

Laboratory Scientist – Level 6 ST0626

End-Point Assessment: Employer guidance

The Journey




The Standard: <https://www.instituteforapprenticeships.org/apprenticeship-standards/laboratory-scientist-degree-v1-0>



Home > Search the Apprenticeships > Laboratory scientist (degree)

LABORATORY SCIENTIST (DEGREE)

Flexibilities agreed that are in line with the [Covid-19 guidance on our website](#).

 Due to Covid-19 it has been agreed that all methods of assessment can be delivered remotely. All adaptations need to be approved by the standards EQAP and meet the Insitute Covid-19 guidance.


Overview of the role

Carrying out technical and scientific activity in laboratories.

Details of standard

Occupational profile

A laboratory scientist applies specialist knowledge and broad scientific understanding to carry out a range of

Status: Approved for delivery 

Level: **6**

Degree: non-integrated degree

Reference: ST0626

Version: 1.0

Date updated: 02/12/2021


Approved for delivery: 3 January 2018

Route: Health and science

Typical duration to gateway: 60 months (this does not include EPA period)

Maximum funding: £27000

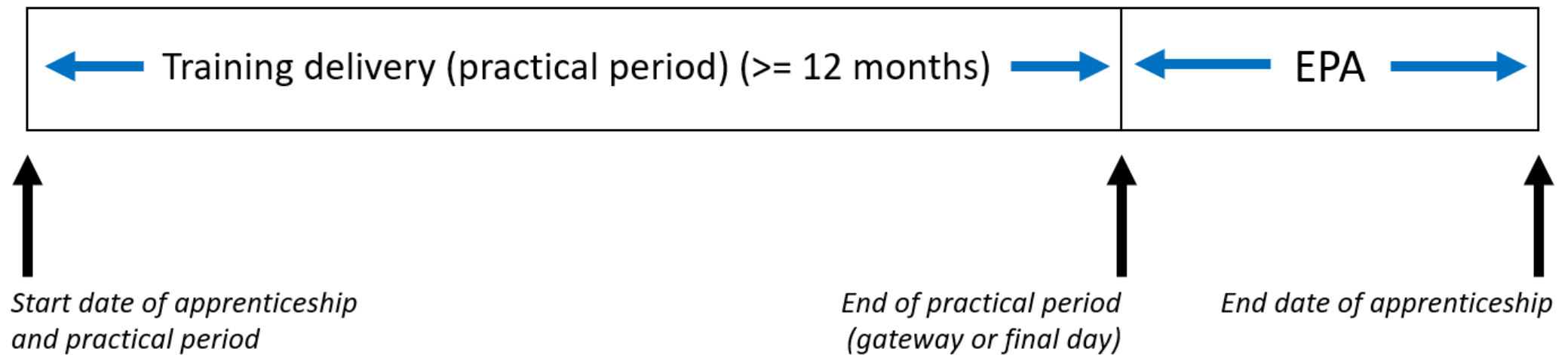
Trailblazer contact (for apprenticeship standard content and trailblazer membership queries only):

 Robert.Watts@covance.com

Employers involved in creating the standard:

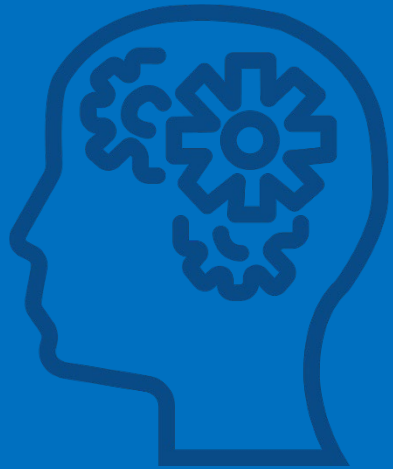
Milestones

Figure b: Apprenticeship Standards



Practical Period:

On-programme



Training to develop the occupation standard's **Knowledge, Skills and Behaviours.**

1. Compilation of portfolio of evidence (vocational competence evaluation log)
2. Training towards English and Maths (Level 2), if required
3. Completion of degree - BSc

End-Point Assessment: Gateway

End Point Assessment -GATEWAY



Employer is satisfied the Apprentice is consistently working at, or above, the level of the occupational standard - a declaration confirming this will be signed by your Employer.

All required KSB's have been evidenced in the Full Standard Competence Evaluation Log

Evidence of English and Maths (Level 2) is available

BSc achieved

Project Plan

Project plan

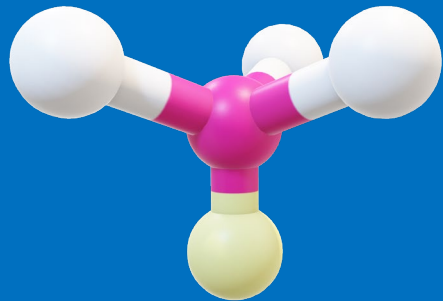
A “project plan” requires sign off by the Employer for the Apprentice to be accepted through Gateway into the EPA period.

- The plan needs to briefly evidence how the Apprentice’s chosen project meets the required areas – a Project Plan template is provided to support this.

KSB	Assessment Element	Pass Criteria	Explanation	Briefly explain how the research project will meet this.
S12	Literature review	P1: A systematic analysis of relevant scientific literature within a justified timeframe	How will you be using relevant scientific literature to support your project?	
K7 S18	Project scope & definition	P2: Project scope and boundaries clearly defined. Aims and objectives articulated to customer	How have you decided your project scope and boundaries, how will this be evidenced in your project? How will you make clear the project aims and objectives, including things such as milestones, costs etc. How will you cover the risks involved in your project scope?	

End Point Assessment

End Point Assessment:



Assessment method 1:

Synoptic Project report, presentation & questioning

(based on a work-based project – min. of 100 hours - should be conducted as part of their normal scientific work)

Graded Distinction, Pass or Fail

Assessment method 2: Vocational Competence Discussion (VCD)

Discussion based on portfolio of evidence covering specific criteria in the apprenticeship standard.

Graded Distinction, Pass or Fail

Apprentices - should use the MA Guidance documents...

Synoptic Project guidance

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Workplace Synoptic Project – Primary Journal Article and Presentation with Questioning

As part of their End-Point Assessment (EPA) Apprentices must complete a Primary Journal Article, deliver a presentation, which is followed by questioning and discussion, based on a Synoptic Project completed on-programme. The three components are graded holistically and are designed to assess the Apprentice against the grading descriptors for the Knowledge, Skills and Behaviours (KSBs) allocated to this assessment method (see Appendix I).

Workplace Synoptic Project

A Workplace Synoptic Project is a substantial piece of work that will allow the Apprentice to plan, develop and implement an individual scientific work-based project. Typical project examples include:

- Implementation of a new analytical technique
- Experimental design to contribute to a research and development project
- Design of a new synthetic step within a formulation pathway

The project should be undertaken towards the end of the time on-programme (between months 46 – 54) and once the majority of the learning is complete. It must require a minimum of 100 hours of work and should be conducted as part of their normal scientific work. The Apprentice may choose to use their own research project completed as part of the BSc programme, as long as it meets the required set criteria in the assessment plan.

The HEI / Training provider should collaborate with the Employer to support the Apprentice with their project

The project must allow the Apprentice to demonstrate:

- Critical analysis of appropriate literature
- Critical analysis of own data
- Development of investigative skills
- Development of work orientated skills

The scope must cover, but is not limited to –

1. Planning, Design and Organisation

Planning and design of project programme of work including recognition of resource implications, ethics, risk assessment, Control of Substances Hazardous to Health (COSHH) and other work-based and stakeholder requirements.

2. Review of Literature

VCD guidance

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Vocational Competence Discussion (VCD)

As part of their End-Point Assessment Apprentices must take part in a Vocational Competence Discussion with a Marshall Independent Assessor (IA). The discussion is designed to assess the Apprentice against the grading descriptors for the knowledge, skills and behaviours (KSBs) allocated to this assessment method and to determine the extent to which the Apprentice understands the requirements of their role as defined by the Standard.

Full Standard Vocational Competence Evaluation Log

The discussion will be supported by the Apprentice's vocational competence evaluation log which should be submitted at Gateway.

The assessment plan requires Apprentices to keep a log of their evidence against all of the KSBs throughout their time on programme. This must list:

- what evidence was used to confirm the Apprentice demonstrated competence,
- where it is recorded,
- how it was evaluated, and by whom.

Marshall Assessment have provided a template for this – Full Standard Vocational Competence Evaluation Log. Each piece of evidence recorded in the log should be evaluated and signed off by the employer prior to inclusion in the log. The Full Standard Vocational Competence Evaluation log must be signed off as complete by the Employer and the Technical Expert and submitted at Gateway.

Evidence types recorded on the log could include:

- Course assessment portfolio.
- Company workbook.
- Performance review record.
- Training certificates.

VCD Detailed Competence Log

To allow the Apprentice to fully prepare for the VCD we have provided a more detailed log for the criteria assessed in this element – see VCD Detailed Competence Log template.

The specific criteria and grading descriptors for the VCD are outlined in the VCD Detailed Competence Log which the Apprentice should use to support their preparation for the discussion. They can then bring this streamlined evidence log and supporting evidence with them to their discussion. This should be submitted to the Marshall Independent Assessor at least 2 weeks before EPA.

EPA part 1: Synoptic Project Presentation (SPP) & Questioning

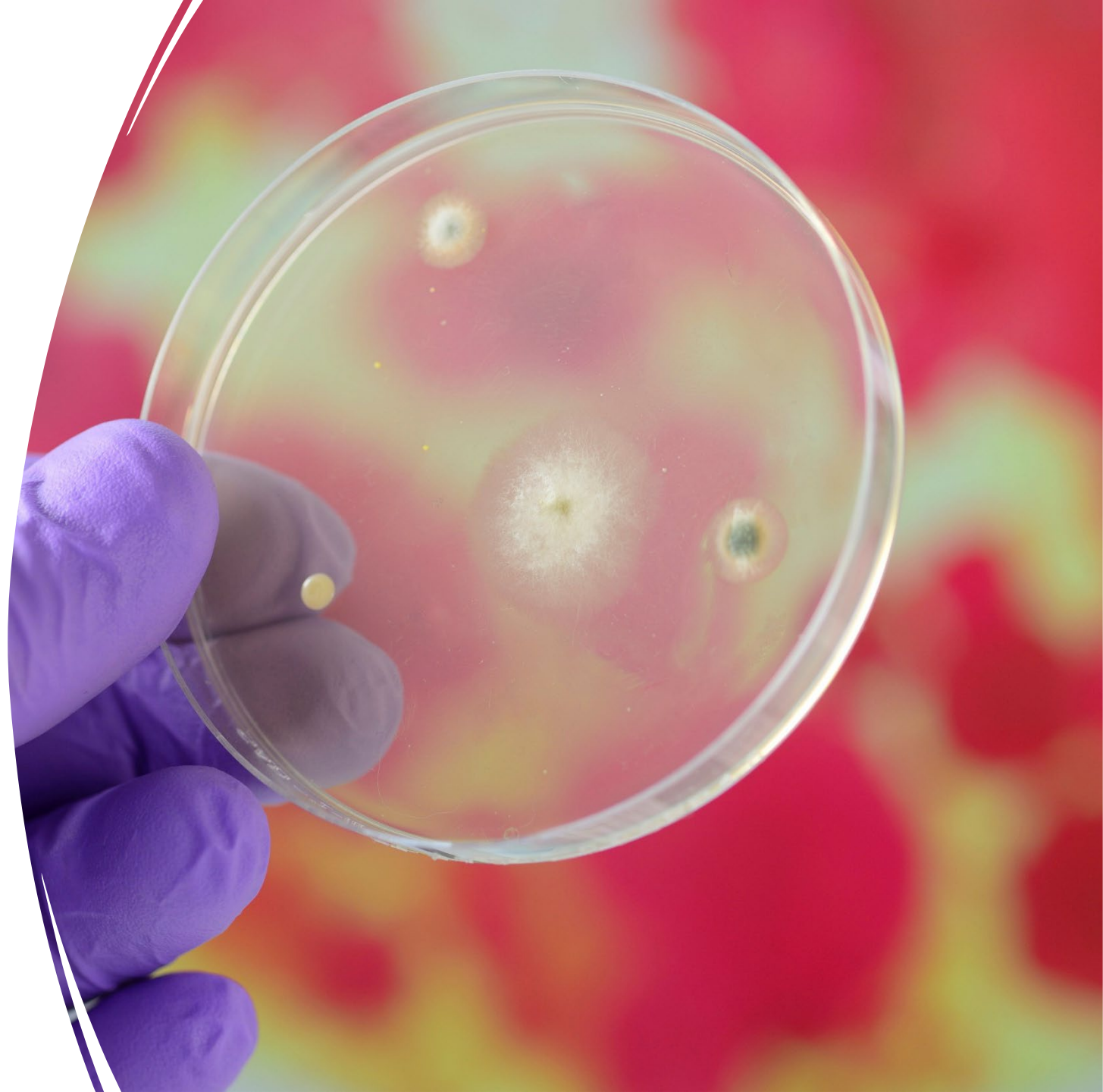
Available Grades: Fail – Pass – Distinction

Criteria being assessed - 11 areas

- Literature review
- Project scope and definition
- Experimental design
- Data Analysis
- Drawing conclusions
- Scientific Approach
- Recommendations
- Project Management
- Stakeholder Management
- Change management
- Teamwork

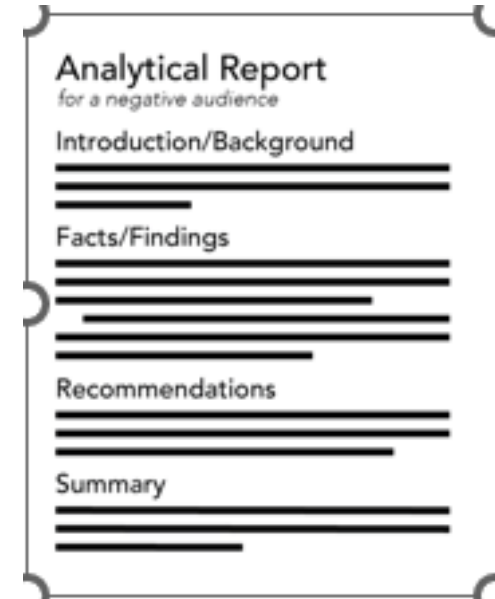
EPA Part 1: Research Project

- Independent investigation can be part of a larger project where students have individual design input and separate duties and responsibilities.
- Supported by TP with internal stakeholders and project coordinators.



EPA Part 1: Synoptic Project: Report

- A Report (scientific paper) - in the format of a Primary Journal Article (PJA)) based on the chosen project must be prepared by the Apprentice at the start of the EPA period.
- This must be submitted to Marshall Assessment by the end of month 2 of the EPA period – **8 weeks following acceptance though Gateway.**
- The Report (PJA) must be a **maximum** 3000 words, inclusive of abstract, main text, figures, tables and boxes but not including references.
- It should be submitted as a PDF.



Synoptic Project Presentation and Panel Questions

On the confirmed day of the EPA, Apprentices will be required to present a summary of their project to a panel (usually in the format of a PowerPoint Presentation).

The panel will consist of:

- the nominated **Technical Expert (TE)** from the employer
- A Marshall Independent Assessor (IA)

Presentation - Apprentices should plan for their presentation to last between min. 20 - max. 30 minutes

Following the Presentation, the Marshall IA will question the Apprentice to check and challenge any areas of weakness or gaps in the report or presentation, or to allow the Apprentice to demonstrate the higher level grading criteria to meet the Distinction grading.

Panel Questioning session - maximum of 60 minutes.

The IA and TE will take notes during the questioning session, and follow up questions may be asked. The Marshall Assessor will make all grading decisions, which will be verified before a grade is confirmed.

The TE does not grade the assessment, but will support the assessment by providing an authentic panel experience and evidence notes to support the Marshall IA's grading decision.

Technical Expert (TE) Requirements



Technical Experts will generally be employed by the same Employer as the Apprentice. Technical Experts must be competent in the occupation that is being assessed. **This must be demonstrated by providing:**



a current CV (or bio) to confirm at least 5 years recent work experience in the occupational area being assessed



a copy of certificate or confirmation of having achieved a qualification at a level equivalent to or higher than Level 6 (equivalent to a Degree - or by holding professional recognition at this level or higher)



a recent CPD log to demonstrate practical and up-to-date knowledge and experience of current working practices appropriate to the sector (template can be provided if required).

The role of the Technical Expert (TE)

To review and sign off the Full Standard Vocational Competence Evaluation Log and the evidence referenced in the log.

Their role is to confirm the Apprentice has demonstrated competence against all Knowledge, Skills and Behaviours (KSBs) in the Apprenticeship Standard.

The role of the Technical Expert (TE)

Synoptic Project Presentation: Following submission of the Primary Journal Article the TE can provide clarification, if required, for the Independent Assessor (IA) on any of the science and technology or business contexts that are referenced in the article.

Participate in the panel alongside Marshall for the Presentation and Questioning. The TE will be required to complete feedback paperwork against the grading descriptors assigned to this element of the End-Point Assessment (EPA) but will not contribute to the final grading.

At any point during the EPA process, the Technical Expert:

must not provide evidence on behalf of the Apprentice

must not clarify whether the evidence is valid

must not expand on any information provided in the project or presentation during the panel questioning

must not provide any opinion on grading

Approaching your SPP assessment



11 areas: Grade choice?



Make sure these areas are covered between the report and the presentation



20-30 minutes presenting and 45-60 minutes worth of questioning



Apprentice should plan to speak on each section for at least 4 minutes



Apprentice should build their response around the guidance but be prepared to react to specific questions about your project on the day

EPA Part 2: Vocational Competence Discussion (VCD)

- Apprentices will be asked a minimum of 8 questions by their assigned Independent Assessor (IA)
- The assessment must last a minimum of 1 hour and a maximum of 2 hours 15 minutes.
- Apprentices will be expected to understand the key features of the Standard assessment plan and should prepare for questions around the KSBs and related grading descriptors assigned to this part of the assessment.
- **This is not an exam conditions test!** Apprentices can have their chosen portfolio evidence and their VCD Detailed Competence Log with them to support their responses

EPA Part 2: Vocational Competence Discussion (VCD)

An “open” question will be asked from each of the 8 categories below, follow up questions will likely also be asked.

- 1.Compliance with internal and external regulation
- 2.Ethical practice and codes of conduct
- 3.Meeting internal or external customers' requirements
- 4.Record keeping and data integrity
- 5.Applying quality standards
- 6.Creative thinking & problem solving
- 7.Meeting targets
- 8.Continuous performance improvement

Approaching your VCD assessment

Typically lasts two hours and can run for 2 hours and fifteen minutes.

When preparing for your EPA, consider the detail in the grading descriptors and the amplifications we have provided around “what needs to be evidenced” - a 1 minute response to a question will not be sufficient at this level to meet the requirements! **What grade do you want?**

8 areas for discussion : you should therefore plan to speak for **15 minutes per area.**

Use the time you have to build your answers by demonstrating your depth of knowledge and understanding of each subject. It's your opportunity to show us just how much you know and give relevant workplace examples to support your responses

You should be well versed on your own environment in terms of regulations, quality practices, codes of conduct and be able to demonstrate leadership and innovation through examples from your project work.

Summary of EPA Timeline: From Gateway to final Grade

- **Before Gateway -**
 - Technical Expert nominated and agreed from your employer to support the Presentation with Questioning element of the Assessment, they will attend training with Marshall Assessment.
 - Provisional EPA dates discussed to avoid holidays / AL
- **At Gateway -**
 - Submit your project proposal - the Project Plan - for your Primary Journal Article on the template provided
 - Submit the Apprentice Gateway Declaration, signed to confirm you are ready for EPA and giving MA permission to claim your certificate on completion (following grade confirmation)
 - Submit your VCD detailed competence log, with the evidence you have selected to support your VCD
- **Gateway acceptance –**
 - Once MA have checked all the Gateway evidence and confirmed your Project Plan is suitable, you will be accepted into the EPA period.
 - You then have 8 weeks / 50 hours to write and submit your article.
 - Deadline for submission will be confirmed in writing
 - Confirmation of EPA date / timings etc. will be confirmed in writing

End Point Assessment –

- EPA will take place usually at least 2 weeks after submission of the Report (Primary Journal Article) – this will be reviewed by the assigned Marshall IA and nominated TE before the day of the EPA.
- Assessment will be delivered over Microsoft Teams.
- Presentation with questioning in the morning, VCD after lunch break.

Awarding of the EPA Grade –

- All evidence from the EPA will be submitted by the Marshall IA for verification and will be subject to Marshall Assessment's Interview Quality Assurance processes before a final grade is confirmed.
- Grade will be confirmed 15 working days following completion of your EPA.
- This will be sent in writing to the University
- Certificates will be claimed from the Apprenticeship Service and sent directly to the employer, unless you specify otherwise.
- Certificates can take up to 7-9 weeks to arrive following confirmation of your final grade.



Example Assessment Summary

	Initial	Programme	Project: primary journal article	Workplace Synoptic Project (WSP)	Vocational Competence Discussion (VCD)
Assess	Training Provider	Training Provider	EPA	EPA and TE	EPA
Verify	EPAO	Employer and Training provider	EPA	EPAO	EPAO
Assure	EPAO	EPAO	EPAO	EPAO	EPAO

Verify: Confirming assessment decisions

Assure: Evaluation of assessment

EPA: End Point Assessor

EPAO: End Point Assessment Organisation

Really important documents

Overview of the L6
laboratory Scientist
(pdf)

Project plan template
(word)

**Synoptic Project and
VCD guidance** (pdf's)

VCD detailed
competence log (word)

Our Values:

- Assess
- Assure
- Achieve

