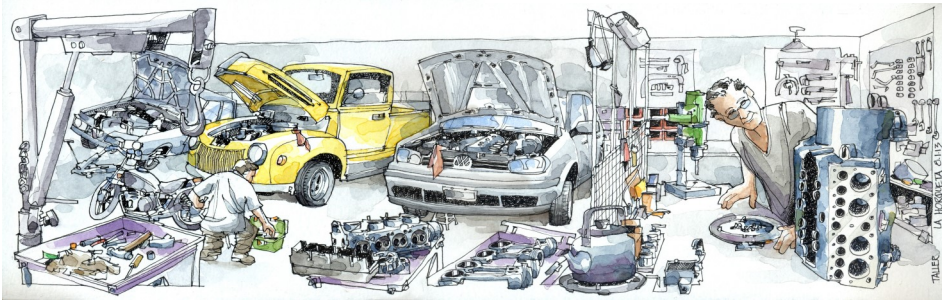


## Advanced Certificate in Motor Vehicle Mechanics



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Visit: [www.sit.sc](http://www.sit.sc)

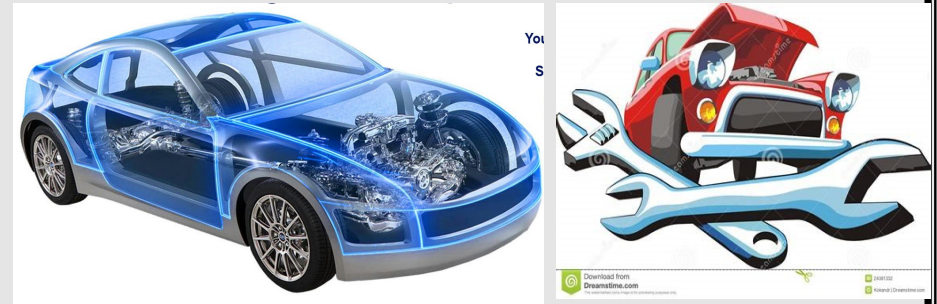
Seychelles Institute of Technology (SIT)

Tel : , 248 4601501: Email: [info@sit.sc](mailto:info@sit.sc)



## Advanced Certificate in Motor Vehicle Mechanics

### TVET PROGRAMME



### Purpose

The purpose of this award is to enable the learner to attain the standard required to achieve the Advanced Certificate through the knowledge, skill and attitudes essential in motor vehicle mechanics. It is aimed at learners who work or want to work in the automotive industry. This training can also offer you the opportunity to specialize in a particular area of this rewarding field, such as general car repairs, servicing and maintenance, auto electrician and also car air conditioning technician.

## Advanced Certificate in Motor Vehicle Mechanics

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### Introduction

The Advanced Certificate in Motor Vehicle Mechanics is a two-year (2400hours) training programme offered full-time to secondary five (S5) school leavers and learners from School of Advanced Level (SALs) as well as from other professional centres. This is equivalent to four (4) semesters. Two semesters represents one academic year. The same programme is also offered on part-time to learners already in employment over 6 semesters. Learners on the part-time come to SIT for training 1.5 days per week.

A learner on full time may exit after year and qualify for the Certificate after successfully completing all the units from semesters one and two and accumulated 120 credits.

### Entry Criteria

Learners wishing to apply for the Advanced Certificate in Carpentry and Joinery must have attained a minimum grade of “E” from the **IGCSE examinations** in English, Mathematics and Design Technology or preferably Physics.

Applicants from another professional centre may be accepted exiting with a Certificate from that Institution.

#### **Learners should be able to:**

- ⇒ Demonstrate a basic understanding of the Automotive industry role of an auto mechanic in Seychelles
- ⇒ Understand in-depth 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.

## Advanced Certificate in Motor Vehicle Mechanics

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### Career Opportunities in the Motor Vehicle Engineering Industry

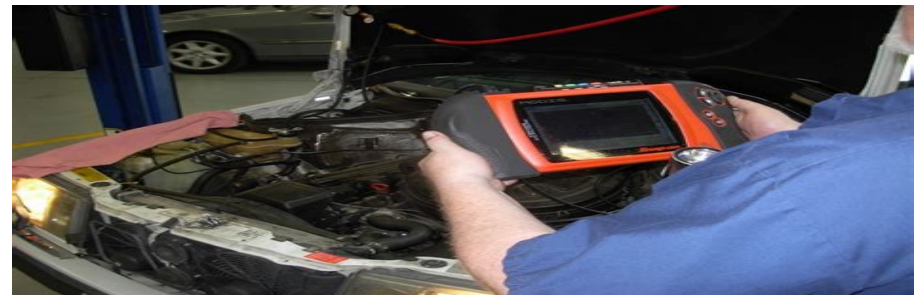
Career Opportunities in the Auto mobile Industry are on the increase. The number of cars and other automobiles have been on the increase in Seychelles. Different garages specializing in working with different makes and brand. Hybrid cars are in demand and specialize technicians are required to service ,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 Advanced Certificate in Motor Vehicle Mechanics can apply for the National Diploma in Motor Vehicle Engineering .

Graduates with a National Diploma in Motor Vehicle Engineering can be accepted in certain universities for a degree study in Motor Vehicle Engineering



## Advanced Certificate in Motor Vehicle Mechanics

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

The Advanced 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 and research. 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 full-time 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	- <b>P</b>	-55%-69%
Credit or Merit	- <b>M</b> or <b>C</b>	- 70% - 84%
Distinction	- <b>D</b>	- 85%+

## Advanced Certificate in Motor Vehicle Mechanics

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- ⇒ Exercise appropriate judgement planning, diagnostics and delivering of all 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, controls, electrical systems and air conditioning in vehicles
- ⇒ Transfer and apply theoretical understanding and technical know-how to inspect, diagnose faults, maintain and repair electrical and mechanical malfunctions and bring back to light vehicles back to running.
- ⇒ Identify the different parts of the automobile .
- ⇒ Work safely and responsibly in a motor vehicle garage.
- ⇒ Understand the environmental implications of automobile emissions .
- ⇒ Familiarize with Hybrid and Electric Technology which will be the future prime movers of the Automobile
- ⇒ Exercise substantial independence in the workplace, taking responsibility for auto mechanical duties performed by by self and with others and interacting with a variety of Individuals and groups to Include customers, colleagues and suppliers.

### Certification

To be awarded certificate in Advanced 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 Advanced Certificate is 240 Credits .

This qualification is a level 4 on the National Qualification Framework (NQF).

## Advanced Certificate in Motor Vehicle Mechanics

### List of Statements of Competencies for Advanced Certificate in Motor Vehicle Mechanics

Statement of competency	Unit Title	Semester (s) involved	Number of Credits
1. Apply health, safety and security 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
4. 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	3,4	6.0
7. Apply mathematical principles in the context of Automotive repairs and maintenance	Mathematics	1,3	9.0
8. Demonstrate knowledge of the occupation of a Motor Vehicle Mechanic in the context of Seychelles	Motor Vehicle Mechanic Occupation	1	3.0

## Advanced Certificate in Motor Vehicle Mechanics



## Advanced Certificate in Motor Vehicle Mechanics

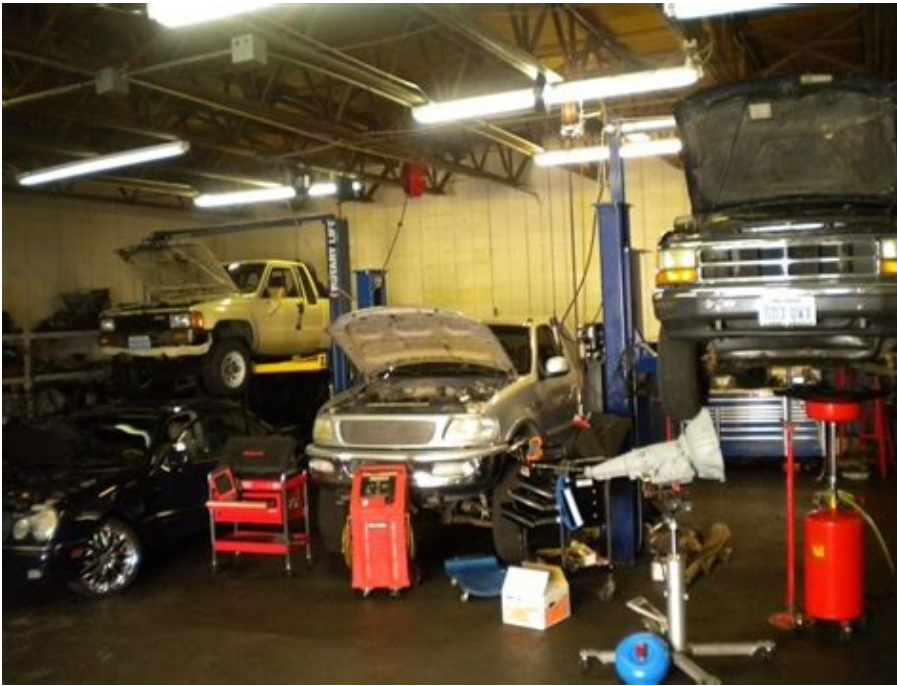
Structure of the Programme:

Semester 1	Semester 2	Semester 3	Semester 4
Health, Safety and Security Procedures (30/15)	ICT (30/15)		Automotive Air-conditioning (20/10)
Measurement & Instrumentation (30/15)	Fastening & Joining (50/25)	Tools & Equipment 2 (30/15)	
Tools & Equipment 1 (30/15)			
Technical Drawing (20/10)	Technical Drawing (20/10)	Technical Drawing (20/10)	Technical Drawing (20/10)
Science (20/10)		Science (20/10)	
English (20/10)			
Mathematics (30/15)		Mathematics (30/15)	
Motor Vehicle Mechanic Occupation (20/10)			
Electrical/Electronic Fundamentals (20/10)			Vehicle Electronic Diagnostic Applications (20/20)
Engine Systems 1 (20/10)	Engine Systems (60/30)	Engine Systems (60/30)	Engine Systems (60/30)
Chassis Systems 1 (20/10)	Chassis Systems (60/30)	Chassis Systems (60/30)	Chassis Systems (50/50)
	Vehicle Electrical Systems (20/10)	Vehicle Electrical Systems (20/10)	Vehicle Electrical Systems (20/10)
Work Base Experience (WBE) (210)	Work Base Experience (WBE) (210)	Work Base Experience (WBE) (210)	Work Base Experience (WBE) (280)
<b>SEMESTER 1: 260/130 Notional Hrs=260+130+210 600</b>	<b>SEMESTER 2: 260/130 Notional Hrs=260+130+210 600</b>	<b>SEMESTER 3: 260/130 Notional Hrs=260+130+210 600</b>	<b>SEMESTER 4: 200/120 Notional Hrs=190+130+280 600</b>
<b>Total hours for the Year One programme:1200</b>		<b>Total hours for the Year Two programme:1200</b>	

## Advanced Certificate in Motor Vehicle Mechanics

Statement of competency	Unit Title	Semester (s) involved	Number of Credits
10.Demonstrate skills and knowledge of the different chassis systems.	Chassis Systems	1,2,3,4	25.5
11.Demonstrate skills and Knowledge of different types of engine electrical systems.	Vehicle Electrical Systems	2,3,4	12.0
12. Demonstrate skills and knowledge of the different types of vehicle electronic diagnostic applications systems	Vehicle Electronic Diagnostic Applications	4	4.0
13.Apply knowledge and practice of Automobile Air-conditioning systems	Automotive Air-conditioning	4	3.0
14.Apply principles and practices Of technical drawing skills in the context of Automotive mechanic	Technical drawing	1,2,3,4	12.0
15.Apply knowledge of both oral and written English	English	1	3.0
16.Demonstrate knowledge and skills of ICT techniques	CT	2	4.5
17. Demonstrate skills and knowledge of the different Engine systems.	Engine Systems	1,2,3,4	30.0
18. Demonstrate knowledge and practice of collaborative skill work in motor vehicle mechanic on Work Based Experience	Work Base Experience(WBE)	1,2,3,4	91.0
<b>TOTAL NUMBER OF CREDITS</b>		<b>240</b>	

## Advanced Certificate in Motor Vehicle Mechanics



## Advanced Certificate in Motor Vehicle Mechanics

### Books and References for Study

A number of publications are available for study and training in the Advanced 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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<http://subs.sae.org/e-journal-06/>  
<http://training.sae.org/eseminars/pd130702on/>  
<http://www.inderscience.com/ijvp>

