STO473 | Science Industry Process and Plant Engineer (Degree)



- ✓ Typical on-programme learning: 60 months
- ✓ EPA duration: 6 months
- ✓ Maximum funding: £24,000
- ✓ Level 6



A Science industry process and plant engineer will be involved in process design and manufacture of chemical, biological or science-based technology industrial or consumer products using solid, liquid and gaseous media. They will apply their knowledge of underlying engineering principles to implement and develop new processes or plant and to support product development; and work autonomously and as part of a wider scientific & engineering team.

They will use project management skills to develop and manufacture products on time, on cost and to the right product quality. They will be proactive in identifying and supporting engineering solutions to challenging problems, be able to identify areas for business improvement and propose innovative ideas.

In all contexts working safely and ethically is paramount and many companies operate under highly regulated conditions because of the need to control the quality of products and safety of their manufacture. Process specialists are involved in conception, design and operation of processes and may also be involved in pilot plant scale-up, manufacturing and packaging operations.

Plant specialists ensure the plant, equipment and manufacturing assets are monitored and optimised to support the current and future processing operation whilst offering best value to the organisation. Both process and plant roles are critical to efficient manufacturing operations and they will frequently work together and will share a common set of skills that allows them to cover common aspects of their specialist roles.

Entry Requirements

Typically candidates will have achieved grade C or above in at least five GCSE's including English, Maths and a Science subject and hold relevant level 3 qualifications providing the appropriate number of UCAS points for HE entry. Other relevant or prior experience may also be considered as an alternative.

On-Programme Competence Evaluation

The apprentice will complete on and off-the-job training, developing their knowledge, skills & behaviours as stipulated within the apprenticeship standard.

Gateway Requirements

The employer, supported by the training provider must confirm that the apprentice is ready for EPA, before the EPA process can begin.

The employer, supported by the training provider must sign a declaration to agree the apprentice has met the required criteria as set out in the Science Industry Process and Plant Engineer standard.

As part of the SIAS EPA service, we will check that all gateway evidence has been met before we begin the process of EPA.

End Point Assessment (EPA)

The assessment plan defines the following methods of assessment for the Science Industry Process and Plant Engineer standard.



- A technical engineering report based on the apprentices engineering design project must be prepared by the apprentice at the start of the EPA period and submitted to their End Point Assessor by the end of month 2 of the EPA period, prior to a presentation and questioning on the technical engineering report to an EPA panel. The technical engineering report must contain a maximum 3.000 words.
- Following submission of the report, the apprentice will present the technical engineering report to an EPA panel. This is followed by the End Point Assessor asking the apprentice at least 6 open questions.
- Duration: The presentation must last 25-30 minutes and the questioning 50-60 minutes.

Vocational Competence Discussion

- Apprentices must take part in a vocational competence discussion with the End Point Assessor on a one-to-one basis.
- The End Point Assessor will as a minimum of 6 open competence-based questions.
- Duration: must last 1 hour 45 minutes and maximum of 2 hours.



Assessment Marking & Grading & Results

Results for each individual assessment method will be available within 15 working days from the assessment date.

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



Apprenticeship Certification

Your apprentice will receive a Certificate of Apprenticeship on successful completion of all individual assessment methods.



Guidance & Support

SIAS provide a range of resources which offer EPA guidance and support for the apprentice, the employer, and the college/training provider.

We aim help employers and colleges/training providers to support the on-going competence evaluation of the apprentices' knowledge, skills, and behaviour to ensure that your apprentice is confident for their EPA. All of our resources are comprehensively mapped to this apprenticeship standard.

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