2017 Course Outline
Mechanical Engineering Year 1

Curriculum Goals:
To provide the student with the opportunity to experience the work of a mechanical engineer to assist them in making an informed decision for further study and/or employment. This course is practical and experiential. The student will be given the opportunity to learn through engaging in realistic and authentic tasks. In addition, the student will get the opportunity to build a grass kart as their practical project.

Vocational Pathway: Manufacturing and Technology

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

1. Demonstrate knowledge of workplace health and safety requirements on engineering worksites.
2. Demonstrate knowledge of safety on engineering worksites.
3. Demonstrate and apply knowledge of safe welding procedures under supervision.
4. Perform basic fabrication operations under supervision.
5. Assemble mechanical components under supervision.
6. Decide if they wish to pursue a career in the mechanical engineering industry.

Unit Standards					
Unit No	**Title**	**Level**	**Credits**	**Version**	**SR/R**
497	Demonstrate knowledge of workplace health and safety requirements	1	3	8	R
21911	Demonstrate knowledge of safety on engineering worksites	2	2	2	SR
21907	Demonstrate and apply knowledge of safe welding procedures under supervision	2	3	2	SR
25075	Perform basic fabrication operations under supervision	2	12	1	SR
2387	Assemble mechanical components under supervision	2	2	6	SR
	Total NZQF Credits		**22**		

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 Four forms of assessment will be used:	**Requirement for Successful Completion:** To successfully complete the course, the student must:
1. Written tests (students will be advised of date, time and location) 2. Simulated practical tests 3. Practical demonstrations 4. Group project – grass kart build	Meet all learning outcomes for this course by successfully completing all assessment requirements.