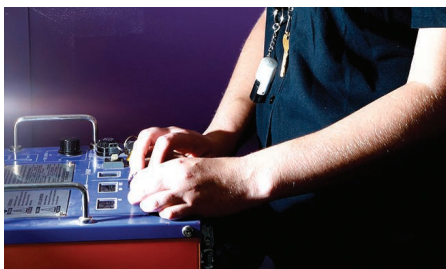


## Level 3 NDT Engineering Technician **New Apprenticeship Standard**

At Skills Training UK we go further in fully understanding what it is that our employer clients want to achieve from their training. We work as their partner in delivering on that vision, developing stronger employees who work well as individuals and as part of a team.



This apprenticeship is for an NDT Engineering Technician. His or her role will involve technical supervisory responsibility of NDT Operators and other junior staff within the organisation.

### Occupational Profile

NDT uses various methods, such as ultrasonics, radiography and infrared thermography, to detect cracks and other imperfections in manufactured components, including those that have been in service for a period of time. The results of inspections are taken at face value and, therefore, specialists rely on NDT accuracy when deciding whether to operate, repair or replace a component.

The importance of the role of the NDT Engineering Technician cannot therefore, be overstated. The NDT Engineering Technician will be able to work in specific industries, such as aerospace, motorsport, power generation and distribution, manufacturing, railways, oil & gas (on- and offshore), marine and construction. Real-life examples could include inspecting airframes and engines, Formula 1 gearboxes and nuclear reactors or other safety-critical components.

The NDT Engineering Technician will oversee, validate and audit by re-inspection the work of NDT Operators, and manage projects and specific areas of work. He or she will hold three NDT certificates (mapped to engineering registration at the EngTech level) and will have transferable skills that will include a broad knowledge of engineering principles and manufacturing processes.

### Duration

The duration of this apprenticeship is typically 36 months and an independent End Point Assessment must be completed at the end in order to pass.

### Employer Commitment

An employer must be prepared to provide the learner with the opportunity to carry out work and be part of projects which will enable the learner to produce substantial evidence towards their qualification.

In order to ensure the successful progression of the learner we request that employers participate in joint reviews of the learner's progress at regular intervals throughout the apprenticeship. This ensures continued and positive progress through the apprenticeship. It will also provide the opportunity to discuss and agree how any issues are to be resolved and how additional stretching and challenging activities can be built in.

>>

## << Eligibility

It is advisable for apprentices to have a minimum of three GCSEs (or equivalent) at grade C or above, including English and maths. Apprentices without level 2 English and maths will need to achieve this level prior to taking the end point assessment. There is also a requirement to have good aided or unaided eyesight to satisfy the mandatory NDT eyesight test, and to have appropriate physical fitness in order to operate in industrial environments.

## Requirements: Knowledge, Skills and Behaviours

Below are **examples** of the required knowledge, skills and behaviours:

### Knowledge and understanding of:

- Relevant mathematics, including numerical and data analysis
- Formula-based engineering and the scientific principles
- How to use materials, equipment, tools, processes and products relating to NDT
- Preparation of NDT Procedures, Technique Sheets and Work Instructions for use by NDT Operators
- The limitations of standard tests and measurements
- Industry-specific product technology, e.g. material types, defect types
- How to use the results of engineering NDT analysis
- Health & safety and company-specific requirements
- The consequences of failure and the risk to life and the environment

## Skills and Practical Application

- NDT in three methods, including at least one complex method (mandatory) and a choice of two other methods from the following:
  - Ultrasonic Testing – complex
  - Radiographic Testing – complex
  - Eddy Current Testing – complex
  - Infrared Thermography Testing – complex
  - Magnetic Particle Testing
  - Penetrant Testing
  - Visual Testing
- Apply appropriate solutions to well-defined engineering problems
- Select appropriate methods and techniques and understand their limitations

## Behaviour

- **Leadership** – including motivating people
- **Teamwork** – manage a team and to support others
- **Courage** – willing to make independent decisions
- **Delivery** – consistently manage activities / tasks through to timely completion
- **Respect** – for the abilities of others, particularly those working under your direction
- **Ethics** – to act with maturity, honesty and integrity

## Training and Support from Skills Training UK

Skills Training UK will work with the employer to develop a training plan for the apprentice and our trainer-assessor will visit the apprentice within the work place at least once per month in order to support their learning and development. They will also be supported between visits by off-site information, advice, guidance, academic progress and technical competence support. We will ensure that all learning needs are being met in order to ensure successful progression against all elements of the apprenticeship.

## Independent End Point Assessment

**To successfully complete the apprenticeship, the learner needs to pass an End Point Assessment. This is an independent assessment which has several stages:**

- **Portfolio of Evidence** – for example certificates of competence, letters of approval, training attendance certificates, log book and employer reports.
- **Product Showcase** – a presentation of the NDT project to demonstrate required knowledge and skills.
- **Synoptic Assessment Interview** – the interview panel will include two Engineering Council registrants knowledgeable in NDT and appointed by the independent assessment organisation. The interview will enable the apprentice to demonstrate the knowledge, skills and behaviours demonstrated in the Standard.

The independent assessment organisation will decide whether the apprentice has reached the required standards and if so, whether to award a pass or distinction.

## Qualifications / NDT Certification

Apprentices are required to achieve industry-recognised NDT Level 3 certification in three methods in accordance with national and international standards.