

New Zealand Diploma in Engineering (Civil Engineering)

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Dunedin

Duration

Two years full-time; four years part-time (but this can be flexible)

Delivery

On campus (this programme is very practical and you will learn using real-life scenarios)

Credits

240

DescLevel

240

Intakes

February
July (part-time only)

Apply

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Shape the world. Become a Civil Engineering Technician.

Civil Engineers work on the design, construction management and maintenance of

civil works such as roads, dams, earthquake engineering, water and sewerage systems. Civil engineering graduates are responsible for the project management of these jobs and often work internationally as New Zealand graduates have a good reputation worldwide.

During this programme, you will gain a sound knowledge, understanding and practical appreciation of civil engineering processes and theory by developing your ability to apply learning in a practical and innovative way.

There is presently a significant shortage of trained civil engineer technicians, particularly in roading. This shortage is expected to become more acute in the short term so your skills and experience will be highly sought after.

Graduates of this qualification may find career opportunities with local authorities, construction companies, mining companies or civil engineering consultancies. Employers often seek new staff directly from our programme.

This Diploma is recognised by Engineering New Zealand and internationally under the <u>Dublin Accord</u>.

Please note: Places are limited across all disciplines so early application is advisable.

Skills you'll gain

Differentiating

All courses within this qualification contribute towards the skills, knowledge and attributes of the New Zealand Diploma in Engineering qualification and the Engineering Technician as recognised by the <u>International Engineering Dublin Accord</u>.

Dublin Accord - New Zealand Diploma in Engineering Graduate

At the completion of this Diploma, all graduates will be able to:

characteristic	Dubin Accord Trew Zedidia Diploma in Engineering diadduce
Engineering knowledge	Apply knowledge of mathematics, natural science, engineering fundamentals, within specialist discipline to wide practical procedures and practices
Problem analysis	Identify and analyse well-defined problems reaching substantiated conclusions using codified methods of analysis specific to specialist field
Design development of solutions	Design solutions for well-defined technical problems and assist with design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural and societal and environmental considerations
Investigation	Conduct investigations of well-defined problems, locate and search relevant codes and catalogues, conduct standard tests and measurements

Modern tool usage

Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems with an awareness of the limitations

Engineer and society

Demonstrate knowledge of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technician practice and solutions to well defined engineering problems

sustainability

Environment and Understand and evaluate the sustainability and impact of engineering technician work in the solution of well-defined engineering problems in societal and environmental contexts

Ethics

Understand and commit to professional ethics and responsibilities and norms of technical practice

Individual and team work

Function effectively as an individual, and as a team member in diverse technical teams

Communication

Communicate effectively on well-defined engineering activities with the engineering community and society at large, by being able to comprehend the work of others, document their own work, and give and receive clear instructions

Project management and finance

Demonstrate knowledge and understanding of engineering management principles, apply these to ones' own work, as a member or leaders in a technical team and to manage projects in a multidisciplinary environment

Recognise the need for, and have the ability to engage in Lifelong learning independent updating in the context of specialised technical knowledge

Entry requirements

- 48 NCEA credits at Level 2 in four subjects including 12 in mathematics* OR equivalent qualifications/skills/experience.
- 8 NCEA literacy credits at Level 1 or higher, including 4 credits in reading and 4 in writing.
- International students will be individually assessed to ensure they meet diplomalevel entry requirements.

*Please note: Statistics and Probability credits are not categorised under "Mathematics credits" within the NCEA framework and therefore cannot count towards 12 required Mathematics credits.

- If English is not your first language, you must provide:
 - New Zealand University Entrance OR
 - Overall Academic IELTS 6.0 with no individual band score lower than 5.5 (achieved in one test completed in the last two years), OR
 - Acceptable alternative evidence of the required IELTS (see here for NZQA proficiency table and here for list of recognised proficiency tests).

If you need to improve your English Language skills, we offer a <u>wide range of English</u> programmes.

Don't meet the entry criteria? Don't worry!

If you don't meet any of the entry requirements for this qualification, or have been out of learning for a while, enrol in our great, <u>one-semester long preparation programme</u>. Successful completion will give you a New Zealand Certificate in Study and Career Preparation (Level 3) and direct entry into this Diploma.

If you don't meet the <u>maths entry requirement</u> for this qualification but meet all of the other criteria, enrol in our great <u>Engineering Maths Summer School</u> and upskill so you can apply.

Selection process

Applicants are accepted using the entry criteria on a first-come, first-in basis with places limited to no more than 50 per year. Should the number of applicants exceed the available places, applicants will be placed on a waiting list in order of the date they applied. All applicants will be interviewed.

Programme structure

Course litle	Level	Credit
YEAR ONE COMPULSORY		
DE4101 Engineering Fundamentals	4	15
DE4102 Engineering Mathematics 1	4	15

DE4103 Technical Literacy	4	15
DE4201 Materials (Civil)	4	15
DE4202 Land Surveying 1	4	15
DE5201 Structures 1	5	15
DE5202 Civil and Structural Drawing	5	15
DE5207 Geotechnical Engineering 1	5	15
YEAR TWO COMPULSORY		
DE5203 Hydraulics (Civil)	5	15
DE5204 Highway Engineering 1	5	15
DE6101 Engineering Management	6	15
DE6102 Engineering Project (Civil)	6	15
ELECTIVES (select four, only one can be Level 5)		
DE5205 Engineering Surveying	5	15
MG6046 Structures 2 (Bachelor)	6	15
DE6201 Geotechnical Engineering 2	6	15
DE6202 Highway Engineering 2	6	15
DE6203 Traffic Engineering	6	15
DE6205 Water and Waste Systems	6	15
DE6206 Water and Waste Management	6	15
PROGRAMME TOTAL		240

Please note: Alternatives to those listed above may be available following consultation with the Programme Manager. Subjects offered subject to minimum class numbers.

Your workload

Your workload will be significant as assessment is continuous throughout the year with assignments issued regularly and end of semester exams. If you are studying full-time, you will be expected to undertake approximately 40 hours per week of civil engineering study which consists of formal lectures, laboratory sessions, tutorials and your own study time.

Further study options

Upon successful completion of this qualification, there are opportunities for you to move in to the <u>Bachelor of Engineering Technology</u> at Otago Polytechnic or engineering degree programmes at either Canterbury or Auckland Universities. Completion of the New Zealand Diploma in Civil Engineering can reduce the length of these degrees by a year and a half, or with appropriate experience, two years on application.

Student loans/allowances

Student loans and allowances are for domestic students only. For information about student loans and allowances please visit the <u>Studylink website</u>. It is important to apply for your student loan/allowance at the same time as you apply for this programme, due to the length of time Studylink take to process. Loan/allowance applications can be cancelled at any time if you decide to withdraw your programme application or if it is unsuccessful.

Intakes:

Course Description Dates 25-DUN-Y1C Dunedin 17 February 2025