Faculty of Engineering, School of Automobile Mechanical and Mechatronics Engineering
Department of Mechanical Engineering
Degree: B. Tech. (Hons) Mechanical Engineering Total Credit: 178 (160 +18*)

	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
	Total Contact Hours (L+T+P)	**19**	**2**	**8**	**25**		**Total Contact Hours (L+T+P)**	19	1	8	24
	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
MEE3180	Research Methodology	1	0	0	1*	**MEE32XX**	Honors Elective1	3	0	0	3*
	Total Contact Hours (L+T+P)	**20**	**2**	**6**	**25**		**Total Contact Hours (L+T+P)**	**19**	**1**	**4**	**25**

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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	**MEE42XX**	Honors Project				8*
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						
MEE41XX	Honors Elective 2	3	0	0	3*						
MEE41XX	Honors Elective 3	3	0	0	3*						
	Total Contact Hours (L+T+P)	**18**	**0**	**2**	**19**		**Total Contact Hours (L+T+P)**				**20**

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

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		MEE3255: Aerodynamics **MEE3256:** Electric and hybrid vehicle	

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

Program Electives for Hons

VI / VII
MEE3280: Quality Management – Pre-Requisite: NIL MEE4180: Operations and Supply Chain Management – Pre-Requisite: NIL MEE4181: Project Management – Pre-Requisite: NIL