



New Zealand Diploma in Engineering (Electrical Engineering)



Location	Dunedin
Duration	Two years full-time; part-time options
Delivery	On campus (this programme is very practical and you will learn using real-life scenarios)

Credits	240
Level	6
Start	February
Apply	Now

Domestic fee: Free - normally \$8,696 for first year!

Due to the Government's Targeted Training and Apprenticeship Fund.

- > You will still need to pay for any additional course-related costs such as textbooks (see more info in Additional Costs section).
- > You can pay for this yourself or apply for a loan/allowance via Studylink.

International fee: \$23,400 (first year) **plus compulsory student levy >**

*Fees are approximate, subject to change and exchange rates

Get a career as an Electrical Engineering Technician.

Electrical engineers undertake a wide variety of work ranging from the design and programming of PLC's in industrial applications to the design and commissioning of complex building services or electrical distribution installations. Study electrical engineering and look forward to future career roles such as project management, maintenance management and contract management as well as general hands-on electrical engineering problem-solving. There is presently a significant shortage of trained engineers and qualified technicians are in high demand for their skills and experience.

Use this qualification to gain the necessary expertise and supply the demand; New Zealand-trained engineering graduates have a good reputation worldwide for their work-readiness and high calibre and with this Dublin accord-accredited qualification, international employment opportunities are available. Gain a sound knowledge, understanding and practical appreciation of electrical engineering processes and theory, and develop your ability to apply learning in a practical and innovative way.

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

Skills required

- > Analytical and problem-solving
- > Good computer ability
- > The ability to plan, organise and adapt
- > To enjoy working with groups or on your own.

Entry requirements

- > 48 NCEA credits at Level 2 in four subjects including at least 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 diploma-level 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 wide range of English 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 New Zealand Diploma in Engineering preparation programme. Successful completion will give you a Certificate in Foundation Studies (Level 3) and direct entry into this Diploma.

If you don't meet the maths entry requirement for this qualification but meet all of the other criteria, enrol in our great Engineering Maths summer school and upskill so you can apply.

Recognition of prior learning

If you have extensive knowledge and skills due to practical experience in this area, enquire about our recognition of prior learning process at Capable NZ. You may have already gained credits towards this qualification.

Additional documentation

You must supply certified copies of proof of identify, academic records and proof of residency (where appropriate).

Selection procedure

Applicants are accepted using the entry criteria on a first-come, first-in basis with places limited to no more than 30 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.

Qualification structure

Options: Power, Automation & Control and Illumination & Building Services

Course Code	Course Title	Level	Credit	Pre-requisite
YEAR ONE				
Semester One	COMPULSORY COURSES			
DE4101	Engineering Fundamentals	4	15	
DE4102	Engineering Mathematics 1 - FULL YEAR	4	15	
DE4103	Technical Literacy	4	15	
DE4401	Electrical Principles	4	15	
DE4402	Electrical and Electronic Applications	4	15	DE4401
DE5401	Power Engineering	5	15	DE4401
DE5403	Electronic Principles	5	15	
DE5423	Computer Aided Electrical Drawing	5	15	
	Year 1 Total Credits		120	
YEAR TWO				
Semester One	COMMON COMPULSORY COURSES	Level	Credit	

DE5402	PLC Programming 1	5	15	
DE5404	Electrical Machines	5	15	DE4401, DE5403
DE6101	Engineering Management	6	15	
DE6102	Engineering Project (Electrical)	6	15	
	ELECTIVES (choose two)			
	Automation and Control option			Pre-requisite
DE5417	Instrumentation and Controls 1	5	15	DE4101 & DE5403
DE5418	Engineering Mathematics 2	5	15	DE4102
DE6411	PLC Programming 2	6	15	DE5402
DE6409	Electrical Building Services	6	15	
DE6419	Maintenance Engineering Management (Required)	6	15	
	Power option			Pre-requisite
DE5418	Engineering Mathematics 2	5	15	DE4102
DE6401	Power Systems 1 (Required)	6	15	DE4401
DE6411	PLC Programming 2	6	15	DE5402
DE6420	Protection	6	15	DE4401
DE6409	Electrical Building Services	6	15	
DE6421	Sustainable Energy and Power Electronics	6	15	DE4401, DE5403
	Year 2 Total Credits		120	
	Programme Total Credits		240	

Note: In addition, CISCO Networking 1 and 2 courses are available. These courses are useful if you are likely to be engaged in employment where networking of computers would be undertaken. Additional fees would apply.

An Electrical Service Person course is also available and is recommended for Diploma students. This is administrated by the EWRB. Please visit www.ewrb.govt.nz for more information.

You will study

The New Zealand Diploma in Engineering has been designed to provide skilled and competent engineering technicians who:

- > Apply engineering theory to practice and competently perform technical operations to the standards, ethical and professional responsibilities required by the engineering profession
- > Have a knowledge sufficient to permit informed, rational decision making in a specialist field of engineering and to implement these decisions
- > Will work collaboratively with construction workers, clients, authorities, agencies, industry and other professionals to provide a comprehensive engineering service in the relevant specialist area
- > Have an understanding of all 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.

As these courses have a high practical content, relevant work experience would be an advantage. You will also learn through theoretical study, project work and laboratory sessions.

Please note: An Electrical Service Person course is also available from 2016 and is recommended for diploma students. This is administrated by the EWRB. Please visit www.ewrb.govt.nz for more information.

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 which consists of formal lectures, laboratory sessions, tutorials and your own study time.

Programme specific risks

You are alerted to the requirement that you must be able to demonstrate an ability to work safely in all practical situations.

Further study options

Upon successful completion of this qualification, there are opportunities for you to move in to the Bachelor of Engineering Technology at Otago Polytechnic or degree programmes at either Canterbury or Auckland Universities. Completion of the New Zealand Diploma in Engineering can reduce the length of these engineering degrees by a year, or with appropriate experience, two years on application. NZDE forms part of the pathway to become registered as an Electrical Engineer with EWRB (www.ewrb.govt.nz).

Additional costs

Hand tools and test equipment are included in the programme fee but these tools will remain the property of Otago Polytechnic.

Please [click here](#) for a full programme equipment list.

Student loans/allowances with TTAF

Whilst this programme is free for you to study via the Trades and Apprenticeship Fund (TTAF), this fund only covers tuition fees and compulsory costs such as student levies. It does not cover any additional costs or living costs. You can pay for additional and living costs by yourself if that is possible for you or by applying for a loan or allowance through Studylink.

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.

> For information about student loans and allowances please visit the Studylink website

Please note: Student Loans and Allowances and TTAF are available for domestic students only.

Disclaimer

While every effort is made to ensure that this sheet is accurate, Otago Polytechnic reserves the right to amend, alter or withdraw any of the contained information. The fees shown in this document are indicative ONLY. Both domestic and international fees are subject to change and are dependent on the development and implementation of Government policies. Please note that additional fees may from time to time be required for external examination, NZQA fees and/or additional material fees.



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