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Llywodraeth Cymru
Welsh Government

Welsh Apprenticeship Pathway

in

Rail Infrastructure

The content of this Pathway has been agreed by Enginuity. This is the only Apprenticeship Pathway in the Rail Infrastructure sector approved for use in Wales that is eligible for Welsh Government funding.

More Information can be obtained from:

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LEARNING PROGRAMME CONTENT

The Learning Programme provision shall comprise of three mandatory elements:

- Qualifications,
- Essential Skills
- On/off the job training

The total minimum credit value required for the Level 2 Pathway 1 (*Track Maintenance*) is 77 credits.

The total minimum credit value required for the Level 3 Pathway 1 (*Signalling*) is 73 Credits.

ENTRY REQUIREMENTS

The Level 2 framework offers a range of occupations in track maintenance via 1 pathway. Employers are looking to attract applicants who want to apply engineering principles, enjoy solving problems, and are willing to work shifts.

As a guide, the level 2 Apprenticeship in Rail Infrastructure Engineering is suitable for applicants who have four relevant GCSEs grades D to E in English, Maths and a Science. The selection process on behalf of employers may include initial assessment where applicants will be asked if they have any qualifications or experience that can be accredited against the requirements of the apprenticeship. They may also be required to take tests in basic numeracy and literacy, communication skills and spatial awareness. There may also be an interview to ensure applicants have selected the right occupational sector and are motivated to become an apprentice, as undertaking an apprenticeship is a major commitment for both the individual and the employer.

Applicants who have completed the Welsh Baccalaureate may have completed units or short courses which will provide underpinning knowledge towards the Foundation Apprenticeship. This will be assessed during an initial assessment allowing Recognition of Prior Learning (RPL), where appropriate.

Employers would be interested in applicants who:

- are keen and motivated to work in a rail engineering environment or
- are willing to undertake a course of training both on-the-job and off-the-job and apply this learning in the workplace or
- have previous work experience or employment in the rail sector or
- have completed an Enhanced Engineering Programme (formerly Pathways to Apprenticeship programme) in a relevant discipline or
- have GCSEs grades D to E in English, Maths and Science or have a Welsh Baccalaureate or
- without formal qualifications can show, possibly through a portfolio, that they have the potential to complete this apprenticeship, through having previously worked in the sector at Level 2 or
- have completed the Essential Skills Qualifications (ESQ) qualifications or
- have completed tests in basic numeracy, literacy and communication skills and have spatial awareness and
- are able and prepared to work outside often in challenging weather environments.

Due to the safety critical nature of the role, applicants should be prepared to:

- go through checks for physical health including hearing and eyesight (colour blindness)
- be tested for drugs and alcohol abuse
- undergo checks through the Criminal Records Bureau.

Initial Assessment

Training providers/colleges and employers will use initial assessment to ensure that applicants have a fair opportunity to demonstrate their ability and to tailor programmes to meet individual needs, recognising prior qualifications and experience.

Rules to avoid the need to repeat qualifications

To avoid the need to repeat qualifications, processes exist to ensure applicants with prior knowledge, qualifications and/or experience are not disadvantaged. Colleges, Training Providers and Awarding Organisations will be able to advise applicants on the current rules for accrediting prior learning (APL) and experience. There are no relaxations or proxies for any qualifications specified in this framework, however providers are encouraged to identify additional on-the-job training programmes that customise the learning to the new workplace.

It is understood that where applicants have accredited prior learning that apprentices must be offered training which helps them to deliver new skills and learning at a higher level.

Essential Skills Qualifications

Apprentices must undertake the required mandatory ESQ in Communication Skills and Application of Number Skills at Level 1, although the industry via the OLEC partners have indicated that ICT/Digital Literacy is not required for this job role.

Essential Skills Wales or ESQ qualifications achieved in the context of the Welsh Baccalaureate Qualification (WBQ) or GCSEs with ESQ can be accepted.

Knowledge qualifications

If applicants already have one of the knowledge qualifications or individual units at Level 2 (see knowledge qualifications page) before starting their apprenticeship, they may count this and will not have to repeat the qualification providing they have achieved this qualification within five years of starting their apprenticeship. For example, they may have already achieved the knowledge element as part of the Welsh Baccalaureate.

Furthermore the hours that were spent gaining the qualification may be counted towards the total hours for the apprenticeship.

The Welsh Baccalaureate with its Core programme of personal learning and development studies along with options such as NVQs, Vocational Qualifications and Principal Learning (Engineering World, Discovering Engineering Technology and Engineering the Future) could provide significant opportunities for accreditation of Prior Learning against the components of this framework. The same processes can be applied to GCSEs. Training providers/colleges should be able to advise entrants on the potential reduction in programme duration that could result from accrediting previous qualifications and experience.

Competence qualifications

If applicants already have one of the competence qualifications at Level 2 (see competence qualifications page) before starting their apprenticeship, they may count this and will not have to repeat the qualification providing they have achieved this qualification within five years of starting their apprenticeship. The hours that were spent gaining the competence qualification may be counted towards the total hours for the apprenticeship.

It is important however that there is agreement between the employer and the apprentice that the applicant is currently competent.

Prior experience in the sector

Applicants that are already working in the sector or who have recently worked in the sector at the appropriate level can apply to have their experience formally recognised by an Awarding Organisation and this could count towards the qualification(s) in this framework.

The Level 3 framework offers a broad range of occupations via 4 pathways. Employers would welcome applicants from a wide and diverse background and wish to attract applicants who have an interest to work in a rail engineering environment.

As a guide, the Apprenticeship in Rail Infrastructure is suitable for applicants who have four GCSEs grade C or above including Maths, English, and a Science. This is not a hard and fast rule but may vary according to the pathway chosen (craft or technician) and the suitability of individual applicants.

Applicants who have completed the Welsh Baccalaureate may have completed units or short courses which will provide underpinning knowledge towards the Apprenticeship. This will be assessed during an initial assessment allowing Recognition of Prior Learning (RPL), where appropriate.

Employers would be interested in applicants who:

- have completed a Foundation Apprenticeship at Level 2 in the relevant rail infrastructure occupational discipline or
- have GCSEs in English, Maths and a Science - grade C or above or have a Welsh Baccalaureate or
- have previous work experience or employment in the rail sector or
- without formal qualifications can show, possibly through a portfolio, that they have the potential to complete this apprenticeship, through having previously worked in the rail sector at Level 3 or
- are willing to undertake a course of training both on-the-job and off-the-job and apply this learning in the workplace or
- have completed the Essential Skills Qualifications (ESQ) qualifications
- are keen and motivated to work in a rail engineering environment or have the ability to follow instructions and diagrams
- have literacy and numeracy skills to work with data
- are a good team worker, who can also work under own initiative are keen and motivated to work in a rail engineering environment
- are able and prepared to work outside, often in challenging weather environments.

Due to the safety critical nature of the role, applicants should be prepared to:

- go through checks for physical health including hearing and eyesight (colour blindness) be tested for drugs and alcohol abuse
- undergo checks through the Criminal Records Bureau.

Selection Process

The selection process on behalf of employers may include initial assessment activity such as tests in basic numeracy, literacy, communication skills and spatial awareness. There may also be an interview to ensure potential apprentices have selected the right occupational sector to meet their needs and expectations and those of their employer, as undertaking an apprenticeship is a major commitment for both the individual and the employer.

Rules to avoid the need to repeat qualifications

To avoid the need to repeat qualifications, processes exist to ensure applicants with prior knowledge, qualifications and/or experience are not disadvantaged. Colleges, Training Providers and Awarding Organisations will be able to advise applicants on the current rules for accrediting prior learning (APL) and experience. There are no relaxations or proxies for any qualifications specified in this framework, however, providers are encouraged to identify additional on-the-job training programmes that customise the learning to the new workplace.

Essential Skills Qualifications

Apprentices must undertake the required mandatory ESQ in Communication Skills and Application of Number Skills at Level 2, although the industry via the OLEC partners have indicated that ICT/Digital Literacy is not required for this job role.

Essential Skills Wales or ESQ qualifications achieved in the context of the Welsh Baccalaureate Qualification (WBQ) or GCSEs with ESQ can be accepted.

Knowledge qualifications

If applicants already have one of the knowledge qualifications or individual units at Level 3 (see knowledge qualifications page) before starting their apprenticeship, they may count this and will not have to repeat the qualification providing they have achieved this qualification within five years of starting their apprenticeship. For example, they may have already achieved the knowledge element as part of the Welsh Baccalaureate. Furthermore the hours that were spent gaining the qualification may be counted towards the total hours for the apprenticeship. The Welsh Baccalaureate with its Core programme of personal learning and development studies along with options such as NVQs, Vocational Qualifications and Principal Learning (Engineering World, Discovering Engineering Technology and Engineering the Future) could provide significant opportunities for accreditation of Prior Learning against the components of this framework. The same processes can be applied to GCSEs. Training providers/colleges should be able to advise entrants on the potential reduction in programme duration that could result from accrediting previous qualifications and experience.

Competence qualifications

If applicants already have one of the competence qualifications at Level 3 (see competence qualifications page) before starting their apprenticeship, they may count this and will not have to repeat the qualification providing they have achieved this qualification within five years of starting their apprenticeship. It is important however that there is agreement between the employer and the apprentice that the applicant is currently competent. As is the case with the knowledge element above the hours that were spent gaining the competence qualification may be counted towards the total hours for the apprenticeship.

Prior experience in the sector

Applicants that are already working in the sector or who have recently worked in the sector at the appropriate level can apply to have their experience formally recognised by an Awarding Organisation and this could count towards the qualification(s) in this framework.

APPRENTICESHIP PATHWAY LEARNING PROGRAMME(S)

Level 2: Pathway 1 – Track Maintenance

Qualifications

Participants must achieve one of the following *competence and knowledge* or one of the *combined qualification(s)* below. (*delete competence & knowledge or combined if not applicable*)

| Level 2 – NVQ Diploma in Rail Engineering Track Maintenance | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/0198/2 | 37 | 370 | Competence | English Only |
| City & Guilds | 600/1076/9 | 37 | 370 | Competence | English Only |

| Level 2 – Certificate in Rail Engineering Underpinning Knowledge | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/0160/X | 28 | 280 | Knowledge | English Only |

| Level 2 – Certificate in Rail Engineering Underpinning Knowledge | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| City & Guilds | 501/2174/1 | 28 | 280 | Knowledge | English Only |

Essential Skills Wales (ESW)

Essential Skills Wales qualifications assessment languages are English-Welsh

| Level 2: (Track Maintenance) | Level | Minimum Credit Value |
|------------------------------|-------|----------------------|
| Communication | 1 | 6 |
| Application of Number | 1 | 6 |
| Digital Literacy | N/A | N/A |

On/Off the Job Training

| Pathway | Minimum On the Job Training Hours | Minimum Off the Job Training Hours |
|------------------------------|-----------------------------------|------------------------------------|
| Level 2: (Track Maintenance) | 179 | 270 |

On/Off the Job Qualification details (Minimum Credit & Hours)

Competence qualification - 37 credits & Knowledge qualification - 28 credits

The total amount of training hours - which includes both on and off-the-job learning for this Pathway is 449 training hours.

On/Off the Job Essential Skills details (Minimum Credit & Hours)

- 6 credits / 45 GLH Level 1 Essential Skills Wales Communication
- 6 credits / 45 GLH Level 1 Essential Skills Wales Application of Number

Level 3: Pathway 1 - Signalling

Qualifications

Participants must achieve one of the following *competence and knowledge* qualifications below.

| <i>Level 3 – NVQ Diploma in Rail Engineering Signalling Maintainer and Fault Finder</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/0246/9 | 42 | 420 | Competence | English Only |
| City & Guilds | 600/1491/X | 42 | 420 | Competence | English Only |

| <i>Level 3 - NVQ Diploma in Rail Engineering Signalling Installer</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/3865/8 | 37 | 370 | Competence | English Only |

| <i>Level 3 – NVQ Certificate in Rail Engineering Signalling Functional Tester</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/3855/5 | 29 | 290 | Competence | English Only |

| <i>Level 3 - NVQ Certificate in Rail Engineering Signalling Installer</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/3839/7 | 15 | 150 | Competence | English Only |

| <i>Level 3 – Diploma in Engineering</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| City & Guilds | 600/0882/9 | 54 | 540 | Knowledge | English Only |

| <i>Level 3 – BTEC Diploma in Rail Engineering Technician Knowledge</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| Pearson | 603/2537/9 | | 552 | Knowledge | English Only |

| <i>Level 3 – Diploma in Installation and Maintenance of Engineering Assets</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/0161/1 | 46 | 460 | Knowledge | English Only |

| <i>Level 3 – Diploma in Engineering Technology</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 501/1130/9 | 78 | 780 | Knowledge | English Only |

| <i>Level 3 – Subsidiary Diploma in Engineering Technologies</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/5799/9 | 48 | 480 | Knowledge | English Only |

| <i>Level 3 – Diploma in Engineering Technologies</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/5801/3 | 68 | 680 | Knowledge | English Only |

| <i>Level 3 – Extended Diploma in Engineering Technologies</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/5802/5 | 98 | 980 | Knowledge | English Only |

Essential Skills Wales (ESW)

Essential Skills Wales qualifications assessment languages are English-Welsh

| Level 3: <i>Signalling</i> | Level | Minimum Credit Value |
|----------------------------|-------|----------------------|
| Communication | 2 | 6 |
| Application of Number | 2 | 6 |
| Digital Literacy | N/A | N/A |

On/Off the Job Training

| Pathway | Minimum On the Job Training Hours | Minimum Off the Job Training Hours |
|----------------------------|-----------------------------------|------------------------------------|
| Level 3: <i>Signalling</i> | 102 | 470 |

On/Off the Job Qualification details (Minimum Credit & Hours)

Competence qualification - 15 credits & Knowledge qualification - 46 credits

The total amount of training hours - which includes both on and off-the-job learning for this Pathway is 572 training hours.

On/Off the Job Essential Skills details (Minimum Credit & Hours)

- 6 credits / 60 GLH Level 2 Essential Skills Wales Communication
- 6 credits / 60 GLH Level 2 Essential Skills Wales Application of Number

Level 3: Pathway 2 - Track

Qualifications

Participants must achieve one of the following *competence and knowledge* or one of the *combined* qualifications below. (*delete competence & knowledge or combined if not applicable*)

| <i>Level 3 – NVQ Diploma in Rail Engineering Track Maintenance</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/0196/9 | 37 | 370 | Competence | English Only |

| <i>Level 3 – Diploma in Engineering</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| City & Guilds | 600/0882/9 | 54 | 540 | Knowledge | English Only |

| <i>Level 3 – BTEC Diploma in Rail Engineering Technician Knowledge</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| Pearson | 603/2537/9 | | 552 | Knowledge | English Only |

| <i>Level 3 – Diploma in Installation and Maintenance of Engineering Assets</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/0161/1 | 46 | 460 | Knowledge | English Only |

| <i>Level 3 – Diploma in Engineering Technology</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 501/1130/9 | 78 | 780 | Knowledge | English Only |

| <i>Level 3 – Subsidiary Diploma in Engineering Technologies</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/5799/9 | 48 | 480 | Knowledge | English Only |

| <i>Level 3 – Diploma in Engineering Technologies</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/5801/3 | 68 | 680 | Knowledge | English Only |

| <i>Level 3 – Extended Diploma in Engineering Technologies</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/5802/5 | 98 | 980 | Knowledge | English Only |

Essential Skills Wales (ESW)

Essential Skills Wales qualifications assessment languages are English-Welsh

| Level 3: <i>(insert Pathway title)</i> | Level | Minimum Credit Value |
|--|-------|----------------------|
| Communication | 2 | 6 |
| Application of Number | 2 | 6 |
| Digital Literacy | N/A | N/A |

On/Off the Job Training

| Pathway | Minimum On the Job Training Hours | Minimum Off the Job Training Hours |
|----------------|-----------------------------------|------------------------------------|
| Level 3: Track | 167 | 470 |

On/Off the Job Qualification details (Minimum Credit & Hours)

Competence qualification - 37 credits & Knowledge qualification - 46 credits

The total amount of training hours - which includes both on and off-the-job learning for this Pathway is 637 training hours.

On/Off the Job Essential Skills details (Minimum Credit & Hours)

- 6 credits / 60 GLH Level 2 Essential Skills Wales Communication
- 6 credits / 60 GLH Level 2 Essential Skills Wales Application of Number

Level 3: Pathway 3 - Telecoms

Qualifications

Participants must achieve one of the following *competence and knowledge* qualifications below.

| <i>Level 3 - NVQ Diploma in Rail Engineering Telecoms Installer</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/3838/5 | 37 | 370 | Competence | English Only |

| <i>Level 3 - NVQ Certificate in Rail Engineering Telecoms Installer</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/3837/3 | 20 | 200 | Competence | English Only |

| <i>Level 3 - Diploma in Engineering</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| City & Guilds | 600/0882/9 | 54 | 540 | Knowledge | English Only |

| <i>Level 3 - BTEC Diploma in Rail Engineering Technician Knowledge</i> | | | | | |
|--|--|--|--|--|--|
|--|--|--|--|--|--|

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Pearson | 603/2537/9 | | 552 | Knowledge | English Only |

Level 3 – Diploma in Installation and Maintenance of Engineering Assets

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/0161/1 | 46 | 460 | Knowledge | English Only |

Level 3 – Diploma in Engineering Technology

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 501/1130/9 | 78 | 780 | Knowledge | English Only |

Level 3 – Subsidiary Diploma in Engineering Technologies

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/5799/9 | 48 | 480 | Knowledge | English Only |

Level 3 – Diploma in Engineering Technologies

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/5801/3 | 68 | 680 | Knowledge | English Only |

Level 3 – Extended Diploma in Engineering Technologies

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/5802/5 | 98 | 980 | Knowledge | English Only |

Essential Skills Wales (ESW)

Essential Skills Wales qualifications assessment languages are English-Welsh

| Level 3: (insert Pathway title) | Level | Minimum Credit Value |
|---------------------------------|-------|----------------------|
| Communication | 2 | 6 |
| Application of Number | 2 | 6 |

On/Off the Job Training

| Pathway | Minimum On the Job Training Hours | Minimum Off the Job Training Hours |
|-------------------|-----------------------------------|------------------------------------|
| Level 3: Telecoms | 130 | 470 |

On/Off the Job Qualification details (Minimum Credit & Hours)

Competence qualification - 20 credits & Knowledge qualification - 46 credits

The total amount of training hours - which includes both on and off-the-job learning for this Pathway is 600 training hours.

On/Off the Job Essential Skills details (Minimum Credit & Hours)

- 6 credits / 60 GLH Level 2 Essential Skills Wales Communication
- 6 credits / 60 GLH Level 2 Essential Skills Wales Application of Number

Level 3: Pathway 4 - Electrification

Qualifications

Participants must achieve one of the following *competence and* qualifications below.

| <i>Level 3 - NVQ Certificate in Rail Engineering Electrification Maintenance</i> | | | | | |
|--|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/0197/0 | 22 | 220 | Competence | English Only |

| <i>Level 3 - NVQ Certificate in Rail Engineering Electrification Construction</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| EAL | 601/3880/4 | 31 | 310 | Competence | English Only |

| <i>Level 3 - Diploma in Engineering</i> | | | | | |
|---|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
| City & Guilds | 600/0882/9 | 54 | 540 | Knowledge | English Only |

| <i>Level 3 - BTEC Diploma in Rail Engineering Technician Knowledge</i> | | | | | |
|--|--|--|--|--|--|
|--|--|--|--|--|--|

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| Pearson | 603/2537/9 | | 552 | Knowledge | English Only |

Level 3 – Diploma in Installation and Maintenance of Engineering Assets

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/0161/1 | 46 | 460 | Knowledge | English Only |

Level 3 – Diploma in Engineering Technology

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 501/1130/9 | 78 | 780 | Knowledge | English Only |

Level 3 – Subsidiary Diploma in Engineering Technologies

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/5799/9 | 48 | 480 | Knowledge | English Only |

Level 3 – Diploma in Engineering Technologies

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/5801/3 | 68 | 680 | Knowledge | English Only |

Level 3 – Extended Diploma in Engineering Technologies

| Awarding Body | Qualification No. | Credit Value | Total Qualification Time | Competence / Knowledge / Combined | Qualification Assessment Language(s) |
|---------------|-------------------|--------------|--------------------------|-----------------------------------|--------------------------------------|
| EAL | 601/5802/5 | 98 | 980 | Knowledge | English Only |

Essential Skills Wales (ESW)

Essential Skills Wales qualifications assessment languages are English-Welsh

| Level 3: <i>(insert Pathway title)</i> | Level | Minimum Credit Value |
|--|-------|----------------------|
| Communication | 2 | 6 |
| Application of Number | 2 | 6 |

On/Off the Job Training

| Pathway | Minimum On the Job Training Hours | Minimum Off the Job Training Hours |
|--------------------------|-----------------------------------|------------------------------------|
| Level 3: Electrification | 164 | 470 |

On/Off the Job Qualification details (Minimum Credit & Hours)

Competence qualification - 22 credits & Knowledge qualification - 46 credits

The total amount of training hours - which includes both on and off-the-job learning for this Pathway is 634 training hours.

On/Off the Job Essential Skills details (Minimum Credit & Hours)

- 6 credits / 60 GLH Level 2 Essential Skills Wales Communication
- 6 credits / 60 GLH Level 2 Essential Skills Wales Application of Number
-

JOB ROLES

The latest version of the job roles and job descriptions for this Pathway can be found [here](#)

PROGRESSION

Level 2:

Progression routes into:

Entrants to the level 2 framework are likely to primarily be school leavers who have completed their GCSE or Welsh Baccalaureate studies, and in some cases relevant vocational activity such as a Pre-Apprenticeship programme or extended work experience.

More specifically they may:

- have previous employment or work experience in the rail sector or have completed a 14 to 19 Diploma in Engineering or
- have GCSE's in English, Maths and a Science (grade D to E or higher) or have a Welsh Baccalaureate or
- have completed an Enhanced Engineering Programme (formerly Pathways to Apprenticeship programme) or
- be keen and motivated to work in the rail engineering sector or be practically minded and want to work with their hands or
- be willing to undertake a course of training both on-the-job and off-the job and apply this learning in the workplace or
- have completed a Pre-Apprenticeship in Engineering or other related area or

- have completed the Essential Skills Wales (ESW) or Essential Skills Qualifications (ESQ) or have an interest in problem solving and organising activities or
- have completed tests in basic numeracy, literacy and communications skills and have spatial awareness.

Other entrants may have experience from working in the sector, and are now seeking to become qualified by undertaking an apprenticeship programme.

Particular interest would be shown to those applicants who have had previous work experience or employment in the rail sector.

Progression from:

On completion of the Level 2 Apprenticeship, individuals may continue working as Track Operatives or can go on to become team leaders and supervisors. Alternatively, completion of the Level 2 Apprenticeship in Rail Infrastructure (Track) may support progression onto the Level 3 Apprenticeship in Rail Infrastructure.

Level 3:

Progression routes into:

Entrants to the level 3 framework are likely to primarily be school leavers who have completed their GCSE or Welsh Baccalaureate studies and in some cases relevant vocational activity such as Pre-Apprenticeship programme or extended work experience. More specifically they may:

- have GCSEs in English, Maths and a Science - grade C or above or have a Welsh Baccalaureate or
- have a 14-19 Diploma in Engineering or
- have A or AS levels in Science, Technology, Engineering or Mathematics subjects or have completed a Foundation level apprenticeship in Rail Infrastructure Engineering or have previous work experience or employment in the Rail or Engineering sector or
- be willing to undertake a course of training both on-the-job and off-the-job and apply this learning in the workplace and
- be keen and motivated to work in a rail engineering environment

Other entrants may have experience from working in the sector, and are now seeking to become qualified by undertaking an apprenticeship programme.

Particular interest would be shown to those applicants who have had previous work experience or employment in the rail sector.

Progression from:

While significant numbers of Apprentices will seek internal progression to team leader or supervisory roles or follow a route into a senior technical role within their companies, some will want to progress to a Higher Apprenticeship in Engineering (Rail Pathway) and others may decide to opt for a Foundation Degree in Railway Engineering or HNC/HND. More generally, most ex-apprentices aspire to a combination of internal promotion while at the same time undertaking company sponsored qualifications as specified above.

EQUALITY & DIVERSITY

It is important that apprenticeship Pathways are inclusive and can demonstrate an active approach to identifying and removing barriers to entry and progression. Pathways should

advance equality of opportunity between persons who share protected characteristics and those persons who do not as identified in the Equality Act 2010.

The protected characteristics identified in the Equality Act are age, disability, gender re-assignment, race, religion or belief, sex, sexual orientation. Marriage and civil partnership is also included although only in respect of the requirement to eliminate discrimination in employment.

Training providers and employers MUST also comply with the other duty under the Equality Act 2010 to ensure that applicants are not discriminated against in terms of entry to the industry based upon those nine protected characteristics.

Apprenticeship frameworks should promote equality of access for those with a protected characteristic. Specifically, a framework should include a statement setting out:

- *Whether and where there is under-representation within the occupational area;*
- *The barriers to entry and progression for individuals within these groups; and*
- *What action has been taken to remove these barriers or to justify them objectively for the skill, trade or occupation.*

Within the rail engineering industry, only about 4.4% of the workforce are women. The percentage of the workforce that is ethnic minority is also lower than the national average, at 5%.

Enginuity recognises the training and business benefits of having apprentices from a wide variety of diverse backgrounds. We are committed to ensuring equality and diversity drives all aspects of apprentice selection and recruitment. Equal opportunity and diversity refers to the active elimination of unlawful or unfair discrimination against any person or group on the grounds of gender, race, colour, nationality, ethnic origin, religion, age, sexual orientation, marriage and civil partnership, pregnancy and maternity, political belief, disability and where appropriate, prison/offender background where this is deemed irrelevant.

Despite the encouraging numbers of both female participants and ethnic minorities on the 14 to 19 Engineering and Manufacturing Diplomas and Young Apprenticeship programmes, the Engineering sector still has a significant way to go to encourage women into engineering and manufacturing careers.

Enginuity wishes to make a Gender Equality Commitment. Enginuity has signed the United Kingdom Resource Centre (UKRC) CEO's charter in a bid to step up female recruitment in its key sectors and programmes. Due to impending skills gaps it is estimated that 204,000 people will be required to be recruited and trained between 2010-2016 within Enginuity's sectors of Rail (18,700) aerospace, automotive, composites, electrical, electronics, maintenance, marine, mathematics, metals and engineered metal products, renewables and science.

The UKRC is the Government's leading body for advanced gender equality in science, engineering and technology (SET) and the CEO's charter is a formal commitment to the UKRC's agenda to challenge the under-representation of women in SET. Women make up 50% of the labour market, yet they make up less than 20% of the labour market in science, engineering and technology.

The UKRC believes that only a concerted effort by the SET industry will break down the gender barriers that exist in traditionally male-dominated environments and we want to be part of a new consensus which will create an inclusive working environment for women. The manufacturing industries in which this framework operates are traditionally dominated by a white, male workforce. However, faced with an ageing workforce and the probability of skill shortages we must look to attract new entrants from a much more

diverse recruitment pool. This means that all young people and adults considering engineering and manufacturing as a career are welcome. Providers of apprenticeship training including employers must be able to demonstrate that there are no overt or covert discriminatory practices in the selection and employment of apprentices. This can be demonstrated by implementing a Single Equality Scheme (SES). The new Equality Duty (part of the Single Equality Bill) introduced to the public sector requires all public sector bodies to produce a SES combining their current race, disability and gender schemes and should be recognised by all providers of apprenticeship training. The implementation of a SES demonstrates the organisation's commitment to equality and diversity by identifying new and improved ways of working to ensure the organisation is more efficient and effective in meeting the diverse needs of both staff and customers.

All those who recruit apprentices, be they colleges, training providers or employers, must comply with the Equality act of 2010 and apply the Equality and Diversity legislation taking full account of the following:

- The Sex Discrimination Act 1975 and Code of Practice
- The Race Relations Act 1976 and Code of Practice
- The Disability Discrimination Act 1995 and Code of Practice
- Employment Equality (Religion or Belief) Regulations 2003
- Employment Equality (Sexual Orientation) Regulations 2003
- Employment Equality (Age) Regulations 2006
- The Equality Act 2010

Providers of apprenticeship training and employers must also actively monitor equality of opportunity and diversity procedures and take positive action where necessary to ensure equal access and treatment for all. Apprenticeships must be seen as a vital route to encourage and facilitate long term change in the equality and diversity of the engineering industry, therefore entry conditions into this framework are extremely flexible. All effort should be made to increase the diversity of our apprentice population.

EMPLOYMENT RESPONSIBILITIES AND RIGHTS (ERR)

Employment Responsibilities and Rights (ERR) is no longer compulsory. But it is recommended that all apprentices (especially the 16 years -18 year group) receive a company induction programme.

RESPONSIBILITIES

It is the responsibility of the Training Provider and Employer to ensure that the requirements of this pathway are delivered in accordance with the Welsh Government Apprenticeships Guidance.

Further information may be obtained from:

Welsh Government
DfES-ApprenticeshipUnit@gov.wales