Fr. C. Rodrigues Institute of Technology, Vashi

Department of Mechanical Engineering

Course Teaching Plan

Course Code and Name: MEDLO7033 Academic Year: SH-2023

Name of the Faculty: Dr. Aqleem Siddiqui/Syed M. Arif Branch and Semester: Mech-VII-A&B

Lect. No.	Proposed Date	Content to be covered	Actual Date	Content not covered as per the plan	Reference	Methodology	Mapping to CO	Remarks by Faculty with Sign	Verified by HOD
1	10-07-23	Introduction to Syllabus, CO, Tools, etc.			T1,R1	PPT, classroom activity	---		
2	11-07-23	Power Flow Layout: FE FWD,FE RWD,RE FWD,RE RWD, Underfloor Engine.			T1,R1	PPT	CO1		
3	17-07-23	2WD,4WD, Part time and Full time 2WD and 4WD.			T1,R1	PPT	CO1		
4	19-07-23	Clutches: Necessity of clutch in a automobile, Working and Construction of Single plate.			T2,R1	PPT	CO1		
5	24-07-23	Multi plate, Centrifugal, Semi Centrifugal.			T1,R1	PPT	CO1		
6	26-07-23	Electromagnetic clutches, Fluid Flywheel.			T1,R1	PPT	CO1		
7	31-07-23	Transmission: Purpose and Elements of Gear Box, Characteristic Curves, Types- Sliding mesh, Constant Mesh.			T1,R1	PPT	CO1		

8	02-08-23	Synchromesh, Planetary Gear set, Torque Converter, Semi-Automatic and Automatic.			T2,R1	PPT	CO1		
9	07-08-23	Steering: Requirement, Types of Steering Gear Box			T2,R1	PPT	CO2		
10	09-08-23	Steering Geometry			T1,R1	PPT	CO2		
11	14-08-23	Drive Line: UV joint, CV joint, Propeller Shaft construction and arrangement, Elements of drive line.			T1,R1	PPT	CO2		
12	16-08-23	Final Drive: Types of Final drive; spiral, bevel, Hypoid and worm drives.			T1,R1	PPT	CO2		
13	23-08-23	Differential: Necessity of differential, Working of differential, Conventional and non-slip differential.			T1,R1	PPT	CO2		
14	28-08-23	Axles : Types of live axles; semi, three quarter and full floating axles.			T1,R1	PPT	CO2		
15	30-08-23	Types of Front Stub Axles; Elliot, Reverse Elliot, Lamoine and Reverse Lamoine.			T2,R1	PPT	CO2		
16	04-09-23	Brakes: Principle, Types; Hydraulic, Air, Electric, Exhaust.			T2,R1	PPT	CO2		
17	06-09-23	Different types of Brake shoe arrangement			T2,R1	PPT	CO2		
18	11-09-23	Suspension: Requirement and Types-Independent, Dependent, Air.			T2,R1	PPT	CO3		

19	13-09-23	Types of Shock absorbers ,Leaf spring types.			T1,R1	PPT	CO3		
20	18-09-23	Wheels and Tyres: Tyre requirement, tire characteristics.			T1,R1	PPT	CO3		
21	20-09-23	Constructional detail, tyre dimensions and specifications.			T1,R1	PPT	CO3		
22	25-09-23	Types of wheels and Hubs.			T3,T1	PPT	CO3		
23	27-09-23	Vehicle Aerodynamics : Aerodynamic drag: Aerodynamic lift			T3,T1	PPT	CO5		
24	04-10-23	Recent Technological Developments in Automobile: Telematics.			T3,T1	PPT	CO6		
25	09-10-23	Intelligent Vehicles systems V2V and V2I communication..			T3,T1	PPT	CO6		
26	11-07-23	AUTOMOTIVE ELECTRICAL SYSTEMS Batteries: Construction, Types: Lead Acid, Alkaline.			T3,T1	PPT	CO4		
27	12-07-23	Nickel Metal Hydride, Lithium Ion, Battery			T3,T1	PPT	CO4		
28	13-07-23	Ratings, Battery Charging.			T3,T1	PPT	CO4		
29	13-07-23	Starting System: Requirement, types			T3,T1	PPT	CO4		
30	18-07-23	Standard Bendix Drive, Overrunning Clutch Drive			T2,R1	PPT			

31	25-07-23	**Starter motor switches**					CO4		
32	01-08-23	Charging: Requirement, Principle and Construction of Alternator.			T2,R1	PPT	CO4		
33	08-08-23	Charging: Requirement, Principle and Construction of Dynamo and					CO4		
34	29-08-23	Battery Ignition System, construction and working			A1,R1,T2	PPT	CO4		
35	05-09-23	Magneto Ignition System, construction and working. Electronic Ignition System			T3,R1	PPT	CO4		
36	12-09-23	Lighting, wiring and Accessories			T3,R1	PPT	CO4		
37	26-09-23	Body Engineering: Chassis types and Structure types, Open, Semi Integral, Integral			T3,R1	PPT	CO5		
38	10-10-23	Basic Dimensions and Visibility.			T3,R1	PPT	CO5		

References:

	1	2	3	4	5	6
Text Books:	T1-Automobile Engineering, Kirpal Singh Vol I& II, Standard Publisher distributor, Delhi.	T2- Automotive Mechanics, N.K.Giri, 8th Edition, Khanna Publisher.	T3-Automobile Electrical and Electronics, Tom Denton, Elsevier, Fourth Edition (soft copy).	T4-	T5-	T6-
Reference Books	R1- Automotive Mechanics by William Crouse and Donald Anglin, 10th edition, McGraw Hill.	R2-	R3-	R4-	R5-	R6-
Any other Material (Specify) :	A1-NPTEL https://nptel.ac.in/courses/107106088	A2-	A3-	A-4	A-5	A-6

Non-Adherence to the Teaching Plan

Sr. No.	Lecture No.	Planned Content	Content not covered as per the plan	Justification

$$\text{The percentage Adherence} = 1 - \frac{\text{Number of lectures in which the content is not covered as per the plan}}{\text{Total number of lectures}}$$

$$\text{The percentage Adherence} = ----------$$

Signature of Course Coordinator

Head of the Department
Department of …….. Engg.