

# **My Career Motor Vehicle Engineering**



With a *Certificate in Motor Vehicle Technology Studies*, graduates may have the possible *career options* of the following:

- Motor Vehicle Mechanic/Technician
- Auto electrician
- Motor Vehicle Breakdown Engineer/Roadside Technicians

### **Motor Vehicle Mechanic/Technician**

The job descriptions and job specifications for these careers are as follows:

#### **Career Overview**

Execute the repair and service on motor vehicles of all makes, models and types. Work includes vehicle mechanics and electrics from engines and exhaust systems to air-conditioning and security.

#### **Typical Duties:**

- Examine the vehicle and discuss with the customer the extent of the damage and or malfunction, test drive or use diagnostic or test equipment to find the faults, may also travel to the break-down location.
- Tell customers if repairs are needed and the importance of repairs.
- Work out the estimated time and cost for repair work.
- Carry out repairs by disassembling, replacing damaged parts and reassembling vehicle parts.
- Road test the vehicle to check the repair work.
- Fit and service accessories like radios and alarms.
- Carry out standard servicing and checks.
- Customize vehicles for owners.
- Perform work on electric and hybrid vehicles.

#### **Work Environment**

Work may be independent or for an auto-repair shop, garage, vehicle hire company or car dealership. There may also be opportunities to work with local authorities (fire department,

police department) or companies with a large fleet of vehicles. Work times are usually 40 hours per week, on a shift basis Mondays to Saturdays. Overtime may be required depending on the demand. In many instances mechanics/technicians specialize in specific area (electrical, mechanic or make of vehicle).

### **Qualifications and Licenses**

Qualification may be acquired through SJPP, City and Guilds, or C/NVQ's certification in the relevant area. Progressive work experience as an apprentice is also useful. A driver's license is necessary.

### **Essential Qualities and Skills**

- ❖ An excellent knowledge of motor vehicle technology
- ❖ Strong practical skills
- ❖ Good problem-solving skills to find faults
- ❖ The ability to work quickly and pay attention to detail
- ❖ Good communication skills and customer service skills
- ❖ The ability to follow written and spoken instructions
- ❖ A reasonable level of fitness
- ❖ An up-to-date knowledge of vehicle developments, especially new engine types and electronics
- ❖ An awareness of health and safety regulations

### **References**

Barbados Standard Occupational Classification, Minor Group 723 section 7231, page 166 – Government of Barbados, Ministry of Employment, Labour Relations and Community Development (1990)

<https://nationalcareersservice.direct.gov.uk/advice/planning/jobprofiles/Pages/motorvehicletechnician.aspx> Retrieved January 2016

[http://study.com/articles/Automotive\\_Technology\\_Careers\\_Information\\_and\\_Requirements.html](http://study.com/articles/Automotive_Technology_Careers_Information_and_Requirements.html) Retrieved January 2016

## **Motor Vehicle Breakdown Engineer**

The job description and job specification for this career is as follows:

### **Career Overview**

Responding to emergency calls for service over a specified geographical area, advising and performing repair work to various makes and models of vehicles roadside or back at a garage.

### **Typical Duties:**

#### **On the scene of the breakdown**

- Ensure the driver and any passengers are safe.
- Examine the vehicle.
- Obtain a statement from the motorist of the incident.
- Find the fault.
- If possible, carry out repairs at the roadside.
- If major repair work is needed, tow or transport the vehicle to a garage.
- Maintain adequate records for each job attended.

### **Work Environment**

Although work will have a base, much of the labour will be done out in the field and entails a lot of driving. A valid driver's license is required and possibly your own transportation. Work may be on a 24-hour shift system, including weekends, in all weather conditions. Spare engine parts must be carried while on duty; a battery charger and a full tool kit which may also include computerized fault-finding equipment.

### **Qualifications and Licenses**

Qualifications may be acquired through SJPP, City and Guilds, or C/NVQ certification in the relevant area. Progressive work experience as an apprentice is also useful. A driver's license is necessary.

## Essential Qualities and Skills

- ❖ A good technical knowledge of vehicles
- ❖ Practical skills and good driving ability
- ❖ Excellent customer service and communication skills
- ❖ Ability to explain technical issues in a simple and clear way to customers
- ❖ Ability to remain calm in difficult circumstances and think on your feet
- ❖ A reassuring manner and willingness to work flexibly
- ❖ An awareness of health and safety issues
- ❖ Basic digital literacy

## References

<https://nationalcareersservice.direct.gov.uk/advice/planning/jobprofiles/Pages/motorvehiclebreakdownengineer.aspx> Retrieved January 2016

<https://nationalcareersservice.direct.gov.uk/advice/planning/jobprofiles/Pages/motorvehicletechnician.aspx> Retrieved January 2016

[http://study.com/articles/Automotive\\_Technology\\_Careers\\_Information\\_and\\_Requirements.html](http://study.com/articles/Automotive_Technology_Careers_Information_and_Requirements.html) Retrieved January 2016

## Auto electrician

The job description and job specification for this career is as follows:

### **Career Overview**

To fit and repair electrical and electronic systems in motor vehicles

### **Typical Duties:**

- Taking reading, using a laptop or hand-held device connected to an engine's electronic control unit (found in newer vehicles).
- Checking and testing wiring and parts in older vehicles using portable instruments.
- Using the readings to find faults.

### **Typical Duties Cont'd:**

- Researching faults, using manufactures' circuit diagrams and specification manuals.
- Repairing and replacing faulty parts.
- Retesting the system to ensure everything is working correctly and safely (this may include road-testing the vehicle).
- Completing the necessary paperwork detailing the work you have done.
- Work may extend to other peripherals like in-car phones, TV and audio and DVD players.

### **Work Environment**

Expect a normal Monday to Friday 40-hour work week. Some businesses may operate a 24 hour service and you may be on-call or required to perform shift work. Work may be based at a garage or workshop or in the field, which means working in varying weather conditions. Some persons might also choose to specialize in light vehicles or heavy vehicles.

### **Qualifications and Licenses**

No licensure required, however certification through SJPP or City and Guilds in the relevant trade is an advantage. No C/NVQs are currently available in this area. Employers generally prefer those with some form of work experience.

### **Essential Qualities and Skills**

- ❖ Good practical skills for using a range of tools and electronic instruments
- ❖ The ability to work methodically and pay close attention to detail
- ❖ Excellent problem solving skills
- ❖ An ability to read electrical wiring diagrams and schematics
- ❖ Ability to work along and as part of a team
- ❖ Good communication and customer care skills
- ❖ Ability to keep up-to-date with development in engine and electrical technology.
- ❖ An awareness of health and safety regulations

**References**

Barbados Public Service (Qualifications) Order 2001, Government Printer, Bay Street, St. Michael, Barbados

Barbados Standard Occupational Classification, Minor Group 724 section 7241, page 168 – Government of Barbados, Ministry of Employment, Labour Relations and Community Development (1990)

<https://nationalcareersservice.direct.gov.uk/advice/planning/jobprofiles/Pages/autoelectrician.asp>

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