

Faculty of Engineering, School of Automobile Mechanical and Mechatronics Engineering  
Department of Mechanical Engineering  
Degree: B. Tech. Mechanical Engineering Total Credit: 160

Third Semester						Fourth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C
MEE2001	Engineering Economics	3	0	0	3	MAS2001	Statistics & Probability	3	0	0	3
MBB21XX	Management of Technology	3	0	0	3	MEE2201	Fluid Mechanics	2	1	2	4
MEE2101	Materials Science & Metallurgy	4	0	0	4	MEE2202	Production Technology	4	0	0	4
MEE2102	Thermal Engineering	3	1	0	4	MEE22X	Flexi Core 2	4	0	0	4
MEE2103	Strength of Materials	2	1	2	4	MEE22X	Program Elective 1	3	0	0	3
MEE21X	Flexi Core 1	4	0	0	4	XXXX	Open Elective 1	3	0	0	3
MEE2130	Thermal Engineering-I Lab	0	0	2	1	MEE2230	Numerical Methods & Computational Lab	0	0	2	1
MEE2131	Computer Aided Drawing Lab	0	0	2	1	MEE2231	Production Technology Lab	0	0	2	1
MEE2170	Project-based Learning 1	0	0	2	1	MEE2270	Project-based Learning 2	0	0	2	1
	<b>Total Contact Hours (L+T+P)</b>	<b>19</b>	<b>2</b>	<b>8</b>	<b>25</b>		<b>Total Contact Hours (L+T+P)</b>	<b>19</b>	<b>1</b>	<b>8</b>	<b>24</b>
Fifth Semester						Sixth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C
MEE3101	Design of Machine Elements	3	1	0	4	MEE3201	Finite Element Methods	3	1	0	4
MEE3102	Heat Transfer	3	1	0	4	MEE32XX	Program Elective 4	3	0	0	3
MEE31X	Flexi Core 3	4	0	0	4	MEE32XX	Program Elective 5	3	0	0	3
MEE31X	Program Elective 2	3	0	0	3	MEE3 XX	Program Elective 6	3	0	0	3
MEE31X	Program Elective 3	3	0	0	3	XXXX	Open Elective 3	3	0	0	3
MEEXXX	Open Elective 2	3	0	0	3	MEE3202	Professional Practice	1	0	0	1
MEE3130	Thermal Engineering II Lab	0	0	2	1	MEE3230	Smart manufacturing Lab	0	0	2	1
MEE3131	CIM & Automation Lab	0	0	2	1	MEE3231	Modelling & Simulation Lab	0	0	2	1
MEE3170	Project-based Learning 3	0	0	2	1	MEE3270	Project-based Learning 4				3
	<b>Total Contact Hours (L+T+P)</b>	<b>19</b>	<b>2</b>	<b>6</b>	<b>24</b>		<b>Total Contact Hours (L+T+P)</b>	<b>16</b>	<b>1</b>	<b>4</b>	<b>22</b>

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Seventh Semester						Eighth Semester					
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C
MEE41XX	Program Elective 7	3	0	0	3	MEE4270	Major Project				12
MEE41XX	Program Elective 8	3	0	0	3						
XXXX	Open Elective 4	3	0	0	3						
XXXX	Open Elective 5	3	0	0	3						
MEE4170	Internship (Industry or Research)	0	0	2	1						
	<b>Total Contact Hours (L+T+P)</b>	<b>12</b>	<b>0</b>	<b>2</b>	<b>13</b>		<b>Total Contact Hours (L+T+P)</b>				<b>12</b>

### Flexi Cores

Flexi Core 1	Flexi Core 2	Flexi Core 3
MEE2120: Optimization Techniques XXXX: Data Structure & Algorithm	MEE2220: Theory of Machines XXXX: Relational Data Base Management System	MEE3120: Smart Manufacturing XXXX: Object-Oriented Programming System

### Program Electives

IV	V	VI	VII
<b>Program Elective 1</b> <b>MEE2240:</b> Product Design and Development <b>MEE2241:</b> Industrial Engineering <b>MEE2242:</b> Solar Energy Technology	<b>Program Elective 2</b> <b>MEE3140:</b> Computer Aided Design <b>MEE3141:</b> Control Systems <b>MEE3142:</b> Noise, Vibration and Harshness <b>Program Elective 3</b> <b>MEE3147:</b> Advanced Engineering Materials <b>MEE3148:</b> Machinery Fault Diagnosis and Signal Processing <b>MEE3149:</b> Alternative Fuels	<b>Program Elective 4</b> <b>MEE3240:</b> Artificial Intelligence and Machine Learning <b>MEE3241:</b> Refrigeration & air-Conditioning <b>MEE3242:</b> Sensors and actuators <b>Program Elective 5</b> <b>MEE3247:</b> Reliability and Maintenance Management <b>MEE3248:</b> IC Engines <b>MEE3249:</b> Electric Vehicle Integration <b>Program Elective 6</b> <b>MEE3254:</b> Flexible Manufacturing System <b>MEE3255:</b> Aerodynamics <b>MEE3256:</b> Electric and hybrid vehicle	<b>Program Elective 7</b> <b>MEE4140:</b> Computational Fluid Dynamics <b>MEE4141:</b> Computational methods for mechanics and materials <b>MEE4142:</b> Non-Conventional Energy Systems <b>Program Elective 8</b> <b>MEE4147:</b> Materials for Energy Systems <b>MEE4148:</b> Engineering Fracture Mechanics <b>MEE4149:</b> Advanced Manufacturing Processes

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**Open Electives**

Graded OE	Non-Graded OE
1. MEE0001: Basics of Materials Engineering 2. MEE0002: Biomaterials 3. MEE0003: Product Design and Manufacturing 4. MEE0004: Joining Technology for Metals 5. MEE0005: Operations Management 6. MEE0006: Additive Manufacturing 7. MEE0007: Renewable Energy 8. MEE0008: Computational Methods	NIL