Introduction

The nuclear scientist and nuclear engineer integrated degree apprenticeship will typically take 3 to 5 years or more to complete and will provide a vital route for the recruitment of young talent for employers and will produce competent nuclear graduate professionals achieving all of the skills, knowledge and behavioural requirements of the role, for the current and future UK civil and defence nuclear programmes. It is extremely important that the apprentice programme allows sufficient time for the Higher Educational and vocational learning and experience in the workplace to be fully integrated and enable the apprentice at the end of the apprenticeship, to put into practice all of the elements of knowledge, skills and behaviours required for working in a nuclear environment.

This document focusses on the ‘end-point assessment’ required to be carried out by the employer and their selected Higher Education (HE) provider to enable the apprentice to be tested in a consistent objective manner, to determine the successful completion of the apprenticeship. Successful completion of the apprenticeship will include a Bachelors (Honours) degree qualification (Level 6) that is contextualised for the nuclear workplace with occupational competencies applicable to a variety of roles in Nuclear Engineer and Science based disciplines.

This is a brand new apprenticeship programme developed by the Nuclear Employer Group specifically set up for the nuclear industry. The group comprises nuclear site licence holders, various companies (large and small) within the supply chain for nuclear and HE providers, who are fully supportive of the approach being undertaken. Several Professional Institutions have also given their support, including: The Royal Society of Chemistry (RSC), Institute of Measurement & Control (InstMC), The Nuclear Institute (NI), Institute of Chemical Engineers (IChemE), Society of Operations Engineers (SOE).

The nuclear scientist and nuclear engineer degree apprenticeship will be recognised by a Professional Institute and the apprentice will be eligible to apply for professional registration as an Incorporated Engineer (IEng) or Registered Scientist (RSci) on completion.

Section A - Summary of assessment

This Assessment Plan has been developed to provide a structured, phased approach to enable the apprenticeship to be completed in accordance with the approved apprenticeship standard and for the apprentice to be successful in achieving a minimum of a ‘pass’ grade at completion (refer to Section C ‘Grading’ for further details).

The definition of a successful apprentice is one who is deemed by their employer to be competent for the specific occupational role and has achieved all of the requirements stipulated within the published apprenticeship standard. This Assessment Plan details all of the requirements that apprentices, employers and higher education providers must meet to ensure all apprentices, irrespective of company and location, are assessed in a rigorous, robust and consistent manner.

This document focusses on the ‘end-point assessment’ required to be carried out by the employer and HE provider to enable the apprentice to be tested in a consistent and fair manner to determine successful completion of the Apprenticeship. The On Programme training and assessment required to ensure an apprentice is on the right track and working at the right level, ready for end-point assessment is detailed in Annex 1.

The end-point assessment will be synoptic and assess the broad range of skills, knowledge and behaviours in an integrated way at the end of the programme. The end-point assessment will be completed during the last year of the apprenticeship, typically over 6 months duration, once the apprentice, employer and HE provider are satisfied that all requirements have been met and the
Nuclear Scientist and Nuclear Engineer Integrated Degree Apprenticeship
Assessment Plan

apprentice is ready to undertake the end-point assessment, to demonstrate their ability to be able to fully undertake the occupational role.

The end point assessment will be assessed by the HE Provider supported by the Employer. The HE provider must be a University or alternative Higher Education provider with validation from a University for the delivery of the Nuclear Scientist or Nuclear Engineer Integrated Degree. The end point assessment will be worth 40 credits towards the degree, the governance of which will be achieved through the use of independent external examiners.

The delivery of the apprenticeship by the employer and HE provider provides an integrated approach to developing and assessing skills, knowledge and behaviours across a range of modules in the degree programme and activities in the workplace. The HE provider will map the individual modules of the degree to the outcomes in the apprenticeship standard. The HE provider will ensure that the baseline nuclear professional skills and knowledge requirements specified in the apprenticeship standard are delivered as part of the degree programme. The end-point assessment will be comprised of two parts. It will include a synoptic project covering a substantial piece of work, typically taking around 6 months to undertake alongside the apprentice’s normal duties to their employer. The end-point assessment will also include an interview during which the apprentice will demonstrate that their portfolio of evidence meets the requirements of the standard. It is the totality of this end point assessment which will be judged against the criteria for the elected specialism (Nuclear Engineer or Science based discipline), and test the skills, knowledge and behaviours whilst undertaking work in a nuclear environment.

The separation of suggested On Programme training and assessment and final end-point assessment of the apprenticeship is shown in figure 1 below.
A range of academic learning modules designed to progressively develop the breadth and depth of the standard.

- Modular Assessments, with increased weighting toward the end of the programme, integrating the knowledge and skills components and which ensures the apprentice is sufficiently prepared to undertake the end point synoptic project.
- The academic learning must integrate baseline nuclear knowledge into the degree programme (20 credits towards the BSc/BEng Degree).

Work placed development and experience to put into practice the academic learning to meet the skills, knowledge and behavioural aspects of the standard and occupational role. The apprentice will maintain a portfolio of their completed work, to demonstrate their achievements and capabilities.

Competence will be continually assessed to ensure the apprentice remains on track/on target.

**Synoptic End Point Assessment**

A substantial work related nuclear project to ensure the broad range of knowledge, skills and behaviours in the standard are achieved (40 credits towards the BSc/BEng Degree).

- Project to take place in the final year of the Degree, typically up to 6 months in duration, integrating and testing the academic and vocational learning.
- Includes a comprehensive presentation of the project plan, outcomes, and evidence of knowledge, skills and behaviours demonstrated.
- Assessed in partnership by employer and academic provider.
- Assurance by use of external examiners

Competence Assessment interview carried out, demonstrating the range of knowledge, skills and behaviours.

- Carried out by independent chartered person for the discipline being assessed

- Reviews the portfolio of evidence presented by the apprentice
Section B - Detailed explanation of the end-point assessment

What will be assessed?

The apprentice will be required to be assessed on the broad range of skills, knowledge and behaviours detailed in the Apprenticeship Standard. At the end point, the apprentice will be assessed on the following aspects:

- A written portfolio of evidence (built up by the apprentice during the work placements within the apprenticeship programme, demonstrating the higher order Skills, Knowledge and Behaviours identified in the standard). This will be assessed at a Competence Interview by an independent chartered scientist or engineer selected by the employer for the occupation being assessed.

- A substantial work-related nuclear project (40 credits), with significant Nuclear Scientist and/or Nuclear Engineer content in the final year of the degree and demonstrating the higher order skills, knowledge and behaviours identified in the standard. This will include a written project report to be presented by the apprentice to a panel from the HE provider and supported by the employer.

The HE provider and employer will implement an assessment procedure within the final project of the degree that focuses on the specialism chosen, assessing the delivery and outcomes of the project report and project presentation against the degree criteria and the knowledge, skills and behaviours identified in the standard. The employer will contribute to the assessment procedure, providing a written report on the apprentice’s project to the HE provider and as well as attending and providing input to the assessment of the project presentation.

The synoptic end point assessment integrates the project outcomes and the evidence from the portfolio and Competence Interview.

The Apprenticeship award will be achieved on successful completion of the synoptic end-point assessment.

During the apprenticeship the apprentice will be studying for a Bachelors Honours degree with assessment throughout the degree programme giving an ongoing indication of performance against the final outcomes defined in the standard. The individual modules must be passed in accordance with the HE provider regulations.

The academic learning must integrate baseline nuclear knowledge into the degree programme (20 credits towards the BSc / BEng Honours Degree). The baseline knowledge should cover:

- An understanding of the history, current status and future outlook for the UK nuclear industry.
- A basic level understanding of the science (e.g. fundamentals of atomic and nuclear physics) and technologies for nuclear power generation and fuel cycle activities and economic and environmental impact.
- A clear understanding and proper perspective on radiation hazards and protection (e.g. contamination control, dosimetry, radiation detection, measurement, shielding and associated analytical techniques).
- An appreciation of nuclear legislation and the nuclear regulatory framework, including the regulatory provisions for nuclear licensed sites.
- An appreciation of the special nature and requirements pertaining to nuclear and radiation safety, nuclear security, nuclear safeguards, environmental protection and quality.
- Appreciation of the root causes and lessons learned from major incidents and accidents in the nuclear industry and relevant non-nuclear events.
An understanding of nuclear safety, security and safeguards culture and how this is embedded in the workplace.

How will the assessment be carried out?

The assessment will comprise of two main elements:

• Achievement of the Level 6 BSc or BEng (Hons) qualification, including the completion of work-related synoptic nuclear project (40 credits) and presentation.
• A Competence Interview demonstrating the broad range of knowledge, skills and behaviours identified in the standard, with presentation of the ‘portfolio of evidence’.

For the competence interview the apprentice will present a completed portfolio of evidence detailing how they have met the broad range of skills, knowledge and behaviours in the standard. The Employer will select an assessor to verify the requirements have been achieved. The assessor will be someone who is not directly associated with the apprentice to provide a level of independence and will be chartered for the occupational discipline being assessed. The apprentice will need to have achieved the skills, knowledge and behavioural requirements to complete the apprenticeship.

The synoptic project is a work based nuclear project that broadly represents the skills, knowledge and behaviours in the standard. The project will provide substantive evidence from a business-related project to demonstrate the application of skills, knowledge and behaviours. The end point assessment integrates the project outcomes and presentation into the overall synoptic project assessment. It will take place in the final year of the programme, typically over a 6 month duration. It is designed to assess apprentices in a consistent way, irrespective of their particular workplace and degree provider. Because of the significance of the project, the Employer and HE provider should work together with the apprentice to agree a project that is achievable within the employers’ business constraints, has a level of HE challenge appropriate to a BEng (Hons) or BSc (Hons) programme and meets the specific requirements of the standard. The project should be conducted alongside the apprentice’s normal work. The Employer should make suitable allowance for the project to be undertaken, both in terms of time and resources. However there are some elements such as the writing of the project report, particularly in its reflective aspects, that may be undertaken outside of normal work. This should be agreed between apprentice, employer and provider such that apprentices are not disadvantaged in any way from performing their job and meeting the requirements of the project. Any issues with confidentiality and/or security will also be addressed between the provider, employer and apprentice allowing for projects of business value to be undertaken using real data.

On completion of the project, the apprentice will submit a project report to the HE provider for assessment. The apprentice will also be required to undertake an oral presentation of the project outcome to the HE provider and employer.

The assessment of the synoptic project should include the employer’s assessment against the common criteria for the project. Every project assessment is required to incorporate the employer as an assessor in addition to the HE provider’s normal process of project assessment. In practice the employer will review and assess performance across the project and specifically in relation to the final project report. The employer will contribute to the end point assessment, providing a short written report of the apprentices’ performance against the defined assessment criteria. The employer will also attend the oral presentation and provide input to the assessment of the project presentation.
Generic Content of the Synoptic Project
Each nuclear scientific / Nuclear Engineer project must enable the following to be demonstrated:

- the application of the core and specialism knowledge and skills to meet the outcomes in the standard
- the approach to planning and completion of the project
- the application of behaviours such as:
  - thinking and problem solving
  - written communication skills
  - business and commercial understanding
  - effort and timeliness

The project does not need to cover every competence, but must cover a broad breadth of the overall competence outcomes

Practical Requirements for the design of Synoptic Project
- Agreement to be made between apprentice, employer and HE provider on what systems, tools and platforms will be required to complete the task and how these will be made available.
- Specification of what has to be delivered on completion of the project – must include the output, documented project plans etc.
- Apprentices are required to document their assumptions and to highlight the consequences of those assumptions – enabling them to show their understanding of commercial pressures, and the application of their thinking and problem solving skills.
- Terms of reference developed by the apprentice and agreed by the university and employer early in the project.
- Apprentice to provide a signed statement to confirm it is their own work.
- HE Provider to provide clear project assessment criteria including terms of reference, approach to the problem, the design of the solution, the implementation of the solution, the final report and presentation.

Practical Requirements for the delivery of Synoptic Project
- HE Providers will work with the employer and apprentice to agree suitable project title and support arrangements for the project to be undertaken.
- The project ideally should be based on an agreed business problem that forms part of the apprentice’s occupational role and enables the apprentice to capture evidence of the knowledge, skills and behaviours required.
- Suitable time should be set aside by the employer for the apprentice to plan, undertake and write up their project.
- For each project the apprentice will first work out what is required and present terms of reference and an initial plan for agreement across employer, apprentice and HE provider.
- The project ideally should be undertaken at employers’ premises as agreed with the employer, but may in some cases be undertaken at the HE provider’s facilities or elsewhere.
- Employer and HE provider will ensure the apprentice has access to the specified systems, tools and platforms to complete the task.
- Whilst other projects may typically be included during the programme, the capstone synoptic project will be set and completed in the final year of the apprenticeship near the end of the programme.

Practical Requirements for the project environment
A suitable project environment should be provided ensuring access to all required tools, systems etc. This may be the apprentice’s normal workstation or may be another environment as appropriate to the nature of the project.

A suitably qualified and experienced project supervisor will be appointed by the employer to oversee the work-based aspects.

A HE supervisor will be appointed by the HE provider to ensure HE standards are being met and to provide HE guidance to the apprentice.

The Presentation
The oral presentation is a structured discussion between the degree apprentice and HE provider and employer selected representatives together, focusing on the synoptic project. It covers both what the apprentice has achieved, the standard of their work, and also how they have approached the problem. Typically this is the approach taken in university individual projects. This enables the assessment to test a broad range of skills, knowledge and behaviours as required by the standard.

The purpose of the presentation is to review:
- what the apprentice set out to achieve.
- what they have actually produced in the project.
- the standard of their work.
- how they have approached the work and dealt with any issues arising.
- clarify any questions the university/employer has from their assessment of the project.
- explore aspects of the project work, including how it was carried out, in more detail.
- confirm the demonstration of appropriate interpersonal and behavioural skills.

The presentation will be assessed as part of the overall project assessment. The HE provider will provide guidance on the nature of the presentation and the assessment criteria used. This will ensure that consistent approaches are taken and that all key areas are appropriately explored. The initial and primary focus for the presentation is on the work presented in the project. However, the presentation assessors can explore the apprentices’ broader experience from the workplace, to demonstrate that the skills and knowledge defined in the standard have been met.

Practical Requirements for the Presentation
- The oral presentation will take place following the completion of the project work and submission of the final project report.
- The apprentice should have appropriate notice of their presentation time and have at least seven days’ notice.
- A structured brief will be used to support the presentation to ensure a consistent approach.
- The presentation and Q&A will typically last 30 minutes – and no more than one hour.
- The presentation will be conducted face to face or in exceptional circumstances via live media.
- The presentation will be conducted in a suitable location that allows for the project outcomes to be demonstrated. This may be at the HE provider or employer location as appropriate.
- The HE provider must put the apprentice at their ease and give the apprentice the opportunity to do their very best.
- The presentation is to the HE provider module assessor(s) and the employer at the same time or separately.

Generic content of the Competence Assessment
Each apprentice must be able to demonstrate:

- the application of skills, knowledge and behaviours identified in the standard

The Portfolio of evidence
The portfolio will cover the higher order skills, knowledge and behavioural requirements set out in the apprenticeship standard. The collation of evidence will be a continuous process throughout the
Nuclear Scientist and Nuclear Engineer Integrated Degree Apprenticeship Assessment Plan

The portfolio evidence will be reviewed by the employer (in conjunction with the provider where appropriate) on a regular basis during the apprenticeship. The completed portfolio will be presented by the apprentice for final assessment at the end point of the apprenticeship.

The portfolio will ideally take a number of forms consistent with the skills, knowledge and behaviours being assessed and may include:

- Products such as, reports and presentations
- Reflective accounts/personal statements
- Professional discussion
- Expert witness evidence/testimony
- On the job and task observation

Who will carry out the end point assessment?

The assessment responsibilities are set out in Annex 2.

Assessment of the work-related nuclear project and presentation

The Employer will select an independent discipline expert who has not been directly involved in mentoring or supervising the apprentice to ensure a level of independence and impartiality. The discipline expert must be at least an Incorporated Engineer (IEng) or Registered Scientist (RSci) for the discipline being assessed.

The HE provider will select an academic with knowledge of the discipline who is not directly associated with the Employer to provide independence and ensure all apprentices are assessed in a fair and objective manner. The HE provider will utilise an approved method and process to enable all apprentices to be assessed in the same manner against identical criteria for scoring. All examinations will be externally moderated.

Assessment of the portfolio of evidence

The Employer will select an Independent Assessor who will undertake the final assessment of the portfolio of evidence to ensure that throughout the apprenticeship, the apprentice has undertaken a broad range of activities and has gained sufficient and suitable experience to meet the range of knowledge, skills and behavioural requirements of the apprenticeship standard. The portfolio will be signed off by the Independent Assessor. The Assessor must be chartered for the occupational discipline being assessed.

Quality Assurance

We are considering employer led approaches for quality assurance and governance, and are working through the options with BIS. At the moment awarding organisations who wish to deliver against the standard will need to be on the SFA register of assessment organisations.

Degree Providers have extremely robust assessment processes and approaches. The overall governance of assessment holistically across a degree programme is achieved through the use of independent external examiners.

Section C - Final Grading
Nuclear Scientist and Nuclear Engineer Integrated Degree Apprenticeship Assessment Plan

The final grading of the apprenticeship will be based on (i) the class of BEng (Hons) or BSc (Hons) degree awarded, (ii) the Synoptic End-Point Assessment.

All apprentices will be studying for an Honours degree. The outcome and grading are significantly contributed to by the end-point synoptic project and presentation. Honours degree award and classification is based on a weighted average mark of the assessed work the apprentice has completed. The end-point synoptic project and presentation contributes greatly to the final year marks (40 credits). The final year overall contributes to the grading typically in the ratio of 3 – 5 times that of second year modules (based on a three year model). The synoptic project must be passed to achieve the degree award.

The portfolio of evidence assessment of competence must be achieved for the apprenticeship to be awarded. Successful achievement will be graded as a ‘Pass’. Where a ‘Pass’ is not achieved, the apprentice may re-submit a revised portfolio of evidence. The timescale for this will be agreed between the apprentices’ employer and the assessor, based on the shortcomings identified by the assessor. Typically the portfolio should be re-submitted within 2 months and not more than 4 months from the date of the original assessment.

For the overall grading of the Nuclear Scientist and Nuclear Engineer Apprentices, this will take into account the normal Honours degree classifications for English universities and a scoring of either Pass, Merit or Distinction, awarded for the synoptic end point nuclear project and presentation, as shown in the grading matrix provided below:

### Nuclear Scientist and Nuclear Engineer Degree Apprenticeship Final Grading Matrix

<table>
<thead>
<tr>
<th>BSc / BEng Class of Degree achieved</th>
<th>End Point Project score Distinction (70+)</th>
<th>End Point Project score Merit (60-69)</th>
<th>End Point Project score Pass (50-59)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Honours (70+ indicative)</td>
<td>Distinction</td>
<td>Merit</td>
<td>Pass</td>
</tr>
<tr>
<td>2:1 Honours (60-69 indicative)</td>
<td>Merit</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>2:2 Honours (50-59 indicative)</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>3rd Honours (40-49 indicative)</td>
<td>Pass</td>
<td>Pass</td>
<td>Pass</td>
</tr>
</tbody>
</table>

Final grading for the Apprenticeship awarded

### Section D

Implementation

**Predicted training cost of the Apprenticeship and End-Point Assessment**

The major costs for delivering the Nuclear Scientist and Nuclear Engineer Degree Apprenticeship are:

- The On Programme training and assessment, including:
  - Degree modules and assessment
The Synoptic End-Point, including
  o Assessment of the work related nuclear project and presentation
  o Assessment of the Portfolio
  o The quality assurance of all the processes involved in the delivery and assessment.

The cost of the synoptic end point assessment is currently estimated to be of the order of 15% of the overall cost of the Nuclear Scientist and Nuclear Engineer Degree Apprenticeship.

Delivery of the end-point assessment across the country and in a variety of businesses

Apprenticeships are employer led and developed alongside the relevant discipline and academic professionals. The Nuclear employer group has defined all of the competence requirements and levels of attainment for the Nuclear Scientist and Nuclear Engineer Degree Apprenticeship to be deployed throughout the nuclear industry and will work collectively with Higher Education Institutions and Professional Institutions for the Apprenticeship to be fully verified and endorsed. Attainment of a Nuclear Scientist and Nuclear Engineer Degree Apprenticeship will provide eligibility to apply for professional registration as an Incorporated Engineer (IEng) or Registered Scientist (RSci). In order to meet these requirements and consistently deliver new and competent resource to the industry, an end-point assessment approach has been developed and will be utilised by all participating companies, hence this is the benchmark for success. As previously stated in Section B, there are two main elements to this assessment, each promoting a consistent approach ensuring reliability of the process and ‘in built’ quality assurance:

The Nuclear Employer Group recommends that employers who adopt the Nuclear Scientist and Nuclear Engineer Degree Apprenticeship implement a programme of training and assessment such that the apprentice is continuously monitored, assessed and provided with feedback on their performance, to help ensure that he or she is ready to undertake the end-point assessment.
Annex 1 – On Programme Training and Assessment Approach

The following approach is not a mandated requirement for the Assessment Plan. This has been included to give guidance to Employers wishing to use the Nuclear Scientist and Nuclear Engineer Degree Apprenticeship approach to achieve an end point with Level 6 BSc/BEng Honours and occupational competence.

The Nuclear Employer Group recommends that an employer provides sufficient time within the preferred delivery approach of their apprenticeship programme for vocational work based learning to be fully developed to complement the time spent undertaking HE learning, thereby ensuring the Apprenticeship Standard can be realistically achieved.

The Employer Group recognises that employers require flexibility in the approach they wish to adopt with a Higher Education Provider to ensure their apprentices will get the right balance of HE and vocational learning, together with a realistic timeframe for the on programme training and assessment to be delivered alongside the day to day business requirements. Hence, the suggested timeframe is between 3 to 5 years to enable Employers to consider a more traditional degree approach or phased approach as detailed below.

The following are examples of routes to successful achievement of the Level 6 Nuclear Scientist and Nuclear Engineer Degree Apprenticeship.

**Example 1: Traditional approach**

A traditional degree route may be adopted, where sufficient quantitative and qualitative work placement development and experience can be successfully achieved enabling the apprentice to meet the requirements of the standard.

- Level 6 Degree over 3 to 4 years (typically 30 weeks per year equivalent). To include a minimum of 20 credits on nuclear baseline knowledge
- Work placements over 3 to 4 years (typically 22 weeks per year equivalent)
- On programme training and assessment of HE and vocational learning. Work based training to ensure nuclear working aspects are covered (e.g. safety, nuclear awareness, nuclear behaviours, security as per the standard)
- Maintain a portfolio of evidence to demonstrate achievements, capabilities for the knowledge, skills and behavioural requirements
- Note: Both elements of the Synoptic end-point assessment; the project & presentation (40 credits) and the Competence Interview and presentation of portfolio of evidence, to be carried out towards the end of the apprenticeship programme.
ST0289/AP02

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Example 2: Phased approach

Alternatively a phased approach may be adopted, where the HE learning is more gradually developed and commensurate with the levels of work activity, responsibility and experience gained in the work place for vocational learning. Employers may choose to include Gateways to ensure the apprentice is developing at the right pace and level for progression.

<table>
<thead>
<tr>
<th>Degree Apprenticeship Standard</th>
<th>Typical On Programme Training and Assessment</th>
<th>Synoptic End Point Assessment</th>
</tr>
</thead>
</table>
|                                | **Gateway 1**
|                                | Modular Academic learning with Assessment  |
|                                | • Level 5 HND or equivalent  |
|                                | • Level 5 FD or equivalent  |
|                                | Work place development and experience to put into practice the academic learning to meet the skills, knowledge and behavioural aspects of the standard and occupational role  |
|                                | Nuclear specific training completed (e.g. safety, security, awareness, and behaviours)  |
|                                | Portfolio of evidence  |
|                                | • Capturing evidence of competence, for review and continual assessment  |
|                                | **Gateway 2**
|                                | Modular Academic learning with Assessment  |
|                                | • Level 6 BSc or BEng (Honours)  |
|                                | • The academic learning must integrate baseline nuclear knowledge into the degree programme (20 credits towards the BSc/BEng Degree).  |
|                                | Work place development completed  |
|                                | Project for end point agreed and developed  |
|                                | Portfolio of evidence completed  |
|                                | **3 Year Foundation Phase. Continuous vocational and academic learning with assessment**  |
|                                | **2 Years Development Phase**
|                                | continuous vocational and academic learning with assessment  |
|                                | **A substantial work related nuclear project to ensure the high order knowledge, skills and behaviours in the standard are achieved (40 credits towards the BSc/BEng Degree).**  |
|                                | • Project to take place in the final year of the Degree, typically up to 6 months in duration, integrating and testing the academic and vocational learning.  |
|                                | • Includes a comprehensive presentation of the project plan, outcomes, knowledge, skills and behaviours demonstrated.  |
|                                | • Assessed in partnership by employer and academic provider.  |
|                                | Competence Assessment interview carried out, demonstrating the range of knowledge, skills and behaviours.  |
|                                | • Carried out by independent chartered person for the discipline being assessed  |
|                                | • Reviews the portfolio of evidence presented by the apprentice  |

Example 2: Phased approach

Alternatively a phased approach may be adopted, where the HE learning is more gradually developed and commensurate with the levels of work activity, responsibility and experience gained in the work place for vocational learning. Employers may choose to include Gateways to ensure the apprentice is developing at the right pace and level for progression.

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### Annex 2 - Assessment Responsibilities

#### 1. Summary of roles in relation to On Programme degree module assessment (excluding project)

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Assessment</th>
</tr>
</thead>
</table>
| **Apprentice** | Prepares by fully reviewing the assignment brief and assessment criteria  
Is clear on the submission process and due date | Submits required work to be assessed |
| **Employer** | Advises the apprentice on assignments that can be undertaken either within the workplace or using workplace scenarios  
Permits evidence of commercial value to be included  
Provides access to resources required | Contributes to formative assessment using the defined assessment criteria  
Contributes to the capstone project assessment, against the defined criteria  
Attends the presentation and contributes to the assessment |
| **HE Provider** | Produces module assessment schedule to guide apprentice and employer  
 Produces individual assessment brief and assessment marking criteria  
 Advises the apprentice on the assessment brief  
 Advises the employer on opportunities to conduct assignments in the workplace  
 Provides guidance and support to the apprentice on their module assignments | Assesses the work submitted as part of the module assessment  
 Produces feedback on each assessment |

#### 2. Summary of roles in relation to the synoptic project

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Assessment</th>
</tr>
</thead>
</table>
| **Degree Apprentice** | Has completed all portfolio and knowledge outcomes  
Agrees project title with employer and university  
Plans the project | Completes and submits project terms of reference and an initial project plan  
Undertakes the project and prepares and submits the project report |
| **Employer** | Agrees to provide the apprentice with suitable time to complete those parts of the project that are not part of their normal job  
With the University and apprentice agrees the project title and commits to any associated resource requests | Completes an assessment of the final project report using defined assessment criteria |
| **HE Provider** | Advises the apprentice on requirements for synoptic assessment  
Reviews practical arrangements for the project to ensure that the apprentice can achieve the desired outcomes  
Liases with the employer to select the relevant synoptic project based on apprentices job role | Responsible for arranging and managing the delivery of the synoptic project to ensure defined conditions are satisfied (aspects of which may be delegated to the employer)  
Responsible for validating the apprentices work (though with arrangements for employer input)  
Completes assessment of the project and presentation |
### 3. Summary of roles in relation to the presentation

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apprentice</strong></td>
<td></td>
</tr>
<tr>
<td>- Re-familiarises her/himself with the summative portfolio and synoptic project</td>
<td>- Responds to the university module teams questions</td>
</tr>
<tr>
<td>- Identifies positive aspects of the portfolio and synoptic project to highlight</td>
<td>- Provides further information as requested</td>
</tr>
<tr>
<td>- Gathers any other documents they may want to draw on</td>
<td></td>
</tr>
<tr>
<td><strong>Employer</strong></td>
<td></td>
</tr>
<tr>
<td>- Advises the apprentice on which aspects of their recent work to highlight</td>
<td>- Contributes to the assessment of the project presentation</td>
</tr>
<tr>
<td>- Allows time off work for the presentation</td>
<td>- Provides an appropriate venue if required</td>
</tr>
<tr>
<td><strong>HE Provider</strong></td>
<td></td>
</tr>
<tr>
<td>- Advises the apprentice on which aspects of the evidence may be probed/explored and how to respond</td>
<td>- Puts the apprentice at ease</td>
</tr>
<tr>
<td>- Organises the time and place</td>
<td>- Probes/explores aspects of evidence and quality of the apprentice’s work</td>
</tr>
<tr>
<td>- Identifies aspects of the apprentice’s work in the synoptic project and summative portfolio to be probed/explored</td>
<td>- Assesses the apprentice’s responses</td>
</tr>
<tr>
<td>- Probes/explores aspects of evidence</td>
<td>- Records key points about the apprentice’s responses</td>
</tr>
<tr>
<td>- Identifies aspects of the apprentice’s work in the synoptic project and summative portfolio to be probed/explored</td>
<td>- Uses the additional evidence gained from the apprentice to inform the grading decision</td>
</tr>
</tbody>
</table>

### 4. Competence Evaluation Portfolio

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apprentice</strong></td>
<td></td>
</tr>
<tr>
<td>- Collates evidence required to meet the apprenticeship standard higher order skills, knowledge and behaviours</td>
<td>- Completes the portfolio to the best of their ability</td>
</tr>
<tr>
<td>- Responds to Independent Assessor questions</td>
<td>- Responds to Independent Assessor questions</td>
</tr>
<tr>
<td>- Provides further information as requested</td>
<td>- Provides further information as requested</td>
</tr>
<tr>
<td><strong>Employer</strong></td>
<td></td>
</tr>
<tr>
<td>- Introduces the standards and expectation to complete the portfolio</td>
<td>- Review portfolio evidence during the on programme phase of the apprenticeship on a regular basis</td>
</tr>
<tr>
<td>- Organises time and place for regular reviews with the apprentice</td>
<td>- End Point: Independent Assessor reviews the portfolio to confirm overall competence has been achieved. Signs off the portfolio as completed.</td>
</tr>
<tr>
<td>- Sets target, review progress and evidence</td>
<td></td>
</tr>
</tbody>
</table>