



New Zealand Diploma in Engineering (Civil) (Level 6) (Block Course Delivery)

(Block Course Delivery)



Duration

2 years full-time or Part-Time equivalent up to 10 years (domestic only).



Domestic Fees

2027 fees: \$976.25 (incl GST) per course



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WITT
WESTERN INSTITUTE OF
TECHNOLOGY AT TARANAKI
TE KURA MATATINI O TARANAKI

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The aim of the New Zealand Diploma in Engineering is to provide skilled and competent engineering technicians specialised in mechanical, civil, electrical or electronic engineering for the New Zealand engineering sector. Graduates will be capable of operating at a technician level scope of practice as outlined by the Dublin Accord (international Engineering Alliance, 2002).

Delivered via block courses and supported distance learning. Available New Zealand wide. This programme is only available to domestic students.

You will learn how to:

- Perform technical operations to the standards, ethical and professional responsibilities required by the engineering profession.
- Work collaboratively with team environments to provide a comprehensive engineering service in the relevant specialist area.
- Carry out activities as an engineering technician while applying the principles of the Health and Safety at Work Act 2015, the Resource Management Act 1991 and the Treaty of Waitangi, as relevant.
- Apply engineering theory to practice working within well-defined engineering problems relevant to the specialist field of civil engineering.
- Apply engineering knowledge to make informed problem-solving decisions in civil engineering and to implement these decisions.
- Identify, evaluate and manage risks within well-defined engineering problems relevant to the field of civil engineering.

Courses

DEC4.101

Engineering Fundamentals

Learn the basic fundamentals of a range of engineering disciplines.

DEC4.102

Engineering Mathematics 1

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

DEC4.103

Technical Literacy

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

DEC5.201

Structures 1

Analyse structural elements and simple structures, and to design simple beams.

DEC5.202

Civil and Structural Drawing

Develop skills required to produce civil engineering and structural drawings.

DEC5.203

Fluid Mechanics (Civil)

Introduce the principles of fluid mechanics and apply them in civil engineering hydraulic applications.

DEC5.204

Highway Engineering 1

Introduce the fundamentals of road materials, road construction practices and road maintenance techniques, as well as the principles of drainage design.

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DEC5.205

Engineering Surveying

Develop further knowledge and understanding of surveying with specific reference to engineering applications.

DEC5.207

Geotechnical Engineering 1

Introduce the fundamentals of soil composition, the engineering properties of soils, and site investigation procedures.

DEC5.208

Civil Materials

Introduce the fundamentals of geological and geomorphological processes and the properties and application of a range of civil engineering materials.

DEC5.209

Land Surveying 1

Understand and apply the theoretical and practical concepts of Land Surveying.

DEC6.101

Engineering Management

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

DEC6.102

Engineering Project

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

DEC6.201

Geotechnical Engineering 2

Develop further knowledge of the principles and practice of geotechnical engineering.

DEC6.202

Highway Engineering 2

Develop knowledge of road design, roading project evaluations and maintenance management.

DEC6.203

Traffic Engineering

Introduce traffic engineering concepts and fundamentals.

DEC6.205

Water and Wastewater Systems

Evaluate the requirements of, and design water, waste water and storm water reticulation systems.

DEC6.206

Water and Waste Management

Develop knowledge and understanding of drinking water quality control parameters and treatment methods, and of current and emerging treatment technologies for liquid and solid wastes.

Entry Requirements

- NCEA Level 2 including at least 12 credits in Maths, or
- Equivalent knowledge, life skills, work experience or study

Career Options

Graduates of the New Zealand Diploma in Engineering

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(Civil) (Level 6) will be able to gain employment as engineering technicians in workplaces that have a technical engineering basis to their specialist engineering strand. Roles include working on roads, buildings, and utilities.

Studying the NZ Diploma Engineering (Civil) at Te Pūkenga has allowed me the option to blend in-person classes on campus with WITT, alongside block courses and supported distance learning with NZIHT, as I navigate part-time study and full-time work. I am fortunate enough to be able to earn and learn, bringing class-taught theoretical concepts to the real world as an Engineering Field Assistant. Changing careers in my 30s was daunting, and after my first maths class in 16 years, I wasn't sure I was cut out for study again; but the team of staff and tutors at Te Pūkenga, along with fellow engineering students, have been excellent at providing the support and guidance needed for me to succeed.

Laura Johnston

Civil Engineering

WITT reserves the rights to withdraw or adjust programmes, alter start date or fee schedules, and make any other changes as it may deem desirable or necessary, without prior notice. All programmes are subject to a sufficient number of enrolments and completion of all approval and accreditation requirements.

WITT and this programme are part of Te Pūkenga – New Zealand Institute of Skills and Technology

