Hull Training & Adult Education

Electrical Engineering Apprenticeship

Apprenticeship Framework Title	Electrical Engineering
Level	3
Sector	Engineering Manufacture (England)
Duration / Guided Learning Hours	36 Months
Minimum Age of Learner	16 Years

The Programme

This Advanced Apprenticeship in Electrical Engineering framework is designed to provide the skills, knowledge and competence requirements to work at a craft or technician level (Level 3) as appropriate, to carry out a variety of electrical engineering and manufacturing.

Potential Job Roles

Industrial Electrician: Install, inspect and test electrical equipment, wiring systems and components in factories and installations

Electrical Engineering Technician: Build, install and maintain electrical equipment such as generators, motors and transformers that produce and distribute electrical power. The work may include repairing electrical equipment, testing it and restoring it to full operation

Electrical Design Engineer: Design, manufacture and testing of electrical components, control systems, wiring layouts to meet customers needs

Measurement and Control Technician: Install, run, test and look after the instruments that monitor and control manufacturing processes, using sophisticated sensors and control systems to make sure products are measured, weighed, sorted and packaged correctly and efficiently.

Test Technician: Test, fault find and replace or repair components in electronic products or systems. May also test prototype electrical / electronic products and analyse the results

Electronics Technician: Involved in designing, developing and manufacturing the electronic components of items such as telecommunications equipment; televisions; computers; mobile phones; hospital diagnostic and monitoring equipment.

Electronics Assembly Technician: Assembly of electronic components into sub assemblies and whole units for telecommunications equipment, televisions, computers, hospital diagnostic equipment and control systems used in satellite tracking devices.

Electronics Manufacture Inspector: Use of non invasive inspection techniques Flying probe test, X-Ray, AOI, Endoscope, and other inspection methods to ensure production quality is maintained Electronics Manufacture Technician Circuit board assembly (PCB assembly), surface mount assembly, and conventional electronics assembly

Employer Benefits

Apprenticeships are an excellent way to support your organisation by harnessing new talent or helping to up skill your existing workforce. An apprenticeship is your chance to employ an individual committed to learning and developing their skills within your organisation. Your apprentice will bring technical skills and knowledge back to your business.

- Increase productivity
- Future-proof your business
- Give you the competitive edge
- Improve profits
- Reduce training costs
- Motivate your workforce

Programme Design

The qualification comprises of mandatory generic units, bespoke specialist units and optional modules.

Mandatory Requirements	
Functional Skills	**Level**
Maths	2
English	2
ICT	2
Qualification and Skills	
Combined Knowledge and Competence Based Qualification	Level 3 Electrical Engineering
Employer Rights and Responsibilities	EAL level 2 Award in employer rights and responsibilities for new entrant into the science, engineering and manufacturing sector (QCF)
Personal Learning and Thinking Skills	Creative thinking Independent enquiry Reflective learning Team working Self-management Effective participation

Mandatory Units for Technical Diploma		
Level	**Unit Reference**	**Unit Title**
3	QETA/001	Engineering Environmental Health and Safety
3	QETA/002	Organisational efficiency and improvement
3	QETA/009	Electrical and Electronic Principles
3	QETA/010	Programmable logic controllers
3	QETA/015	Electrical Testing and commissioning
3	QETA/029	Maintenance and mechanical systems
3	QETA/035	Pneumatics
3	QETA/038	Installation and electrical plant

Optional units for NVQ 3 (incorporating mandatory NVQ level 2 units)		
Your apprenticeship will consist of all the mandatory units listed above plus a number of bespoke units dependent on the requirements of your role, and agreed with your employer.		
Level	**Unit Reference**	**Unit Title**
2	QENM2/001	Complying with Statutory Regulations and Organisational Safety Requirements
2	QENM2/002	Using and interpreting engineering data and documentation
3	QENM3/003	Working efficiently and effectively in engineering
3	QENM3/004	Handing over and confirming completion of maintenance activities
Remaining units to be agreed with tutor and completed bespoke to company requirements		

Additional In House Courses
Manual Handling
Working at Heights
First Aid

Qualification Progression	HNC/HND
Job role progression opportunities:	While significant numbers of Advanced Apprentices will seek internal progression to team leader or supervisory roles within their companies, some will want to progress to a Higher Apprenticeship in Engineering; others may decide to opt for a Foundation degree or HNC/HND. More generally, most ex-apprentices aspire to a combination of internal promotion while at the same time undertaking company sponsored qualifications as specified above.