



through



DIPLOMA IN ENGINEERING TECHNOLOGY (HIGHWAYS)

2011
**Programme
Information**

CONTENTS

1. AIMS	2
2. GRADUATE PROFILE	2
3. ADMISSION CRITERIA.....	2
SELECTION CRITERIA.....	3
3. PROGRAMME STRUCTURE.....	4
THIS IS A ONE YEAR FULL-TIME PROGRAMME OF STUDY, OR EQUIVALENT PART-TIME.....	4
4.1 SCHEDULE OF COURSES OFFERED.....	4
5 METHOD OF DELIVERY	5
5.1 BLOCK COURSES.....	5
5.2 PROGRAMME LENGTH	5
5.2 BLOCK COURSE FORMAT.....	5
5.3 COURSE MANAGEMENT SYSTEM	6
6. RECOGNITION OF PRIOR LEARNING (RPL)	6
7. HOW TO APPLY	7
8. CONTACT DETAILS FOR INQUIRIES.....	7
ENTRY ASSESSMENT FORM.....	11

Diploma in Engineering Technology (Highways)

[Programme Code: TK1004]

1. AIMS

The Diploma in Engineering Technology (Highways) is a specialist qualification in roading. The major goal of the Diploma is to provide the roading industry with a programme custom built to meet the requirements of the industry at technician level.

The programme is suitable for applicants currently in employment who wish to broaden their knowledge in the field of roading technology.

NZIHT, through the Western Institute of Technology at Taranaki (WITT), offers this programme on a part time basis using a mixed-mode delivery format. This method of delivery caters specifically for the needs of students who are unable to attend a conventional full-time programme. More details on the method of delivery are given in Section 5.

2. GRADUATE PROFILE

The purpose of the Diploma in Engineering Technology (Highways) is to produce graduates who will be able to:

- Creatively plan, design, control, budget and prioritise road construction and maintenance programmes.
- Supervise, direct and manage roading projects.
- Implement and complete projects with limited supervision.
- Undertake a wide range of support activities, including organisation, management, administration, liaison and public relations.
- Analyse and evaluate technical and economical options.
- Perform a significant supervisory role.
- Design road alignment, drainage and pavement structures.

3. ADMISSION CRITERIA

In order to be admitted to the programme an applicant must meet either:

- a. the normal admission requirements, or
- b. the special admission requirements, and
- c. the English language requirements

Normal Minimum Admission Requirements

A total of 48 credits in best of four NCEA level 2 subjects, including Mathematics (prefer at least 15 credits covering algebra, trigonometry and geometry standards). Other qualifications (e.g. 6th Form Certificate) may be considered for equivalence to this admission requirement.

Special Admission Requirements

Applicants who do not meet the requirements for normal admission may be admitted to the programme if:

- (i) They have attained the age of 20 years on or before the first day of the semester in which the programme is to begin,

or

They have a letter of support from their current employer expressing support of the application and of the student's participation in this programme,

and

- (ii) They can provide details of suitable work and/or study experience sufficient to indicate a strong likelihood of success in this programme.

To be assessed as suitable and sufficient the submitted work and/or study experience needs to show that the applicant has:

- good skills in technical reading, writing and mathematics*
- had significant involvement in engineering/technical work
- satisfactorily completed a good range engineering or technical tasks, jobs, assignments or projects

A student entering the programme under this provision may be required to follow an approved introductory course of study as a pre-requisite to further study of courses within this programme.

- Applicants who do not have the required level 2 Mathematics skills will be required to complete an Introductory Mathematics course, either before commencement of Diploma studies, or during the early part of their Diploma studies.

English Language Requirements

In addition, the following requirements apply to applicants in both admission categories:

Applicants whose first language is not English, or who come from a country where the language of instruction in teaching institutions is not English, are required to provide evidence of having met the following minimum English language requirements:

- (i) IELTS: an overall proficiency score of 6.0 (academic version), with no sub-test score lower than 5.5:

or

- (ii) TOEFL 550 together with TWE of 5.0;

or

- (iii) WITT Course Entrance Assessment: Level One pass 220/300;

or

- (iv) Provide evidence of having passed such tests of English language competence, as the WITT Academic Board may from time to time approve.

Selection Criteria

Admission to the programme will be in order of receipt of enrolment by those applicants who meet the entry criteria above.

Applicants who seek entry to the programme under Special admission requirements may be required to:

- (i) Participate in an interview;

and/or

- (ii) Submit a portfolio of work;

- and/or**
 (iii) Supply references;
- and/or**
 (iv) Produce other supporting documentation.

The Programme Manager will determine the maximum number of students permitted to enrol in the programme.

Acceptance

Candidates wishing to enrol for the Diploma in Engineering Technology (Highways) must complete the Entry Assessment Form and return it with supporting documentation to the Programme Administrator for evaluation.

Following the review of the applications by the Programme Manager each candidate will be informed in writing of the result. There is a requirement that candidates accepted onto the Programme must, for the purposes of obtaining the Diploma, complete a Western Institute of Technology at Taranaki (WITT) Student Study Contract (enrolment form).

Applicants will receive the Student Study Contract for WITT when they are notified of their acceptance onto the Programme.

Please note a student is confirmed onto the Programme when NZIHT has received a Student Study Contract from the student. A confirmation letter giving final course details will be issued prior to the start of the first block course.

3. PROGRAMME STRUCTURE

This is a one year full-time programme of study, or equivalent part-time.

4.1 Schedule of courses offered

Table 1 - Diploma in Engineering Technology (Highways) Courses

CODE	COURSE TITLE	COR E ¹	LEVEL	CREDITS	PRE- OR CO-REQUISITES
Compulsory Courses					
DET5.207	Geotechnical Engineering 1	C	5	15	
DET5.204	Highway Engineering 1	C	5	15	
DET6.202	Highway Engineering 2	C	6	15	DET5.204 Co-
Total Required Compulsory Credits				45	
Core Electives - at least FOUR Core Elective courses must be completed.					
DET6.203	Traffic Engineering	E	6	15	
DET6.101	Engineering Management	E	6	15	
DET6.300	Pavement Engineering I	E	6	15	DET5.204 Co-
DET7.360	Pavement Engineering II	E	7	15	DET5.204 Co-
DET7.310	Transportation Engineering II	E	7	15	DET5.204 Co-
DET7.340	Geometric Design	E	7	15	DET6.202 Co-
Total Core Elective Credits				60 or 75	Note ²
General Electives - no more than ONE General Elective course may be selected					
DET4.201	Materials (Civil)	E	4	15	
DET4.202	Land Surveying 1	E	4	15	
DET4.102	Engineering Mathematics 1	E	4	15	
DET5.203	Hydraulics (Civil)	E	5	15	

DET6.299	Engineering Project (Civil)	E	6	15	DET5.207 DET5204
Total General Elective Credits				0 or 15	Note ²
Total Required Programme Credits				120	

Note¹ C= Compulsory Courses; E= Elective Courses

Note² Students may select Four Core Electives plus One General Elective OR
Five Core Electives and Nil General Elective courses

5 METHOD OF DELIVERY

5.1 Block Courses

A combination of contact sessions, called **Study Blocks**, and structured self-directed study is used to deliver the programme. The self-directed study component is undertaken in the student's own time at home with the aid of course notes and a proposed work programme. Interaction with the course presenter as and when required is via e-mail or telephone. Interaction with the course presenter and fellow students can also be made through the Course Management System website (NZIHTCMS).

The length of the **Study Blocks** varies according to the credit rating and the nature of individual courses. The typical duration is about 5 days per course.

This method of delivery enables candidates to acquire the qualification on a part-time basis. A person in full-time employment, who is willing to work hard, should be able to undertake 2 to 3 courses per semester. On this basis the programme can be completed in about 2 years.

The current venues where Study Blocks are delivered, subject to demand, are Hamilton, Christchurch, Auckland, Palmerston North and Dunedin. Invercargill has been added for a trial period in 2011. Other venues will be considered based on demand.

5.2 Programme length

This is a one year full-time programme of study, or equivalent part-time.

Courses are scheduled to run across two semesters each year. Each semester is of 18 to 20 weeks duration. Examinations occur during the last two weeks of each semester.

5.2 Block Course Format

The learning activities for each course comprise the following components:

1. Contact session(s), referred to as **Study Blocks**, totalling between 3 and 7 days approximately, normally broken into two blocks of equal duration per course.
2. Structured **self-directed study** involving Self Evaluation Exercises and Assignments.
3. Final Examination.

The Study Block **time tables** for courses offered in 2011 are given in **Appendix A**.

While the block course format, in essence, is a part-time study format specifically designed to cater for persons who are not in a position to attend full-time programmes, it is not a pure "correspondence course".

The course materials have not been designed to be completely "stand-alone". The Study Blocks fulfil an important supplementary role to the self-directed study component. Experience has shown that block course attendance is important for all courses:

There are, however, special circumstances where attendance of block courses can be waived by the Programme Manager, for instance where students can offer prior learning or appropriate work-place experience *in lieu*. Please contact the course administrator for more information.

5.3 Course Management System

Candidates accepted onto the Programme need independent access to the internet. NZIHT has introduced a Course Management System Website (CMS for short) to facilitate the interaction between fellow students, tutors and administrators of the NZ Dip Eng (Civil) Programme.

The address is www.nzihtcms.co.nz

CMS is a website where:

- Administration staff post some of the admin resources commonly required by the student and communicates logistics, including venue and timetable information
- Students can ask course related questions of the course presenters,
- Course presenters can discuss course related matters or disseminate additional information (including model answers for tests and assignments),
- Question-and-answer discussion trails (discussion forum) can be facilitated among members of a class group (including the course presenter),
- Marks for tests and assignments are posted during the progress of courses.

Once enrolled with NZIHT, students are provided with a user name and initial password to gain access to the site and its facilities.

6. RECOGNITION OF PRIOR LEARNING (RPL)

Candidates who can provide evidence of prior study, or work related experience, that shows a direct correlation to a course offered in the programme may be eligible for cross credit/credit transfer of that subject.

A formal application process must be entered into by the student in order to gain such a credit (an application fee is payable). The Programme Manager can give an opinion on the likelihood of success but all applications are subject to the approval of the Board of Studies.

It is important for candidates to supply copies of results transcripts, and desirably an updated CV, to enable the Programme Manager to give advice on eligibility and possible exemptions/cross credits.

Table 2 below lists examples of eligibility:

Table 2 – RPL Arrangements for Transitioning of Students

COURSE CODE HIWAY	DIPLOMA IN HIGHWAY ENGINEERING COURSE TITLE	COURSE CODE DET	DIPLOMA IN ENGINEERING TECHNOLOGY (HIGHWAYS) COURSE TITLE
6008	Maintenance Management	5.204 6.202	Highway Engineering 1 Highway Engineering 2
6009	Pavement Materials & Construction		
6010	Drainage Design		
6002	Traffic Engineering	6.203	Traffic Engineering
6005	Contract Management	6.101	Engineering Management (Civil)
6012	Business Management		
6004	Wearing Surface Technology	6.300	Pavement Engineering I
6009	Pavement Materials & Construction		
6011	Pavement Design	7.360	Pavement Engineering II
6009	Pavement Materials & Construction		
6003	Road Transport Infrastructure	7.310	Transportation Engineering II
6006	Asset Management		
6001	Geometric Design	7.340	Geometric Design
6007	Computer Aided Design		

7. HOW TO APPLY

Complete the attached Entry Assessment Form and send it to the address given below. Attach any additional information or documents (e.g. CV) that may assist the Programme Manager in determining your eligibility, possible exemptions and which courses you should enrol for.

Once your eligibility and subject choices have been confirmed, you will be sent an enrolment form.

Enrolment: Semester 1 courses: Enrolment forms are received from November until late January.
Please enroll as early as possible.

Semester 2 courses: June through middle July.

8. CONTACT DETAILS FOR INQUIRIES

The Programme Administrator (Civil Eng)
NZIHT
PO Box 27050
Garnett Avenue
Hamilton 3257

Tel : (07) 850 8330
Fax : (07) 850 8329
e-mail : civil@nziht.co.nz

Key to abbreviations:

Unified = New NZDE (Civil) Structure from 2011			DEC = NZDE (Civil)			DET = Diploma in Engineering Technology (Highways)			CET = Certificate in Engineering Technology		
Semester 1						Semester 2					
Core Skills (Civil & Highway)	=	CET2.002		Core Skills (Civil & Highway)	=	CET2.002		Core Skills (Civil & Highway)	=	CET2.002	
CoreEngSkills(Water)	=	CET4.213		Core engineering Skills (Water)	=	CET4.102/ DEC4.102/ DET4.102		Engineering Mathematics 1	=	CET4.102/ DEC4.102/ DET4.102	
Maths (Intro)	=	CET3.002		Mathematics (Introduction)	=	DEC5.520		Engineering Surveying	=	DEC5.520	
Eng Maths 1	=	CET4.102/ DEC4.102/ DET4.102		Engineering Mathematics 1	=	CET3.002		Mathematics (Introduction)	=	CET3.002	
Eng Fundamentals	=	CET4.101/ DEC4.101		Engineering Fundamentals	=	CET5.202/ DEC5.202		Civil & Structural Drawing	=	CET5.202/ DEC5.202	
LandSurv1	=	CET4.202/ DEC4.202/ DET4.202		Land Surveying 1	=	CET3.001		Introduction to CAD	=	CET3.001	
Eng Management	=	CET6.101/ DEC6.101/ DET6.101		Engineering Management	=	DEC6.203/ DET6.203		Traffic Engineering	=	DEC6.203/ DET6.203	
Highway Eng 1	=	CET5.204/ DEC5.204/ DET5.204		Highway Engineering 1	=	CET6.202/ DEC6.202/ DET6.202		Highway Engineering 2	=	CET6.202/ DEC6.202/ DET6.202	
Hydraulics (Civil)	=	CET5.203/ DEC5.203		Hydraulics (Civil)	=	CET6.205/ DEC6.205		Water & Waste Water Systems	=	CET6.205/ DEC6.205	
Water & W Man	=	CET6.206/ DEC6.206		Water & Waste Management	=	CET5.207/ DEC5.207 /DET5.207		Geotechnical Engineering 1	=	CET5.207/ DEC5.207 /DET5.207	
Materials(Civil)	=	CET4.201/ DEC4.201/ DET4.201		Materials (Civil)	=	DEC6.201		Geotechnical Engineering 2	=	DEC6.201	
Tech Literacy(Comm)	=	CET4.103/ DEC4.103		Technical Literacy	=	DEC6.299		Engineering Project	=	DEC6.299	
Tech Literacy(Dwg)	=	CET4.103/DEC4.103		Technical Literacy	=	CET5.201/ DEC5/201		Structures 1	=	CET5.201/ DEC5/201	
Pavement Engineering I (Part A & B)	=	DET6.300		Pavement Engineering I	=	DEC5.206		Structures 2	=	DEC5.206	
Transport Engineering II (Part A & B)	=	DET7.310		Transport Engineering II	=	DET7.340		Geometric Design	=	DET7.340	

Consort = Consortium (pre 2011 Structure)											
Semester 1			Semester 2								
CivDwg	=	DCE5.552		Civil Drawing	=	DCE5.556		Engineering Surveying	=	DCE5.556	
Maths 1A	=	DCE4.450		Engineering Mathematics 1A	=	DCE4.451		Engineering Mathematics 1B	=	DCE4.451	
Mechanics	=	DCE3.358		Mechanics	=	DCE5.553		Structural Drawing	=	DCE5.553	
LandSurv	=	DCE4.452		Land Surveying	=	CID4.103		AutoCAD 1	=	CID4.103	
Contr Admin	=	DCE6.651		Contract Administration	=	DCE6.656		Traffic Engineering	=	DCE6.656	
T & H	=	DCE5.557		Traffic & Highway Engineering	=	DCE6.657		Road Design & Maintenance	=	DCE6.657	
Fluid Mech	=	DCE5.506		Fluid Mechanics	=	DCE6.606		Public Health Waste	=	DCE6.606	
PH Water	=	DCE6.605		Public Health Water	=	DCE4.454		Hydraulics & Hydrology	=	DCE4.454	
Materials	=	DCE4.457		Engineering Materials	=	DCE4.456		Geotechnical Engineering 1	=	DCE4.456	
Tech Literacy (Comm)		This study block is for students who have achieved the Eng Dwg component but need communications to be able to cross credit to Technical Literacy					DCE5.554		Geotechnical Engineering 2	=	DCE5.554
Tech Literacy(Dwg)		This study block is for students who have achieved the communications component but need Eng Dwg be able to cross credit to Technical Literacy					DCE6.652		Construction Practices	=	DCE6.652
Maths 2A	=	DCE5.550		Engineering Mathematics 2A	=	DCE4.558		Structures 1	=	DCE4.558	
					=	DCE5.655		Structures 2	=	DCE5.655	
						DCE5.558		Engineering Mathematics 2B	=	DCE5.558	

ENTRY ASSESSMENT FORM
DIPLOMA IN ENGINEERING TECHNOLOGY (HIGHWAYS)

On the basis of the information you supply, we will assess your application to join the NZ Dip Eng (Civil) Programme. An Enrolment pack, including recommendations on which courses to enroll for, is supplied after this assessment is completed. **Please supply with this form a copy of all result transcripts/ CV.**

Mail to: **Programme Manager
 NZ Institute of Highway Technology
 PO Box 27050
 Garnett Avenue
 Hamilton 3257**

Personal Details

Name:						
Address:						
Phone:		<i>(Home)</i>		<i>(Work)</i>		<i>(Mobile)</i>
Email:		<i>(Home)</i>		<i>(Work)</i>		
Date of Birth:			Citizenship <i>(Please tick appropriate box)</i>	New Zealand Citizen	<input type="checkbox"/>	
				Permanent Resident	<input type="checkbox"/>	
				Other <i>(Please Specify)</i>	<input type="checkbox"/>

Academic History

Provide all the information that will help us to determine your eligibility to enroll in the programme and for possible cross credits or exemptions from components of the programme. An updated CV is very useful.

(a) Secondary Level

Please tick the levels you have achieved and attach a copy of the results transcripts.

		School Subjects/Courses completed for which results transcripts have not yet been received.	
		Level	Course
	NCEA Level 1 (5 th Form Certificate)		
	NCEA Level 2 (6 th Form Certificate)		
	NCEA Level 3 (Bursary)		
If you have completed any of the above, but have not received the results yet, list the courses you have studied in the column on the right.			

(b) Tertiary Level

Please provide information of any tertiary studies completed to date:

If you already know which courses you wish to enroll for in 2010, indicate them on the *Course Selection Form* overleaf otherwise leave the form blank.

Venue abbreviations: HMN = Hamilton
 PMN = Palmerston North

CHC = Christchurch
 DUN = Dunedin

AKL = Auckland
 INGL = Invercargill

CODE	COURSE TITLE	LEVEL	CREDITS	PRE-OR CO-REQUISITES	2011											
					SEMESTER 1					SEMESTER 2						
					HMN	CHC	AKL	PMN	DUN	INGL	HMN	CHC	AKL	PMN	DUN	INGL
Compulsory Courses																
DET4.203	Geotechnical Engineering 1	4	15													
DET5.204	Highway Engineering 1	5	15													
DET6.202	Highway Engineering 2	6	15	DET5. 204 Co-												
Core Electives - at least FOUR Core Elective courses must be completed with no more than ONE Level 7 Core Elective allowable																
DET6.203	Traffic Engineering	6	15													
DET6.101	Engineering Management (Civil)	6	15													
DET6.300	Pavement Engineering I	6	15	DET5.204 Co-												
DET7.360	Pavement Engineering II	7	15	DET5.204 Co-												
DET7.310	Transportation Engineering II	7	15	DET5.204 Co-												
DET7.340	Geometric Design	7	15	DET6. 202 Co-												
General Electives - no more than ONE General Elective course may be selected																
DET4.201	Materials (Civil)	4	15													
DET4.202	Land Surveying 1	4	15													
DET4.102	Mathematics 1	4	15													
DET5.203	Hydraulics (Civil)	5	15													
DET6.299	Engineering Project (Civil)	6	15	DET4.203. DET5.204												

All courses scheduled will be offered subject to sufficient demand