

BACHELOR OF ENGINEERING TECHNOLOGY
(MECHANICAL, CIVIL OR ELECTRICAL)

SC1001



SCHOOL OF ENGINEERING, SCIENCE AND PRIMARY INDUSTRIES

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Wintec
WAIKATO INSTITUTE OF TECHNOLOGY
Te Kuratini o Waikato



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Duration	Three years full-time, or part-time equivalent
Where	City Campus, Hamilton
Applications Close	End of January (late applications may be considered)
Starts	February
Fee Guideline	Domestic: \$5,650 International: \$18,900

The Bachelor of Engineering Technology (BEngTech) will develop you into a technologist engineer; where you will apply analytical skills and knowledge of technological principles and physical processes to solve broadly-defined engineering problems. The BEngTech is an applied degree where theory is taught then practiced through project work.

This degree has been developed in Partnership with industry and the six largest institutes of technology, Unitec, Manukau Institute of Technology, WELTEC, CPIT, and Otago Polytechnic who with Wintec form the Metropolitan Group of Institutes of Technology. This enables you to easily transfer your studies around the country if you move to another area.

At Wintec, you can choose to Major in either Civil Engineering (Water and Waste or Roading and Transportation specialisations), Electrical Engineering (Power specialisation), or Mechanical Engineering which is offered through the Metropolitan Group of Institutes of Technology.

PROGRAMME CONTENT

Year 1	Year 2	Year 3
Core Engineering courses	Major specialisation and elective courses	Industry based project and core course
Major Specialisation		

In your first year you will study six broad engineering modules as well as two modules specific to your major. In your second year you will begin to study modules specific to your specialisation. In your final year, you will be able to undertake an industry based project which focuses the knowledge and skills you have gained during your studies into a practical application.

If you are in employment, the project will be tailored to your workplace.

CIVIL ENGINEERING

Civil engineering is strong in the Waikato with a number of large civil engineering projects planned. This coupled with Wintec's strong ties with industry mean that civil engineering graduates of the BEngTech will be highly sought after.

If you choose to major in Civil engineering you will be able to work from a sound engineering base with sufficient skills to competently manage technical operations; liaise effectively with design and management professionals, clients, regulatory authorities and contractors; and have an understanding of different cultures and in particular an awareness and clear understanding of the tangata whenua and the implications of the Treaty of Waitangi and the Resource Management Act. You will also have the following attributes associated with your single Specialisation:

Specialising in Water and Waste engineering you will gain an in-depth knowledge of the principles and practice relating to: water reticulation systems; the treatment and disposal of liquid and solid wastes; catchment run-off, erosion, water balances and sustainable land use; urban wastewater and storm water systems. You will be able to apply your expertise to projects in professional civil engineering environments.

Specialising in Roading and Transportation engineering you will gain an in-depth knowledge of the principles and practice relating to: traffic engineering and the design and construction of highways; road design, economic criteria and maintenance strategies; and urban traffic engineering concepts and procedures. You will be able to apply your expertise to projects in professional civil engineering environments.

POWER ELECTRICAL ENGINEERING

The Waikato is a major contributor to the electricity supply grid producing 50% of New Zealand's energy needs in 2008. \$4.3 billion is to be invested in energy in the Waikato in the next five years. This investment requires a highly qualified and skilled workforce that graduates of the BEngTech can be part of.

If you choose to major in Electrical Engineering you will be able to work from a sound

theoretical knowledge and compliment this with appropriate practical skills. You will be competent at analysing, solving, managing and taking responsibility for broadly-defined electrical engineering problems and activities. You will also have the following attributes associated with your specialisation:

Specialising in Power Engineering you will gain in depth knowledge of the operation and protection of power systems; an understanding of the design requirements for power systems; in depth knowledge of the operation and performance of electrical machines; and a knowledge of the fundamental components of power electronic systems.

MECHANICAL ENGINEERING

Delivered by the Metro Group, you will study mechanical production, product design and building services, providing an in-depth knowledge of the operation and design requirements of various mechanical infrastructure. In the first year you will study eight engineering modules at Wintec. In the second and third years you will be transferred to WELTEC, CPIT, and Otago Polytechnic as Wintec does not offer years two and three in the mechanical stream.

ENTRY CRITERIA

- Minimum of 42 NCEA credits at level 3 or higher, including a minimum of 14 credits at level 3 or higher in each of two subjects, with a further 14 credits at level 3 or higher taken from one or two additional domains on the National Qualifications Framework including a minimum of 14 credits in physics, and 14 credits in mathematics - algebra and / or calculus, and
- A minimum of 8 literacy credits at level 2 or higher in English or Te Reo Māori; 4 credits must be in reading and 4 credits must be in writing, or
- Equivalent academic qualifications

Candidates whose first language is neither English nor Māori are required to have an IELTS score of 6.0 or better, with no less than 5.5 in the reading and listening bands, or equivalent.

Applicants may be invited to an interview and may be required to produce a work-based portfolio (where appropriate).

ENQUIRIES

Phone 0800 2 Wintec
or visit www.wintec.ac.nz/contact.