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Certificate in Motor Vehicle Mechanics-Apprenticeship

# **TVET PROGRAMME**



#### Purpose

The purpose of this award is to enable the learner to attain the standard required to achieve the Certificate at level 3 on the National Qualifications Framework (NQF) through acquisition of the knowledge, mastery of skill and attitudes essential in motor vehicle engineering. It is aimed at learners who work or want to work in the automotive industry. This training can also offer the learner the opportunity to specialize in a particular area of this rewarding field such as general car repairs, servicing and maintenance, and as an assistant car sales person.

#### Introduction

The Certificate in Motor Vehicle Mechanics is a one-year (1200hours) training programme offered full-time or **18 months** on Apprenticeship training mode to secondary five (S5) school leavers and mature learners. This is equivalent to just over three(3) semesters.

To qualify for the certificate, a learner has to successfully complete all the required units/courses on the programme. Total number of credits to be accumulated is 120 credits.

A graduate with the Certificate in Motor Vehicle Mechanics is one who can work on a light vehicles under proper supervision.

#### **Entry Criteria**

Learners wishing to apply for the Certificate in Motor Vehicle Mechanics must have attained a minimum score of **40%** at the National Examinations in the following subjects: English, Mathematics, Physics (or Design Technology) or General Science.

#### Learners should be able to:

- ⇒ Demonstrate a basic understanding of the Automotive industry role of an auto mechanic in Seychelles
- $\Rightarrow$  Understand basic knowledge of the operation principles of vehicle engines
- ⇒ Demonstrate comprehensive range of light vehicle servicing ,maintenance and repairs skills using all commonly auto mechanic tools in compliance with all relevant health and safety and best practices.

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## Career Opportunities in the Motor Vehicle Engineering Industry

Career Opportunities in the Auto mobile Industry are on the increase. The number of cars and other automobiles have been on the increase in Seychelles. Different garages specializing in working with different makes and brand. Hybrid cars are in demand and specialize technicians are required to service ,diagnose and repair faults on those vehicles. Your training will provide you with these qualities and competences to apply the new techniques.

Job opportunities in the field of Motor Vehicle Engineering include working as Servicing Technicians with Car importers and dealers, Engine mechanics in garages around the islands, and in companies such as SPTC, IOT, Seybrew, etc. Auto electrician is also very much in demand.

#### Progression and Further Studies

Graduates on the Certificate in Motor Vehicle Mechanics can apply for the Advanced certificate and later the National Diploma in Motor Vehicle Engineering .



## Assessment Technique (s) including weighting (s)

The Certificate grade is based on a weighted average of all unit result grades. Assessment approach varies from one unit to another. During every unit of study there is a minimum number of continuous assessments which the learner must undertake. This could be in the form of small tests and assignments . For the final unit assessments, in most cases a learner will have to sit for both a theory paper which can be multiple choice, structured or a mixture and a practical for skills demonstration.

Work based experience (WBE) is a compulsory unit and is assessed by the supervisor in the work place for the apprenticeship learners and through compilation of a portfolio and assessed against the performance criteria for the different elements in the WBE unit for learner on part-time.

To attain the required standard, a minimum of a pass grade must be achieved in all assessments prescribed .

Pass mark for every unit on the programme is 55%.

As per SIT Assessment Policy, the final mark for a unit is made up of 40% of all continuous assessments plus 60% from the results of the final unit assessment (s) and the following grades and corresponding marks are used

 Not yet Competent-NYC-0—54%

 Pass
 - P
 -55%-69%

 Credit or Merit
 - M or C-70% - 84%

 Distinction
 - D - 85%+

## Certificate in Motor Vehicle Mechanics-Apprenticeship

- ⇒ Exercise appropriate judgement planning, diagnostics and delivering of basic services , repair and maintenance process relating to auto mechanics.
- ⇒ Explain the functioning of the engine and its accessories, gear box, clutch, brakes, steering, axles and wheels
- ⇒ Learn of emissions, ignition, basic controls, and electrical systems in vehicles
- $\Rightarrow$  Identify the different parts of the automobile .
- $\Rightarrow$  Work safely and responsibly in a motor vehicle garage.
- $\Rightarrow$  Understand the environmental implications of automobile emissions .
- ⇒ Familiarize with Hybrid and Electric Technology which will be the future prime movers of the Automobile

#### Certification

To be awarded certificate in Certificate in Motor Vehicle Mechanics the learner must have achieved the expected performance criteria set out in the different elements of each unit that make up the programme. The total credit requirement for this Certificate is 120 Credits .

This qualification is a level 3 on the National Qualification Framework (NQF).

List of Statements of Competencies for Certificate in Motor Vehicle Mechanics

Statement of competency	Unit Title	Semester (s) involved	Number of Credits
<b>1.</b> Apply health, safety and securi- ty procedures in the context of motor vehicle engineering.	Health, Safety and Security Procedures	1	4.5
2.Demonstrate skills and apply knowledge of measurement principles and the use of various measuring instruments	Measurement & Instrumentation	1	4.5
3.Demonstrate knowledge & skills in identifying and usage of basic tools & equipment.	Tools & Equipment	1	4.5
<b>4.</b> Demonstrate knowledge and application skills of different types of fastening and joining methods.	Fastening & Joining	2	7.5
5.Demonstrate knowledge of Electrical/Electronic principles	Electrical/Electronic Fundamentals	1	6.0
6.Demonstrate knowledge of various scientific principles related to MVM	Science	1	3.0
7.Apply mathematical principles in the context ofAutomotive repairs and maintenance	Mathematics	1	4.5
8. Demonstrate knowledge of the occupation of a Motor Vehicle Mechanic in the context of Seychelles	Motor Vehicle Me- chanic Occupation	1	3.0

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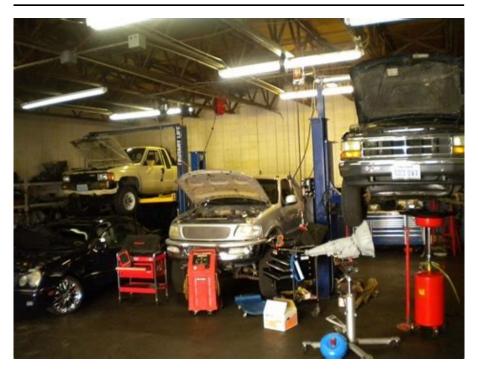


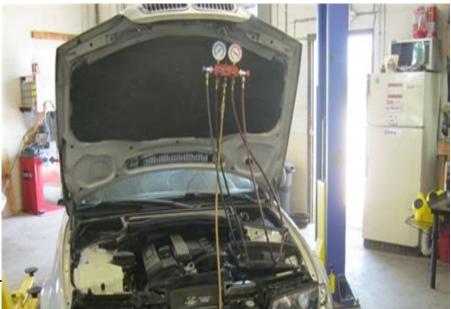
Structure of the Programme:

Semester 1	Semester 2	
Health, Safety and Security Procedures (30/15)	ICT (30/15)	
Measurement & Instrumentation (30/15)	Fastening & Joining (50/25)	
Tools & Equipment 1 (30/15)	-	
Technical Drawing (20/10)	Technical Drawing (20/10)	
Science (20/10)		
English (20/10)		
Mathematics (30/15)		
Motor Vehicle Mechanic Occupation (20/10)		
Electrical/Electronic Fundamentals (20/10)		
Engine Systems 1 (20/10)	Engine Systems (60/30)	
Chassis Systems 1 (20/10)	Chassis Systems (60/30)	
	Vehicle Electrical Systems (20/10)	
Work Base Experience(WBE) Attached with a car garage for 4 days per week For the whole duration of the Training	Work Base Experience(WBE) Attached with a car garage for 4 days per we For the whole duration of the Training	
	The Learner on the Apprenticeship programme can apply for annual leave as p the employment law after completing <u>year c</u> on the programme	

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Statement of competency	Unit Title	Semester(s) involved	Number of Credits
<b>10</b> .Demonstrate skills and knowledge of the different chassis systems.	Chassis Systems	1,2	12.0
<b>11.</b> Demonstrate skills an Knowledge of different types of engine electrical systems.	Vehicle Electrical Systems	2	3.0
<b>12.</b> Demonstrate skills and knowledge of the different Engine systems.	Engine Systems	1,2	12.0
<b>13.</b> Apply principles and practices oftechnical drawing skills in the context of Automotive mechanic	Technical drawing	1,2,	6.0
<b>14.</b> Apply knowledge of both oral and written English	English	1	3.0
<b>15.</b> Demonstrate knowledge and skills of ICT techniques	ICT	2	4.5
<b>16.</b> Demonstrate knowledge and practice of collaborative skill work in motor vehicle mechanic on Work Based Experience	Work Base Experi- ence (WBE)	1,2	42
TOTAL NUMBER OF CREDITS		120	





# Certificate in Motor Vehicle Mechanics-Apprenticeship

## **Books and References for Study**

A number of publications are available for study and training in the Certificate in Motor Vehicle Mechanics. They are books which are regularly updated with new editions. Learners are advised to identify the latest versions.

The following are available in the SIT Library and can be borrowed for study and reference:

Fundamentals of Motor Vehicle Technology-Book 1-Hillier Vehicle and Engine Technology-Vol.1-Heinz Heisler Advanced Engine Technology-Vehicle Maintenance and Repairs-Tom Denton

Automotive Electrical & Electronic Systems-Tom Denton Principles of Light Vehicle Technology-Graham Stoakes Basic Engineering Mathematics-John Bird.

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