Purpose Statement

Name of regulated qualification	
QAN: 603/0445/5	Title: Pearson BTEC Level 3 National Diploma in Computing (720 GLH)

Overview

The computing sector

Computing is concerned with both computers and computer systems – how they work and how they are designed, constructed, and used. The study of computing encompasses programming languages, data structures, algorithms, and the underlying science of information and computation. The influence of computing has been profound in shaping the world in which we now live. The use of technology is almost universal among UK businesses, and increasingly businesses are adopting strategic technologies to deliver new opportunities.

There are approximately 1.2 million people employed in computing-related occupations, which is about 4 per cent of all employment in the economy. Over recent years, employment in this sector has been increasing at a faster rate than overall growth in UK employment. As a result, the proportion of employment accounted for by these occupations is forecast to continue to grow to 4.2 per cent by 2022.

The UK is ranked second in the world for technological readiness by the World Economic Forum. Ongoing developments in the sector include the government commitment of £1.2 billion to extend superfast broadband to 95 per cent of UK premises by 2017.

Who is this qualification for?

The **Pearson BTEC Level 3 National Diploma in Computing** is intended to be an Applied General qualification for post-16 students wanting to continue their education through applied learning, and who aim to progress to higher education and ultimately to employment. The qualification is equivalent in size to 2 A levels and it has been designed as part of a two-year programme, normally alongside a further level 3 qualification.

No prior study of the sector is needed, but students should normally have a range of achievement at level 2, in GCSEs or equivalent qualifications.

What does the qualification cover?

The content of this qualification has been developed in consultation with academics to ensure that it supports progression to higher education. In addition, employers and professional bodies have been involved and consulted, in order to confirm that the content is also appropriate and consistent with current industry practice used in computing and related occupational disciplines.

The qualification provides the knowledge, understanding and skills that will prepare students for further study or training. Students have the opportunity to develop a significant body of knowledge in computer science as well as additional skills in systems analysis and design, systems methodology, computer programming and product development and testing.

Everyone taking this qualification will study six mandatory units, covering the following content areas:

- principles of computer science
- fundamentals of computer systems
- planning and management of computer projects
- IT systems security and encryption
- business applications of social media
- the impact of computing.

Students choose two option units from a group that has been designed to support progression to the range of sector-related courses in higher education and to link with relevant occupational areas. The option units offer breadth and depth of topic areas relevant to computing, such as:

- infrastructure development
- networking, security and forensics
- software development and product design
- development and testing.

What could this qualification lead to?

Will the qualification support progression to further learning, if so, what to?

In addition to the content outlined areas outlined above, the requirements of the qualification will mean that students develop some of the transferable and higher-order skills that are highly regarded by higher education and employers. A significant portion of recruitment for specialists in computer science is at graduate level and this qualification is designed to support progression to higher education ahead of employment.

The qualification carries UCAS points and is recognised by higher education providers as meeting admission requirements for a range of BTEC Higher National and Foundation Degree course at higher education level, such as:

- HNC or HND in Computing and Systems Development
- FdSc in Computing and Networking.

When studied with other qualifications, such as an A level or BTEC Extended Certificate in a different or complementary subject area, such as science, technology, engineering or mathematics (STEM), learners can progress into higher education on a full degree course, for example:

- BSc (Hons) in Business Studies and Computing, when combined with a Pearson BTEC Level 3 National Extended Certificate in Business
- BSc (Hons) in Computer Forensics and Security, when combined with A level Maths
- BSc (Hons) in Creative Computing, when combined with a Pearson BTEC Level 3 National Extended Certificate in Art and Design
- BSc (Hons) in Computer Systems Engineering, when combined with a Pearson BTEC Level 3 National Certificate in Engineering.

Students should always check the entry requirements for degree programmes at specific higher education providers.

Will the qualification lead to employment, if so, in which job role and at which level?

This qualification is designed primarily to support progression to employment following further study at university. However, it also supports students progressing directly to employment, as the transferable knowledge and skills will allow successful students the opportunity to apply for a range of entry level roles, industry training programmes and digital apprenticeships.

Why choose this size of qualification?

If there are larger and/or smaller versions of this qualification, or it is available at different skills levels, why should the student choose this one?

The **Pearson BTEC Level 3 National Diploma in Computing** is equivalent in size to 2 A levels. It typically makes up two-thirds of a 16–19 study programme, and is normally taken alongside other qualifications. It offers a significant body of learning in computer science, alongside a complementary subject such as science, technology, engineering or mathematics, for students wanting to focus on a computing or computing-related course at higher education.

The suite also includes the following qualifications.

The **Pearson BTEC Level 3 National Certificate in Computing**, which is equivalent in size to 0.5 A level. It is for students interested in getting an introduction to computing, when studied within a full-time study programme alongside other fields of study, with a view to progressing to a wide range of higher education courses, but not necessarily in computing.

The **Pearson BTEC Level 3 National Extended Certificate in Computing**, which is equivalent in size to one A level. It is for students interested in learning about the sector alongside other fields of study, with a view to progressing to a wide range of higher education courses, but not necessarily in computing.

The **Pearson BTEC Level 3 National Foundation Diploma in Computing**, which is equivalent in size to 1.5 A levels. It is for students looking for a one-year course of full-time study, or alongside another area of study that contrasts or complements the qualification over a two-year full-time study programme.

The **Pearson BTEC Level 3 National Extended Diploma in Computing**, which is equivalent in size to 3 A levels and is typically the major qualification in a full two-year 16–19 study programme. It offers a breadth of study for students who want to focus on the computing sector at higher education level, before entering employment.

There are four further BTEC Level 3 National Diplomas in the Computing suite:

- **Pearson BTEC Level 3 National Diploma in Computer Science**
- **Pearson BTEC Level 3 National Diploma in Computing for Creative Industries**
- **Pearson BTEC Level 3 National Diploma in Computer Systems and Network Management**
- **Pearson BTEC Level 3 National Diploma in Business Information Systems**

These are tech level qualifications that focus on a particular area of employment in the computing sector and are aimed at students who want to progress directly to employment. These qualifications are equivalent in size to 2 A levels and typically make up two thirds of a study programme, so may be taken alongside another level 3 qualifications such as maths, engineering or physics.

For more detail about the other qualifications listed here, and the different progression opportunities they particularly support, please refer to their statements of purpose.

This qualification is supported by the following organisations

Higher Education

Kingston University

Leeds Beckett University

University of Chichester

University of Exeter

University of Huddersfield