



Qualification:	Level 4 Advanced Apprenticeship in Manufacturing Engineering (Mechanical)
Duration:	2 years
Date/s:	On Demand
Location:	Pembrokeshire College/In the Workplace with your employer
Cost:	No Cost

APPRENTICESHIP DESCRIPTION:

An Apprenticeship is a job with an accompanying skills development programme, designed by employers in the sector. It allows the apprentice to gain technical knowledge and real practical experience, along with personal skills, required for their immediate job and future career. These are acquired through a mix of learning in the workplace, formal off the job learning and the opportunity to practice and embed new skills in a real work context. This broader mix differentiates the Apprenticeship experience from training delivered to meet narrowly focused job needs.

All apprentices commencing their Apprenticeship must have an Apprenticeship Agreement between the employer and the apprentice. This can be used to reinforce the understanding of the requirements of the Apprenticeship. On completion of the Apprenticeship the apprentice must be able to undertake the full range of duties, in the range of circumstances appropriate to the job, confidently and competently to the standard set by the industry.

The Higher Apprenticeship framework for Advanced Manufacturing Engineering at Level 4 has been designed to provide the manufacturing and engineering sector with high grade technicians and engineers who have practical skills, combined with a higher education qualification. The programme will facilitate progression to Level 5/6 qualifications and enable apprentices to work towards Incorporated Engineer status.

EXAMPLE JOB TITLES: Manufacturing Senior Technician, Senior Controls Technician, Senior Production Technician, Mechanical Systems Senior Technician, Senior Quality Technician, Senior Environmental Test Technician







**EXAMPLE JOB ROLES:**

- ✚ Set up complex CNC production processing facilities for manufacturing operations, ensuring wherever possible these are as 'lean' as possible.
- ✚ Work with other engineers and managers to discuss and develop rigs and systems design and support, to ensure smooth running of projects and effective delivery of the mechanical testing process.
- ✚ Supervise and provide technical guidance to quality inspectors and junior engineering staff. Provide technical support to production and assist with product development.
- ✚ Solve technical issues within company and sub-contactors, suppliers and customers.
- ✚ Apply scientific and mathematical principles to the design, manufacture and operation of efficient machines, processes and systems.
- ✚ Develop and define project quality programme and plans, ensure continuous and effective operation of project quality performance and plans, perform project quality assurance auditing of contractors and suppliers.
- ✚ Carry out and report on tests carried out on products to determine life cycles, safely compliance, environmental impact and customer specification requirements

FRAMEWORK STRUCTURE:

- Competence based QCF Level 4 Extended Diploma in Engineering Manufacture (completed in the workplace)
- Technical qualification – BTEC Level 4 HNC Diploma in Mechanical Engineering (by attending the college 1 day per week)
- Application of Number, Key Skill Level 2
- Communication, Key Skill Level 2
- IT, Key Skill Level 2

**ENTRY REQUIREMENTS:**

-  Completion of a Level 3 engineering qualification is desirable
-  You must be aged between 16 and 24 OR in a new role within the last 12 months
-  It is essential that you are in employment within an engineering company.
-  You will need a good educational background, preferably GCSE grade C or above in science, English and maths.
-  Good communication skills are essential
-  Good colour vision to recognise colour coded wires and components may be required (particularly Electrical Installation and Electrical Maintenance Apprenticeships)

COURSE ASSESSMENT / EXAMINATION:

Work-based assessments and formal exams

PROGRESSION:

Following completion of this Apprenticeship there are several options open to the successful candidate who wishes to continue their development in order to progress their career. There are opportunities to continue to undertake further vocational training or academic qualifications.

Successful completion of this pathway may allow progression into other industry occupations, including supervisory, management and health & safety roles within Engineering Construction.

