

# GENERATION APPRENTICESHIP

Engineering | [www.apprenticeship.ie](http://www.apprenticeship.ie)



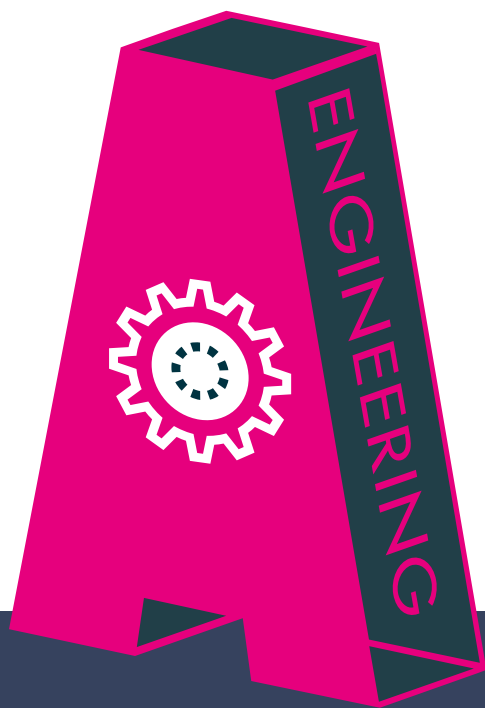
**Manufacturing  
Apprenticeship**  
**ibec**



## New industry-led Manufacturing Apprenticeship Programmes

**Bachelor of Engineering in  
Manufacturing Engineering  
(Apprenticeship), Level 7**

**Higher Certificate of Engineering  
in Manufacturing Engineering  
(Apprenticeship), Level 6**



**Apprenticeship**  
Real-life Learning



## Introduction to Apprenticeships

An apprenticeship is a programme of structured education and training, which formally combines work place learning with learning in an education or training centre. These new apprenticeships were designed with close alignment to the current needs of the Irish manufacturing industry.

Two new apprenticeship programmes were subsequently developed:

- (a) Manufacturing Engineer Apprenticeship
- (b) Manufacturing Technician Apprenticeship

Apprenticeships are paid employment allowing the apprentice to 'earn while you learn'.

## Benefits for industry and the apprentice



- Demand Driven
- Tailored to industry needs
- Addresses and tackles skill shortages
- Job specific qualification
- Improved staff retention
- Future-proof your organisation
- Government subsidised training



- Gaining a national qualification while working
- Earning while learning
- Good career progression

## Who should get involved?

- School leavers (leaving certificate).
- Existing Production Operators and Technicians who want to train or retrain in the engineering and manufacturing sectors and progress along NQF to levels 6 and 7.

## Timelines

- **Academic block release:** 15 weeks per year.
- **Summer intake:** Apprenticeship contracts start in June for September academic block.
- **Autumn intake:** Apprenticeship contracts start in October for January academic block.

## Manufacturing Sector Ireland

- There are over 4,000 manufacturers throughout Ireland, 82% are based outside the Dublin region and with over 159,000 employed manufacturing is the second largest employer.
- The manufacturing sector contains everything from major multinationals to smaller indigenous firms and across sectors such as Pharma, Med-tech, engineering and food. Indigenous manufacturers account for over 60% of firms in the sector.
- Our ambition is for Ireland to have an international reputation for manufacturing across all key sectors. We believe this can be achieved through sharing best practice, developing deeper cross sectoral collaboration and choosing policies that strengthen our workforce.

# Bachelor of Engineering in Manufacturing Engineering (Apprenticeship), Level 7

This Apprenticeship is a 3 year programme, with an approved employer, with 70% of the time spent on the job and the remaining 30% spent in an allocated Institute of Technology.

## Job Profile

The Manufacturing Engineer will be required to facilitate efficient operations within the production area, to optimise existing processes, implement new processes and to ensure that production goals are met.

## Entry Requirements

Pass (Grade O6 or better) in five leaving certificate subjects, 2 of which must be maths and a language (English or Irish) 250 CAO points; In the case of a mature student (over 23yrs) an industry interview is required.

## Timelines and Course modules

### Summer intake

Year 1	Industry: June-Sept	College: Sept-Dec	Industry: Jan-May
Year 2	Industry: June-Sept	College: Sept-Dec	Industry: Jan-May
Year 3	Industry: June-Sept	College: Sept-Dec	Industry: Jan-May

### Autumn intake

Year 1	Industry: Oct-Dec	College: Jan-May	Industry: May-Oct
Year 2	Industry: Oct-Dec	College: Jan-May	Industry: May-Oct
Year 3	Industry: Oct-Dec	College: Jan-May	Industry: May-Oct

Year 1	Year 2	Year 3
Engineering Mathematics 1	Eng Mathematics 2	Instrumentation and Control
Mfg Engineering 1	Metrology	Mfg Process Planning
Computer Aided Design 1	Mfg Design of Fixtures	Advanced Mfg Processes
Learning Innovation Skills	Maintenance & Safety	Polymer Processing Technology
Electrical Science	Manufacturing Automation	Eng Software Systems
Engineering Science	Mfg Engineering 2	Six Sigma Green Belt
Quality 1	Quality 2	Operations Management
Industry Module 1	Lean Manufacturing	Project Management
	Industry Module 2	Industry Module 3

**Note:** Depending on the demand for the level 7 Manufacturing Engineer Apprenticeship, it may be necessary to complete the year 3 academic block in an Institute of Technology outside your region.

# Higher Certificate of Engineering in Manufacturing Engineering (Apprenticeship), Level 6

This Apprenticeship is a 2 year programme, with an approved employer, with 70% of the time spent on the job and the remaining 30% spent in an allocated Institute of Technology.

## Job Profile

The Manufacturing Technician will be required to provide a technical support function for manufacturing operations, including troubleshooting equipment and process issues, validation and qualification activities of the manufacturing site.

## Entry Requirements

Pass (Grade O6 or better) in five leaving certificate subjects, 2 of which must be maths and a language (English or Irish) 250 CAO points; In the case of a mature student (over 23yrs) an industry interview is required.

## Timelines and Course modules

### Summer intake

Year 1	Industry: June-Sept	College: Sept-Dec	Industry: Jan-May
Year 2	Industry: June-Sept	College: Sept-Dec	Industry: Jan-May

### Autumn intake

Year 1	Industry: Oct-Dec	College: Jan-May	Industry: May-Oct
Year 2	Industry: Oct-Dec	College: Jan-May	Industry: May-Oct

Year 1	Year 2
Engineering Mathematics 1	Eng Mathematics 2
Mfg Engineering 1	Metrology
Computer Aided Design 1	Mfg Design of Fixtures
Learning Innovation Skills	Maintenance & Safety
Electrical Science	Manufacturing Automation
Engineering Science	Mfg Engineering 2
Quality 1	Quality 2
Industry Module 1	Lean Manufacturing
	Industry Module 2

# Testimonials



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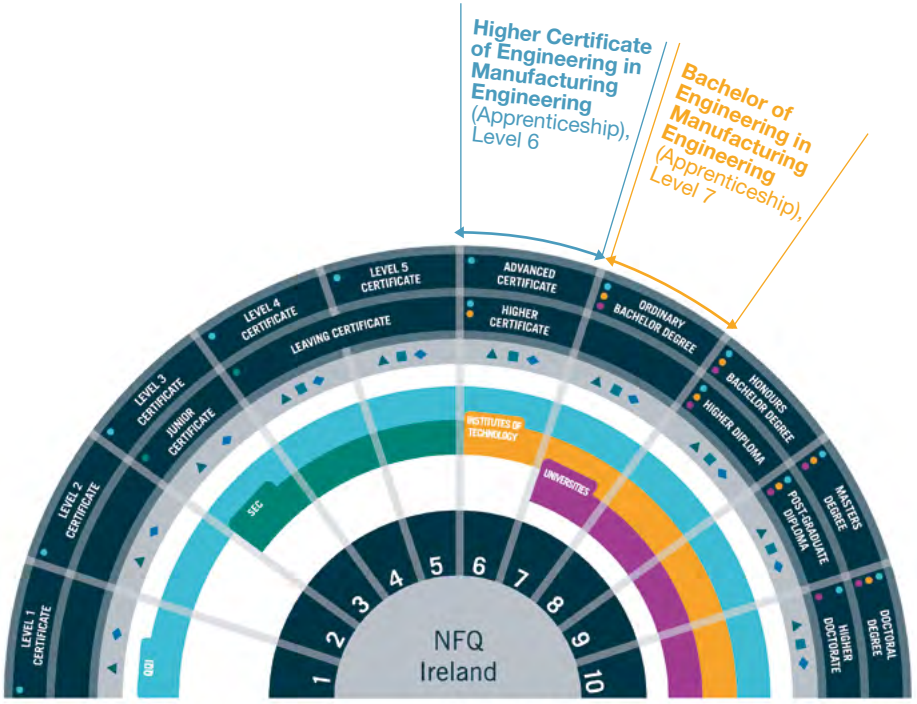
**“The apprenticeship has been a great experience for me. It’s a perfect way of learning new skills suited to a wide range of roles within such a strong industry. We also have the added bonus of earning while we learn. The practical experience of on the job learning means we can see different sides of the business and it gives us a chance to see where our strengths lie.”**

**Aislinn Smith, Apprentice, Johnson & Johnson Vision Care**

**“As a time served apprentice who came up through the ranks I’m a complete advocate of the apprenticeship model. The Manufacturing apprenticeship has afforded Cambus Medical the opportunity to develop existing staff to Engineering level. It is an ideal solution to address our skills agenda as it allows our employees to earn as they learn by formally combining workplace learning with learning in an IOT. I would strongly recommend this model to any companies considering how they will attract and retain technician and engineering talent for the future.”**

**Barry Comerford, Co-Founder & CEO, Cambus Medical**





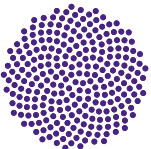
**AWARDING BODIES**

- Quality and Qualifications Ireland (QQI) makes awards in further and higher education and training
- SEC - State Examinations Commission (Department of Education and Skills)
- Institutes of Technology
- Universities

**AWARDS IN THE FRAMEWORK**

There are four classes of award in the National Framework of Qualifications:

- Major Awards: named in the outer rings, are the principal class of awards made at a level
- Minor Awards: are for partial completion of the outcomes for a Major Award
- Supplemental Awards: are for learning that is additional to a Major Award
- Special Purpose Awards: are for relatively narrow or purpose-specific achievement



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