GENERATION APPRENTICESHIP
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APPLICANT

INFORMATION GUIDE

Higher Certificate in Civil Engineering, Level 6

Bachelor of Engineering in Civil Engineering, Level 7

CONTENTS

FOREWORD – A MESSAGE FROM THE CIVIL ENGINEERING CONSORTIUM

With a minimum of 3,000 new civil engineers needed to ensure the successful delivery of Project Ireland 2040, the National Development Plan and Climate Action Plan 2019, an alternative delivery model for civil engineering needed to be developed to entice stronger uptake of the profession.

This is an exciting new initiative, creating an alternative career path to the Civil Engineering profession in Ireland. The civil engineering apprenticeship programme is planned to be transformational, and, over time, bridge the shortfall in supply of engineers in Ireland, providing those skills critical to the delivery of Project Ireland 2040.

Eamonn Stapleton, President of the Civil Engineering Contractors Association and member of the Consortium believes "this is an excellent and much needed route to becoming a professionally accredited, internationally recognised Civil Engineer. It will provide a way to "*earn and learn*" and help attract more young people into the industry, while also providing a new career path for current employees within the industry."

Designed to develop the skills, knowledge and competencies to meet the future needs of the industry, these programmes will appeal to those seeking to build a career in civil engineering. These apprenticeships are open to a wide range of employers, from small to large firms across Ireland.

This guide provides an overview of this apprenticeship for prospective apprentices, parents and guidance counsellors.

PROGRAMME AIM

These apprenticeships are designed to meet the great need in the industry across all sectors, from construction and consultancy to utilities and government agencies.

On completion of these programmes the apprentice will be able to:

- Exercise independent technical judgement at an appropriate level and maintain accurate records.
- Use test and measurement instrumentation applicable to civil engineering (materials test equipment, Total Station, GPS etc.).
- Use industry standard software tools to gather data, solve well-defined civil engineering problems and display the result, (AutoCAD/BIM/Revit etc).
- Apply suitable mathematical techniques to solve problems in civil engineering and present the solution in an appropriate form.
- Use effective communication skills and actively participate in human and industrial relations.
- Make a personal commitment to live by the appropriate code of professional conduct which recognises obligations to society, the profession, and the environment.
- Actively participate in financial, statutory, and commercial considerations and in creation of cost-effective systems and procedures.
- Exercise and apply time management.
- Create and apply safe working practices (in line with current Safety and Health Legislation)

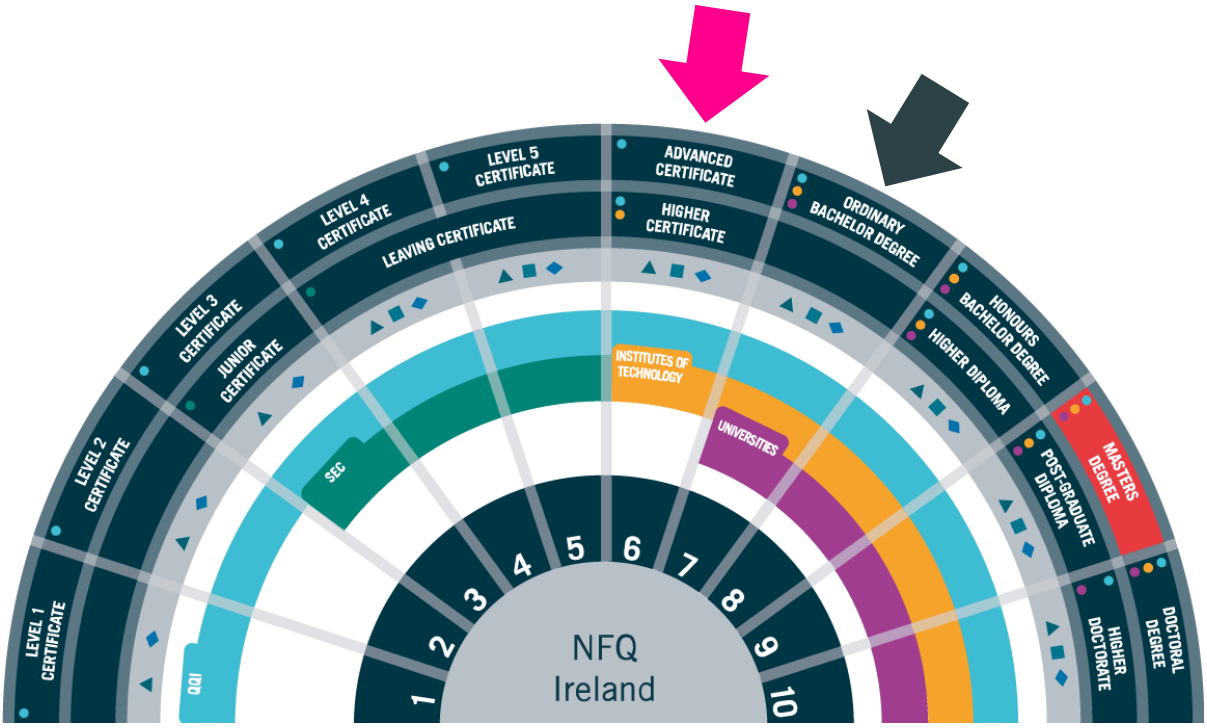
PROGRAMME OVERVIEW

Level 6

Programme Title	Civil Engineering Technician Apprenticeship
Duration	Two Years
Certification	Higher Certificate in Civil Engineering

Level 7

Programme Title	Civil Engineer Apprenticeship
Duration	Three Years
Certification	Bachelor of Engineering in Civil Engineering



PROGRAMME STRUCTURE

These Apprenticeship programmes are earn and learn models, designed to develop apprentices' skills and knowledge, building a competent workforce in the sector, and addressing the severe skills shortage being experienced by the industry.

The apprenticeships are open to a wide range of employers, from contractors, consultants, local authorities, specialist suppliers and utilities companies, across all counties in Ireland.

Apprentices will be trained and assessed both on and off the job.

On the Job training will be carried out with the support of their industry mentor and will include:

- Apprentice Workplace Logbook
- Case Studies
- Technical Projects
- HR Performance Reviews

Off the Job training will include:

- 1 week residential (week one)– Project based learning.
- Lectures delivered online on 1 full day (8hrs) per week.
- Apprentices will attend campus on 1 additional day (Friday) per month to carry out Labs/ workshops.

The successful completion of the programme will add value to both the apprentice and the employer. The apprentice will have, at the end of their programme, gained the educational base for professional registration with Engineers Ireland at either Technician or Associate Engineer Level

YEAR 1

Residential Week		Introduction to Civil Engineering and H&S
TERM 1	**SEPT - DEC**	• Engineering Graphics and CAD • Mathematics 101 • Engineering Mechanics and physics • Surveying 101
TERM 2	**JAN – MAY**	• Building Information Modelling • Mathematics 102 • Engineering Mechanics and Physics 102 • Surveying 102
TERM 3	**JUNE-AUG**	WORK BASED LEARNING

YEAR 2

Residential Week		Professional Practice in Engineering and SDG's
TERM 1	**SEPT - DEC**	• Civil Engineering Materials • Mathematics 201 • Structural Mechanics • Environmental Engineering 201
TERM 2	**JAN – MAY**	• Hydraulics 202 • Soil Mechanics and Geology • Structural Design • Environmental Engineering 202
TERM 3	**JUNE-AUG**	WORK BASED LEARNING

YEAR 3

Residential Week		Civil Engineering Management and Finance
TERM 1	**SEPT - DEC**	• Structures 301 • Mathematics 301 • Road and Transport Engineering • Geotechnical Engineering 301
TERM 2	**JAN – MAY**	• Structures 302 • Hydraulics 302 • Environmental Engineering 302 • Geotechnical Engineering 302
TERM 3	**JUNE-AUG**	WORK BASED LEARNING

ENTRY REQUIREMENTS

- At least 18 years of age.
- QQI Level 5 (or equivalent).
- Pass Grade in Maths at Level 5 (or Equivalent).
- Solid literacy, verbal and numeracy skills.
- Good computer skills.

Non-Standard Entry

In the case where the applicant does not meet the educational requirements specified above, acceptance will be based on an interview process to determine previous experiential learning, the student's suitability to the subject area and their commitment to achieving the minimum intended programme learning outcomes.

IS IT FOR ME?

- An interest in Mathematics and problem solving.
- Interest in Civil Engineering and the built environment.
- Ability to plan and prepare work.
- Good analytical and problem-solving skills.
- Good interpersonal skills.
- Safety focused.
- Ability to work independently and as part of a team.

PERSONALITY TYPE

This is an academically intensive programme and applicants will need to be able to demonstrate that they can successfully deal with the competing demands of an academic programme and the workplace.

The programme will require study outside office / normal working hours, and we would anticipate that for the average student that would be 10 hours per week. Applicants would need to commit to sustaining this level of workload.

The apprentice should devote themselves fully to the workplace and study and not engage in other part-time work for the duration of the apprenticeship.

HOW TO BECOME AN APPRENTICE

Applicant secures employment with an approved Civil Engineering company.

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Employer will start the registration process with SOLAS.

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Applicant demonstrates minimum entry requirements for the programme.

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Authorised officer (ETB) checks entry requirements.

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Authorised officer approves applicant and registers them as an apprentice

SALARIES AND FUNDING

Each Employer will set the salary for the apprentice. They will be required to cover fulltime employment costs of the apprentice including the day release for off-the-job training during the academic semesters and the four off site face to face days they are required to attend campus to complete labs and workshops during each semester.

The salary should be fair and reflects the level of work and study undertaken and that will attract the best candidates. Current guidelines state payment to an apprentice should be commensurate with the salary for entry level positions within the industry.*

Programme Tuition Funding

All programme tuition fees are covered by the Higher Education Authority (HEA) and SOLAS**. This includes the programme tuition costs with the educational provider, exam costs and all associated fees. The apprentice is obliged to pay an annual student registration charge for each year of study. The current charge is €1200 (discounted rate) annually which can be paid by the student (or the employer on their behalf if they wish). Please note that the fee may change from time to time based on instruction from HEA, Dept. of Education and Skills or other state agencies.

* Subject to the National Minimum Wage.

**other than repeats/deferrals and travel to and from venues.

USEFUL LINK

For more information on Apprenticeships as a career pathway, visit Generation Apprenticeship website: **www.apprenticeship.ie**

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