

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

Third Semester						Fourth Semester						
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C	
MEE2001 <sup>1</sup>	Engineering Economics	3	0	0	3	MAS2001	Statistics & Probability	3	0	0	3	
MBB21XX	Management of Technology	3	0	0	3	AUT2201	Vehicle Architecture	3	0	2	4	
MEE2101	Materials Science & Metallurgy	4	0	0	4	AUT2202	Vehicle Control Systems	4	0	0	4	
MEE2102	Thermal Engineering	4	0	0	4	AUT222X	Flexi Core 2	4	0	0	4	
MEE2103	Strength of Materials	2	1	2	4	AUT22XX	Program Elective 1	3	0	0	3	
AUT21X	Flexi Core 1	4	0	0	4	XXXXXXXX	Open Elective 1	3	0	0	3	
AUT2130	Computer Aided Drawing Lab	0	0	2	1	AUT2230	Vehicle Control System Lab	0	0	2	1	
AUT2131	Automotive Engines Lab	0	0	2	1	AUT2231	Automotive Data Analytics Lab	0	0	2	1	
AUT2170	Project-based Learning 1	0	0	2	1	AUT2270	Project-based Learning 2	0	0	2	1	
		20	1	8	25			20	0	8	24	
	<b>Total Contact Hours (L+T+P)</b>	<b>29</b>					<b>Total Contact Hours (L+T+P)</b>	<b>28</b>				
Fifth Semester						Sixth Semester						
Code	Subject Name	L	T	P	C	Code	Subject Name	L	T	P	C	
AUT3101	Automotive Design	3	1	0	4	AUT3201	Quality Engineering	3	0	2	4	
AUT3102	Vehicle Drive Line Systems	4	0	0	4	AUT 32XX	Program Elective 4	3	0	0	3	
AUT 312X	Flexi Core 3	4	0	0	4	AUT 32XX	Program Elective 5	3	0	0	3	
AUT 31XX	Program Elective 2	3	0	0	3	AUT 32XX	Program Elective 6	3	0	0	3	
AUT 31XX	Program Elective 3	3	0	0	3	XXXXXX	Open Elective 3	3	0	0	3	
XXXXXX	Open Elective 2	3	0	0	3	AUT3202	Professional Practice	1	0	0	1	
AUT3130	Automotive Design Lab	0	0	2	1	AUT3230	Vehicle Electronics System Lab	0	0	2	1	
AUT3131	Vehicle Drive Line Systems Lab	0	0	2	1	AUT3231	Modelling & Simulation Lab	0	0	2	1	
AUT3170	Project-based Learning 3	0	0	2	1	AUT3270	Project-based Learning 4				3	
		20	1	6	24			16	0	6	22	
	<b>Total Contact Hours (L+T+P)</b>	<b>27</b>					<b>Total Contact Hours (L+T+P)</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	
AUT41XX	Program Elective 7	3	0	0	3	AUT4270	Major Project				12	
AUT41XX	Program Elective 8	3	0	0	3							
XXXXXX	Open Elective 4	3	0	0	3							
XXXXXX	Open Elective 5	3	0	0	3							
AUT4170	Internship (Industry or Research)	0	0	2	1							
		12	0	2	13						12	
	<b>Total Contact Hours (L+T+P)</b>	<b>14</b>					<b>Total Contact Hours (L+T+P)</b>					

## Flexi Core

Flexi Core 1	Flexi Core 2	Flexi Core 3
AUT2120 Conventional & Hybrid Engines	AUT2220 Automotive Pneumatic & Hydraulic Systems	AUT3120 Vehicle Dynamics
XXXXX Data Structure & Algorithm	XXXXX Relational Data Base Management System	XXXXX Object-Oriented Programming System

Program Electives			
IV	V	VI	VII
<b>Program Elective 1</b> <ul style="list-style-type: none"> <li>• AUT2240: Kinematics and Dynamics of Automobile</li> <li>• AUT2241: Two and Three-wheeled Vehicle Systems</li> <li>• AUT2242: Product Design &amp; Development</li> </ul>	<b>Program Elective 2</b> <ul style="list-style-type: none"> <li>• AUT3140: Manufacturing Technology</li> <li>• AUT3141: Machine Learning for Automotives</li> <li>• AUT3142: Computer Integrated Manufacturing</li> </ul> <b>Program Elective 3</b> <ul style="list-style-type: none"> <li>• AUT3147: Heat Transfer in Automotive System</li> <li>• AUT3148: Autonomous Vehicle</li> <li>• AUT3149: Automotive Pollution &amp; Control</li> </ul>	<b>Program Elective 4</b> <ul style="list-style-type: none"> <li>• AUT3240: Electric Vehicle Integration</li> <li>• AUT3241: EV Motor Drives and Power Electronics</li> <li>• AUT3242: EV Telematics and tracking</li> </ul> <b>Program Elective 5</b> <ul style="list-style-type: none"> <li>• AUT3247: Computational Fluid Dynamics</li> <li>• AUT3248: Computer-Aided Design &amp; FEA</li> <li>• AUT3249: Automotive Noise, Vibrations &amp; Harshness</li> </ul>	<b>Program Elective 7</b> <ul style="list-style-type: none"> <li>• AUT4140: Optimization Techniques</li> <li>• AUT4141: Automotive Service Operation</li> <li>• AUT4142: Vehicle Fault Diagnosis &amp; Trouble Shooting</li> </ul> <b>Program Elective 8</b> <ul style="list-style-type: none"> <li>• AUT4147: AI for Automobiles</li> <li>• AUT4148: Automotive Air Conditioning Systems</li> <li>• AUT4149: Earth Moving Equipment</li> </ul>

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		<b>Program Elective 6</b> <ul style="list-style-type: none"> <li>• AUT3254: Vehicle Ergonomics &amp; Safety Systems</li> <li>• AUT3255: Production and Operations Management</li> <li>• AUT3256: Vehicle Body Engineering</li> </ul>	
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#### Open Electives

Graded OE	Non-Graded OE
OE1. MEE0001: Basics of Materials Engineering OE2. MEE0002: Biomaterials OE 3. MEE0003: Product Design and Manufacturing OE4. MEE0004: Joining Technology for Metals OE5. MEE0005: Operations Management OE6. MEE0006: Additive Manufacturing OE7. MEE0007: Renewable Energy OE8. MEE0008: Computational Methods	NIL

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<sup>i</sup> Statistics & Probability: CSE, AIML, SEEC students will take in 3<sup>rd</sup> semester. Engineering Economics: SIT, SCCE, All Core (-) SEEC will take in 3<sup>rd</sup> semester. In 4<sup>th</sup> semester, these courses are switched.