

apprenticeship FRAMEWORK

Engineering Construction - non-statutory (Wales)

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Framework summary

Engineering Construction - non-statutory

Foundation Level Apprenticeship in Engineering Construction

Pathways for this framework at level 2 include:

Pathway 1: Supporting Engineering Construction Activities

Competence qualifications available to this pathway:

C1 - Level 2 Certificate in Supporting Engineering Construction Activities (QCF)

Knowledge qualifications available to this pathway:

K1 - Level 2 Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Pathway 2: Supporting Welding Activities

Competence qualifications available to this pathway:

C1 - Level 2 Certificate in Supporting Engineering Construction Welding Activities (QCF)

Knowledge qualifications available to this pathway:

K1 - Level 2 Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Pathway 3: Supporting Mechanical Fitting Activities

Competence qualifications available to this pathway:

C1 - Level 2 Certificate in Supporting the Installation of Engineering Construction Plant and Systems - Mechanical Fitting (QCF)

Knowledge qualifications available to this pathway:

K1 - Level 2 Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Pathway 4: Project Control Assistant

Competence qualifications available to this pathway:

C1 - Level 2 Diploma in Project Control, Estimating, Planning and Cost Engineering (QCF)

Knowledge qualifications available to this pathway:

K1 - Level 2 Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Pathway 5: Steel Erecting

Competence qualifications available to this pathway:

C1 - Level 2 Diploma in Steel Erecting (QCF)

Knowledge qualifications available to this pathway:

K1 - Level 2 Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Pathway 6: Supporting Plating Activities

Competence qualifications available to this pathway:

C1 - Level 2 Diploma in Supporting the Fabricating of Engineering Construction Steel Structures - Plating (QCF)

Knowledge qualifications available to this pathway:

K1 - Level 2 Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Pathway 7: Supporting Pipefitting Activities

Competence qualifications available to this pathway:

C1 - Level 2 Diploma in Supporting the Installation of Engineering Construction Plant and Systems - Pipefitting (QCF)

Knowledge qualifications available to this pathway:

K1 - Level 2 Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Pathway 8: Supporting Engineering Construction Operations

Competence qualifications available to this pathway:

C1 - Level 2 Diploma in Supporting Engineering Construction Operations (QCF)

Knowledge qualifications available to this pathway:

K1 - EDEXCEL BTEC Level 2 Extended Certificate in Engineering (QCF)

Combined qualifications available to this pathway:

N/A

This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

Framework information

Information on the Publishing Authority for this framework:

Engineering Construction Industry Training Board

The Apprenticeship sector for occupations in engineering construction.

Issue number: 1	This framework includes: Level 2
Framework ID: FR00479	
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	This framework is for use in: Wales

Short description

The Engineering Construction Foundation Apprenticeship Framework is recognised within the industry as an entry route for individuals to attain the minimum skills required to support work on engineering construction sites. It is particularly ideal as a progression route into the industry's Level 3 Apprenticeship framework for those individuals who do not meet the Entry Criteria for the Level 3 Apprenticeship.

The framework provides users with consistent guidelines under which to work to achieve and maintain the standards and levels of knowledge and competencies required by the industry.

The occupations covered by this framework are as follows:

- Supporting Engineering Construction Activities;
- Supporting Welding Activities (includes Pipe and Plate Welding);
- Supporting Mechanical Fitting Activities;
- Steel Erecting;
- Supporting Plating Activities;
- Supporting Pipefitting Activities;
- Project Control, Estimating, Planning & Cost Engineering;
- Supporting Engineering Construction Operations.

Contact information

Proposer of this framework

The proposer of this framework is the ECITB Qualifications and Awards Committee. The Committee is comprised of senior industry employer representatives, who have a first-hand knowledge of what employers require from the framework and what is needed of entrants to the industry. This framework is published by the ECITB on a non-statutory basis prior to the designation of Issuing Authorities in Wales.

Developer of this framework

Name: Martin Eatough
Organisation: Engineering Construction Industry Training Board (ECITB)
Organisation type: Standard Setting Body
Job title: Head of Apprenticeship Programmes
Phone: 07795 236454
Email: Martin.Eatough@ecitb.org.uk
Postal address: Engineering Construction Industry Training Board
Blue Court
Church Lane
Kings Langley
Hertfordshire
WD4 8JP
Website: www.ecitb.org.uk

Issuing Authority's contact details

Issued by: Engineering Construction Industry Training Board
Issuer contact name: Nigel Spencer
Issuer phone: 01923 402132
Issuer email: Nigel.Spencer@ecitb.org.uk

Purpose of this framework

Summary of the purpose of the framework

This framework has been designed to meet the requirements for the types of work undertaken in the Engineering Construction Industry. UK engineering construction is a global force and employs approximately 78,000 people in the UK, 100,000 worldwide. The industry delivers successful new build, maintenance, plant upgrade and decommissioning projects worldwide across the oil, gas, water, power generation, nuclear, chemical, pharmaceutical, water, environmental and food & drink industries.

Domestically, the £16 billion industry is fundamental to the economy and the demand for engineering construction is set to rise significantly over the next decade and beyond. Training investment to ensure the right levels of highly skilled and competent individuals are attracted to the industry is vital to address the skills shortages created by growth, emerging technologies and an ageing workforce. This will create significant long-term skilled employment opportunities for people with the right skills. Engineering construction skills are also transferable and valued in a number of related sectors. Current and future planned power generation projects in Wales are particularly significant and the current and predicted manpower shortage means that there is a continuing demand in Wales for a range of job disciplines from engineering construction skilled support personnel, crafts persons and technicians through to graduate engineers.

Combining classroom learning with practical learning experience, this framework is recognised within the industry as an ideal route for progression into an Engineering Construction Level 3 Apprenticeship framework for those individuals who do not currently meet the Level 3 Entry Requirements criteria. It provides a platform for individuals to demonstrate their ability for progression into higher learning and career advancement within the industry.

It also provides a recognised career opportunity for those individuals who wish to work in the industry at a level below the Level 3 Apprenticeship framework. This framework will provide the skills, knowledge and competencies needed to provide essential skilled support within various industry disciplines. This in itself is a career choice valued by the industry. The occupations within this framework reflect the changing nature of industry work and the need to assist with some of the work functions of those trained at a higher level. It is recognised that not all individuals who complete a Foundation Level 2 Apprenticeship will want to progress to a higher skill level career.

The framework supports the industry objectives of attracting and developing young entrants to the industry and allowing them to attain the skills, industry awareness, practical experience and relevant qualifications required to work in a variety of roles on engineering construction sites, including offshore installations. Its purpose is to provide consistent guidelines in respect

of the standards and levels of knowledge and competencies required by the industry, such that the current and anticipated skills shortages within engineering construction can be positively addressed. This framework offers pathway routes in a variety of disciplines, both onshore and offshore. Many of today's supervisors, managers, designers and professionals originally joined the industry through the apprenticeship route.

This framework will help ensure that people from a wide variety of backgrounds are provided the opportunity to enter the industry and become competent in a sector where there is a demand for their skills. The Foundation Level Apprenticeship offers an exciting platform for long term and rewarding career opportunities in an industry where training is valued and recognised by employers and is seen as essential to helping them ensure they remain highly competitive and continue to thrive commercially well into the future.

Aims and objectives of this framework (Wales)

The aim of this Foundation Apprenticeship framework is to make a significant contribution to meeting the recruitment needs of the engineering construction industry, thereby positively impacting on the increase required in skilled people from the current 77,500 to the forecasted figure of 80,400 by 2022. This will increase the ability of industry employers to compete in the global marketplace thus protecting the high reputation of the UK engineering construction sector. With a high proportion of older workers due to retire during this period, the actual number of new jobs to be created and trained for will be significantly higher than the forecasted increase in skilled workers required.

Labour market information suggests that in order to satisfy the anticipated requirements of the various client sectors, the total UK engineering construction workforce will need to increase by the amount stated above. The impact on the UK of such a shortfall of qualified people is significant and profound. It would, for example, severely curtail the national capacity to generate power and to extract and process oil. This could result in the loss of multi-million pound contracts by UK based companies to overseas competition.

With respect to specific manpower requirements and opportunities within Wales, the engineering construction sector is a key stakeholder on many sites. It counts the Dragon and South Hook LNG terminals and the MURCO and Valero oil refineries amongst its clients in Pembrokeshire. The new £1 billion RWE/nPower and Eon gas fired power station is also being constructed in Pembrokeshire by Engineering Construction Industry (ECI) contractors.

In South east Wales, the industry has involvement with TATA steel mills, Port Talbot where £185 million is being spent on rebuilding blast furnace 4 and a further £53 million on a cooling system for the steel-making shop. An £8.5 million carbon capture project has recently been completed at Aberthaw. Uskmouth power station is a new 850 MW combined cycle gas turbine power station which was completed in 2010 and is one of the most efficient power stations in the UK.

In North Wales, Horizon Nuclear Power, at the time of Issue of this framework, is for sale and Areva Group and China Guangdong Nuclear Power Corporation (CGNPC) are amongst the interested buyers that are planning the construction of a 3.3 GW power station at Cemaes Bay in Anglesey which could lead up to 5000 jobs during the construction phase and 800 jobs when the project is completed. A €2 billion offshore wind farm is planned for the coast of North Wales by RWE Innogy, Stadtwerke Munchen and Siemens.

In order to address the increasingly urgent shortages of engineering construction skills, whilst in competition for skills with other industries, employers need a training and qualifications system that is attractive to entrants from a variety of sources, including from within the industry itself. **A Foundation Apprenticeship framework in Engineering Construction has been identified as being an effective route of attracting more talented individuals into the industry, who would not previously have been provided the opportunity.**

The objectives of this framework are:

1. To increase the number of new entrants to the industry developed by way of a Foundation Apprenticeship framework, to help meet the current and future demand forecasted by the engineering construction industry.
2. To provide a means of giving entrants into the engineering construction industry a broad base of skills, knowledge and understanding enabling them to target career progression routes and to provide an established progression route into the Level 3 Apprenticeship framework within the sector.
3. To provide a recognised and structured framework for developing the skills of existing industry workers, e.g. those currently assisting engineering construction activities in a less skilled or unskilled capacity.
4. To provide a progression route for individuals who have entered the industry through a basic entry level route offered through various other sector training opportunities.
5. To provide a structured framework for training apprentices that enables the engineering construction industry to establish a sufficiently large pool of fully skilled and qualified people with the right knowledge and competencies necessary to meet the requirements of all its customers.
6. To reflect and address the changing nature of industry work and the need for skilled individuals to assist with some of the work functions of those trained at a higher level, and for those functions to be formally recognised within the industry as a career structure.
7. To develop a flexible workforce capable of high levels of productivity and safety in a wide variety of environments.
8. To help the industry meet the skills challenges of emerging technologies, including nuclear requirements.
9. To increase accessibility into the industry of people from a range of backgrounds, including under-represented groups. It does this by providing a flexible, clear and coherent framework for entry, development and progression. This framework, in particular, offers opportunities for those individuals who may have been disadvantaged

academically, for whatever reason, and/or lack relevant experience but have demonstrated their potential ability and commitment to build a successful career within the industry.

Apprenticeships are not the only vehicle for introducing entrants to the industry but they are, arguably, the most systematic, efficient, effective and sustainable.

Entry conditions for this framework

There is no mandatory qualification or prior experience requirement for entry into this framework.

However, it will be deemed favourable if applicants have achieved (or expect to achieve) GCSE grades D or above in Mathematics, English and a Science or technical subject **OR** the Welsh Baccalaureate Foundation Level or above, including the Principal Learning qualification in either Construction and the Built Environment or Engineering. Applicants who have not or are unlikely to have achieved the aforementioned qualifications may be able to provide alternative evidence of prior attainment that would provide a platform to demonstrate their ability to be able to successfully achieve all learning outcomes. For example, an applicant who has previously achieved a further education qualification at an equivalent level to the GCSE grades or Baccalaureate stated or can provide evidence of sufficient work or voluntary experience in a related or similar sector may be deemed to possess adequate qualifications or experience.

The above favourable requirements are justified by the technical nature of the work and the need for effective, safe and accurate communication, as well as providing a useful indicator to an employer or training provider that the individual will be capable of achieving the learning outcomes required to become competent in a relevant discipline.

However, they are not the only indicator of ability and applicants who have not, or are unlikely, to have achieved the aforementioned qualifications must still be considered for entry provided they can demonstrate to the employer / training provider evidence of potential ability to be able to achieve the learning outcomes of the framework and have displayed a level of commitment and enthusiasm which lends support to this. **This framework is designed to support equal access for all and employers are encouraged to assess the potential attributes of a candidate as well as look at past achievements.**

Ultimately, an applicant must be able to demonstrate the potential ability and attributes to successfully achieve the knowledge, skills and competency requirements of the stated Foundation Apprenticeship.

Additional Requirements

For safety of self and colleagues, all applicants will be informed that at some stage during their training, and prior to going onsite with an employer, they may be subject to a medical examination and be required to undertake a drugs screening test. The nature of some sites (e.g. nuclear) may also require the apprentice to undergo a security check prior to being allowed entry.

Furthermore, all applicants should be:

- Committed and motivated to succeed within the industry
- Willing to work with due regard to Health & Safety of self and others at all times
- Willing to comply with the terms and conditions of their Contract of Employment

Applicants should be aware that the specific nature of engineering construction work may involve varied working conditions including:

- Working outdoors and in adverse weather conditions, e.g. temperature variations
- Shiftwork (may include nights and weekends)
- Working at height (particularly Steel Erecting Apprenticeships, which require working at significant height)
- Working in confined spaces
- Working within highly regulated and controlled areas
- Working within high hazard environments
- Wearing specialist safety equipment
- Working away from home

Good colour vision to recognise colour coded wires and components may be required (particularly Supporting Engineering Construction Activities (SECA) Foundation Apprenticeships).

Level 2

Title for this framework at level 2

Foundation Level Apprenticeship in Engineering Construction

Pathways for this framework at level 2

- Pathway 1: Supporting Engineering Construction Activities
- Pathway 2: Supporting Welding Activities
- Pathway 3: Supporting Mechanical Fitting Activities
- Pathway 4: Project Control Assistant
- Pathway 5: Steel Erecting
- Pathway 6: Supporting Plating Activities
- Pathway 7: Supporting Pipefitting Activities
- Pathway 8: Supporting Engineering Construction Operations

Level 2, Pathway 1: Supporting Engineering Construction Activities

Description of this pathway

Supporting Engineering Construction Activities.

The minimum total credit value for this pathway is 66.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Engineering Construction Activities Support	To provide general technical and craft support in engineering construction activities.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Certificate in Supporting Engineering Construction Activities (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1980/1	Engineering Construction Industry Training Board	19-25	185	N/A

Knowledge qualifications available to this pathway

K1 - Level 2 Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/0880/5	City and Guilds	35	300	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the Knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning and the anticipated role of the apprentice within the company.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	N/A	N/A

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway, and supplementary discipline-specific skills training, may allow progression to an ECITB Level 3 Apprenticeship framework in a number of discipline areas. The qualified apprentice may also enhance their knowledge by progressing to the Level 3 BTEC Subsidiary Diploma in Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career opportunities in the UK's engineering construction industry and review potential career paths,

learning from the experiences and career progression of those already in the industry through video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship.

To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance. Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Level 2, Pathway 2: Supporting Welding Activities

Description of this pathway

Supporting Engineering Construction Welding Activities.

The minimum total credit value for this pathway is 72.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Welder Support	To support processes in the fusing together of metal pipework and metal plate components and assemblies using extreme heat and to exacting tolerances and standards.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Certificate in Supporting Engineering Construction Welding Activities (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2209/5	Engineering Construction Industry Training Board	25	185	N/A

Knowledge qualifications available to this pathway

K1 - Level 2 Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/0880/5	City and Guilds	35	300	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the Knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning and the anticipated role of the apprentice within the company.

It is recommended that, as a minimum, at least one of the following Optional Units be taken for this pathway:

K/503/0192: Welding by Manual Metal Arc process

M/503/0193: Welding by MIG process

K/503/0194: Welding by TIG process.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	N/A	N/A

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway may allow progression to an ECITB Level 3 Apprenticeship in welding or possibly an alternative industry occupation within the Level 3 Apprenticeship framework. The qualified apprentice may also enhance their knowledge by progressing to the Level 3 BTEC Subsidiary Diploma in Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career opportunities in the UK's engineering construction industry and review potential career paths,

learning from the experiences and career progression of those already in the industry through video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship.

To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance.

Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Level 2, Pathway 3: Supporting Mechanical Fitting Activities

Description of this pathway

Supporting the Installation of Engineering Construction Plant and Systems - Mechanical Fitting.

The minimum total credit value for this pathway is 77.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Mechanical Fitter Support	To support processes in the assembly, installation, maintenance and testing of complex engineering construction machinery and mechanisms.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Certificate in Supporting the Installation of Engineering Construction Plant and Systems - Mechanical Fitting (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2208/3	Engineering Construction Industry Training Board	30	235	N/A

Knowledge qualifications available to this pathway

K1 - Level 2 Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/0880/5	City and Guilds	35	300	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the Knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning and the anticipated role of the apprentice within the company.

It is recommended that the following Optional Unit be taken for this pathway:

T/503/0177: Using bench fitting techniques.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	N/A	N/A

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway may allow progression to an ECITB Level 3 Apprenticeship framework in Mechanical Fitting or possibly an alternative industry occupation within the Level 3 Apprenticeship framework. The qualified apprentice may also enhance their knowledge by progressing to the Level 3 BTEC Subsidiary Diploma in Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career opportunities in the UK's engineering construction industry and review potential career paths,

learning from the experiences and career progression of those already in the industry through video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship.

To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance. Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Level 2, Pathway 4: Project Control Assistant

Description of this pathway

Project Control, Estimating, Planning and Cost Engineering.

The minimum total credit value for this pathway is 97.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Project Control Assistant	To support processes of ensuring effective project control by applying techniques in activities such as estimating, planning, procurement and cost control.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Diploma in Project Control, Estimating, Planning and Cost Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2277/0	Engineering Construction Industry Training Board	44	192	N/A

Knowledge qualifications available to this pathway

K1 - Level 2 Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/0880/5	City and Guilds	35	300	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the Knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning and the anticipated role of the apprentice within the company.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	1	6

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway may allow progression to an ECITB Level 3 Apprenticeship framework in Project Control, or possibly an alternative industry occupation within the Level 3 Apprenticeship framework. The qualified apprentice may also enhance their knowledge by progressing to either the Level 3 BTEC Diploma in Construction and the Built Environment or the Level 3 BTEC Diploma in Operations and Maintenance Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career

opportunities in the UK's engineering construction industry and review potential career paths, learning from the experiences and career progression of those already in the industry through video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship.

To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance. Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Level 2, Pathway 5: Steel Erecting

Description of this pathway

The Erecting of Engineering Construction Steel Structures.

The minimum total credit value for this pathway is 95.

Entry requirements for this pathway in addition to the framework entry requirements

Steel Erecting apprentices should possess an aptitude for working at significant heights.

Job title(s)	Job role(s)
Steel Erector Support	To support processes in the lifting, alignment, assembly, erection and fixing of engineering construction steel structures using cranes and mobile work platforms.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Diploma in Steel Erecting (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2322/1	Engineering Construction Industry Training Board	48	205	N/A

Knowledge qualifications available to this pathway

K1 - Level 2 Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/0880/5	City and Guilds	35	300	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the Knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning and the anticipated role of the apprentice within the company.

It is recommended that the following Optional Unit be taken for this pathway:

R/503/0199: Fabricating steelwork assemblies.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	N/A	N/A

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway may allow progression to an ECITB Level 3 Apprenticeship framework in steel erecting or possibly an alternative industry occupation within the Level 3 Apprenticeship framework. The qualified apprentice may also enhance their knowledge by progressing to the Level 3 BTEC Subsidiary Diploma in Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career opportunities in the UK's engineering construction industry and review potential career paths,

learning from the experiences and career progression of those already in the industry through video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship.

To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance. Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Level 2, Pathway 6: Supporting Plating Activities

Description of this pathway

Supporting the Fabricating of Engineering Construction Steel Structures - Plating

The minimum total credit value for this pathway is 86.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Plating Support	To support processes in the marking out, cutting, forming and joining of metal engineering construction assemblies.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Diploma in Supporting the Fabricating of Engineering Construction Steel Structures - Plating (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2211/3	Engineering Construction Industry Training Board	39	325	N/A

Knowledge qualifications available to this pathway

K1 - Level 2 Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/0880/5	City and Guilds	35	300	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the Knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning, the anticipated role of the apprentice within the company and any associated activities the employer may require the apprentice to undertake during on-the-job learning.

It is recommended that the following Optional Unit be taken for this pathway:

J/503/0197: Fabricating thick plate, bar and sections.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	N/A	N/A

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway may allow progression to an ECITB Level 3 Apprenticeship framework in plating or possibly an alternative industry occupation within the Level 3 Apprenticeship framework. The qualified apprentice may also enhance their knowledge by progressing to the Level 3 BTEC Subsidiary Diploma in Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career opportunities in the UK's engineering construction industry and review potential career paths,

learning from the experiences and career progression of those already in the industry through video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship. To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance. Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Level 2, Pathway 7: Supporting Pipefitting Activities

Description of this pathway

Supporting the Installation of Engineering Construction Plant and Systems - Pipefitting.

The minimum total credit value for this pathway is 97.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Pipefitting Support	To support processes in the laying out, marking out, cutting, forming and joining of pipe to carry oil, water and gas under pressure.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Diploma in Supporting the Installation of Engineering Construction Plant and Systems - Pipefitting (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/2207/1	Engineering Construction Industry Training Board	50	435	N/A

Knowledge qualifications available to this pathway

K1 - Level 2 Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	600/0880/5	City and Guilds	35	300	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the Knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning, the anticipated role of the apprentice within the company and any associated activities the employer may require the apprentice to undertake during on-the-job learning.

It is recommended that the following Optional Unit be taken for this pathway:

L/503/0198: Fabricating pipework assemblies.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	N/A	N/A

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway may allow progression to an ECITB Level 3 Apprenticeship framework in pipefitting or possibly an alternative industry occupation within the Level 3 Apprenticeship framework. The qualified apprentice may also enhance their knowledge by progressing to the Level 3 BTEC Subsidiary Diploma in Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career opportunities in the UK's engineering construction industry and review potential career paths,

learning from the experiences and career progression of those already in the industry through video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship.

To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance. Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

Level 2, Pathway 8: Supporting Engineering Construction Operations

Description of this pathway

Supporting Engineering Construction Operations

The minimum total credit value for this pathway is 108.

Entry requirements for this pathway in addition to the framework entry requirements

There are no additional requirements other than the general entry conditions.

Job title(s)	Job role(s)
Engineering Construction Operations Support	To provide general technical and craft support in engineering construction operations.

Qualifications

Competence qualifications available to this pathway

C1 - Level 2 Diploma in Supporting Engineering Construction Operations (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	600/3909/7	Engineering Construction Industry Training Board	66	595	N/A

Knowledge qualifications available to this pathway

K1 - EDEXCEL BTEC Level 2 Extended Certificate in Engineering (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/7577/9	Pearson Education Ltd (Edexcel)	30	180	N/A

Combined qualifications available to this pathway

N/A

Relationship between competence and knowledge qualifications

K1 provides the underpinning knowledge and understanding for C1.

Within the knowledge qualification, there are a number of pathways which allow for apprentices to attain the underpinning knowledge and understanding to support the Competence qualification. However, it will be incumbent upon the employer and training provider to agree which is most appropriate and to carefully consider the choice of Units within the qualification that apprentices will undertake. The decision will be based upon such factors as the apprentice's prior learning and the anticipated role of the apprentice within the company.

Transferable skills (Wales)

Essential skills (Wales)

	Minimum level	Credit value
Communication	1	6
Application of numbers	1	6
IT	N/A	N/A

Progression routes into and from this pathway

Progression into this pathway is outlined within the general Entry Conditions section of this framework.

Successful completion of this pathway may allow progression to an ECITB Level 3 Apprenticeship framework in a number of discipline areas. The qualified apprentice may also enhance their knowledge by progressing to the Level 3 BTEC Subsidiary Diploma in Engineering. Support and opportunities for further ongoing training and career development of engineering construction workers is provided by the Industry Training Board (ECITB) and includes a full range of training and Higher Education / Further Education programmes and is supported by grant payments to ECITB inscope companies.

The Engineering Construction Industry Training Board (ECITB) has launched an interactive online Career Progression Route Map tool, to make it easier for new industry entrants and those already working in engineering construction to find rewarding jobs and manage their career development. The engineering construction industry is critical to the country's economy and this tool has been designed to help get the right people into the right jobs with the right skills. From Apprentice to Managing Director, the ECITB Career Progression Route Map (CPRM) will give school leavers, graduates and others looking for a career in the industry, a clear insight into the career paths available to them. The interactive tool provides individuals with detailed information on different roles, and the training and qualifications needed to enhance their careers within the engineering construction industry.

Over the next 10 years around 46,000 new jobs are currently projected to be created and the CPRM will help potential recruits and those in the early stages of their careers to match their skills more precisely. People can explore the varied, rewarding and exciting career opportunities in the UK's engineering construction industry and review potential career paths, learning from the experiences and career progression of those already in the industry through

video podcasts and case studies. The CPRM currently contains information on around 170 roles and this will evolve as new roles are added or updated to meet industry needs. Users enter basic details such as qualifications, experience and interests and the tool filters through a wide selection of roles to highlight those that may be of particular interest. From this list the user can explore the details of these individual roles.

In addition to information about what individual industry roles involve and how these can fit together over a career, there are real life case studies that serve to illustrate how actual careers can evolve.

For further information on all of the above, please visit: www.ecitb.org.uk/.

Employee rights and responsibilities

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Both pathways are to be delivered as an induction programme and completed by the end of the Foundation Apprenticeship. Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Completion of the ECITB 'Record of Achievement in ERR'. Documented ERR outcomes for this pathway are issued to both providers of ERR and to apprentices explaining the benefits of ERR and its delivery and assessment:

1. Provider/employer - topics to be covered within each of the 9 national learning outcomes and guidance on delivery and assessment of ERR.
2. Apprentice - checklist of learning outcomes and evidence of attainment, development log.

Training providers/assessors are required to verify that the apprentice has achieved all of the outcomes before completing the ECITB 'Record of Achievement in ERR' certificate, which is to be signed by both the provider and apprentice and dated. Validated original certificates are to be submitted to the relevant Certifying Authority by the provider with the relevant Apprenticeship certificate request form at the end of the Foundation Apprenticeship.

To allow for flexibility in the sector, ECITB does not limit the method(s) of delivery and assessment for ERR but does provide examples and documentation to support the requirement that outcomes must be achieved, formally assessed and subject to quality assurance. Examples of ERR delivery and assessment includes the following:

- Induction programme provided by employer
- Formal teaching and assessment
- Mentoring
- Workbooks
- Tasks and assignments
- Evidence gathering in related training areas
- Demonstration to an assessor, verbal or activity related of the learning outcome

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has no QCF Credit Value.

Option 2 - EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries (QCF): QRN 600/0290/6. A verified copy of the Award Certificate must be forwarded by the provider to the relevant Certifying Authority with the relevant Apprenticeship certificate request form at the end of the Foundation

Apprenticeship.

The number of Guided Learning Hours (GLH) for this pathway option is 41. It has a QCF Total Credit Value of 5.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

The nine national ERR outcomes to be achieved by the apprentice are as follows:

1. Knows and understands that employers and employees have a range of statutory rights and responsibilities under Employment Law. This includes the apprentice's rights and responsibilities under the Employment Rights Act 1996, Equality Act 2010 and Health & Safety legislation, together with the responsibilities and duties of employers;
2. Knows and understands the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Health & Safety and Equality & Diversity training included as an integral part of the apprentice's learning programme;
3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities, including details of Access to Work and Additional learning Support;
4. Understands the role played by their occupation within their organisation and industry;
5. Has an informed view of the types of career pathways that are open to them;
6. Knows the types of representative bodies and understands their relevance to their skill, trade or occupation, and their main roles and responsibilities;
7. Knows where and how to get information and advice on their industry, occupation, training and career;
8. Can describe and work within their organisation's principles of conduct and codes of practice;
9. Recognises and can form a view on issues of public concern that affect their organisation and industry.

The remaining sections apply to all levels and pathways within this framework.

How equality and diversity will be met

The Engineering Construction Industry (ECI) has an under-representation of women and ethnic groups in the workforce which mirrors a wider pattern of occupational segregation in science, engineering and technology industries in general. (Footnote 1). Data provided in the ECITB 2010 Annual Employer Statutory Returns estimated the industry workforce as:

- a) 89% male (or 9:1), which is lower than the 18% of women found in Science, Engineering, Construction and Technology (SECT) sectors (Footnote 2)
- b) 95% white/abled persons, which is higher than the 90% nationally across Great Britain, with 5% from under-represented backgrounds (non-white/non-abled persons), compared with 10% of the British population (Footnote 3). Furthermore, the workforce has a disproportionately high age distribution, with the impending retirement of many older workers. The workforce appears to be representative of the 1970s when many workers were recruited. While data of this type for the industry is captured across Great Britain as a whole, there is nothing to suggest Wales deviates from the general pattern observed elsewhere.

The ECI strategy of improving procedures and systems for recruiting and qualifying people supports the government strategy of increasing social justice and opportunity. The industry continues to breakdown traditional barriers, widening its appeal and positively targeting non traditional audiences at both national and regional levels. It strengthens this by reinforcing positive images across gender and ethnicity, including minority groups, and by promoting an Equal Opportunities Policy to attract Apprenticeship applications from anyone able to demonstrate the ability and attributes to successfully achieve its required framework outcomes. Employers and providers have a duty to comply with the Equality Act 2010 and play a full and active role in helping promote the industry and its career opportunities to all, including under-represented groups. For further guidance on the Equality Act, please go to: www.equalityhumanrights.com/advice-and-guidance/new-equality-act-guidance/.

In terms of improving equality and the diversity balance, the ECI is engaged in ongoing initiatives in Wales to create a dynamic climate of change. In terms of attracting younger people into the industry, it continues to foster relationships with schools and colleges, promoting training and career opportunities by raising its profile across diverse communities. Initiatives include:

- ECI Career Roadshows utilising innovative drama
- Positive reinforcement through promotional literature and marketing
- Sponsorship of events and individuals

For further information on the sector, please click on the attached link: www.ecitb.org.uk/

Footnote References:

- 1 BERR, The Energy White Paper 2008
- 2 JIVE (Bradford College the UK national partnership)
- 3 BBC News, 8 April 2008

On and off the job training (Wales)

Summary of on- and off-the-job training

The total amount of on and off-the-job training hours for each pathway includes learning hours associated with all accredited framework qualifications (Competence qualification, Knowledge qualification, Essential Skills Wales qualifications, ERR Option 2 qualification) or ECITB ERR Pathway Option 1 framework requirements.

Balance of on-the job and off-the-job learning / Foundation Apprenticeship Duration:

Training time for this Foundation Apprenticeship programme is split into on-the-job and off-the-job training hours, as described below. Minimum total learning hours are specified for each pathway in order for the apprentice to be able to complete the framework. Total learning hours, however, may vary depending on the previous experience and attainment of the apprentice and rules for this are covered in following sections relating specifically to on-the-job and off-the-job training. It is incumbent on the training provider and employer to ensure, where the choice of qualification pathways, customisation etc. exceeds the minimum total learning hours, these additional hours are planned for and delivered and the apprentice be made aware of these additional requirements at the start of the Foundation Apprenticeship.

The industry would expect the Foundation Apprenticeship to take between 12 and 18 months to complete. Pathways 1 - 5 have an average duration of 12 months; Pathway 6: 15 months; and Pathways 7 & 8: 18 months.

On-the-job and Off-the-job training needs to:

- be planned, reviewed and evaluated jointly between the apprentice and a tutor, teacher, mentor or manager;
- allow access as and when required by the apprentice either to a tutor, teacher, mentor or manager;
- be delivered during contracted working hours;
- be delivered through one or more of the following methods: individual and group teaching, e-learning, distance learning, coaching; mentoring, feedback and assessment; collaborative/networked learning with peers, guided study and induction.

Training time for this Foundation Apprenticeship is split into on-the-job and off-the-job training hours as described below.

Total minimum learning hours relating to both on-the-job and off-the-job training required to complete each pathway:

Pathway 1 - Supporting Engineering Construction Activities - 646

Pathway 2 - Supporting Welding Activities - 646

Pathway 3 - Supporting Mechanical Fitting Activities - 696

Pathway 4 - Project Control Assistant - 713

Pathway 5 - Steel Erecting - 666

Pathway 6 - Supporting Plating Activities - 786

Pathway 7 - Supporting Pipefitting Activities - 896

Pathway 8 - Supporting Engineering Construction Operations - 936

The division of learning hours between on-the-job and off-the-job training and how this learning is to be delivered and assessed is specified in the relevant sections below.

Rules to Avoid Repeating Qualifications

Processes exist to ensure that applicants with prior knowledge, qualifications and experience are not disadvantaged by having to repeat learning. Refer to the On-the-job and Off-the job sections for guidance about prior attainment and achievement. Training providers and Awarding Organisations will also be able to advise on the current rules for accrediting prior learning and recognising prior experience.

Off-the-job training

Off-the-job training is defined as time for learning activities away from normal work duties, i.e. "away from the immediate pressures of the job". This may include, for example, at college or a training provider's premises or in a training/meeting room on the employers' premises. The amount of off-the-job training hours required to complete the framework includes the Knowledge qualification; safe simulated learning elements of the Competence qualification (due to the safety critical nature of the industry and opportunities for workplace simulation - training which the employer may choose to repeat in an on-the-job setting outside of the minimum requirements); two thirds of the Essential Skills Wales qualification requirements; and 20.5 training hours of additional time necessary to meet all the framework requirements covering general induction and ERR.

The **minimum** off-the-job training hours required for completion of this framework are as follows:

Pathway 1 - Supporting Engineering Construction Activities - 460.5 training hours:

Knowledge qualification - 300 training hours

Competence qualification - 60 training hours

Essential Skills Wales - 80 training hours (40 per Skill)

Additional framework requirements - 20.5 training hours

Pathway 2 - Supporting Welding Activities - 460.5 training hours:

Knowledge qualification - 300 hours

Competence qualification - 60 training hours

Essential Skills Wales - 80 hours (40 per Skill)

Additional framework requirements - 20.5 training hours

Pathway 3 - Supporting Mechanical Fitting Activities - 495.5 training hours:

Knowledge qualification - 300 training hours

Competence qualification - 95 training hours

Essential Skills Wales - 80 hours (40 per Skill)

Additional framework requirements - 20.5 training hours

Pathway 4 - Project Control Assistant - 482.5 training hours:

Knowledge qualification - 300 training hours

Competence qualification - 42 training hours

Essential Skills Wales - 120 hours (40 per Skill)

Additional framework requirements - 20.5 training hours

Pathway 5 - Steel Erecting - 475.5 training hours:

Knowledge qualification - 300 training hours

Competence qualification - 75 training hours

Essential Skills Wales - 80 hours (40 per Skill)

Additional framework requirements - 20.5 training hours

Pathway 6 - Supporting Plating Activities - 560.5 training hours:

Knowledge qualification - 300 training hours

Competence qualification - 160 training hours

Essential Skills Wales - 80 hours (40 per Skill)

Additional framework requirements - 20.5 training hours

Pathway 7 - Supporting Pipefitting Activities - 640.5 training hours:

Knowledge qualification - 300 training hours

Competence qualification - 240 training hours

Essential Skills Wales - 80 hours (40 per Skill)

Additional framework requirements - 20.5 training hours

Pathway 8 - Supporting Engineering Construction Operations - 630.5 training hours:

Knowledge qualification - 180 training hours

Competence qualification - 350 training hours

Essential Skills Wales - 80 hours (40 per Skill)

Additional framework requirements - 20.5 training hours

How this requirement will be met

Training hours delivered under an Apprenticeship agreement may vary depending on the previous experience and attainment of the apprentice. The amount of off-the-job training required to complete the Foundation Apprenticeship under the Apprenticeship agreement may then be reduced accordingly, provided the total number of off-the-job hours for this framework can be verified for Apprenticeship certification.

Previous attainment

Where a learner enters an Apprenticeship agreement having previously attained parts or all of the relevant qualifications, this prior learning needs to be recognised using either QCF credit transfer for achievements within the QCF; or through recording certificated learning outside of

the QCF, for example Principal Learning qualifications.

For apprentices who have already achieved the relevant qualifications, they must have been certificated within five years of applying for the Apprenticeship Certificate.

Previous experience

Where a learner enters an Apprenticeship agreement with previous work-related experience, this prior learning needs to be recognised [see QCF Guidance on Claiming Credit for further details]. To count towards Apprenticeship certification, previous experience must be recorded using the appropriate Awarding Organisation's CQFW 'Recognition of prior Learning' (RPL) procedures and the hours recorded may then count towards the off-the-job hours required to complete the Apprenticeship.

For apprentices with prior uncertificated learning experience, the off-the-job learning must have been acquired within five years of application for the Apprenticeship Certificate or have been continuously employed in the relevant job role in the industry for three years.

Off-the-job training needs to:

- be planned, reviewed and evaluated jointly between the apprentice and a tutor, teacher, mentor or manager;
- allow access as and when required by the apprentice either to a tutor, teacher, mentor or manager;
- be delivered during contracted working hours;
- be delivered through one or more of the following methods: individual and group teaching, e-learning, distance learning, coaching; mentoring, feedback and assessment; collaborative/networked learning with peers, guided study and induction.

Off-the-job training must be formally recorded, either in a diary, workbook, portfolio, or be verified by attendance records. This evidence needs to be checked and signed by the assessor and employer.

The off-the-job training for the Foundation Apprenticeship will include a thorough training in the fundamental, **practical skills** of the respective discipline in a workshop setting. The apprentice will have the opportunity, away from the pressures of the workplace, to learn the skills of their chosen pathway and to become familiar with the tools, equipment and machinery. And, importantly, be able to use these in an effective and **safe manner**. The practical elements of the Knowledge qualification are delivered solely this way but elements of the Competence qualification also need to be covered prior to the apprentice transferring to on-the-job training to complete this learning. This is due to the safety critical nature of the industry and the suitability of simulated learning to learn the skills required effectively and in a safe environment.

Also, during the off-the-job period apprentices will spend a proportion of their week in a

classroom learning the theory that underpins the competence-based, practical elements of their discipline. The theory will be delivered at either the training provider's premises, a college or a combination of both. Provided the formative and summative assessments are successfully completed each apprentice will achieve a certificate for this **knowledge based element** of their Foundation Apprenticeship as described elsewhere in the framework.

Even while completing the on-the-job placement training for the framework, apprentices will still have recourse for periods of off-the-job training away from the pressures of the workplace. For example, in an office environment.

It is vital that each apprentice understands their **Employee Rights and Responsibilities (ERR)**. Principally during the off-the-job training period of the Foundation Apprenticeship, apprentices will learn about their statutory rights and responsibilities and the procedures and documentation in their organisation which recognise and protect their relationship with their employer. Apprentices will find out about sources of information and advice available to them on their employment rights and responsibilities and form an understanding of the role played by their occupation within their organisation and industry. Apprentices will learn about the types of representative bodies and understand their relevance to their skill, trade or occupation, and know where and how to get information and advice on their industry, occupation, training and career. It is also vital that apprentices can describe and work within their organisation's principles of conduct and codes of practice.

There are two pathway options for completion of the nine national outcomes/standards for Employee Rights and Responsibilities (ERR). Apprentices are encouraged to complete as much of the ERR as possible during the induction period as learning about these will help settle them into their training programme and to understand more about their occupation, organisation and industry and the legal framework they are required to operate within.

Option 1 - Apprentices complete the ECITB 'Record of Achievement in ERR.'

Option 2 - Apprentices complete the EAL Level 2 Award in Employment Rights and Responsibilities for New Entrants into the Engineering and Manufacturing Industries.

A candidate will not be able to complete their Foundation Apprenticeship without evidence of achievement in ERR as stated in one of the above pathway options.

It is also a requirement of the framework that apprentices complete the requisite **Essential Skills Wales qualifications**. Two thirds of the stated training hours (40 per Skill) is to be delivered in an off-the-job training environment. Essential Skills Wales at a minimum of Level 1 in Application of Number and Communication are mandatory for all pathways. Additionally, an Essential Skills qualification in ICT at a minimum of Level 1 is required for apprentices pursuing the Project Control Assistant pathway.

Evidence of off-the-job training hours

When claiming an Apprenticeship certificate, a signed declaration is required from the training provider stating that the total learning hours have been met by the learner, including the minimum on and off-the-job learning hours as stated within this framework.

On-the-job training

On-the-job training is defined as skills, knowledge and competence gained within normal working duties. The amount of on-the-job training hours required to complete the framework includes a minimum number of training hours associated with the Competence qualification and for completion of the Essential Skills Wales qualification, as well as additional requirements related to on-the-job completion required to complete the ERR component of the framework.

The minimum on-the-job training hours required for completion of this framework are as follows:

Pathway 1 - Supporting Engineering Construction Activities - 185.5 training hours:

Competence qualification - 125 learning hours

Essential Skills Wales - 40 hours (20 per Skill)

Additional framework requirements - 20.5 hours

Pathway 2 - Supporting Welding Activities - 185.5 training hours:

Competence qualification - 125 learning hours

Essential Skills Wales - 40 hours (20 per Skill)

Additional framework requirements - 20.5 hours

Pathway 3 - Supporting Mechanical Fitting Activities - 200.5 training hours:

Competence qualification - 140 learning hours

Essential Skills Wales - 40 hours (20 per Skill)

Additional framework requirements - 20.5 hours

Pathway 4 - Project Control Assistant - 230.5 training hours:

Competence qualification - 150 learning hours

Essential Skills Wales - 60 hours (20 per Skill)

Additional framework requirements - 20.5 hours

Pathway 5 - Steel Erecting - 190.5 training hours:

Competence qualification - 130 learning hours

Essential Skills Wales - 40 hours (20 per Skill)

Additional framework requirements - 20.5 hours

Pathway 6 - Supporting Plating Activities - 225.5 training hours:

Competence qualification - 165 learning hours

Essential Skills Wales - 40 hours (20 per Skill)

Additional framework requirements - 20.5 hours

Pathway 7 - Supporting Pipefitting Activities - 255.5 training hours:

Competence qualification - 195 learning hours

Essential Skills Wales - 40 hours (20 per Skill)

Additional framework requirements - 20.5 hours

Pathway 8 - Supporting Engineering Construction Operations - 305.5 training hours:

Competence qualification - 245 learning hours

Essential Skills Wales - 40 hours (20 per Skill)

Additional framework requirements - 20.5 hours

How this requirement will be met

These hours may vary depending on previous experience and attainment of the apprentice. Where a learner enters an Apprenticeship agreement having previously attained or acquired the appropriate competences or knowledge, this prior learning needs to be recognised and documented using the relevant QCF credit transfer, QCF exemption or RPL procedures (as detailed already in off-the-job above). The amount of on-the-job training required to complete the Foundation Apprenticeship under the Apprenticeship agreement may then be reduced accordingly, provided the total number of on-the-job training hours for this framework can be

verified for Apprenticeship certification.

Apprentices who commence training under a new Apprenticeship agreement with a new employer may bring a range of prior experience with them. When an apprentice can claim 10% or more hours towards the on-the-job framework total through prior learning acquired from previous full time education, employment or other vocational programmes, then the apprentice's learning programme should include 'customisation.'

Training Providers are encouraged to identify additional on-the-job programmes that customise the learning to the new workplace. Customisation programmes may include:

- selecting appropriate additional Unit(s) from QCF qualifications, or relevant Units recognised as Quality Assured Lifelong Learning [QALL] through a CQFW recognised body;
- following Essential Skills at a higher level than that specified in the framework;
- including one or more Wider Key Skills or other competency-based qualification(s)/Units relevant to the workplace.

For apprentices who have already achieved the relevant qualifications, they must have been certificated within five years of the date of application for the Apprenticeship Certificate or have been continuously employed in the industry for three years.

On-the-job Learning in engineering construction

Job roles within engineering construction require a thorough level of technical competence and knowledge, which will be undertaken through work based training, practice and experience in addition to the initial off-the-job simulated training environments.

On-the-job learning is required to be formally recorded, either in a diary, workbook, portfolio, or be verified by attendance records. This evidence needs to be checked and signed by the learner and assessor. Please see below for further details on maintaining records of training and experience on engineering construction sites.

On-the-job learning can be longer or shorter depending upon (a) the prior learning and experience of the apprentice as detailed above, (b) the opportunities open to the apprentice in the workplace that directly relate to the skills and knowledge to be attained, (c) the rate at which the learner is able to attain the skills and knowledge and apply them in real work situations. Each apprentice will have their own learning styles and the rate of learning will differ.

The principal qualification relating to the on-the job training period is the **Competence Qualification**.

Apprentices following all pathways will be trained in all the fundamental aspects of their discipline. In addition to the off-the-job training received, apprentices will also be practicing the skills learned on real jobs in the workplace, under supervision and **guidance of a mentor** who will be a discipline expert, a tradesperson. This mentor will be **coaching** the apprentice on

tasks in relation to the discipline and the qualification. This coaching may take up to 2 hours per day as the apprentice receives **guidance through demonstration** on the task in hand, then the mentor keeps a watchful eye on progress. The training should, also, reinforce in the workplace the skills learned by the apprentice in a simulated, safe off-the-job environment.

As these skills are being honed, apprentices will be required to **maintain a log** of all tasks completed. This will **aid reflective learning**, providing apprentices with an opportunity to **identify areas for improvement**. This log will be made up of reports written by the apprentice, comments and feedback from the mentor and/or supervisor, copies of work instructions, copies of drawings and diagrams, test records etc. The apprentice will be responsible for maintaining these logs in a Log Book provided by the ECITB. The apprentice will present this Log Book to his/her supervisor on a regular basis and ensure that it is in good order when the Competence qualification's assessor visits. Apprentices will have time set aside each week, of perhaps 3 hours, to compile and collate their reports. Monthly, the assessor will visit the learner and **provide feedback** on tasks completed and where they fit into the Competence qualification to be achieved. The assessor will be looking to ensure that the apprentice is being adequately supervised and is getting the opportunity to gain experience in the skills required. The assessor will also recommend to the apprentice what he/she needs to do, the activities to be involved in that would be most beneficial to the pursuit of the qualification.

As the apprentice's experience grows the level of supervision required by the mentor will be less and rather than only gaining experience, the apprentice will begin to be able to **demonstrate competence**. An increase in autonomy and subsequent rise in confidence will introduce opportunities for the apprentice to work as an effective member of the team at work. Still compiling reports and gathering information on tasks completed, this **evidence** now has greater significance as it will be the basis for making decisions on the competence of the apprentice in aspects of the qualification. In Year 1, the apprentice will receive on-the-job training in the workplace on a block release basis from the training provider. The assessor will co-ordinate visits to ensure that the necessary assessment activity occurs in respect of tasks the apprentice completes without supervision. For framework pathways that run into a second year (most notably Pathways 6, 7 and 8), the apprentice is likely to be based in the workplace full time. The assessor will be visiting at least every 6 weeks **judging the evidence** the apprentice has put together and on **direct observation** of the apprentice demonstrating their skill in the respective discipline. As the completion of the Competence qualification nears for all pathways, the visits by the assessor may increase in frequency. Apprentices, in addition to the assessment visits, will also have **regular progress reviews** on approximately a monthly basis lasting 1 hour. These reviews are a **two way discussion** allowing for the apprentice to discuss how they view their progress and suggest improvements or issues/barriers to completion.

There are aspects of the off-the-job training which will carry on into the workplace on-the-job period with the fundamental skills learned at the Training Provider being transferred into the

workplace, experience gained and competence achieved.

The period of on-the-job training also allows apprentices to continue with their learning, practicing and collection of evidence towards the achievement of learning outcomes associated with **Employee Rights and Responsibilities (ERR)** and **Essential Skills Wales qualifications**, as detailed within the relevant sections of the framework. This time in a real work setting.

Evidence of on-the-job training hours

When claiming an Apprenticeship certificate, a signed declaration is required from the training provider stating that the total learning hours have been met by the learner, including the minimum on and off-the-job learning hours as stated within this framework.

Wider key skills assessment and recognition (Wales)

Improving own learning and performance

The Wider Key Skill of "Improving own learning and performance" is already embedded within the learning undertaken in the mandatory units of all competence qualifications. Following consultation with employers in Wales, no additional delivery or assessment of this Wider Key Skill is required.

Working with others

The Wider Key Skill of "Working with others" is already embedded within the learning undertaken in the mandatory units of all competence qualifications. Following consultation with employers in Wales, no additional delivery or assessment of this Wider Key Skill is required.

Problem solving

The Wider Key Skill of "Problem solving" is already embedded within the learning undertaken in the mandatory units of all competence qualifications. Following consultation with employers in Wales, no additional delivery or assessment of this Wider Key Skill is required.

Additional employer requirements

CCNSG National Safety Passport:

Although not a statutory requirement for completion of this framework, it is a requirement of the engineering construction sector that all apprentices successfully complete and pass the Client Contractor National Safety Group (CCNSG) National Safety Course in order to obtain the certificated Safety Passport which is mandatory for entry on to engineering construction sites. During the off-the-job learning apprentices will attain this recognised industry standard, which meets the business needs of employers. The Safety Passport is valid for a 3 year period, after which a 1-day refresher course needs to be completed and passed.

ECITB has a national network of approved CCNSG training providers to deliver this recognised industry standard, which meets the business needs of employers.

OTHER:

Additionally, employers have the option to include additional components to the framework to meet their particular needs, e.g. further ECITB QCF Competencies/QCF Knowledge Units/Units and qualifications from the Quality Assured Lifelong Learning (QALL) pillar of the CQFW; and/or ECITB technical training/Technical Testing achievement as considered appropriate.

The ECITB Regional Account team for Wales will be pleased to assist with any enquiries - please go to www.ecitb.org.uk/Contact/ for current contact details.

apprenticeship
FRAMEWORKS ONLINE

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