

# Educational Achievement in Mechanical Engineering

(General) Level 3



WAIKATO  
TRADES  
ACADEMY



Wintec

# Educational Achievement in Mechanical Engineering (General) (Level 3)

This NCEA Level 3 programme applies fundamental principles of engineering, physics, and materials science for the design, analysis, manufacturing, and maintenance of mechanical systems. It is the branch of engineering that includes the design, production, and operation of machinery; including hand tools and portable power tools, dimensional measuring, engineering marking out equipment, various steel cutting and welding procedures, assembly, and most importantly, safe work practises and procedures. This take-home, project-based course will introduce you to the exciting world of engineering. It will provide you with the ability to consider an engineering apprenticeship or start a higher-level mechanical engineering qualification. Personal protective gear will be provided.

Mechanical Engineering		
Location: Hamilton Rotokauri Campus, Thames Campus		
Level 3	31 weeks	Credits
29652	Demonstrate knowledge of safety, health, risk assessment, and hazard ID and control on an engineering worksite	3
30263	Perform fabrication operations	10
30438	Dismantle, inspect and assemble components within assemblies	6
30280	Cut metals using the manual plasma cutting process	2
30279	Cut steel using the manual gas cutting process	2
2680	Join metals using the resistance welding process	4
33135	Demonstrate knowledge of safety and health while welding and thermal cutting	3
Total NZQA Credits		30

## How do I enrol?

If you are interested in studying at Waikato Trades Academy (WTA), please speak to your school's career advisor. They will discuss your options and how studying one-day-a-week at WTA will work around your school subjects. Your advisor is responsible for contacting WTA on your behalf to secure a place.

*If you are interested, please ask your career's advisor to email [wta@wintec.ac.nz](mailto:wta@wintec.ac.nz). Visit [wintec.ac.nz/wta](http://wintec.ac.nz/wta) to find out more.*