

Course Structure

M. Voc. (Automobile Technology)

Semester	Paper Code	Paper Title	Contact Hrs / Week	Credits
Semester I	CC 100	Constitution of India	2	2
	ATF 121	Automotive Engines	2	2
	ATF122	Automotive Transmission Systems	2	2
	ATF 123	Fuels and Combustion	2	2
	ATC 124	Automobile Control Systems	2	2
	ATC 125	Automobile Engine Components Design	2	2
	ATC 126	Automobile Air Conditioning	2	2
	CF 101	Research Methodology	1	1
	EF 1XX	Elective Foundation (Any One) ▪ Operations Management (EF 130) ▪ Materials management (EF 131)	2	2
	ATLF 127	Laboratory Coursework based on Automobile Engines and Engine Design (Auto-CAD)	6	3
	ATLF 128	Laboratory Coursework based on Automotive Transmission Systems	3	1.5
	ATLF 129	Laboratory Coursework based on Fuels and Combustion	3	1.5
	ATLC 130	Laboratory Coursework based on Automobile Control Systems	3	1.5
	ATLC 131	Laboratory Coursework based on Automobile Air Conditioning	3	1.5
Assignments/Tutorials will remain integral part of all courses				
Total Credits for Semester – I				26
Semester	Paper Code	Paper Title	Contact Hrs/Week	Credits
Semester II	ATF 221	Transmission System Design	2	2
	ATF 222	Automobile Systems Design	2	2
	ATF 223	Hydraulic and Pneumatic Systems	2	2
	ATF 224	Noise and Vibration	2	2
	ATC 225	Automobile Body Engineering	2	2
	ATC 226	Vehicle Dynamics	2	2
	ATLF 227	Laboratory Coursework based on Hydraulic and Pneumatic Systems	3	1.5
	ATLF 228	Laboratory Coursework based on Noise and Vibration	3	1.5
	ATLC 229	Laboratory Coursework based on Solid Modeling	6	3
	ATLC 230	Laboratory Coursework based on Automobile Body Engineering	3	1.5
	ATLC 231	Laboratory Coursework based on Automotive Electrical system diagnosis	3	1.5

	ATR 232	Research/ Industrial Project – Phase I (Review of Literature/ Industrial Orientation, Formulation of Topic, Experimental Plan)	10	5
Assignments/Tutorials will remain integral part of all courses				
Total Credits for Semester – II				26
Semester	Paper Code	Paper Title	Contact Hrs/Week	Credits
Semester III	ATC 321	Vehicle Testing	2	2
	ATC 322	Transport Management	2	2
	ATGE 32X	Generic Elective – I	2	2
	ATGE 32X₁	Generic Elective – II	2	2
	ATOE 32X₂	Open Elective -I	2	2
	ATLC 332	Laboratory Coursework based on Vehicle Testing	3	1.5
	ATLC 333	Laboratory Coursework based on Wheel Balancing and Wheel Alignment	3	1.5
	ATLE 33X_L	Laboratory Coursework based on Generic Elective - I	3	1.5
	ATLE 33X_{IL}	Laboratory Coursework based on Generic Elective - II	3	1.5
	ATR 340	Research/ Industrial Project – Phase II (Experimental Work)	18	9
Assignments/Tutorials will remain integral part of all courses				
Total Credits for Semester – III				25
Semester	Paper Code	Paper Title	Contact Hrs/Week	Credits
Semester IV	ATGE 42X	Generic Elective - III	2	2
	ATGE 42X₁	Open Elective - II	2	2
	ATLE 42X₂	Laboratory Coursework based on Generic Elective - III	3	1.5
	ATR 430	Research/ Industrial Project – Phase III (Experimental Work Continued, Organization and Interpretation of Result, Dissertation, Presentation)	39	19.5
	Assignments/Tutorials will remain integral part of all courses			
Total Credits for Semester – IV				25

Electives for Semester – III

(Any four theory paper along with corresponding lab course have to be chosen from generic electives)

(Any one theory paper along with corresponding lab course have to be chosen from open electives)

	Paper Code	Paper Title		Paper Code	Paper Title
Generic Elective-I	ATGE 323	Automotive Maintenance & Management	Generic Elective-I (Lab)	ATLE 334	Laboratory Coursework based on Automotive Maintenance & Management
	ATGE 324	Finite Element Methods		ATLE 335	Laboratory Coursework based on Finite Element Methods
	ATGE 325	Vehicle Aerodynamics and Design		ATLE 336	Laboratory Coursework based on Vehicle Aerodynamics and Design
Generic Elective-II	ATGE 326	Autotronics	Generic Elective-II (Lab)	ATLE 337	Laboratory Coursework based on Autotronics
	ATGE 327	Automotive Metallurgy		ATLE 338	Laboratory Coursework based on Automotive Metallurgy
	ATGE 328	Special Purpose Vehicles		ATLE 339	Laboratory Coursework based on Special Purpose Vehicles
Open Elective-I	ATOE 329	Robotics	/		
	ATOE 330	CNC Technology			
	ATOE 331	Automated and Computer Integrated Manufacturing			
<p>Electives for Semester – IV</p> <p>(Any one theory paper along with corresponding lab course have to be chosen from generic electives)</p> <p>(Any one theory paper along with corresponding lab course have to be chosen from open electives)</p>					
	Paper Code	Paper Title		Paper Code	Paper Title
Generic Elective-III	ATGE 421	Automotive Emission and Controls	Generic Elective-III (Lab)	ATLE 427	Laboratory Coursework based on Automotive Emission and Controls
	ATGE 422	Hybrid Vehicles		ATLE 428	Laboratory Coursework based on Hybrid Vehicles
	ATGE 423	Automotive Safety		ATLE 429	Laboratory Coursework based on Automotive Safety

Open Elective-II	ATOE 424	Applied Hydraulics and Pneumatics		
	ATOE 425	Industrial Robotics		
	ATOE 426	Advanced Electrical Drives		