Apprenticeship Assessment

SCIENCE MANUFACTURING PROCESS OPERATIVE

General Overview

- Reference: ST0422
- Typical duration: 18 months
- Maximum funding: £7000
- Level 2



The aim of this Apprenticeship Assessment (AA) is to ensure that the apprentice is occupationally competent against the knowledge and skills outlined in the Occupational Standard.

Science process manufacturing is varied. It includes industries such as biotechnology, chemical, composites, petrochemical, polymer, and pharmaceutical.

Science process industries combine raw materials and apply a science-based process or processes - biological, chemical, or physical - to create products. Products are made continuously or in batches.

Process manufacturing industries are highly regulated. The Health and Safety Executive and other industry regulators inspect employers. The Control of Major Accident Hazards (COMAH) Regulations apply to some process manufacturing companies. Employers must manage risks to the employee, product, environment, and sometimes the wider community.

The broad purpose of the occupation is to complete science-based manufacturing processes to produce materials and products following standard operating procedures. Products are varied and may include battery cells, composite wind turbine parts, drugs, plastic bottles, proteins, and solvents. This involves checking and preparing materials and using specialist science-based manufacturing process plant or equipment. They monitor the process and take action to resolve deviations. Maintaining the work area is part of the role. They contribute to quality control, continuous improvement, and problem-solving activities. They also complete work records, which are important in regulated workplaces.

In their daily work, they interact with other science process manufacturing operatives and technicians, along with colleagues from other business functions. They typically report to a shift manager, team leader, or supervisor.

They are responsible for meeting work schedules. They must work to quality, health and safety, and environment regulations and procedures. This may include wearing personal protective equipment and complying with Control of Substances Hazardous to Health (COSHH).

They may work alone or as part of a team, under supervision.

Entry Requirements

There are no statutory/regulatory or other typical entry requirements for this standard.

Readiness for Assessment

Before each assessment method is undertaken, the employer and centre must confirm that the apprentice has completed the relevant training and has demonstrated that they are occupationally ready to undertake that assessment method. Readiness must be confirmed in accordance with the requirements of the relevant SIAS Apprenticeship Assessment Strategy and assessment arrangements. A Readiness for Assessment form must be submitted to SIAS confirming this in order to book their assessment for both SIAS Core and Flex delivery.

Assessment methods may be undertaken at different points, provided the apprentice has met the readiness requirements for the relevant method and any specified assessment ordering requirements.

Order of Assessment

The Observation must be attempted before the Interview Underpinned by a Portfolio takes place.

Gateway to Completion

Gateway to Completion will be used as a checkpoint at the end of an apprenticeship programme to ensure that the apprentice has completed all necessary requirements and is ready to receive their certificate.

Requirements include:

- the completion of English and maths qualifications in line with the apprenticeship funding rules
- satisfactory evidence (as determined by the employer, in consultation with the centre) that the apprentice has achieved the necessary knowledge, skills and demonstrated the behaviours (as verified by employers) set out in the occupational standard.

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SIAS

1 Observation

- The Observation may be assessed by the centre under the SIAS Flex delivery model.
- In the Observation, an Assessor observes the apprentice in their workplace, giving the apprentice the opportunity to demonstrate the knowledge and skills mapped to this assessment method.
- The apprentice completes their day-to-day duties under normal working conditions, and observations should take place in a realistic working environment that does not require special clearance.
- Typically 120 minutes (2 hours), with a maximum of 240 (4 hours).

2 Interview Underpinned by a Portfolio

- In the Interview, the Assessor asks the apprentice questions, giving the apprentice the opportunity to demonstrate the knowledge and skills mapped to this assessment method.
- The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence.
- The portfolio should have sufficient evidence to cover the breadth and depth of the knowledge and skills statements associated with the assessment method.
- The Assessor must ask at least 12 questions.
- Duration: 90 minutes +10%

Assessment Marking and Grading

Assessments are marked in accordance with the assessor record and assessment criteria.

Performance in the Apprenticeship Assessment determines the overall grade of:

- fail
- pass
- distinction

To achieve an overall pass, the apprentice must achieve at least a pass in both assessment methods.

To achieve an overall distinction, the apprentice must achieve a distinction in both the Observation and Interview Underpinned by a Portfolio.

SIAS will combine the results of each individual assessment method and provide an overall assessment grade of Fail, Pass or Distinction.

Apprenticeship Certification

The outcomes from the Apprenticeship Assessment will be reviewed and a grade conferred by SIAS in accordance with SIAS Quality Assurance procedures, which are available from SIAS.

SIAS will apply for the apprentice's certificate through the Apprenticeship Assessment Service. The certificate confirms that the apprentice has passed the Apprenticeship Assessment, has demonstrated full competency across the standard and is job-ready.

Guidance & Support

SIAS provide a range of resources which offer assessment guidance and support for the apprentice, the employer, and the centre.

We aim help employers and centres to support the on-going competence evaluation of the apprentices' knowledge and skills to ensure that your apprentice is confident for their Apprenticeship Assessment. All of our resources are comprehensively mapped to this apprenticeship standard.