

**Course Structure: B.Tech. (Automobile Engineering (Electric Vehicles))**

**Valid for students admitted from year 2022 to 2022**

**Semester 3:**

S.No.	Course Catag	Course No.	Course title	Contact Periods			Credits	Marks			Total
				L	T	P		Course-Work	Mid-Sem	End-Sem	
1	ESA	AEA2420	Experimental Methods & Analysis	2	1	0	3	15	25	60	100
2	DC	AEC2110	Mechanics of Solids	3	1	0	4	15	25	60	100
3	DC	AEC2320	Fluid Mechanics	3	1	0	4	15	25	60	100
4	DC	AEC2410	Manufacturing Technology	3	1	0	4	15	25	60	100
5	DC	AEC2750	Lean Methods for Automobile Engineers	2	1	0	3	15	25	60	100
6	DC	AEC2910	Machine Drawing Lab	0	1	2	2	60		40	100
7	DC	AEC2930	Manufacturing Technology Lab-I	0	1	2	2	60		40	100
8	DC	AEC2950	Fluids Mechanics Lab	0	1	2	2	60		40	100
9	BS	AMS2310	Higher Mathematics	3	1	0	4	15	25	60	100

**TOTAL CREDITS: 28**

**Semester 4:**

S.No.	Course Catag	Course No.	Course title	Contact Periods			Credits	Marks			Total
				L	T	P		Course-Work	Mid-Sem	End-Sem	
1	ESA	AEA2970	Automotive Electrical & Electronic Lab	0	0	3	1.5	60		40	100
2	DC	AEC2220	Applied Thermodynamics & Heat Transfer	2	1	0	3	15	25	60	100
3	DC	AEC2430	Automotive Materials	3	1	0	4	15	25	60	100
4	DC	AEC2450	Vehicle Body Design	3	1	0	4	15	25	60	100
5	DC	AEC2760	Additive Manufacturing	2	1	0	3	15	25	60	100
6	DC	AEC2960	Thermal System Lab -I	0	0	3	1.5	60		40	100
7	BS	AMS2320	Numerical Methods & Optimization	3	1	0	4	15	25	60	100
8	ESA	EEA2040	Automotive Electrical & Electronic System	3	1	0	4	15	25	60	100
9	HM	EZH2910	Communication Skills Lab	0	1	2	2	60		40	100

**TOTAL CREDITS: 27**

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**Semester 5:**

S.No.	Course Catag	Course No.	Course title	Contact Periods			Credits	Marks			Total
				L	T	P		Course-Work	Mid-Sem	End-Sem	
1	DC	AEC3110	Design of Vehicle Components	3	1	0	4	15	25	60	100
2	DC	AEC3130	Automotive Drives & Transmission	3	1	0	4	15	25	60	100
3	DC	AEC3240	Fuels, Lubricants & Coolants	3	1	0	4	15	25	60	100
4	DC	AEC3320	Electric & Hybrid Vehicles	2	1	0	3	15	25	60	100
5	DC	AEC3920	Machine Design Practice	0	1	2	2	60		40	100
6	DC	AEC3960	Modeling & Simulation of Thermofluid Systems	0	1	2	2	60		40	100
7	HM	MEH3450	Engineering Economy & Management	3	1	0	4	15	25	60	100
8	DE		Departmental Elective-1				4	15	25	60	100

**TOTAL CREDITS: 27**

**Semester 6:**

S.No.	Course Catag	Course No.	Course title	Contact Periods			Credits	Marks			Total
				L	T	P		Course-Work	Mid-Sem	End-Sem	
1	DC	AEC3120	Machinery Dynamics	3	1	0	4	15	25	60	100
2	DC	AEC3220	I.C. Engines	3	1	0	4	15	25	60	100
3	DC	AEC3250	Automotive Emission & Control	2	1	0	3	15	25	60	100
4	DC	AEC3340	Automotive Hydraulic Pneumatic Systems	3	1	0	4	15	25	60	100
5	DC	AEC3930	Manufacturing Technology Lab-II	0	1	2	2	60		40	100
6	DC	AEC3940	Solid Modeling & Analysis Lab	0	1	2	2	60		40	100
7	DC	AEC3950	Kinematics & Stress Analysis Lab	0	1	2	2	60		40	100
8	DC	AEC3970	Fuel Testing Lab	0	1	2	2	60		40	100
9	HM	EZH4010	Intellectual Property Right for Engineers	2	1	0	3	15	25	60	100

**TOTAL CREDITS: 26**

**Course Structure: B.Tech. (Automobile Engineering (Electric Vehicles))**

**Valid for students admitted from year 2022 to 2022**

**Semester 7:**

S.No.	Course Catag	Course No.	Course title	Contact Periods			Credits	Marks			Total
				L	T	P		Course-Work	Mid-Sem	End-Sem	
1	DC	AEC4110	Vehicle Dynamics	3	1	0	4	15	25	60	100
2	DC	AEC4210	Automotive System	3	1	0	4	15	25	60	100
3	DC	AEC4910	Project (Phase I)	0	3	0	3	60		40	100
4	DC	AEC4940	Dynamics Lab.	0	1	2	2	60		40	100
5	DC	AEC4950	Energy Conversion Systems Lab	0	1	2	2	60		40	100
6	DC	AEC4960	Thermal System Lab II	0	1	2	2	60		40	100
7	AU	AEU4810	Industrial/Academic Training				0	0		100	100
8	HM	MEH4810	Colloquium	0	1	2	2	60		40	100
9	DE		Departmental Elective-2				4	15	25	60	100
10	OE		Open Elective-1				4	15	25	60	100

**TOTAL CREDITS: 27**

**Semester 8:**

S.No.	Course Catag	Course No.	Course title	Contact Periods			Credits	Marks			Total
				L	T	P		Course-Work	Mid-Sem	End-Sem	
1	DC	AEC4920	Project (Phase II)	0	3	0	3	60		40	100
2	DE		Departmental Elective-3				4	15	25	60	100
3	DE		Departmental Elective-4				4	15	25	60	100
4	DE		Departmental Elective-5				4	15	25	60	100
5	OE		Open Elective-2				4	15	25	60	100

**TOTAL CREDITS: 19**

**Course Structure: B.Tech. (Automobile Engineering (Electric Vehicles))**

**Valid for students admitted from year 2022 to 2022**

**List of Departmental Elective (DE) Courses:**

S.No.	Crs. No.	Course title	S.No.	Crs. No.	Course title
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**SUMMARY:**

Category Code	Category Name	II-IV Year Credits	First Year Credits	Total Credits
DC	Departmental Core	98.5	0	98.5
DE	Departmental Elective	20	0	20
BS	Basic Sciences	8	19	27
ESA	Engg. Science and Arts	8.5	24	32.5
OE	Open Elective	8	0	8
HM	Humanities	11	3	14
<b>TOTAL</b>		<b>154</b>	<b>46</b>	<b>200</b>