

**13. Courses of Study and Scheme of Assessment  
ME AUTOMOTIVE ENGINEERING**

**(2021 REGULATIONS)  
(Minimum No. of credits to be earned: 70)**

Course Code	Course Title	Hours/Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
<b>III SEMESTER</b>									
21AE__	Professional Elective – IV	3	0	0	3	50	50	100	PE
21AE__	Open Elective	3	0	0	3	50	50	100	OE
21AE71	Project Work I	0	0	12	6	50	50	100	EEC
<b>Total 18hrs</b>		<b>6</b>	<b>0</b>	<b>12</b>	<b>12</b>	<b>150</b>	<b>150</b>	<b>300</b>	
<b>IV SEMESTER</b>									
21AE81	Project Work II	0	0	24	12	50	50	100	EEC
<b>Total 24 hrs</b>		<b>0</b>	<b>0</b>	<b>24</b>	<b>12</b>	<b>50</b>	<b>50</b>	<b>100</b>	

**PROFESSIONAL ELECTIVE THEORY COURSES (Four to be opted)**

Course Code	Course Title	Hours / Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
<b>DESIGN STREAM</b>									
21AE11	Engine Component Design	3	0	0	3	50	50	100	PC
21AE12	Chassis Component Design	3	0	0	3	50	50	100	PC
21AE13	Automotive NVH	3	0	0	3	50	50	100	PC
21AE14	Mechanics of Composite Material	3	0	0	3	50	50	100	PC
21AE15	Automotive Product Life Cycle Management	3	0	0	3	50	50	100	PC
21AE16	Aerodynamics of Road vehicles	3	0	0	3	50	50	100	PC
21AE17	Computational Fluid Dynamics	3	0	0	3	50	50	100	PC
<b>MANUFACTURING STREAM</b>									
21AE21	Additive Manufacturing	3	0	0	3	50	50	100	PC
21AE22	Design for Manufacture and Assembly	3	1	0	4	50	50	100	PC
21AE23	Green Materials	3	0	0	3	50	50	100	PC
21AE24	Smart Manufacturing	3	0	0	3	50	50	100	PC
<b>ELECTRIFICATION STREAM</b>									
21AE31	Energy Storage Devices	3	0	0	3	50	50	100	PC
21AE32	xEV Design	3	0	0	3	50	50	100	PC
21AE33	Smart Charging Systems and Infrastructure	3	0	0	3	50	50	100	PC
21AE34	Power Electronics	3	0	0	3	50	50	100	PC
21AE35	Alternate Power Train	3	0	0	3	50	50	100	PC
21AE36	Fuel Cell Vehicles	3	0	0	3	50	50	100	PC
21AE37	Applied Automotive Control Theory	3	0	0	0	50	50	100	PC

<b>INTELLIGENT VEHICLE TECHNOLOGY</b>									
21AE41	Autonomous Vehicles and Connected Cars	3	0	0	3	50	50	100	PC
21AE42	Automotive Infotronics	3	0	0	3	50	50	100	PC
21AE43	Automotive Safety Systems	3	0	0	3	50	50	100	PC
21AE44	Transportation Management	3	0	0	3	50	50	100	PC
21AE45	Automotive Electronics	3	0	0	3	50	50	100	PC

\* Indicated is the minimum number of credits to be earned by a student.

**CAT – Category; PC – Professional Core; PE - Professional Elective; RMC- Research Methodology and IPR; EEC – Employability Enhancement Course; MC- Mandatory Course; OE – Open Elective; Grade – Competed / Not Completed**