

InfraTrain New Zealand

Recognition of Applied Civil Engineering Skills

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Introduction

- Demise of the NZCE left a major gap
- The National Diploma in Civil Engineering (Applied) now provides recognition of applied skills – launched 2008
- It provides the *Connection* between theory and practice
- Unique partnership between InfraTrain, IPENZ, polytechnics and industry

Recognition of Applied Skills

In this presentation we will look at:-

- Pathways for recognition of applied civil engineering skills
- How the NDCE (Applied) is achieved
- Contribution experienced engineers can make to development of people

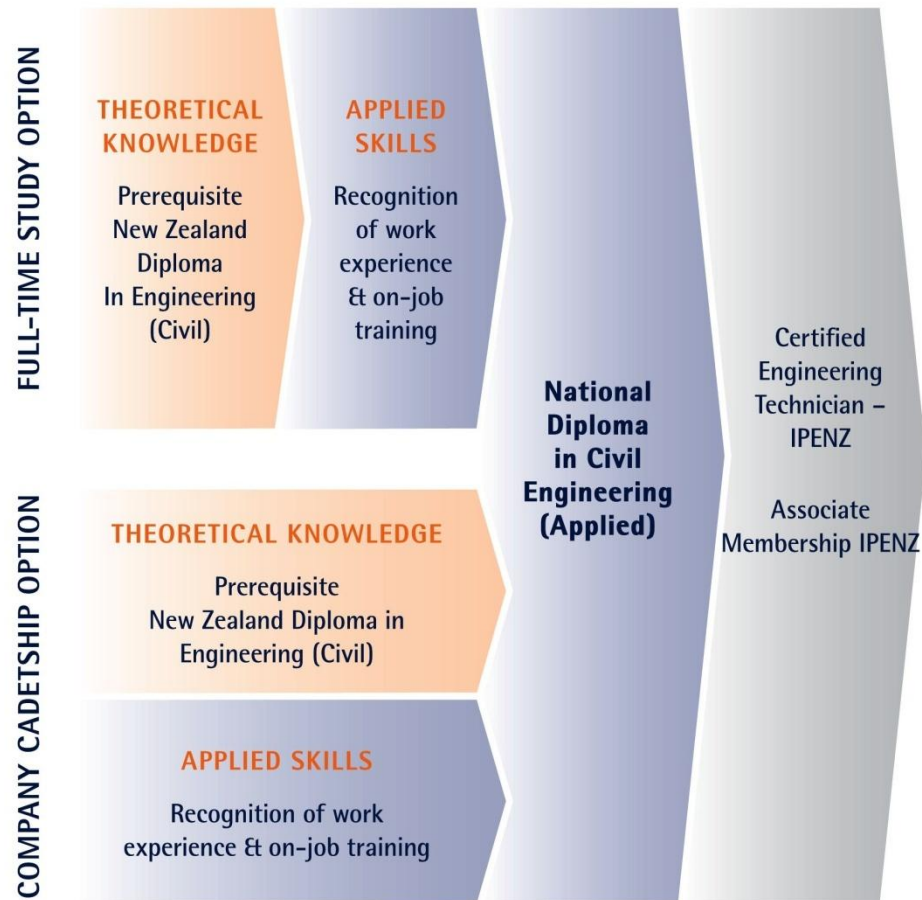
NDCE (Applied) - Overview

- Co/prerequisite New Zealand Diploma in Engineering (Civil)
- Provided by number of polytechs throughout NZ – full time or block course options
- NDCE (Applied) builds on this theoretical knowledge – recognition of applied skills
- Tailored to area of work – Consulting, Contracting or Local Government

The new qualification

- NZDE (Civil) – provides quality academic study backed by robust quality assurance and national moderation
- Assurance that competencies of graduates substantially equivalent
- NDCE (Applied) – more structured, more rigorous assessment
- Closely aligned with national and international competence standards

Pathway to CertETn registration



Pathway

- NDCE (Applied) meets requirements for CertETn registration and AIPENZ membership – apply within six months
- NDCE (Applied) can staircase to a BE – each application considered on individual basis. Check university's requirements
- NDCE (Applied) does not staircase to the BEngTech

Completing the NDCE (Applied)

- NDCE (Applied) is a competency based qualification
- Comprises Unit Standards, totaling 132 credits
- Unit Standards describe skills and knowledge the candidate must demonstrate competence in
- Completed through recognition of relevant work skills and knowledge gained on the job
- Evidence of work experience and professional development collected in a Workbook for Verification and Assessment

The Workbook

- Workbook provided by InfraTrain – specific to work – Consulting, Contracting or Local Govt.
- Contains info to guide candidate through completing the diploma
- Details key tasks engineering technician needs to be competent in (see Technical Note)
- Outlines specific requirements that must be completed for each task
- Also outlines naturally occurring workplace evidence to demonstrate the skills and knowledge acquired – collected in Workbook

Key people involved

Opportunities for experienced engineers to support candidates and help the industry grow professionally

- **Mentor** – provides support and guidance. May be a colleague, advisor or manager
- **Verifier** – observes and confirms work has been completed by the candidate and is ready to be assessed. Have industry experience, appointed by employer.
- **Assessor** – determines if the candidate is competent in the required skills and knowledge

The Assessor

- Assessor is assigned to candidate after enrolment
- Has industry experience and Civil Engineering degree or diploma
- Required to complete training and be registered by InfraTrain and endorsed by IPENZ
- Reviews Workbook evidence - may also confirm work with Verifier, observe candidate working, or conduct interviews
- Assesses that candidate meets requirements of the qualification's unit standards and also IPENZ registration for CertETech

Model for success

Successful completion of the NDCE (Applied) depends on the candidate's commitment and full support by the employer. A model for success involves:-

- Candidates – preparing a plan to complete the required experience tasks
- Employer – a structured plan to provide required range of work to develop competencies
- Regular progress reviews
- Consideration to how gaps in experience can be filled
- Pro-active mentoring and support

Moderation – Quality Assurance

- Moderation process important part of InfraTrain QA
- Assurance that candidates will be assessed to a consistently high standard anywhere in the country
- Peer Moderation model used for NDCE (Applied) – all Assessors review assessment samples.
- Active network of Assessors – sharing of information and encourages consistency

New Developments – NEEP

- National Engineering Education Plan (NEEP) – discussions with IPENZ, university and ITP engineering Deans and other ITOs
- Agreement on single NZ Diploma in Engineering across all disciplines – no common first year, some common subjects
- Also adoption of InfraTrain applied diploma model – likely to be renamed Engineering Practice diploma
- Structure of NDCE (Applied) not expected to change much

Creating Star Performers



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