

Curriculum for M.Sc Automotive Engineering

Two options, each with total credit hours of 30, will be offered:

(A) Thesis Option: 8 Subjects (24 credit hours) + Research Thesis (6 credit hours)

(B) Non-thesis option: 10 Subjects (30 credit hours)

Course Code	Course Title
Group-A	Compulsory Subjects
AME-501	Automotive IC Engines
AME-502	Automotive Control Systems
AME-503	Vehicle Dynamics
ME-601	Research Methods and Engineering Analysis
Group-B	Elective Subjects {(Any four for option (A); any six for option (B))}
AME-505	Exhaust Emissions and Control
AME-505	Automotive Vibration, Noise and Harshness
AME-506	Automotive Manufacturing Processes
AME-507	Tribology in Automotive Engineering
AME-508	TQM in Automotive Engineering
AME-509	Operation Management in Automotive Manufacturing
AME-510	Thermal Management in Automotive Applications
AME-511	Automotive Sensor Systems
AME-512	Advanced CAD & CAM
AME-513	Automotive Air-conditioning Systems
AME-514	Computer Integrated Manufacturing (CIM)
AME-515	Advanced Thermodynamics
AME-516	Computational Fluid Dynamics
AME-517	Electric Vehicles
AME-518	Materials for Automotive Applications
AME-601	Fracture Mechanics
AME-602	Micro and Nano Manufacturing
AME-603	Advanced Aerodynamics
AME-604	Vehicle Propulsion Systems
ME-501	Mathematical Methods
ME-502	Environmental Management and Safety
ME-503	Advanced Mechanical Vibration
ME-504	Condition Monitoring
ME-505	Experimental Methods
ME-602	Modeling and Simulation
ME-603	Advanced Finite Element Methods
ME-604	Machine Noise and Vibration Analysis
ME-605	Failure Analysis of Engineering Materials
ME-606	Computer Aided Die and Fixture Design
ME-607	Welding and NDT
ME-608	Reliability and Quality Engineering
Group-C	Research Project
AME-700	Research Thesis in the Relevant Area and Oral Examination {Compulsory for Option (A)}