

## ICA'S DIPLOMA OF ELECTRICAL ENGINEERING

ICA's diploma is designed for those who want to work with the future technologies and current market trends in New Zealand. A student who is keen in solving electrical or electronic engineering problems, want to design systems and administrate networks can join ICA "Diploma in Electrical Engineering" (DEE).

The DEE consists of two specific specializations: 1) telecommunication and networks, 2) electronics and embedded systems along with compulsory courses in electrical engineering including mathematics, basic electrical and electronic principals and engineering management.

### Programme Summary

#### 1.1 Programme Summary Information

Programme Title	Diploma in Electrical Engineering (Level 7)
Level	7
Total Credits	240
Duration	2 Years (Full Time) (Total 80 weeks including holidays)
Aim	<p>This programme aims to provide an advanced programme of study covering core knowledge and skills in electrical and electronics engineering, and two specialist strands: telecommunications and networks; and electronics and embedded systems.</p> <p>The programme has been designed for students who have already completed a course of study in electrical engineering at Level 5, or who have equivalent skills and knowledge, and wish to develop more specialist knowledge and skills.</p>
Content	<p><b>Compulsory papers:</b> Mathematics for Engineers, Engineering Project Management, Final Project.</p> <p><b>Optional Papers (Any Three Papers):</b> Electrical Circuits and Devices, Computer Programme and CAD Tools, Electronic Communication Systems, Data Communications and Computer Networks, Antenna and Wave Propagation, Advanced Circuits and Systems, Advanced Electronic Devices and Applications, Microprocessor and Digital Logic Design</p> <p><b>Strand Papers</b>  <b>Telecommunication and Networks (All Six Papers)</b> Network Security, Analysis and Design of Enterprise Networks, Wireless Sensor Networks, Wireless Communication, Broadband Communication, Optical Fibre Communication.</p> <p><b>Electronics and Embedded Systems( All Six Papers)</b> Power Electronics Principles and Applications, Automated Test System Design and Best Practices, Advanced Microcontrollers and Interfacing; Real Time Embedded Systems, Real Time Operating Systems, and Control Systems.</p>

Entry requirements	Domestic Students	International Students
	<ul style="list-style-type: none"> <li>• Applicants must have a Diploma in Electrical Engineering Level 5 or</li> <li>• First year of the New Zealand Diploma in Engineering (Electrical) (Level 6) or</li> <li>• Equivalent knowledge and skills or</li> <li>• University Entrance – NCEA Level 3 including: <ul style="list-style-type: none"> <li>○ Three subjects at Level 3 including: <ul style="list-style-type: none"> <li>✓ physics with a minimum of 14 credits</li> <li>✓ calculus with a minimum of 14 credits, and</li> <li>✓ one other subject from the list of approved subjects*</li> </ul> </li> <li>and</li> <li>○ Literacy – 10 credits at Level 2 or above, made up of five credits in reading, five credits in writing and</li> <li>○ Numeracy – 10 credits at Level 1 or above (specified achievement standards, or unit standards 26623, 26626, 26627).</li> </ul> </li> <li>And</li> <li>○ 2 years relevant work experience or</li> <li>• International Baccalaureate Diploma with 24 points minimum And 2 years relevant work experience</li> <li>• 3 years relevant work experience and 20 years of age or over. The applicant shall be required to formally apply for the assessments of prior learning; and complete the assessments of prior learning if approved to do so by the DEE programme leader.</li> </ul>	<ul style="list-style-type: none"> <li>• Applicants must have a Diploma in Electrical Engineering Level 5 or</li> <li>• First year of the New Zealand Diploma in Engineering (Electrical) (Level 6) or</li> <li>• Equivalent knowledge and skills, such as 10 years high school + 3 years certificate/diploma in technology, first year of Bachelor of Electrical Engineering degree completed and similar qualifications or</li> <li>• International Baccalaureate Diploma with 24 points minimum And 2 years relevant work experience</li> <li>• 3 years relevant work experience and 20 years of age or over. The applicant shall be required to formally apply for the assessments of prior learning; and complete the assessments of prior learning if approved to do so by the DEE programme leader</li> <li>• Applicants must meet the minimum academic entry requirements and have achieved an overall band score (Academic) of 6.0 IELTS, (writing, speaking, reading and listening bands no less than 5.5) or equivalent (see table 1 below for the IELTS equivalent options). Over and above existing English proficiency may be determined if the medium of instructions in primary and secondary studies was in English OR if the applicant has studied for three years full time in New Zealand, USA, Canada, Australia, and UK.</li> </ul>

## English language tests

You can use the English language tests in the table below to meet the ICA's English language requirements. You must satisfy the requirements in one sitting and results are valid for two years from the date on the test certificate.

### Minimum entry requirements

Table 1

ICA IELP Assessment	IELTS (Academic)	Internet-based TOEFL (iBT)	Paper-based TOEFL	Cambridge English : Advanced (CAE)	Cambridge English Proficiency (CPE)	Pearson Test of English (PTE) Academic*	Michigan English Language Assessment Battery (MELAB)
Overall score of 6 points and all components 5.5 or better	Overall score of 6.0 and all bands 5.5 or better	Overall score of 80 plus a written score of 21	Overall score of 550 plus Essay (TWE) of 4.5	CAE score of 52 or higher, no individual language skill below Borderline	CPE score of 45 or higher	Overall score of 58 and no PTE communicative skills score below 50	80

### 2.1 Recognition of Prior Learning (RPL)

RPL addresses previous qualifications and relevant experience including:

- Cross credits
- Assessment of prior learning
- Credit transfers

Maximum 33% of cross credits may be awarded through RPL and APL. Credit transefrs can be done for all the subjects already passed.