

HASMUKH GOSWAMI COLLEGE OF ENGINEERING, VAHELAL

SYLLABUS FOR MID SEM EXAM-SEPT-2018

AUTOMOBILE DEPARTMENT

SEM	Sub Code	Subject	Unit No (GTU Syllabus)	Unit Name(GTU Syllabus)
7TH	2170203	VEHICLE DYNAMICS (VD)	1,2,3,4,5	(1) Performance Characteristic of Vehicle (2) Aerodynamics (3) Tire Mechanics (4) Suspensions (5) The Steering system
	2170202	AUTOMOBILE COMPONENT DESIGN (ACD)	1,4,6	(1) Standardization in automobile system design (4) Design of Gears (Spur and Helical Gears) (6) Design of I.C. Engine Components
	2170206	VEHICLE MAINTANCE AND GARAGE PRACTICE (VMGP)	1,2,4	(1) Vehicular Maintenance Practices (2) Measuring Instruments: (4) (a) Maintenance & Overhauling of engine components: (b) Maintenance & Overhauling of drive lines: (c) Maintenance & Overhauling of various systems: (d) Diagnosis, Causes, and Remedies :(e) Maintenance & repair of vehicle body :
	2170205	TRANSPORT MANAGEMENT AND LAW (TML)	1,2,3,4,5,6	(1) Introduction (2) Transport Management (3) Scheduling and fare structure (4) Planning for New Transport Organization (5) Motor Vehicle Act (6)Accident & Prevention
	2170204	VEHICLE TESTING AND HOMOLOGATION (VT&H)	1,2,3,4	Unit 1: Introduction Unit 2: Engine,fuel system,emission testing Unit 3: Noise vibration and harshness test: Unit 4- Vehicle performance testing
SEM	Sub Code	Subject	Unit No (GTU Syllabus)	Unit Name(GTU Syllabus)
5TH	2150202	AUTOMOBILE SYSTEMS(AS)	1,2,5,6	(1) Vehicle Classification and Layouts , (2) Chassis Frames and Body & Suspension systems (5) Steering and Front Axle & Drive line and Axles (6) Performance of Vehicle & Wheels and Tyres
	2151909	HEAT TRANSFER(HT)	1,2,4	(1) Fundamental (2) Conduction (4) Radiation
	2150206	AUTOMOTIVE MANUFACTURING(AM)	3,4	Unit 3: Joining processes Unit 4: Metal casting processes
	2150207	AUTOMOBILE TRANSMISSION(AT)	1,2,3,4,5	(1) Introduction (2) Clutch (3) Gear box (4) Hydrodynamic drive (5) Hydrostatic drive
	2150208	AUTOMOTIVE ELECTRICAL SYSTEM(AES)	1,2,5,6,7,8	(1) Automobile Electrical Systems and electronics system (2) Battery system (3) Ignition system (4) Lighting system (5) Horns (6) Electrical Equipments & Accessories
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3RD	2130003	MECHANICS OF SOLIDS	1,2,3,5,6	Introduction, Coplanar Concurrent Forces, Coplanar Non-Concurrent Forces, Suport Reaction & S.F. B.M. Centroid & Centre of Gravity Moment of Inertia Simple Stress & Strain
	2131903	MANUFACTURING PROCESS - I	1,2,3	Unit 1: Basic Machine Tools and Metal Cutting Principles Unit 2: Metal Cutting Lathes Unit 3: Drilling Machines
	2131906	KINEMATICS OF MACHINES	1,2,4	Unit 1: Introduction of Mechanisms and Machines Unit 2: Synthesis of Mechanisms Unit 4: Cams and Followers
	2131904	MATERIAL SCIENCE AND METALLURGY(MSM)	1,2,3,6,7,8,13,14	INTRODUCTION TO MATERIAL SCIENCE METALLURGY , CRYSTAL GEOMETRY AND CRYSTAL IMPERFECTIONS , PLASTIC DEFORMATION, PHASE AND PHASE EQUILIBRIUM , ALLOTROPY OF IRON(ALL TOPIC), HEAT TREATMENT OF STEELS, POWDER METALLURGY, NON DESTRUCTIVE TESTING OF MATERIALS
	2131905	ENGINEERING THERMODYNAMICS(ET)	1,2,6,7	UNIT 1:Basic Concepts UNIT 2:First law of Thermodynamics UNIT 6:Vapor Power cycles UNIT 7:Gas Power cycles
	2130002	ADVANCED ENGINEERING MATHEMATICS (AEM)	2,3,5	Unit 2: FOURIER SERIES AND FOURIER INTEGRAL, Unit 3: ORDINARY DIFFERENTIAL EQUATION (UP TO LAST LECTURE), Unit 5: LAPLACE TRANSFORM