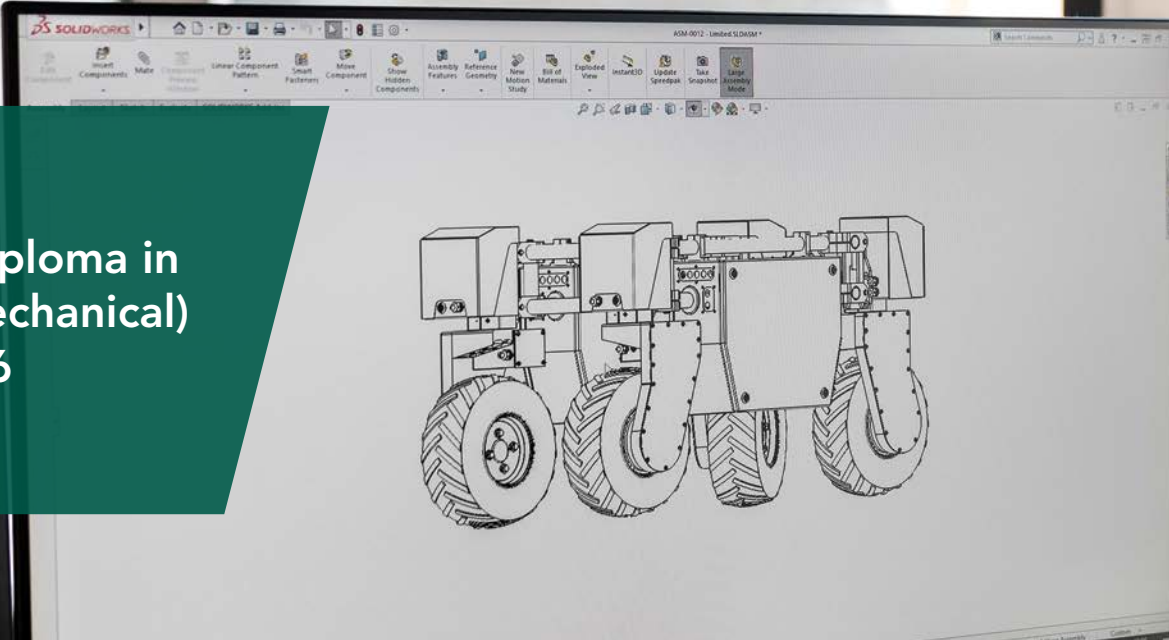


New Zealand Diploma in Engineering (Mechanical) (TK1505) Level 6



You will learn how to:

- apply engineering theory to practice working within well-defined* engineering problems relevant to their specialist field of mechanical engineering.
- use their engineering knowledge to make informed problem solving decisions in mechanical engineering and to implement these decisions.
- identify, evaluate and manage risks within well-defined* engineering problems relevant to their field of mechanical engineering.

Programme Specific Information

Graduates of the New Zealand Diploma in Engineering will be able to study towards a technologist degree such as Bachelor of Engineering Technology, or a professional engineering qualification such as Bachelor of Engineering.

*Well-defined engineering problems can be solved in standardised ways, are frequently encountered and hence familiar to most practitioners in the specialist area, have consequences that are locally important but not far-reaching and can be resolved using limited theoretical knowledge but normally require extensive practical knowledge.

This Diploma is compliant to Dublin Accord and signatory to International Engineering Alliance.

PROGRAMME INFORMATION

NDE3.301
Engineering Practice

Learn skills involved in safety using engineering workshop machines and equipment and to develop an awareness of common manufacturing processes.

NDE4.102
Engineering Mathematics

Acquire mathematical skills, concepts and understandings in order to perform calculations and solve problems within engineering contexts.

NDE4.101
Engineering Fundamentals

Learn the basic fundamentals of a range of engineering disciplines.

NDE4.103
Technical Literacy

Develop technical research skills along with oral, written, graphical and interpersonal communication skills.

NDE4.301
Engineering CAD

Learn basic CAD draughting skills required for an engineering technician.

NDE4.302
Mechanics

Develop a sound understanding of the principles of mechanics.

NDE4.303
Material Properties

Gain an understanding of the characteristics and properties of common engineering materials used in mechanical and process engineering.

NDE5.304
Electrical Fundamentals

Develop a sound knowledge of electrical and electronic theory and how these are applied to mechanical engineering systems.

NDE5.303
Manufacturing Processes

Apply engineering knowledge to common manufacturing processes.

NDE5.302
Strength of Materials 1

Develop an understanding of the essential elements of strengths of materials.

New Zealand Diploma in Engineering (Mechanical) (TK1505) Level 6

Career Options:

Mechanical Engineer Cadetship, Engineering Technician, Engineering Design Assistant.

Programme Fees and Additional Expenses

Programme Fees

Domestic: FREE (TTAF funded)

International: \$21,000 (Year 1)

Item	Expected Cost
Mechanical Clutch pencils 0.5mm & 0.7mm	\$10
Scale rule 96180 2AS 300mm AIST standard	\$20
(1) Office eraser large vinyl (1)	\$2
Drawing compass set	\$25
Lecture pad A4 7mm ruled 200 leaf (2)	\$7
Set squares 30-60 & 45-45	\$50
A4 lever arch files (3)	\$8
Blue and black pens	\$4
Course textbooks and recommend readings	\$500
Casio FX82 Calculator	\$45

Required for NDE3.301 Engineering Practice Course

Safety Boots	\$70 - \$100
Overalls	\$70 - \$100

PROGRAMME INFORMATION

NDE5.301

Thermodynamics and Heat Transfer

Develop a sound basic knowledge of thermodynamic principles – including gas laws, measurement of pressure and temperature, mass & energy conservation & energy sources in NZ content – and the mechanisms of heat transfer including the uses of heat exchanges.

NDE6.301

Fluid Mechanics

Understand and apply the principles of fluid statistics and dynamics to common engineering problems.

NDE6.302

Mechanics of Machines

Develop understanding to solve complex problems involved within machinery dynamics such as power transmission, balancing, noise and lubrications systems.

NDE6.308

Strength of Materials 2

Develop an understanding and advanced knowledge of strengths of materials and the detailed design of mechanical engineering components.

NDE6.102

Engineering Project (Mechanical)

Determine and apply the processes required to analyse mechanical engineering design problems and identify possible solutions.

NDE6.101

Engineering Management

Develop the knowledge and skills required to administer and manage projects efficiently in a specific discipline of engineering.