

**STUDY & EVALUATION SCHEME**  
**INTEGRATED B.TECH + M.B.A. (MECHANICAL ENGINEERING)**  
**II YEAR: III SEMESTER**

<b>S. NO.</b>	<b>SUBJECT CODE</b>	<b>SUBJECT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>CIE</b>	<b>ESE</b>	<b>TOTAL</b>	<b>C</b>
1	BME 3005	Engineering Mechanics	3	1	0	40	60	100	4
2	BME 3006	Thermodynamics	3	1	0	40	60	100	4
3	BEC 3016	Basic Electronics Engineering	3	1	0	40	60	100	4
4	BPH 3004-ME	Physics II (ME)	3	1	0	40	60	100	4
5	BMA 3010-ME	Mathematics III (ME)	3	1	0	40	60	100	4
6	BSS3001	Soft Skills & Interpersonal Communication	2	0	0	100	00	100	2
<b>TOTAL</b>			<b>17</b>	<b>5</b>	<b>0</b>	<b>300</b>	<b>300</b>	<b>600</b>	<b>22</b>

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**YEAR: IV SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BME 4006	Applied Thermodynamics	3	1	0	40	60	100	4
2	BME 4007	Fluid Mechanics and Fluid Machines	3	1	0	40	60	100	4
3	BME 4008	Strength of Materials	3	1	0	40	60	100	4
4	BME 4009	Instrumentation and Control	3	1	0	40	60	100	4
5	BME 4010	Materials Engineering	3	0	0	40	60	100	3
6	BBT 4023	Biology	2	0	0	40	60	100	2
7	XHU X602	Essence of Indian Traditional Knowledge	2	0	0	Satisfactory/Unsatisfactory			0
<b>PRACTICAL/TRAINING/PROJECT</b>									
8	XME X601	Industrial Visit	-	-	-	Satisfactory/Unsatisfactory			0
<b>TOTAL</b>			<b>19</b>	<b>4</b>	<b>0</b>	<b>240</b>	<b>360</b>	<b>600</b>	<b>21</b>

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**III YEAR: V SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BME 5006	Heat Transfer	3	1	0	40	60	100	4
2	BME 5007	Solid Mechanics	3	1	0	40	60	100	4
3	BME 5008	Manufacturing Processes	3	0	0	40	60	100	3
4	BME 5009	Kinematics and Theory of Machines	3	1	0	40	60	100	4
5	-	Open Elective -I	3	0	0	40	60	100	3
6	XLA X601	Constitution of India	2	0	0	Satisfactory/Unsatisfactory			0
<b>PRACTICAL/TRAINING/PROJECT</b>									
7	BME 5506	Mechanical Engineering Laboratory (Thermal) I	0	0	3	80	20	100	1.5
8	BME 5507	Seminar	0	0	2	100	-	100	1
9	BAP 5501	Aptitude and Reasoning & Online Test	0	0	0	Satisfactory/Unsatisfactory			0
<b>TOTAL</b>			<b>17</b>	<b>3</b>	<b>5</b>	<b>380</b>	<b>320</b>	<b>700</b>	<b>20.5</b>

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**III YEAR: VI SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BME 6004	Manufacturing Technology	4	0	0	40	60	100	4
2	BME 6005	Design of Machine Elements	3	1	0	40	60	100	4
3	-	Department Elective-I	3	0	0	40	60	100	3
4	-	Department Elective-II	3	0	0	40	60	100	3
5	-	Open Elective -II	3	0	0	40	60	100	3
<b>PRACTICAL/TRAINING/PROJECT</b>									
6	BME 6506	Mechanical Engineering Laboratory (Design) II	0	0	3	80	20	100	1.5
7	BAP 6601	Aptitude and Reasoning & Online Test	0	0	0	Satisfactory/Unsatisfactory			0
<b>TOTAL</b>			<b>16</b>	<b>1</b>	<b>3</b>	<b>280</b>	<b>320</b>	<b>600</b>	<b>18.5</b>

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**IV YEAR: VII SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	BME7005	Automation in Manufacturing	3	0	0	40	60	100	3
2	MEM7001	Managerial Economics	3	0	0	40	60	100	3
3	MCM7001	Accounting and Financial Analysis	3	1	0	40	60	100	4
4	MMG7005	Organizational Behavior	3	0	0	40	60	100	3
5	MMG7006	Marketing Management	3	1	0	40	60	100	4
6	MMG7007	Computer Applications in Management	3	0	0	40	60	100	3
7	MMG7011	Principles & Practices of Management	3	0	0	40	60	100	3
8	MMG7010	Managerial Communication	3	1	0	40	60	100	4
9	MMG7009	Quantitative Technique	3	1	0	40	60	100	4
<b>PRACTICAL/TRAINING/PROJECT</b>									
10	BME7506	Mechanical Engineering Laboratory (Manufacturing) III	0	0	3	80	20	100	1.5
11	MME7503	Summer Training	0	0	2	100	0	100	1
12	MMG7501	Software Applications in Management	0	0	2	80	20	100	1
<b>TOTAL</b>			<b>27</b>	<b>4</b>	<b>7</b>	<b>620</b>	<b>580</b>	<b>1200</b>	<b>33.5</b>

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**IV YEAR: VIII SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	MMG8001	Research Methodology	3	1	0	40	60	100	4
2	MMG8002	Human Resource Management	3	0	0	40	60	100	3
3	MCM8002	Financial Management	3	1	0	40	60	100	4
4	MMG8006	Legal Aspects of Business	3	0	0	40	60	100	3
5	MMG8009	Innovation & Entrepreneurship	3	0	0	40	60	100	3
6	MMG8004	Production & Operations Management	3	0	0	40	60	100	3
7	MMG8005	Business Environment	3	0	0	40	60	100	3
8	MMG8010	Operations Research	3	1	0	40	60	100	4
<b>PRACTICAL/TRAINING/PROJECT</b>									
9	MMG8502	Software Applications in Management-II	0	0	2	80	20	100	1
10	MMG8505	Industrial Visit	0	0	1	100	0	100	1
11	MMG8506	Comprehensive Viva-1	0	0	0	0	100	100	1
<b>TOTAL</b>			<b>24</b>	<b>3</b>	<b>3</b>	<b>500</b>	<b>600</b>	<b>1100</b>	<b>30</b>

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**V YEAR: IX SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	MCS9002	Management Information System	3	0	0	40	60	100	3
2	MMG9001	Corporate Governance & Business Ethics	3	0	0	40	60	100	3
3	--	Specialization1-(Course1)	3	1	0	40	60	100	4
4	--	Specialization1-(Course2)	3	1	0	40	60	100	4
5	--	Specialization2-(Course1)	3	1	0	40	60	100	4
6	--	Specialization2-(Course2)	3	1	0	40	60	100	4
<b>PRACTICAL/TRAINING/PROJECT</b>									
7	MMG9503	Summer Training - Project Report	0	0	2	80	20	100	3
8	MMG9502	SPSS	0	0	2	80	20	100	1
<b>TOTAL</b>			<b>18</b>	<b>4</b>	<b>4</b>	<b>400</b>	<b>4000</b>	<b>800</b>	<b>26</b>
	Value Added/ Certification Course	May Complete Suitable Courses From SWAYAM/ Certification Courses	3	0	0	40	60	100	3
<b>UNIVERSITY MANDATORY NON-CREDIT COURSE</b>									
1	XHUX601	Human Values Ethics	2	0	0	100	0	100	0

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**V YEAR: X SEMESTER**

S. NO.	SUBJECT CODE	SUBJECT	L	T	P	CIE	ESE	TOTAL	C
1	MMG0003	Strategic Management	3	1	0	40	60	100	4
2	--	Specialization1-(Course3)	3	1	0	40	60	100	4
3	--	Specialization1-(Course4)	3	1	0	40	60	100	4
4	--	Specialization2-(Course3)	3	1	0	40	60	100	4
5	--	Specialization2-(Course4)	3	1	0	40	60	100	4
<b>PRACTICAL/TRAINING/PROJECT</b>									
6	MMG0502	Business Research Project	0	0	2	80	20	100	3
7	MMG0504	Comprehensive Viva-II	0	0	2	0	100	100	1
<b>Total</b>			<b>15</b>	<b>5</b>	<b>4</b>	<b>280</b>	<b>420</b>	<b>700</b>	<b>24</b>
	Value Added/ Certification Course	May Complete Suitable Courses From SWAYAM/ Certification Courses	3	0	0	40	60	100	3

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**LIST OF ELECTIVES**

**LIST OF OPEN ELECTIVES**

	<b>SUBJECT CODE</b>	<b>SUBJECT</b>	<b>DEPARTMENT</b>	<b>SEMSESTER</b>
<b>Open Elective-I</b>	BHU 5301	Organizational Psychology	Humanities	V
	BHU 5302	Organizational Sociology	Humanities	V

**LIST OF DEPARTMENTAL ELECTIVES**

	<b>SUBJECT CODE</b>	<b>SUBJECT</b>	<b>SEMSESTER</b>
<b>Department Elective-I</b>	BME 6001-DE1	Mechatronics System	VI
	BME 6002-DE1	Refrigeration and Air Conditioning	VI
	BME 6003-DE1	Composite Materials	VI
	BME 6004-DE1	Operations Management –I	VI
<b>Department Elective-II</b>	BME 6001-DE2	Finite Element Analysis	VI
	BME 6002-DE2	Unconventional Manufacturing Processes	VI
	BME 6003-DE2	I.C Engine	VI
	BME 6004-DE2	Maintenance Engineering and Management	VI

**LIST OF ELECTIVES COURSES IN SPECIALIZATIONS**

<b>S. NO.</b>	<b>SPECIALIZATIONS</b>	<b>SUBJECT CODE</b>	<b>SUBJECT</b>	<b>SEMSESTER</b>
1	Marketing Management	MMG9006-MK	Sales and Retailing Management	IX
		MMG9005-MK	Consumer Behavior	IX
		MMG0006-MK	Integrated Marketing Communication	X
		MMG0005-MK	Marketing of Services	X
2	Human Resource Management	MMG9006-HR	Strategic HRM	IX
		MMG9004-HR	Industrial Relations and Labor Laws	IX

		MMG0007-HR	Performance & Compensation Management	X
		MMG0008-HR	Training and Development	X

3	Financial Management	MCM9003-FM	Security Analysis and Portfolio Management	IX
		MCM9004-FM	Taxation & Tax Planning	IX
		MCM9007-FM	Management Accounting for Decision Making	X
		MCM9003-FM	Financial Institutions & Services	X
4	Operations Management	MMG9003-OM	Logistics & Distribution Management	IX
		MMG9005-OM	Production Planning and Control	IX
		MMG9003-OM	Strategic Sourcing	X
		MMG9004-OM	Operations Strategy	X
5	International Business Management	MMG9003-IB	International Trade	IX
		MMG9004-IB	Export Management & Documentation	IX
		MMG9008-IB	International Logistics	X
		MMG9003-IB	International Marketing Management	X
6	Entrepreneurship & Family Business Management	MMG9001-ET	Business Analysis & Development Planning	IX
		MMG9004-ET	Management of Intellectual Property Rights	IX
		MMG9001-ET	Management of Funds for Small Business	X
		MMG9002-ET	Management of MSME	X
7	Information Technology	MCS9001-IT	ERP Systems: Technology Planning & Implementation	IX
		MCS9002-IT	Software Project Management	IX
		MCS9001-IT	Network Application & Management	X
		MCS9002-IT	E-Commerce Technology	X

**VALUE ADDED COURSES FROM THE UNIVERSITY**

<b>S. NO.</b>	<b>FOR VALUE ADDED</b>	<b>SUBJECT</b>	<b>SEMSESTER</b>
1	MMG9003-VA	Brand Management	IX
2	MMG9004-VA	Digital Marketing	IX
3	MMG9011-VA	Insurance & Risk Management	IX
4	MMG9017-VA	Project Management	IX
5	MMG9018-VA	Cross Cultural Management	IX
6	MMG9005-VA	Financial Derivatives	IX
7	MMG9013-VA	Forex Management	IX
8	MMG9019-VA	Data & Information Security	IX
9	MMG9020-VA	Negotiation & Conflict Resolution	IX
10	MMG0003-VA	Rural Marketing	X
11	MMG0006-VA	Online Trading of Financial Assets	X
12	MMG0007-VA	Management of Healthcare Services	X
13	MMG0016-VA	International Financial Management	X
14	MMG0009-VA	Software Project Management	X
15	MMG0011-VA	Disaster Management	X
16	MMG0013-VA	Customer Relationship Management	X
17	MMG0017-VA	HR Analytics	X
18	MMG0018-VA	E-Commerce Technology	X
19	MMG0019-VA	Digital Transformation in Financial Services	X
20	MMG0020-VA	Behavioral Financial	X