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Llywodraeth Cymru
Welsh Government

1203 Welsh Apprenticeship Pathway

in

Rail Infrastructure Engineering

The content of these Pathways have been agreed by ENGINUITY. These are the only apprenticeship Pathways in the Engineering sector approved for use in Wales that are eligible for Welsh Government funding.

More Information can be obtained from:

FEAD DfES • Ty Afon
Bedwas Rd • Bedwas
Cf838WT

DfES-ApprenticeshipUnit@gov.wales
Gwefan • website: www.llyw.cymru
www.gov.wales

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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: Track Maintenance is 77 credits.

Level 3: Signalling is 73 credits.

Level 3: Track is 95 credits.

ENTRY REQUIREMENTS

General Entry Requirements

Entrants to this pathway 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.

Prior Experience

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

Additional Learning Needs

ENGINUITY as the certifying authority are willing to accept a lower level of essential skills achievement on completion of all other elements of the apprenticeships for learners who

can evidence disability. This would include either a previously issued statement of Special Educational Needs (SEN) or an Education, Health Care Plan (EHC).

It is expected that these learners would benefit from additional support through Individual Development Plans or Learning and Skills Plans developed and agreed with the employer and provider. The employer and provider must reasonably expect that the apprentice will be able to successfully achieve all other aspects of the apprenticeship requirements to become occupationally competent.

Evidence of SEN statements or EHC plans will need to be submitted when applications for completion certificates are made.

Level 2: Track Maintenance

There are no additional requirements other than the general entry conditions

Level 3: Signalling/Track

There are no additional requirements other than the general entry conditions

APPRENTICESHIP PATHWAY LEARNING PROGRAMME(S)

Level 2: Track Maintenance

Qualifications

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

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	C00/0565/7	37	370	Competence	English Only

Level 2 Diploma in Rail Engineering Operative Competence					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
City & Guilds	C00/1852/9	36	360	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	C00/0565/1	28	280	Knowledge	English Only

Level 2 Diploma in Rail Engineering Underpinning Knowledge					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
City & Guilds	C00/1852/6	30	300	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

Programme	Minimum On the Job Training Hours	Minimum Off the Job Training Hours
Level 2: Track Maintenance	198	466

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

64 credits for competence and knowledge

The total amount of learning hours which includes both on and off-the-job training for the Track Maintenance Foundation Apprenticeship is 664.

Competence: 198

Knowledge: 280

ESW: 120 (2 x 60)

Mentoring: 66 (66 x 1 hour per week)

Programme duration approximately 18 months depending on the qualification and unit options selected

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

- 6 credits / 60 GLH Level 1 Essential Skills Wales Communication
- 6 credits / 60 GLH Level 1 Essential Skills Wales Application of Number

Level 3: Signalling

Qualifications

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

Level 3 NVQ Diploma in Rail Engineering Signaling Maintainer and Fault Finder					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
CG	C00/0344/5	42	420	Competence	English Only

Level 3 Diploma in Rail Engineering Technician Competence					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
EAL	C00/2239/6	55	550	Competence	English Only

Level 3 Diploma in Rail Engineering Technician Competence					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
City & Guilds	C00/1851/1	55	550	Competence	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	C00/0717/8	68	680	Knowledge	English Only

Level 3 Diploma in Rail Engineering Technician Knowledge					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
EAL	C00/2239/7	60	600	Knowledge	English Only

Level 3 Diploma in Rail Engineering Technician Knowledge					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
City & Guilds	C00/1851/0	60	600	Knowledge	English Only

Level 3 Diploma in Rail Engineering Technician Knowledge					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
Pearson	C00/2964/0	55	552	Knowledge	English Only

Essential Skills Wales (ESW)

Essential Skills Wales qualifications assessment languages are English-Welsh

Level 3: Signalling	Level	Minimum Credit Value
Communication	2	6
Application of Number	2	6
Digital Literacy	N/A	N/A

On/Off the Job Training

Programme	Minimum On the Job Training Hours	Minimum Off the Job Training Hours
Level 3: Signalling	212	546

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

97 credits for competence and knowledge

The total amount of learning hours which includes both on and off-the-job training for the Signalling Apprenticeship is 758.

Competence: 212

Knowledge: 360

ESW: 120 (2 x 60)

Mentoring: 132 (132 x 1 hour per week)

Programme duration approximately 36 months depending on the qualification and unit options selected

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: Track

Qualifications

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

Level 3 NVQ Diploma in Rail Engineering Track Maintenance					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
EAL	C00/0565/6	37	370	Competence	English Only

Level 3 Diploma in Rail Engineering Technician Competence					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
EAL	C00/2239/6	55	550	Competence	English Only

Level 3 Diploma in Rail Engineering Technician Competence					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
City & Guilds	C00/1851/1	55	550	Competence	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	C00/0717/8	68	680	Knowledge	English Only

Level 3 Diploma in Rail Engineering Technician Knowledge					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
EAL	C00/2239/7	60	600	Knowledge	English Only

Level 3 Diploma in Rail Engineering Technician Knowledge					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
City & Guilds	C00/1851/0	60	600	Knowledge	English Only

Level 3 Diploma in Rail Engineering Technician Knowledge					
Awarding Body	Qualification No.	Credit Value	Total Qualification Time	Competence / Knowledge / Combined	Qualification Assessment Language(s)
Pearson	C00/2964/0	55	552	Knowledge	English Only

Essential Skills Wales (ESW)

Essential Skills Wales qualifications assessment languages are English-Welsh

Level 3: Track	Level	Minimum Credit Value
Communication	2	6
Application of Number	2	6
Digital Literacy	N/A	N/A

On/Off the Job Training

Programme	Minimum On the Job Training Hours	Minimum Off the Job Training Hours
Level 3: Track	165	546

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

97 credits for competence and knowledge

The total amount of learning hours which includes both on and off-the-job training for the Track Apprenticeship is 711.

Competence: 165

Knowledge: 360

ESW: 120 (2 x 60)

Mentoring: 132 (132 x 1 hour per week)

Programme duration approximately 36 months depending on the qualification and unit options selected

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

OTHER ADDITIONAL REQUIREMENTS

N/A

JOB ROLES

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

PROGRESSION

Progression from Level 2 - Track Maintenance

On completion of the Foundation Apprenticeship, individuals may continue working as Track Operatives or can go on to become team leaders and supervisors.

Alternatively completion of the Level 2 Foundation Apprenticeship in Rail Infrastructure (Track) may support progression onto the Level 3 Apprenticeship in Rail Infrastructure.

Progression from Level 3 - Signalling/Track

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, pregnancy and maternity. 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.

Within the rail engineering industry, only about 4.4% of the workforce are women. The percentage of the workforce that is Black Asian and Minority Ethnic 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.

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 pathway 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 pathway 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