Composite Technician ST0094/V1.1

Level: 3
Duration: 36 months
EPA: 3 months

Assessment Methods

Observation with questions
Interview underpinned by a portfolio of evidence
Multiple-choice test

Gateway Requirements

- Achieved English & Mathematics at Level 2
- Portfolio of Evidence
- Gateway Declaration Form

Occupation Summary

Composite technicians work in the process manufacturing sector.

Composite components are used in the aerospace, automotive, construction, furniture, marine, medical, motorsport, oil and gas, rail, renewables industries and many more. Composite products include doors, prosthetic limbs, shower trays, and tennis rackets.

Composites combine polymeric resins (plastics) and a reinforcing material such as carbon fibre, glass fibre, or Kevlar to produce a material with improved properties.

Composite technicians produce polymer matrix composite (thermoset and thermoplastics) components or final products to a specification. They may combine the composite elements or use a pre-prepared material to produce the product using a variety of moulding processes. The processes require manual dexterity and skills. Production tends to be in batches and conducted in small-scale production facilities. Quality and process control is part of the role. They conduct quality assurance processes, check equipment and tooling for future usability, complete documentation, and participate in improvement activities.

They work with other members of the manufacturing team. They also have contact with other functions for example, process engineers, maintenance engineers, laboratory staff, supply chain staff, and warehouse staff. They may also have contact with external people such as customers, service providers, suppliers, and regulators.

They must ensure that the process and products meet quality specifications and are produced to schedule. They must comply with health and safety, regulations and procedures including wearing personal protection equipment (PPE). They also need to meet environmental and sustainability regulations and procedures – minimising waste and recycling materials. They may work alone or as part of a team with minimal supervision. They are responsible for the quality and accuracy of their own work.

End Point Assessment

Observation with questions

In the observation with questions, an independent assessor observes the apprentice in their workplace and asks questions. The apprentice completes their day-to-day duties under normal working conditions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method. The observation will last for at least 4 hours.

Interview underpinned by a portfolio of evidence

In the interview, an independent assessor asks the apprentice questions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method. The apprentice has access to their portfolio of evidence during the interview allowing the apprentice to be able to refer to it and illustrate their answers with evidence from their portfolio of evidence. The interview will last at least 90 minutes.

Multiple-choice test

In the multiple-choice test, the apprentice answers questions in a controlled and invigilated environment. It gives the apprentice the opportunity to demonstrate the knowledge mapped to this assessment method. The test will consist of 40 multiple-choice questions. The apprentice must have 60 minutes to complete the test. The test is closed book which means that the apprentice cannot refer to reference books or materials whilst taking the test.

Order of Assessment Methods

The assessment methods can be delivered in any order and results of one assessment method does not need to be known before starting the next.

Grading

The standard is graded overall: Fail, Pass or Distinction

To view Composite Technician assessment plan visit:
https://www.instituteforapprenticeships.org/apprenticeship-standards/composites-technician-v1-1?view=epa