Mass Transfer Lab	0	0	2	80	20	100	1
9	BME5503	Manufacturing Science Lab-II	0	0	3	80	20	100	1
10	BME5504	Machine Drawing Practice-II	0	0	3	80	20	100	1
11	BSS5501	Soft Skill	0	0	2	100	-	100	1
12	BAP5501	Aptitude & Reasoning and Online Test	0	0	2	100	-	100	1
13	BME5505	Industrial Visit-III	0	0	0	100	-	100	1
<b>TOTAL</b>			<b>18</b>	<b>8</b>	<b>15</b>	<b>860</b>	<b>440</b>	<b>1200</b>	<b>28</b>

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**B.TECH: MECHANICAL ENGINEERING (LATERAL)**  
**III YEAR: VI SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
<b>THEORY</b>									
1	BMG6006/ BMG6007	Engineering and Managerial Economics / Principles of Management	3	0	0	40	60	100	3
2	BEE6004	Electrical Machines and Automatic Control	3	2	0	40	60	100	4
3	BME6001	Design of Machine Elements-II	3	2	0	40	60	100	4
4	BME6002	Refrigeration and Air- Conditioning	3	2	0	40	60	100	4
5	BME6003	Internal Combustion Engine	2	1	0	40	60	100	2
6	---	Department Elective-I	3	1	0	40	60	100	3
<b>PRACTICAL/TRAINING/PROJECT</b>									
7	BEE6504	Electrical Machines and Automatic Control Lab	0	0	2	80	20	100	1
8	BME6501	Machine Design Practice-II	0	0	3	80	20	100	1
9	BME6502	Refrigeration and Air- Conditioning Lab	0	0	2	80	20	100	1
10	BME6503	Seminar	0	0	2	100	-	100	1
11	BSS6501	Soft Skill	0	0	2	100	-	100	1
12	BAP6501	Aptitude & Reasoning and Online Test	0	0	2	100	-	100	1
13	BME6505	Industrial Visit-IV	0	0	0	100	-	100	1
<b>TOTAL</b>			<b>17</b>	<b>8</b>	<b>13</b>	<b>880</b>	<b>420</b>	<b>1300</b>	<b>27</b>

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**B.TECH: MECHANICAL ENGINEERING (LATERAL)**  
**IV YEAR: VII SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
<b>THEORY</b>									
1	BME7001	Fluid Machinery	3	1	0	40	60	100	3
2	BME7002	Computer Aided Manufacturing	3	1	0	40	60	100	3
3	BME7003	Industrial Engineering & Operation Research-I	3	2	0	40	60	100	4
4	---	Department Elective II	3	1	0	40	60	100	3
5	---	Open Elective – I	3	0	0	40	60	100	3
<b>PRACTICAL/TRAINING/PROJECT</b>									
6	BME7501	Fluid Machinery Lab	0	0	3	80	20	100	1
7	BME7502	CAD/CAM Lab	0	0	2	80	20	100	1
8	BME7503	Summer Training	0	0	2	100	-	100	1
9	BME7504	Project-I	0	0	2	100	-	100	2
10	BME7505	Industrial Visit-V	0	0	0	100	-	100	1
<b>TOTAL</b>			<b>15</b>	<b>5</b>	<b>9</b>	<b>660</b>	<b>340</b>	<b>1000</b>	<b>22</b>

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**B.TECH: MECHANICAL ENGINEERING (LATERAL)**  
**IV YEAR: VIII SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
<b>THEORY</b>									
1	BME8001	Industrial Engineering & Operation Research-II	3	2	0	40	60	100	4
2	-- -	Department Elective III	3	1	0	40	60	100	3
3	-- -	Department Elective IV	3	1	0	40	60	100	3
4	-- -	Open Elective-II	3	0	0	40	60	100	3
<b>PRACTICAL/TRAINING/PROJECT</b>									
5	BME8501	Project-II	0	0	4	80	20	100	6
6	BME8502	Industrial Visit-VI	0	0	0	100	-	100	1
<b>TOTAL</b>			<b>12</b>	<b>4</b>	<b>4</b>	<b>340</b>	<b>260</b>	<b>600</b>	<b>20</b>

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**LIST OF ELECTIVES**

**List of Open Electives**

S. No.	Subject Code	Subject
<b>Science Based Open Electives III/ IV Semester</b>		
1	BCY3301 / BCY4301	Industrial Chemical & Environment
2	BCY3302 / BCY4302	Polymer Technology
3	BMA3301 / BMA4301	Discrete Mathematics
4	BST3301 / BST4301	Statistical and Numerical Analysis
5	BPH3301 / BPH4301	Nano Science
6	BPH3302 / BPH4302	Space Science
<b>Department Elective –I VI Semester</b>		
1	BME6101	Energy Management
2	BME6102	Finite Element Method
3	BME6103	Unconventional Manufacturing Processes
4	BME6104	Maintenance Engineering and Management
<b>Open Elective-I VII Semester</b>		
1	BME7301	Operation Management
2	BME7302	Product Development and Design
<b>Department Elective –II VII Semester</b>		
1	BME7101	Thermal Turbo Machines
2	BME7102	Mechanical Vibrations and Control
3	BME7103	Analysis and Synthesis of Mechanisms
4	BME7104	Management Information System
5	BME7105	Product Development and Design
6	BME7106	Automobile Engineering
<b>Department Elective –III VIII Semester</b>		
1	BME8101	Design of Thermal Systems
2	BME8102	Concurrent Engineering
3	BME8103	Advanced Welding Technology
4	BME8104	Automation and Robotics
<b>Department Elective –IV VIII Semester</b>		
1	BME8201	Advance Mechanics of Materials

2	BME8202	Power Plant Engineering
3	BME8203	Machine Tool Design
4	BME8204	Non-Destructive Testing
5	BME8205	Quality Management
<b>Open Elective-II</b>		
<b>VIII Semester</b>		
1	BME8301	Quality Management
2	BME8302	Project Management