

## Statement of Purpose

### 601/0169/6 – Pearson BTEC Level 1/Level 2 First Diploma in Information and Creative Technology

#### Who is the qualification for?

This qualification is intended as a Substantial Vocational Qualification at level 2 (480 GLH) designed for post-16 students working at that level who want to undertake practical and technical study of the IT industry in order to fulfil their progression aims, either to further study or directly to employment in both technical and creative aspects of this sector. It develops knowledge and understanding of key themes within the industry, alongside some topics key to an understanding of IT systems and support. This mix enables students to develop and apply their knowledge of the sector whilst developing a range of relevant practical, technical and creative skills. It is equivalent in size to four GCSEs.

The First Diploma in I&CT allows learners to follow one of two discreet pathways focusing their progression towards a route in computer science or systems development and support.

The qualification also gives students opportunities to develop personal skills and attributes essential for successful performance in the IT Industry and allows the opportunity to apply their knowledge in new, practical and creative contexts.

#### What does this qualification cover?

This qualification prepares students for a wide range of job roles with an engaging and stimulating coverage of the fundamentals of information technology. Units focusing on creative digital production allow students to gain the practical and creative skills, knowledge and understanding to design, make and review software programs, digital animation, websites or a mobile app. More technical units provide the knowledge and understanding to build and maintain hardware, software and networks fundamental to the support and maintenance of successful IT systems.

Students can further specialise by following a Computer Science or Systems Development pathway.

Students must complete three core units (90 GLH): both unit 1 and unit 2, which are externally assessed through an onscreen, on demand examination, *and* unit 3 which is internally assessed.

- Unit 1, 'The Online World,' starts with students' own experiences and quickly extends to online services and the technology that supports them;
- Unit 2, 'Technology Systems,' focuses on technology systems and how they work together, data flow, and how data is processed and the different types of software;
- Unit 3, 'A Digital Portfolio' gives students the opportunity to design, create, test and review a project.

These core units are then combined with a selection of mandatory units and optional specialist units (390GLH). Additional optional units that are specific to the Diploma reflect the breadth of opportunity in both technical and creative aspects of the IT industry and further the opportunities for specialism for learners who choose a particular pathway.

#### The General Pathway

Learners who wish to follow a general IT pathway will complete the core units and a selection of mandatory and optional units. The additional compulsory units assess knowledge, understanding and skills that are not covered within the core but are essential to the IT

industry. They ensure all learners receive a thorough grounding in the IT sector and support progression to their next stage in education or employment.

### **The Computer Science Pathway**

Learners who wish to follow a Computer Science pathway will complete the core units and a selection of mandatory and optional units. The additional compulsory units assess knowledge, understanding and skills for learners who wish to progress to further study and employment specialising in software development.

### **The Systems Development and Support Pathway**

Learners who wish to follow a Systems Development and Support pathway will complete the core units and a selection of mandatory and optional units. The additional compulsory units assess knowledge, understanding and skills for learners who wish to progress to further study and employment specialising in the development and support of hardware systems and networks.

The optional specialist units available in each pathway reflect the breadth of opportunity in both technical and creative aspects of the IT industry. The choice of optional units will comprise a selection of Creative, Development and Technical Units.

- **Creative Units** – Units containing the words “Creating Digital” focus on the creative aspects of the sector and involve the creation of digital assets which do not require a user interface but will be incorporated into complex digital products.
- **Development Units** – Units containing the words “Development” expand on the creative aspect but this time focus on the development of digital products which require a user interface. These units expand the student’s concept of the project lifecycle and the look in detail at each step.
- **Technical Units** – These optional units focus on the technical aspects of IT system development and support. These units expand students understanding of and ability to create and maintain computer systems and the hardware and software components within. These units give a practical grounding in some of the fundamental aspects of building and maintaining system hardware and computer networks.
- **Computer Science Units** – This group of optional units will deepen and enhance a student’s computational thinking skills. Computational Thinking skills are required extensively in any IT/Computing role and these units provide a formal and coherent introduction while offering students the opportunity to put these skills into practice.
- **Working in the IT Industry** – This group of optional units encourages learners to understand the sector and the skills needed for a successful career in IT. These skills include: self-management, team working, business and customer awareness and problem solving, a group of skills which are unique when applied to the IT industry and beneficial to careers at all levels.

### **What could this qualification lead to?**

Achievement of this qualification at level 2 would mean students are fully prepared to progress to a variety of roles within the IT industry. The opportunity to follow a particular pathway will focus the student on the area of expertise including systems design and development, network design and management, hardware and software support, and digital design.

Students following the general pathway will develop a sound knowledge of the fundamental aspects of the IT industry. Additional units focusing on specialist knowledge such as systems hardware and software, networks and IT support prepare students for roles in supporting and maintaining these systems. Units focusing on the skills required to work in the IT industry further develop their understanding and will promote their ability to succeed in roles such as systems support, hardware maintenance and support, software helpdesk support and network

development and management. The general pathway would also promote progression to a technical level qualification or an apprenticeship where students can further specialise. Students following the computer science pathway will focus their study on the skills required to create coded solutions to real world problems. Computational thinking skills are vital in the design and development of software systems and learners will progress to roles in software development such as programmer, software developer and systems analyst. The computer science pathway would also promote progression to a technical level qualification or an apprenticeship where students can further specialise.

The systems development and support pathway focuses on the skills and understanding needed to work with and develop IT systems and to integrate existing systems to ensure they work together. These skills are vital in today's environment where integration and connectivity are fundamental to so many online retailers and service providers. These skills will support students in roles such as systems analyst, systems support and SQL and PHP developers. The systems development and support pathway will also promote progression to a technical level qualification or an apprenticeship where students can further specialise.

### **This qualification is part of a larger suite of BTEC ICT qualifications**

The BTEC Level 1/Level 2 First Diploma is 480 GLH and broadly equivalent to 4 GCSEs. The BTEC Level 1/Level 2 First Extended Certificate, at 360 GLH, is also available.

Students might choose the Level 1/Level 2 rather than the Level 1/Level 2 Extended Certificate in I&CT as its pathways provide opportunities for specialism which would allow students to target technical skills and understanding for a particular role in the IT industry. The larger size qualification also gives students a more general understanding of the industry which will increase the range of roles for which they might apply.

### **Who supports this qualification?**

This qualification is supported by the following employers:

- MMT Digital
- Hewlett Packard
- Cisco
- Titian Software Ltd
- Atos
- Zengenti

Support letters will be available at the following link by 3<sup>rd</sup> October:  
<http://www.edexcel.com/quals/firsts2012/information-and-creative-technology/Pages/default.aspx>.

### **Further information**

Further information on the qualification can also be accessed at  
<http://www.edexcel.com/quals/firsts2012/information-and-creative-technology/Pages/default.aspx>.