

# apprenticeship FRAMEWORK

## IT, Software, Web & Telecoms Professionals (Wales)

### IMPORTANT NOTIFICATION FOR ALL APPRENTICESHIP STARTS FROM 14 OCTOBER 2016

Modifications to SASW came into effect on 14 October 2016. These changes relate to the **Essential Skills and Employer Rights and Responsibilities** requirements of a framework and they **ONLY** apply to new Apprenticeship starts on, or after, 14th October. Apprenticeship starts before this date must continue to meet the 2013 SASW requirements for Essential Skills and Employer Rights and Responsibilities.

For more details of the changes and how they will affect new apprenticeship starts, please read the following preface page to the framework document. NB: Please check the "Revising a Framework" section for information on any additional changes that may have been made to this framework.

### Latest framework version?

Please use this link to see if this is the latest issued version of this framework:

[afo.sscalliance.org/frameworkslibrary/index.cfm?id=FR04116](http://afo.sscalliance.org/frameworkslibrary/index.cfm?id=FR04116)

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# CHANGES TO REQUIREMENTS FOR APPRENTICESHIP STARTS FROM 14TH OCTOBER 2016

These changes relate to the Essential Skills and Employer Rights and Responsibilities requirements of a framework and they ONLY apply to new Apprenticeship starts on, or after, 14th October 2016. Apprenticeship starts before this date must continue to meet the 2013 SASW requirements for Essential Skills and Employer Rights and Responsibilities.

## Alternatives for Essential Skill qualifications

**Foundation apprenticeships (Level 2):** Where Essential Skills qualifications are specified in a foundation apprenticeship framework (Level 2), the apprenticeship framework must specify as a Welsh certificate requirement, the acceptance of one of the following recognised proxy qualifications.

For Communication:

- a. GCSE or iGCSE qualification in English language or literature to at least grade G (Level 1 equivalent); or
- b. O Level qualification in English language or literature to at least grade E; or
- c. A/AS Level qualification in English language or literature to at least grade E; or
- d. SCQF Level 4 – Communication Core Skills (Oral communication and written communication); or
- e. SQA National 4 English; or
- f. Functional Skills or Key Skills literacy qualifications in English provided the proxy qualification(s) attained are at Level 1 or above.

For Application of Number:

- a. GCSE or iGCSE qualification in Mathematics to at least grade G (Level 1 equivalent); or
- b. O Level qualification in Mathematics to at least grade E; or
- c. A/AS Level qualification in Mathematics to at least grade E; or
- d. SCQF Level 4 – Numeracy Core Skill (Graphical Information and using number); or
- e. SQA National 4 Mathematics ; or
- f. Functional Skills or Key Skills numeracy qualifications in Mathematics provided the proxy qualification(s) attained are at Level 1 or above.

**Apprenticeships (Level 3):** Where Essential Skills qualifications are specified in an apprenticeship framework (Level 3), the apprenticeship framework must specify as a Welsh certificate requirement, the acceptance of one of the following recognised proxy qualifications.

For Communication:

- a. GCSE or iGCSE qualification in English language or literature to at least grade C (Level 2 equivalent); or
- b. O Level Qualification in English language or literature to at least grade C; or
- c. A/AS Level qualification in English or literature to at least grade E; or
- d. SCQF Level 5 – Communication Core Skills (Oral communication and written communication); or
- e. SQA National 5 English; or
- f. Functional Skills or Key Skills literacy qualifications in English provided the proxy qualification(s) attained is at Level 2 or above.

For Application of Number:

- a. GCSE or iGCSE qualification in Mathematics to at least grade C (Level 2 equivalent); or
- b. O Level Qualification in Mathematics to at least grade C; or
- c. A/AS Level qualification in Mathematics to at least grade E; or
- d. SCQF Level 5 – Numeracy Core Skill (Graphical information and using number); or
- e. SQA National 5 Mathematics; or
- f. Functional Skills or Key Skills numeracy qualifications in Mathematics provided the proxy qualification(s) attained are at Level 2 or above.

**Higher Apprenticeships (Levels 4-7):** Essential Skills requirements are as for an apprenticeship frameworks at Level 3.

# CHANGES TO REQUIREMENTS FOR APPRENTICESHIP STARTS FROM 14TH OCTOBER 2016

## Employer Rights and Responsibilities (ERR)

The final modification to SASW is to Employer Rights and Responsibilities (ERR) which is no longer compulsory in frameworks. Please refer to the Employer Rights and Responsibilities section within the framework document to confirm specific requirements.

## Additional Information

It should be noted that SASW has also been modified to reflect existing improvements to Essential Skills Wales Qualifications. These improvements to ESW qualifications were signalled by the revised names:

- Essential Skills Wales Communication is now Essential Communication Skills (still 6 credits in size)
- Essential Skills Wales Application of Number Skills is now Essential Application of Number Skills (still 6 credits in size)
- Essential Skills Wales Information Communication Technology Skills is now Essential Digital Literacy Skills (still 6 credits in size)

Whilst there have been some amendments to the content of ESW qualifications, the most significant change has been to the assessment methodology for these qualifications.

From 1 January 2016, all new starts have had to follow the revised Essential Skill qualifications.

The updated version of SASW, and guidance documents, can be accessed here:

<http://gov.wales/topics/educationandskills/skillsandtraining/apprenticeships/providers/?lang=en&dgd>

Over the coming months, the Essential Skills section within AFO will be amended to reflect the SASW modifications and all current frameworks will be updated and reissued to incorporate these changes. In the meantime, if you are in any doubt as to the requirements of any framework then please contact the relevant Issuing Authority.

# IT, Software, Web & Telecoms Professionals (Wales)

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# Framework summary

## IT, Software, Web & Telecoms Professionals

### Foundation Apprenticeship for IT, Software, Web & Telecoms Professionals

#### Pathways for this framework at level 2 include:

##### Pathway 1: IT, Software, Web & Telecoms Professionals

###### Competence qualifications available to this pathway:

C1 - Level 2 Diploma in Professional Competence for IT & Telecoms Professionals

###### Knowledge qualifications available to this pathway:

K1 - Level 2 Award in ICT Systems and Principles

K2 - Level 2 Diploma in IT

K3 - Level 2 Extended Certificate in IT

K4 - Level 2 Certificate in ICT Systems Support

K5 - Level 2 Diploma in ICT Systems Support

K6 - Level 2 Diploma in ICT Systems and Principles

K7 - Level 2 Certificate in ICT Systems and Principles for Bowman Operator Apprentices

K8 - Level certificate in ICT Systems and Principles

K9 - Level 2 Award for Digital Home Technology Integrators

K10 - Level 2 Certificate for Digital Home Technology Integrators

###### Combined qualifications available to this pathway:

N/A

###### This pathway also contains information on:

- Employee rights and responsibilities
- Essential skills

## IT, Software, Web & Telecoms Professionals

### Apprenticeship for IT, Software, Web & Telecoms Professionals

#### Pathways for this framework at level 3 include:

##### Pathway 1: IT, Software, Web & Telecoms Professionals

###### Competence qualifications available to this pathway:

C1 - Level 3 Diploma in ICT Professional Competence

###### Knowledge qualifications available to this pathway:

K1 - Level 3 Diploma in ICT Systems and Principles

K2 - Level 3 Certificate in ICT Systems and Principles

K3 - Level 3 Certificate in ICT Systems and Principles for Advanced Bowman Apprentices

K4 - Level 3 Subsidiary Diploma in IT

K5 - BTEC National Diploma in IT

K6 - BTEC Extended Diploma in IT

K7 - Level 3 Extended Diploma in ICT Systems and Principles

K8 - Diploma in ICT Systems Support

K9 - Level 3 Award in ICT systems and principals for Professionals

**Combined qualifications available to this pathway:**

N/A

**This pathway also contains information on:**

- Employee rights and responsibilities
- Essential skills

## IT, Software, Web & Telecoms Professionals

### Higher Apprenticeship for IT, Software, Web & Telecoms Professionals

#### Pathways for this framework at level 4 include:

##### Pathway 1: IT, Software, Web & Telecoms Professionals

**Competence qualifications available to this pathway:**

C1 - Level 4 Diploma in Professional Competence for IT and Telecoms Professionals

**Knowledge qualifications available to this pathway:**

K1 - Foundation Degree in Computing, IT or Telecommunications

K2 - Level 4 Higher National Certificate in Computing and Systems Development

K3 - Level 5 Higher National Diploma in Computing and Systems Development

K4 - Diploma For ICT Professionals (Systems and Principles) (QCF)

K5 - Fd in Computer Science

K6 - HNC in Applied Computing

K7 - Higher National Certificate in Computing

K8 - Higher National Diploma in Computing

K9 - FdSc Computing (Networking) delivered by Grwp Llandrillo Menai.

**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:

### The Tech Partnership

The Apprenticeship sector for occupations in business and Information Technology.

Issue number: 11	<b>This framework includes:</b>  Level 2 Level 3 Level 4
Framework ID: FR04116	
Date this framework is to be reviewed by: 31/12/2017	
<b>This framework is for use in: Wales</b>	

## Short description

This Apprenticeship framework provides the skills, knowledge and competence required to become an IT, Software, Web or Telecoms Professional in a wide range of job roles such as:

- IT Technical Support
- Software Developer
- Web Developer
- Database Administrator
- Telecoms Engineer
- Network Planner

The Apprenticeship programme combines skills and knowledge with employment in an IT role, meaning that apprentices are paid throughout the programme. Apprentices can apply and improve their skills in the workplace to complement the instructor-led learning.

# Contact information

## Proposer of this framework

The Tech Partnership Joint Awarding Body Forum and ICT Skills Action Group

## Developer of this framework

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## Issuing Authority's contact details

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# Revising a framework

## Contact details

Who is making this revision: Ferooza Hussain  
Your organisation: The Tech Partnership  
Your email address: apprenticeships@thetechpartnership.com

## Why this framework is being revised

Addition of a new qualification

## Summary of changes made to this framework

Addition of FdSc Computing (Networking) awarded by Bangor University and delivered by Grwp Llandrillo Menai.

## Qualifications removed

N/A

## Qualifications added

Addition of FdSc Computing (Networking) awarded by Bangor University and delivered by Grwp Llandrillo Menai.

## Qualifications that have been extended

N/A

# Purpose of this framework

## Summary of the purpose of the framework

This Apprenticeship programme is designed for new entrants to a role in the IT & Telecoms sector, and to provide progression and re-skilling routes for existing IT Professionals.

Apprentices can work in areas such as:

- Software & Web Development
- Technical Support
- Telecommunications
- IT Project Management

## What is included in this Apprenticeship?

The apprenticeship is made up of qualifications and learning that will provide apprentices with the skills and knowledge required to become competent in their chosen job role.

The framework includes a balance of content in technical, business and interpersonal areas, designed to ensure apprentices have an appropriate set of skills to operate in today's IT & Telecoms job roles.

The technical content includes units for Software Development, Web Development, Technical Support, Telecommunications and Databases. In addition to generic units, the apprenticeship contains 'vendor' and industry recognised content from Microsoft, Cisco, Oracle, VM Ware and CompTIA.

## Aims and objectives of this framework (Wales)

### Who is this Apprenticeship for?

This Apprenticeship programme is designed for new entrants to a role in the IT & Telecoms sector. Apprentices can work in areas such as Software & Web Development, Technical Support, Telecommunications and IT Project Management.

### Why is this Apprenticeship important?

In 2012 e-skills UK, now the Tech Partnership, published Technology Insights – Wales, which summarised the findings of research to provide an in depth understanding of the existing IT & Telecoms landscape and forecasts of the future based on the best available intelligence, including new input from over 4,700 employers across the UK, of which 214 were in Wales

The research found that there is a need for 3,100 new entrants a year through to 2015 into IT & Telecoms professional occupations. Apprenticeship programmes provide a vital route to bring new entrants into this growing area.

The sector will require 600 new entrants each year from full-time education, but also 1,300 entrants per annum from roles in other sectors and 1,200 per annum from other sources (such as returners to work and unemployed), which could also be well suited to apprenticeship training.

The objective for this Apprenticeship framework is that it will enable at least 500 well-trained new entrants to join the sector over the next 5 years.

### **How is an apprenticeship delivered?**

An Apprenticeship programme is fundamentally designed to be a work-based programme, whereby instructor-led learning can be immediately applied by apprentices in a real work context.

The qualifications contained in the framework reflect the overall design of an apprenticeship. The mandatory units from the competence qualification must be assessed in the workplace, and wherever possible, it is recommended that optional units should also be assessed in this context.

The knowledge component will generally be taught in an off-the-job setting, and assessed using assignments or tests, in order to ensure the apprentice has gained the underpinning theory and principles required for the role.

# Entry conditions for this framework

There are no entry conditions for this Apprenticeship framework. However, many employers require good (A\*-C) GCSE passes in English and Maths in order to enter an Apprenticeship, and a Level 3 qualification (such as A Level, Welsh Baccaulaureate or BTEC National) in order to start the Higher Apprenticeship.

(nb For more detailed requirements on Apprenticeship and Higher Apprenticeship entry, please refer to later sections)

The majority of apprenticeship roles within the IT and Telecoms sector require:

- Individuals to be proactive, fast learners; able to work both in a team and sometimes alone
- The ability to focus on assisting customers and colleagues find solutions to problems
- The ability to work logically and methodically, often under pressure to set deadlines
- Good attention to detail and the ability to deliver what is required, when it is required
- Individuals to be open to change and focus on the requirements of the business at all times

Roles in areas, such as Software and Web Development would suit individuals who:

- Have an interest in design and creativity, with good attention to detail
- Have a mathematical or analytical mind
- Have good logical reasoning and problem solving skills

Roles in IT Services would suit individuals who:

- Are able to analyse and solve problems
- Have an interest in both hardware and software
- Enjoy working to deadlines and under pressure

Roles in Technical Sales and Consulting would suit individuals who:

- Have a broad knowledge of technology
- Have excellent interpersonal skills and are comfortable presenting to others

## Level 2

Title for this framework at level 2

# Foundation Apprenticeship for IT, Software, Web & Telecoms Professionals

### Pathways for this framework at level 2

Pathway 1: IT, Software, Web & Telecoms Professionals

## Level 2, Pathway 1: IT, Software, Web & Telecoms Professionals

### Description of this pathway

This pathway covers all job roles in the IT & Telecoms sector.

This framework requires a minimum of 78 credits.

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

There are no further entry requirements in addition to the general requirements.

Employers would also value achievement of the Level 2 Welsh Baccalaureate or one of the listed Knowledge Qualifications for this Foundation Apprenticeship framework. However, it is recognised that these are not available to all prospective apprentices, so this is not an entry requirement.

<b>Job title(s)</b>	<b>Job role(s)</b>
Support Technician	Setting up new equipment or upgrading existing systems
Website Administrator	Monitoring website content and editing and uploading material as required
Helpdesk Professional	Working with customers (primarily over the phone and via e-mail) to identify, troubleshoot and escalate IT faults
Field Operations (Line installer & repairer)	Travel to customer sites to install, connect, maintain, test and repair equipment and services

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 2 Diploma in Professional Competence for IT & Telecoms Professionals					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1290/9	Pearson Edexcel	48	360	N/A
C1b	501/1789/0	City & Guilds	48	270-355	N/A
C1c	501/0735/5	OCR	48	250-386	N/A
C1d	501/1686/1	Pearson EDI	48	220-345	N/A
C1e	601/6450/5	BIIAB	48	270-355	N/A

## Knowledge qualifications available to this pathway

K1 - Level 2 Award in ICT Systems and Principles					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	500/3475/3	City & Guilds	12	90-100	N/A
K1b	600/0785/0	OCR	12	70-105	N/A
K1c	601/6468/2	BIIAB	12	70-105	N/A



## Knowledge qualifications available to this pathway (cont.)

K2 - Level 2 Diploma in IT					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	500/9552/3	Pearson Edexcel	60	360	N/A

K3 - Level 2 Extended Certificate in IT					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	500/9550/X	Pearson Edexcel	30	180	N/A

K4 - Level 2 Certificate in ICT Systems Support					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	501/1623/X	City & Guilds	27	170-240	N/A

K5 - Level 2 Diploma in ICT Systems Support					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	501/1430/X	City & Guilds	37	250-275	N/A

## Knowledge qualifications available to this pathway (cont.)

K6 - Level 2 Diploma in ICT Systems and Principles					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	501/1137/1	City & Guilds	37	220-285	N/A
K6b	601/6469/4	BIIAB	37	214-295	N/A

K7 - Level 2 Certificate in ICT Systems and Principles for Bowman Operator Apprentices					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K7a	500/9703/9	City & Guilds	16	156	N/A

K8 - Level certificate in ICT Systems and Principles					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K8a	501/1381/1	Pearson Edexcel	13	120	N/A
K8b	600/2194/9	Pearson EDI	13	105-135	N/A
K8c	601/6470/0	BIIAB	24	135-193	N/A

## Knowledge qualifications available to this pathway (cont.)

K9 - Level 2 Award for Digital Home Technology Integrators					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K9a	600/3703/9	City & Guilds	12	100	N/A

K10 - Level 2 Certificate for Digital Home Technology Integrators					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K10a	500/6502/6	City & Guilds	16	130	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 - K10 provide underpinning knowledge and understanding for C1.

There are no restrictions on the use of knowledge qualifications. The competence qualification has been designed to be used with all of the knowledge included in the framework, as detailed in the Pathway Description section above.

Employers, apprentices and training providers should select the best knowledge qualifications based on the requirements of the apprentice's role. For example, some roles will require further theoretical or technical knowledge before an apprentice is able to take on the day-to-day requirement of the role.

# Transferable skills (Wales)

## Essential skills (Wales)

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

## Progression routes into and from this pathway

Typically an apprentice will enter the Foundation Apprenticeship directly from education or from an existing role in the sector.

While it is not mandatory for an apprentice to achieve a Foundation Apprenticeship prior to embarking upon the Apprenticeship programme, it may be beneficial in some cases to begin at Level 2 as some of the fundamentals of an IT business and core technical skills need to be learned at a basic level before more advanced IT skills and techniques can be effectively applied in the workplace.

Having completed a Level 2 Apprenticeship Framework, apprentices may then progress on to a Level 3 Apprenticeship – or continue to work and undertake a range of professional job-specific qualifications and training.

Some apprentices may elect to continue their technical studies and embark upon job-specific professional/vendor qualifications (for example: with Microsoft, Cisco, Oracle, VM Ware or CompTIA).

Progression on to the Level 3 and Level 4 Frameworks would be recommended to enable the achievement of further nationally recognised qualifications and technical training, whilst remaining in employment.

Alternatively, apprentices may elect to return to full-time education, and to complete A Levels, the Welsh Baccalaureate, BTECs or an equivalent qualification.

# Employee rights and responsibilities

To achieve the ERR national outcomes the apprentice must demonstrate that he/she:

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law. This should cover 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 must be 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. Details of Access to Work and Additional Learning Support must be included in the programme;
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 Employee Rights & Responsibilities must be formally assessed and verified through:

- Completing and assessing the Employment Rights and Responsibilities Portfolio, available at [www.thetechpartnership.com](http://www.thetechpartnership.com)
- Achievement of an accredited unit approved by the Tech Partnership as suitable for this purpose

In either case evidence of completion must be submitted when claiming the apprenticeship certificate.

## Level 3

Title for this framework at level 3

# Apprenticeship for IT, Software, Web & Telecoms Professionals

### Pathways for this framework at level 3

Pathway 1: IT, Software, Web & Telecoms Professionals

## Level 3, Pathway 1: IT, Software, Web & Telecoms Professionals

### Description of this pathway

This pathway covers all job roles in the IT & Telecoms sector.

This framework requires a minimum of 114 credits.

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

There are no formal additional requirements for Apprenticeships, but many employers will require 5 GCSEs (A\*-C) or an equivalent qualification when applying for the programme.

Employers would also value achievement of the Level 2 IT Diploma (for 14-19 year olds) or one of the listed Knowledge Qualifications for this Foundation Apprenticeship framework. However, it is recognised that these are not available to all prospective apprentices, so this is not an entry requirement.



<b>Job title(s)</b>	<b>Job role(s)</b>
Software/ Web Developer	Creating software applications and websites
Desktop Support Engineer	Installing and troubleshooting desktop PCs
Network Planner	Designing and planning the installation of IT and Telecoms networks
Database Administrator	Responsible for the maintenance and security of organisation's databases
Network Engineer	Maintaining company networks, including servers, software and security
Software Tester	Testing software applications before they are released

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 3 Diploma in ICT Professional Competence					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1291/0	Pearson Edexcel	72	540	N/A
C1b	501/1788/9	City & Guilds	72	525-565	N/A
C1c	501/1124/3	OCR	72	369-608	N/A
C1d	501/1875/4	Pearson EDI	72	421-513	N/A
C1e	601/6447/5	BIIAB	72	420-575	N/A

## Knowledge qualifications available to this pathway

K1 - Level 3 Diploma in ICT Systems and Principles					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	501/0277/1	City & Guilds	72	595-612	N/A
K1b	501/1435/9	Pearson Edexcel	37	320	N/A
K1c	601/6449/9	BIIAB	48	285-390	N/A

## Knowledge qualifications available to this pathway (cont.)

K2 - Level 3 Certificate in ICT Systems and Principles					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	500/3476/5	City & Guilds	24	160-170	N/A
K2b	501/1436/0	Pearson Edexcel	24	150-190	N/A
K2c	600/1317/5	OCR	24	150-190	N/A
K2d	600/2159/0	Pearson EDI	25	195-230	N/A
K2e	601/6461/X	BIIAB	24	150-190	N/A

K3 - Level 3 Certificate in ICT Systems and Principles for Advanced Bowman Apprentices					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	501/866/9	City & Guilds	24	190	N/A

K4 - Level 3 Subsidiary Diploma in IT					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	500/9147/5	Pearson Edexcel	60	360	40-140

## Knowledge qualifications available to this pathway (cont.)

K5 - BTEC National Diploma in IT					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	500/9150/5	Pearson Edexcel	120	720	80-280

  

K6 - BTEC Extended Diploma in IT					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	500/9149/9	Pearson Edexcel	180	1080	120-420

  

K7 - Level 3 Extended Diploma in ICT Systems and Principles					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K7a	600/1086/1	Pearson Edexcel	72	595	

  

K8 - Diploma in ICT Systems Support					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K8a	501/1585/6	City & Guilds	72	489-540	N/A

## Knowledge qualifications available to this pathway (cont.)

K9 - Level 3 Award in ICT systems and principals for Professionals					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K9a	601/6506/6	BIIAB	12	65-105	N/A

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

K1 - K8 provide underpinning knowledge and understanding for C1.

There are no restrictions on the use of knowledge qualifications. The competence qualification has been designed to be used with any of the knowledge qualifications included in the framework, as detailed in the Pathway Description section above.

Employers, apprentices and training providers should select the most appropriate knowledge qualification based on the requirements of the apprentice's role. For example, some roles will require further theoretical or technical knowledge before an apprentice is able to take on the day-to-day requirement of the role.

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Level 2	6

## Progression routes into and from this pathway

The Level 3 Apprenticeship programme offers successful apprentices the opportunity to further progress in their studies and go on to undertake a related IT degree programme. They could select from Bachelors degrees, Foundation degrees, Higher Nationals or another higher level qualification, in areas such as Computing, Business Information Systems, IT or Telecommunications. Apprentices may also elect to continue within their job role and pursue their learning by undertaking additional technical, business or managerial level training and qualifications.

Apprentices who have completed a Level 3 apprenticeship programme have often progressed within their career to take on team leader or senior level positions, utilising their expanding technical expertise – and guiding and training others within the organisation.

**UCAS points for this pathway: N/A**

# Employee rights and responsibilities

To achieve the ERR national outcomes the apprentice must demonstrate that he/she:

1. Knows and understands the range of employer and employee statutory rights and responsibilities under Employment Law. This should cover 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 must be 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. Details of Access to Work and Additional Learning Support must be included in the programme;
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 Employee Rights & Responsibilities must be formally assessed and verified through:

- Completing and assessing the Employment Rights and Responsibilities Portfolio, available at [www.thetechpartnership.com](http://www.thetechpartnership.com)
- Achievement of an accredited unit approved by the Tech Partnership as suitable for this purpose

In either case evidence of completion must be submitted when claiming the apprenticeship certificate.



## Level 4

Title for this framework at level 4

# Higher Apprenticeship for IT, Software, Web & Telecoms Professionals

### Pathways for this framework at level 4

Pathway 1: IT, Software, Web & Telecoms Professionals

## Level 4, Pathway 1: IT, Software, Web & Telecoms Professionals

### Description of this pathway

This pathway covers all job roles in the IT & Telecoms sector.

This framework requires a minimum of 218 credits.

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

In addition to the generic entry conditions, candidates wishing to enter a Higher Apprenticeship will need to have achieved one of the following:

- A Levels, or equivalent educational attainment, including the Level 3 IT Diploma, Welsh or International Baccalaureate or a relevant Level 3 Technical Certificate
- An Apprenticeship (Level 3)
- Employment within the technology/telecommunications industry for a number of years and demonstrated to their employer that they have a reasonable expectation of achieving the required outcomes of the Higher Apprenticeship. This can be supported by the demonstration or evidence of prior achievement or performance in the role prior to starting the Higher Apprenticeship.

Potential apprentices should bear in mind that a Higher Apprenticeship combines the challenges of higher-level education with full-time employment, and should be prepared for the greater volume and level of study than in the Apprenticeship or another Level 3 qualification.

<b>Job title(s)</b>	<b>Job role(s)</b>
IT Project Manager	Overseeing the development of computer systems to meet a client's business needs
Analyst Developer	Analysing user requirements; researching, designing and writing new software programs to meet customer needs
IT Service Manager	Managing the IT service function, planning workloads and maintaining quality
IT Security Analyst	Assessing risks to systems, and developing and designing security plans to minimise potential threats
Network/Telecoms Manager	Managing network growth and development and supervising technical staff

# Qualifications

## Competence qualifications available to this pathway

C1 - Level 4 Diploma in Professional Competence for IT and Telecoms Professionals					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
C1a	501/1787/7	City & Guilds	80	525-565	N/A
C1b	501/1292/2	Pearson Edexcel	80	600	N/A
C1c	601/6521/2	BIIAB	80	525-600	N/A

## Knowledge qualifications available to this pathway

K1 - Foundation Degree in Computing, IT or Telecommunications					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K1a	N/A	Higher Education Institution	240	960	N/A

K2 - Level 4 Higher National Certificate in Computing and Systems Development					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K2a	500/8254/1	Pearson Edexcel	120	480	N/A

## Knowledge qualifications available to this pathway (cont.)

K3 - Level 5 Higher National Diploma in Computing and Systems Development					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K3a	500/8253/X	Pearson Edexcel	240	960	N/A

K4 - Diploma For ICT Professionals (Systems and Principles) (QCF)					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K4a	600/6124/8	City & Guilds	120	525-725	N/A
K4b	601/6933/3	BIIAB	120	522-725	N/A

K5 - Fd in Computer Science					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K5a	nil	Swansea University	240	2400	

K6 - HNC in Applied Computing					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K6a	nil	UWTSD	120	600	N/A

## Knowledge qualifications available to this pathway (cont.)

K7 - Higher National Certificate in Computing					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K7a	603/0472/8	Pearson	120	480	N/A

K8 - Higher National Diploma in Computing					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K8a	603/0471/6	Pearson	240	960	N/A

K9 - FdSc Computing (Networking) delivered by Grwp Llandrillo Menai.					
No.	Ref no.	Awarding organisation	Credit value	Guided learning hours	UCAS points value
K9a	M649	Bangor University	240	960	n/a

## Combined qualifications available to this pathway

N/A

## Relationship between competence and knowledge qualifications

This pathway covers all job roles in the IT & Telecoms sector. The framework is designed in this way to provide maximum flexibility for employers and apprentices, due to the constantly changing job roles and technology requirements in the IT & Telecoms sector.

The Level 4 'Diploma in Professional Competence' contains a wide range of units that can be selected by employers, apprentices and training providers to match any of the job roles required in the sector.

The knowledge qualifications are designed to be suitable for all job roles, and should be selected based on the apprentice's job role. **Where a Foundation Degree is used prior approval must be obtained from the Tech Partnership.**

# Transferable skills (Wales)

## Essential skills (Wales)

	Minimum level	Credit value
Communication	Level 2	6
Application of numbers	Level 2	6
IT	Level 2	6

## Progression routes into and from this pathway

Following the completion of the Level 4 Higher Apprenticeship framework, successful apprentices will be able to follow up on their Foundation Degree studies and continue on to complete a full Honours degree programme.

Other industry recognised, role-specific qualifications:

- Project Management training and accreditation (PRINCE2, MSP, PMI, APM and Agile)
- Service Management training and accreditation (ITIL, SDI and ISO/IEC 2000 training)
- Management and Personal Development Training
- A wide range of vendor and core technology training – leading to industry recognised qualifications.

Some qualifications entitle membership of a professional organisation, offering networking and career advancement opportunities.

For example, becoming a member of a professional organisation:

- The British Computer Society (BCS)
- The Institute of Engineering and Technology (IET)
- The Institute of Telecommunications Professionals (ITP)

Other progression opportunities may include further learning in other business area, such as finance, business or sales.

**UCAS points for this pathway: N/A**



# Employee rights and responsibilities

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3. Knows and understands the range of sources of information and advice available to them on their employment rights and responsibilities. Details of Access to Work and Additional Learning Support must be included in the programme;
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- Achievement of an accredited unit approved by the Tech Partnership as suitable for this purpose

In either case evidence of completion must be submitted when claiming the apprenticeship certificate.

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

# How equality and diversity will be met

## EQUALITY AND DIVERSITY

The Tech Partnership IT & Telecoms Apprenticeship Framework offers no barriers to entry and intends to accommodate all learners regardless of gender, age, disability or ethnic origin.

The learning content required for the off-the-job learning can be delivered in a number of different learning styles to accommodate learner requirements.

This Apprenticeship framework is primarily designed to help new entrants into the IT & Telecoms workforce, thereby ensuring fair access for all that apply for the programme.

The Tech Partnership expects employers and training providers to comply with the Equality Act 2010 to ensure that applicants are not discriminated against in terms of entry to, and progression within the sector, using the 8 protected characteristics of:

1. Age
2. Disability
3. Gender reassignment
4. Marriage and civil partnership
5. Pregnancy and maternity
6. Race
7. Religion or belief
8. Sex or sexual orientation

**The following section is included to identify current workforce demographics.**

## GENDER EQUALITY

Gender imbalance remains a significant issue for the IT & Telecoms sector. Considering IT & Telecoms professional job roles across all sectors, there has been a drop of female representation from 22% in 2001 to 17% in 2009. This compares to the overall UK workforce being 45% female.

As is the case in industry, gender imbalance is prevalent across IT-related courses, and this is worsening over time throughout the education system. 15% of applicants to Computing degree courses are female and whilst the absolute number of females taking Computing A-level has fallen again, the proportion has stabilised at 10% of those sitting in 2009.

This under-representation of women across the whole IT & Telecoms sector has a number of causes including:

- a lack of awareness (by both individuals and career advisors) of the broad range of career opportunities available
- confusion in school teaching of ICT between IT User and IT professional roles

The Tech Partnership has initiated or participated in a number of programmes to address this gender gap and encourage girls to consider a career in IT.

#### AGE OF WORKFORCE

Analysis of the period 2001-2009 shows a changing trend in the age profile of IT & Telecoms professionals. The proportion of people aged 16-29 has dropped from 33% in 2001 to 22% in 2009.

44% of IT & Telecoms professionals are now 40+, compared to 31% eight years ago. During this period, the proportions in each age category across the overall UK economy have remained stable.

A key contributory factor to this changing dynamic in IT & Telecoms is the effect of globalisation. The maintenance of strong apprenticeship programmes in the sector will be vital to ensure that this trend can be halted or reversed in the coming years, thereby ensuring that the sector has the pipeline of skilled professionals that it requires to move into higher level job roles in 5-10 years time.

#### ETHNICITY AND DISABILITY

The ethnic mix of IT & Telecoms professionals in general mirrors that of the UK as a whole, but with a larger proportion of 'Asian or Asian / British'. Of the UK's IT & Telecoms professionals, 86% identify themselves as being 'White' (compared to 91% for all occupations in all sectors in the UK), and 9% as 'Asian / Asian British' (compared to 5% for all occupations).

The proportion of IT & Telecoms professionals with a disability has shown a gradual increase over the eight year period, to 10% in 2009. This compares to 13% for all UK occupations. There is significant provision for individuals with disabilities throughout the IT & Telecoms sector with many, varied opportunities for rewarding careers at all levels. This in turn means that apprenticeships are available in a wide range of areas for those with differing levels of disability.

# On and off the job training (Wales)

## Summary of on- and off-the-job training

The total number of training hours which each apprentice must receive are as follows:

- For Level 2 Foundation Apprenticeship - 310 hours (220 hours for competence, 70 hours for knowledge and 20 hours for ERR)
- For Level 3 Apprenticeship - 510 hours (350 hours for competence, 150 hours for knowledge and 20 hours for ERR)
- For Level 4 Higher Apprenticeship – 1010 hours (510 hours for competence, 480 hours for knowledge, 20 hours for ERR)

Recognition of prior learning (RPL) is encouraged e.g. relevant content from the Welsh Baccalaureate.

All training which contributes to achieving an apprenticeship must have been completed no more than three years prior to commencing the apprenticeship.

## Off-the-job training

A minimum amount of off-the-job learning is required for each of the levels within this Apprenticeship framework. The 'off-the-job learning' can be delivered through instructor-led, classroom learning, e-learning or one-to-one mentoring that takes place away from the apprentice's day-to-day responsibilities.

- For Level 2 Foundation Apprenticeship - 110 off-the-job hours (70 hours for knowledge, 20 hours for competence, 20 hours for ERR)
- For Level 3 Apprenticeship - 160 off-the-job hours (120 hours for knowledge, 20 hours for competence, 20 hours for ERR)
- For Level 4 Higher Apprenticeship - 310 off-the-job hours (270 hours for knowledge, 20 hours for competence, 20 hours for ERR)

In addition, where required, Essential Skills Wales will be delivered off-the-job

## How this requirement will be met

Off-the-job learning should be delivered by instructor-led learning, one-to-one technical

coaching activities or dedicated e-learning activities. There is a particular requirement for apprentices to receive their technical and theoretical learning through off-the-job learning, in order to ensure they have the skills required to contribute in the workplace.

Evidence of learning undertaken should be recorded in the apprentice's Individual Learning Plan, and updated at 12 week reviews throughout the programme. On completion of the Apprenticeship, the off-the-job learning hours can be evidenced through submission of the Competence Qualification, Knowledge Qualification, Essential Skills and Employee Rights and Responsibilities.

## On-the-job training

A minimum numbers of on-the-job training is required as follows:

- For Level 2 Foundation Apprenticeship - 200 on-the-job-training hours (200 hours for competence)
- For Level 3 Apprenticeship - 350 on-the-job training hours (330 hours for competence, 150 hours for knowledge)
- For Level 4 Higher Apprenticeship - 700 on-the-job training hours (490 hours for competence, 210 hours for knowledge)

## How this requirement will be met

On-the-job learning hours can include on-the-job coaching, shadowing and practical application of skills and knowledge attained in the off-the-job learning.

Evidence of guided learning hours undertaken should be recorded in the apprentice's Individual Learning Plan, and updated at 12 week reviews throughout the programme. On completion of the Apprenticeship, the total number of guided learning hours can be evidenced through submission of the Competence Qualification, Knowledge Qualification, Functional Skills and Employee Rights and Responsibilities.

# Wider key skills assessment and recognition (Wales)

## Improving own learning and performance

The Wider Key Skill for 'Improving own learning and performance' is not included as an additional requirement in the framework, as the content is embedded in the mandatory unit, titled 'Developing Own Effectiveness and Professionalism' in the 'Diploma in Professional Competence' at levels 2, 3 and 4.

## Working with others

The Wider Key Skill for 'Working with others' is not included as an additional requirement in the framework, as the content is embedded in the mandatory unit, titled 'Developing Own Effectiveness and Professionalism' in the 'Diploma in Professional Competence' at levels 2, 3 and 4.

## Problem solving

The Wider Key Skill for 'Problem solving' is not included as an additional requirement in the framework, as the content is embedded in the mandatory unit, titled 'Developing Own Effectiveness and Professionalism' in the 'Diploma in Professional Competence' at levels 2, 3 and 4.

This Wider Key Skill is also developed in further units such as 'Technical Fault Diagnosis' and 'Software Testing'

# Additional employer requirements

There are no additional employer requirements for this framework.

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