

## M. Tech. Course Structure

## I Year I Semester

S. No.	Code	Course Title	L	T	P	D	Credits	Common subject (Y/N)	Approving BOS
1	MM11A	Advanced Computer Aided Design	3	0	0	0	3	N	MECH
2	MM11B	Advanced Computer Aided Manufacturing	3	0	0	0	3	N	MECH
3		<b>Program Elective – I</b>	3	0	0	0	3	N	MECH
4		<b>Program Elective – II</b>	3	0	0	0	3	N	MECH
5	MM111	Advanced Computer Aided Design Lab	0	0	4	0	2	N	MECH
6	MM112	Advanced Computer Aided Manufacturing Lab	0	0	4	0	2	N	MECH
7	MM91A	Soft skills & Personality Development	3	0	0	0	0	Y	MBA
<b>Total</b>			<b>15</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>16</b>		

## I Year II Semester

S. No.	Code	Course Title	L	T	P	D	Credits	Common subject (Y/N)	Approving BOS
1	MM12A	Manufacturing Systems: Simulation modeling & Analysis	3	0	0	0	3	N	MECH
2	MM12B	Advanced Finite Element Methods	3	0	0	0	3	N	MECH
3		<b>Program Elective – III</b>	3	0	0	0	3	N	MECH
4		<b>Program Elective – IV</b>	3	0	0	0	3	N	MECH
5	MM121	Simulation and Precision Engineering Lab	0	0	4	0	2	N	MECH
6	MM122	Advanced Computer Aided Engineering Lab	0	0	4	0	2	N	MECH
7	MM92A	Research Methodology and IPR	2	0	0	0	2	Y	MBA
8	MM92B	Professional value and Ethics	2	0	0	0	0	Y	MBA
<b>Total</b>			<b>16</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>18</b>		

<b>JBIET-R22</b>	<b>J. B. Institute of Engineering and Technology</b> (UGC Autonomous)	<b>M.Tech-CAD/CAM</b>
<b>M. Tech Course Structure</b>		

<b>II Year I Semester</b>									
<b>S. No.</b>	<b>Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>D</b>	<b>Credits</b>	<b>Common subject (Y/N)</b>	<b>Approving BOS</b>
1		<b>Program Elective – V</b>	3	0	0	0	3	N	MECH
2		<b>Open Elective – I</b>	3	0	0	0	3	N	MECH
3	MM131	Mini Project	0	0	4	0	2	N	MECH
4	MM132	Technical seminar	0	0	2	0	1	N	MECH
5	MM133	Phase-I Dissertation	0	0	18	0	9	N	MECH
<b>Total</b>			<b>6</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>18</b>		

<b>II Year II Semester</b>									
<b>S. No.</b>	<b>Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>D</b>	<b>Credits</b>	<b>Common subject (Y/N)</b>	<b>Approving BOS</b>
1	MM141	Phase-II Dissertation	0	0	32	0	16	N	MECH
<b>Total</b>			<b>0</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>16</b>		

**Note:** All End Examinations (Theory and Practical) are of three-hour duration.

L – Lecture, T – Tutorial, P – Practical, D – Drawing, C – Credits.

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<b>Professional Elective-I</b>										
<b>S. No.</b>	<b>Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>D</b>	<b>Credits</b>	<b>Category</b>	<b>common subject (Y/N)</b>	<b>Approving BOS</b>
1	MM11C	Mechanical Behaviour of Materials	3	0	0	0	3	PE	N	MECH
2	MM11D	Stress Analysis and Vibration	3	0	0	0	3	PE	N	MECH
3	MM11E	Rapid Prototyping Technologies	3	0	0	0	3	PE	N	MECH

<b>Professional Elective-II</b>										
<b>S. No.</b>	<b>Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>D</b>	<b>Credits</b>	<b>Category</b>	<b>common subject (Y/N)</b>	<b>Approving BOS</b>
1	MM11F	Automation in Manufacturing	3	0	0	0	3	PE	N	MECH
2	MM11G	Computer Aided Process Planning	3	0	0	0	3	PE	N	MECH
3	MM11H	Optimization Techniques and Applications	3	0	0	0	3	PE	N	MECH

<b>Professional Elective-III</b>										
<b>S. No.</b>	<b>Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>D</b>	<b>Credits</b>	<b>Category</b>	<b>common subject (Y/N)</b>	<b>Approving BOS</b>
1	MM12C	Intelligent Manufacturing Systems	3	0	0	0	3	PE	N	MECH
2	MM12D	Special Manufacturing Process	3	0	0	0	3	PE	N	MECH
3	MM12E	Precision Engineering	3	0	0	0	3	PE	N	MECH

<b>Professional Elective-IV</b>										
<b>S. No.</b>	<b>Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>D</b>	<b>Credits</b>	<b>Category</b>	<b>common subject (Y/N)</b>	<b>Approving BOS</b>
1	MM12F	Advanced Mechatronics	3	0	0	0	3	PE	N	MECH
2	MM12G	Design and Manufacturing of MEMS and Micro systems	3	0	0	0	3	PE	N	MECH
3	MM12H	Design for Manufacturing and Assembly	3	0	0	0	3	PE	N	MECH

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<b>Professional Elective-V</b>										
<b>S. No.</b>	<b>Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>D</b>	<b>Credits</b>	<b>Category</b>	<b>Common subject (Y/N)</b>	<b>Approving BOS</b>
1	MM13A	Mechanics of Composite Materials	3	0	0	0	3	PE	N	MECH
2	MM13B	Industrial Robotics	3	0	0	0	3	PE	N	MECH
3	MM13C	Production and Operation Management	3	0	0	0	3	PE	N	MECH

## M. Tech Course Structure

## Open Elective-I

S. No.	Code	Course Title	L	T	P	D	Credits	Category	Common Subject (Y/N)
1	MM30A	Disaster Management	3	0	0	0	3	OEC	CE
2	MM30B	Precast & Prefabricated Construction	3	0	0	0	3	OEC	CE
3	MM60A	Clean Room Technology and Maintenance.	3	0	0	0	3	OEC	ECE
4	MM60B	Principles of Computer Communications and Networks.	3	0	0	0	3	OEC	ECE
5	MM20A	Renewable Energy Technologies and Battery Storage	3	0	0	0	3	OEC	EEE
6	MM20B	Solar and Energy Storage Systems	3	0	0	0	3	OEC	EEE
7	MM10A	Industrial Safety	3	0	0	0	3	OEC	MECH
8			3	0	0	0	3	OEC	CSE
9			3	0	0	0	3	OEC	CSE