

The manufacturing apprenticeship programmes have been developed by the Irish Medtech Association which is the business association within Ibec along with Galway Mayo Institute of Technology (GMIT), coordinating provider, and representatives from the medical technology sector.



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- Apprenticeship Council
- Department of Education and Skills
- SOLAS: The Further Education and Training Authority
- Higher Education Authority

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Irish Medtech  
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Ibec



# New industry-led Manufacturing Apprenticeship Programmes

Bachelor of Engineering (Level 7)  
Manufacturing Engineering

Higher Certificate Engineering (Level 6)  
Manufacturing Engineering

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 NFQ to levels 6 and 7.

## Start dates

- First Apprentices will start in June 2017.

## Medtech overview

- Ireland's medtech sector employs 29,000 people across 450 businesses
- Ireland is now one of the largest exporters of medical device products in Europe, with annual exports of 12.6 billion euro to over 100 countries worldwide
- The Irish medtech sector is a continuously growing and thriving industry offering a broad range of career opportunities.

# Bachelor of Engineering (Level 7) Manufacturing Engineering

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

Leaving Certificate, Grade O6 at ordinary level in 5 subjects, 2 of which must be Maths and a language (English or Irish).

## Timelines and Course modules

Year 1		
Industry Jun 2017 – Aug 2017	College Sep 2017 – Dec 2017	Industry Dec 2017 – May 2018
Year 2		
Industry Jun 2018 – Aug 2018	College Sep 2018 – Dec 2018	Industry Dec 2018 – May 2018
Year 3		
Industry Jun 2019 – Aug 2019	College Sep 2019 – Dec 2019	Industry Dec 2019 – May 2020
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

# Higher Certificate Engineering (Level 6) Manufacturing Engineering

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

Leaving Certificate, Grade O6 at ordinary level in 5 subjects, 2 of which must be Maths and a language (English or Irish).

## Timelines and Course modules

Year 1		
Industry Jun 2017 – Aug 2017	College Sep 2017 – Dec 2017	Industry Dec 2017 – May 2018
Year 2		
Industry Jun 2018 – Aug 2018	College Sep 2018 – Dec 2018	Industry Dec 2018 – May 2018
Year 1	Year 2	
Learning and Innovation Skills	Engineering Maths 2	
Electrical Science	Industry Module 2	
Essential Engineering Science	Metrology	
Manufacturing Engineering 1	Manufacturing Automation 2	
Essential Engineering Maths 1	Manufacturing Engineering 2	
Industry Module 1	Maintenance and Safety	
CAD	Lean Manufacturing	
Quality 1	Manufacturing Design for Fixtures	
	Quality 2	