

# CAR MECHANIC TRAINING BROCHURE



Practical training



Post training assistance

**CONTACT US** 

www.pertecnica.com 7842430123

# **CAR MECHANIC TRAINING**

Drive your career forward with our Car Mechanic training course program. This course is crafted to provide you with the essential skills and knowledge required to service, repair, and maintain various types of cars. As a Car Mechanic, you will explore the complexities of automobile systems, their components, and the techniques necessary to ensure their efficient operation and durability.

#### What you'll learn?

- Fundamentals of automotive systems
- Engine diagnostics and repair
- Brake system servicing and repair
- Electrical system troubleshooting and repair
- Transmission and drivetrain maintenance
- Suspension and steering system repair
- Fuel system maintenance and repair
- Cooling and heating system servicing
- Use of diagnostic tools and equipment
- Safety practices for automotive repair

# **Course summary:**

Our Car Mechanic training course offers a comprehensive training program on the maintenance, repair, and servicing of various cars. You will gain in-depth knowledge and practical skills to ensure cars operate efficiently and reliably. The course focuses on modern repair techniques and the use of advanced diagnostic tools to prepare you for a successful career as a Car Mechanic.

- Detailed training on different types of cars and their systems
- · Effective maintenance and repair techniques for automobiles
- Practical knowledge of automotive components and functions
- · Insights into enhancing the performance and efficiency of cars
- Understanding the latest technologies used in modern automobiles

# Course syllabus:

#### **Module 1: Introduction to Automobiles**

- Overview of Automobile Systems and Components
- Roles and Responsibilities of a Car Mechanic
- Types of Automobiles (Gasoline, Diesel, Hybrid, Electric)
- Basic Operating Principles of Automobiles

#### **Module 2: Engine Systems**

- Engine Components and Operation (Internal Combustion Engines)
- Fuel Systems (Fuel Injection, Carburetors)
- Ignition Systems (Distributor, Electronic Ignition)
- Cooling Systems (Radiator, Water Pump)

# **Module 3: Electrical and Electronic Systems**

- Battery Systems and Maintenance
- Starting Systems (Starter Motor, Solenoid)
- Charging Systems (Alternator, Voltage Regulator)
- Lighting Systems and Controls

# **Module 4: Transmission Systems**

- Types of Transmissions (Manual, Automatic, CVT)
- Clutch Operation and Adjustment
- Gearbox Inspection and Maintenance
- Transmission Fluid Replacement and Service

# **Module 5: Suspension and Steering Systems**

- Types of Suspension Systems (MacPherson Strut, Double Wishbone)
- Steering Mechanisms (Rack and Pinion, Recirculating Ball)
- Wheel Alignment and Balancing
- Shock Absorbers and Springs

# **Module 6: Braking Systems**

- Brake Types (Disc Brakes, Drum Brakes)
- Brake Components and Operation
- Brake Fluid Replacement and Bleeding
- ABS (Anti-lock Braking System) and ESP (Electronic Stability Program)

#### **Module 7: Drive Train Systems**

- Drive Shaft and Universal Joints
- Differential and Axle Inspection
- Drive Belt and Timing Belt Replacement
- Drive Chain and Sprocket Maintenance (if applicable)

#### Module 8: HVAC Systems (Heating, Ventilation, AC)

- HVAC Components and Operation
- Air Conditioning System Inspection and Service
- Heater Core Inspection and Repair
- Refrigerant Handling and Recovery Practices

#### **Module 9: Fuel and Emission Control Systems**

- Evaporative Emission Control Systems (EVAP)
- Exhaust Gas Recirculation (EGR) Systems
- OBD-II (On-Board Diagnostics) Systems
- Troubleshooting Emission Control Issues

#### **Module 10: Vehicle Maintenance Practices**

- Routine Maintenance Tasks (Oil Changes, Filter Replacements)
- Tire Inspection and Rotation
- Battery Testing and Replacement
- Fluid Checks and Top-ups (Coolant, Brake Fluid)

#### **Module 11: Evaluation and Certification**

- Comprehensive assessment of theoretical and practical knowledge.
- Written exams covering electric bike repair and maintenance.
- Practical exams involving diagnostic and repair tasks.
- Certification awarded upon successful course completion.
- Career guidance and industry opportunities.

#### **Practical training:**

- Hands-on experience in servicing various types of cars
- Practical training in diagnosing and repairing common automotive issues
- Real-time projects on engine diagnostics and repair
- Workshops on reading and interpreting technical manuals and diagrams
- Case studies on successful automotive repairs and maintenance
- Field visits to car service centers and dealerships
- Training in the use of specialized diagnostic tools and equipment
- Projects on enhancing the performance and efficiency of cars

#### Career scope:

Upon completing the Car Mechanic training course, graduates can explore career opportunities in various sectors, including:

- Automotive repair and maintenance shops
- Authorized service centers for car brands
- Car dealerships and showrooms
- Automotive manufacturing companies
- Racing teams and custom car builders
- Fleet management companies
- Car rental and leasing companies
- Educational institutions offering technical courses
- Automotive parts and accessory suppliers
- Self-employment opportunities as freelance mechanics