

Automotive Engineering

Curriculum Goals:

To provide students with the opportunity to experience the work of an automotive technician, exposing them to the various aspects of automotive work, to assist them in making an informed decision for further study and/or employment. This course is practical and experiential. Students will be given the opportunity to learn through engaging in realistic and authentic tasks.

Vocational Pathway: Manufacturing and Technology

Learner Goals and Outcomes: On completion this course, the student will be able to:

1. Demonstrate knowledge of carrying out emergency procedures in the automotive and related industries.
2. Identify the general locations and functions of vehicle systems and main components.
3. Demonstrate knowledge of petrol and diesel engines.
4. Disassemble and reassemble a single cylinder or multi-cylinder four stroke engine under supervision.
5. Demonstrate knowledge of interchanging and balancing wheels in the motor industry.
6. Balance a wheel off a vehicle in the motor industry.
7. Remove and replace road wheels on a vehicle.
8. Remove and replace a lamp on a motor vehicle.

Unit Standards					
Unit No	Title	Level	Credits	Version	SR/R
229	Identify the general locations and functions of vehicle systems and main components	2	4	11	SR
3856	Demonstrate knowledge of carrying out emergency procedures in the automotive and related industries	3	2	10	
21679	Demonstrate knowledge of interchanging and balancing wheels in the automotive industry	2	2	3	SR
21691	Disassemble and reassemble a single cylinder or multi-cylinder four stroke engine under supervision	2	2	3	SR
21719	Remove and replace a lamp on a motor vehicle.	2	3	3	SR
21722	Balance a wheel off a vehicle in the motor industry	2	2	2	SR
21869	Remove and refit road wheels on a vehicle	2	1	5	SR
30477	Demonstrate knowledge of petrol and diesel engines	3	4	1	
	Total DAS Credits		20		

Vocational Pathways: SR = Sector Related; R = recommended

To receive a Vocational Pathways Award, students must gain NCEA Level 2. Within the 80 credits required to achieve NCEA Level 2, 60 of these Level 2 credits must be from the recommended standards in one or more pathways, including 20 Level 2 credits from sector related standards.

Methods of Assessment: Three forms of assessment will be used

1. Written tests (students will be advised of date, time and location)
2. Simulated practical tests
3. Practical demonstrations or portfolio evidence