

Subject: Basic of Automobile Engineering (OE-1)								
Program: B.Tech. Automobile Engineering				Subject Code:			Semester: 1	
Teaching Scheme				Examination Evaluation Scheme				
Lecture	Tutorial	Practical	Credits	University Theory Examination	University Practical Examination	Continuous Internal Evaluation (CIE)- Theory	Continuous Internal Evaluation (CIE)- Practical	Total
3	0	0	3	24/60	0	16/40	0	100

Course Objectives

1. Recognize the importance of Automobile industry and its manufactures.
2. Understand the different types of I. C. engine working cycles
3. Understand different types of air conditioning system
4. Understand the fundamental of automobile materials

CONTENTS

UNIT 1

[12 hours]

Introduction to automobile engineering, Classification of Automobile vehicle, History of automobile, Introduction of car manufacture, Indian manufactures of scooters, Indian manufactures of Motor cycles, Indian manufactures of car & Jeep, Indian manufactures of Buses and trucks , Indian manufactures of 3 wheelers and tractors

UNIT 2

[12 hours]

Introduction of Engineering Materials: Types and applications of Ferrous & Nonferrous metals, Timber, Abrasive material, silica, ceramics, glass, graphite, diamond, plastic and polymer

UNIT 3

[12 hours]

Air conditioning system, AirBags, Antilock Braking System, Electronic Brakes Distribution, Traction Control System, Cruise Control

UNIT 4

[12 hours]

Introduction of Automobile Transmission of Motion and Power: Shaft and axle, Belt drive, Chain drive, Friction drive, Gear drive

Course Objectives

1. Recognize the importance of Automobile industry and its manufactures.
2. Recognize the different types of I. C. engine working cycles
3. Identify with different types of air conditioning system
4. To know the fundamental of automobile materials

Text Books

1. R.B. Gupta, "Automobile Engineering", SatyaParkashan, New Delhi, Edition 2, 2015
2. Dr. N. K. Giri, "Automobile Mechanics", Seventh reprint, Khanna Publishers, Delhi, Edition 5, 2014

Reference Books

1. James D Halderman, "Automotive Engineering", Pearson, Edition 4, 2012.
2. Domkundwar, "Internal Combustion Engines", DhanpatRai Publication, 2013