Purpose Statement

Name of regulated qualification	
QAN: 601/7342/7	Title: Pearson BTEC Level 3 National Extended Diploma in Computing (1080 GLH)

Overview

Computing

Computing is concerned both with computers and computer systems – how they work and how they are designed, constructed, and used. The core 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.

The professional, scientific and technical sector has shown the largest increase of all broad industry groups between 2012 and 2013, with a particularly large increase for this sector in London. Telecommunications has been the fastest growing part of the information economy sector; growing at 5.7 per cent per annum during the period from 2000 to 2013. There are approximately 1.3 million people working in technology specialist roles in the UK, and technology specialist employment is consistently increasing, growing by 6 per cent (71,000) in the year from 2013 to 2014 alone.

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 Extended Diploma in Computing is equivalent in size to 3 A levels and is designed to offer students an in-depth experience of computing topics that will enhance their progression to higher education in this sector, and ultimately to employment.

This qualification is intended as an Applied General qualification and is designed to be studied over two years.

Students wishing to take this qualification should have successfully completed a Level 2 programme of learning with GCSE or vocational qualifications.

What does the qualification cover?

The content of this qualification has been developed in consultation with academics to ensure that it incorporates the most up-to-date knowledge and skills to enable progression to higher education. In addition, employers and professional bodies have been consulted on the content development to confirm its relevance with current industry practice used in computing and related occupational disciplines.

Over the course of two years, students have the opportunity to develop knowledge of computer science and computer systems, as well as develop a range of computing skills such as managing networks, designing and developing databases, websites, mobile applications digital graphics and animation.

Students study seven mandatory units:

- Principles of Computer Science

- Fundamentals of Computer Systems

- Planning and Management of Computer Projects

- Software Design and Development Project

- IT Systems Security and Encryption

- Business Applications of Social Media

- The Impact of Computing.

HE representatives have confirmed that the mandatory content provides an appropriate core, allowing students to choose from a wide range of option units in the final third of the qualification so that they can explore their own choice of areas for further study.

These option units have been designed to support progression to computing and IT courses and link with relevant sector areas such as creative, computer science, networking support systems and business systems.

What could this qualification lead to?

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

The qualification is intended to carry UCAS points and is recognised by HE providers as meeting admission requirements to many relevant courses, for example:

- MSc or BSc (Hons) in Computer Science

- BSc (Hons) in Information Technology Practitioner

- BA (Hons) in Creative Digital Media

- BSc (Hons) Business Information Systems

- BSc (Hons) Computer Systems and Networks.

Some university courses may require the achievement of specific units and students should always check the entry requirements for degree programmes with specific HE providers.

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

A significant proportion of careers in the computing industry are at graduate level. The qualification is aimed at progression to higher education but also has attracted support from the BCS, the Chartered Institute for IT, as being fit for purpose with regard to progression towards a professional career in roles such as software engineer, business analyst, systems analyst, network engineer, technical consultant, web developer and software tester.

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 Extended Diploma in Computing** is the largest in the suite of BTEC Nationals in Computing. It is equivalent to 3 A levels and offers a breadth of study for students who want to focus on the computing sector at higher education before entering employment.

The suite also includes the following qualifications.

The **Pearson BTEC Level 3 National Extended Certificate in Computing** is equivalent in size to 1 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 HE courses, but not necessarily in computing.

The **Pearson BTEC Level 3 National Foundation Diploma in Computing** 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 Foundation Diploma in Computing over a two-year, full-time study programme.

There are four Pearson BTEC Level 3 National Diplomas:

- 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 qualifications are aimed at students who want to progress to employment. They focus on a particular area of study and are equivalent in size to 2 A levels. They typically make up two-thirds of a study programme and may be taken alongside other qualifications. The additional qualification(s) studied allow students either to give breadth to their study by choosing a contrasting subject, or to give their studies more focus by choosing a complementary subject.

For more detail of 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

University of Sheffield
University of Exeter
University of East Anglia
University of Huddersfield
University of Chichester
Kingston University
Southampton Solent University
University of Portsmouth
University of the West of England

Professional and trade bodies
BCS, The Chartered Institute for IT