


G.S. Mandal's

**Marathwada Institute of Technology, CIDCO,
Aurangabad**

**FACULTY DEVELOPMENT PROGRAM OF AUTOMOBILE TECHNOLOGY -2017
SCHEDULE**

Sr no	Day/Date	Time (2 Hrs)	Theory (2 Hrs)	Subject Expert	Time (3 Hrs)	Practical (3 Hrs)
1	Day 1 17/04/2017	10.00 To 12.00	Safety	Mr. Yogesh Hausare / Mr. Ajinkya Mangale (Sterlite Pvt. Ltd, Aurangabad)	13.00 To 16.00	Handling of Automobile Tools
2	Day 2 18/04/2017	10.00 To 12.00	Basics of Automobile Servicing	Mr. Anand S Kakade (MIT, Polytechnic, Aurangabad)	13.00 To 16.00	Demonstration of Automobile Systems
3	Day 3 19/04/2017	10.00 To 12.00	Tyre maintains and wheel alignment	Mr. Syed Meraj (Mahendra First Choise Pvt. Ltd. Aurangabad)	13.00 To 16.00	Visit to Wheel Alignment Service Station
4	Day 4 20/04/2017	10.00 To 12.00	Basics Engine and Transmission System	Dr. H. M. Dharmadhikari (MIT, Engineering, Aurangabad)	13.00 To 16.00	Engine and Transmission Servicing
5	Day 5 21/04/2017	10.00 To 12.00	Basic Automobile Electricals	Mr. K S Patil (MIT, Polytechnic, Aurangabad)	13.00 To 16.00	Maintenance of Electrical System


(S. K. Mushtaq)
Coordinator


(Dr. M. E. Jadhav)
Principal

CONTENTS:-

1. SAFETY

- First-Aid methods.
- Use of fire extinguishers.
- Safe disposal of used oil and Battery.
- Quality concept developing by applying 5S.
- Preventive maintenance of automotive equipment.
- General health & Safety precautions to be observed in the workshop / garage, Personal protective equipment, first aid, signs for Danger, Warning.
- Environmental safety - safe disposal of waste oil and Battery
- Concept of Quality.
- Over view on 5S technique.
- Care and maintenance of automotive tools & equipment.

2. ENGINE BASIC

- Function.
- Construction and basic components.
- Types.
- Trial on vehicle.
- Analyze problems
- Dismount engine.
- Keep engine on stand and dismantle.
- Clean all of engine part.
- Inspection of any part.
- Decision methods of any parts

- Repair and checking for new parts requirements.
- Assembly of Engine
- Mount of Engine
- Testing and trial of vehicle
- Types of fuels used in vehicle.
- Fuel supply layouts in petrol & diesel engines, injection systems.
- Replace – air cleaner, oil filter & fuel filter.
- Brief introduction on injectors-petrol & diesel.
- Lay out of greasing points.
- Checking of compression and vacuum.

3. POWER TRANSMISSION BASIC

- Function.
- Check /Refill / top up Engine, gear, differential, brake, and steering oil .
- Adjust Hand brake and replace hand brake cable Adjust clutch and brake pedal plays and check acceleration.
- Check propeller shaft, wheel hub bearings & brake pads.
- General defects in brake systems.

4. BATTERY AND IGNITION SYSTEM

- Function.
- Cleaning and topping up of a lead acid battery, testing battery with hydrometer, battery tester, connecting battery to a charger for battery charging.
- Ignition system circuit component cleaning and brief introduction on ignition.
- Check current, voltage and ignition joints.

5. TYRE MAINTAINCE, WHEEL ALIGNMENT AND BALANCING

- Practice on Tyre rotation.
- Remove tyre from vehicle.
- Check tyre & rim and also check for run out.
- Fit the tyre assembly to the vehicle.
- Types of tires & tubes (solid & pneumatic tyre).

Wheel alignment and wheel balancing

4-wheel alignment

- Procedures for test drive to confirm the repairs.
- Centralize steering.



Prepared by
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Verified by
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