

Unit 2: Working in the IT Industry

Unit code: J/601/3202
QCF Level 2: BTEC Specialist
Credit value: 5
Guided learning hours: 30

Aim and purpose

The aim of this unit is to ensure that learners have knowledge of the available job roles involving professional IT and the characteristics employers demand in the IT industry.

Unit introduction

With the IT industry continuing to grow, and computers becoming more and more fundamental to how organisations function, employers are increasingly looking for people with specialised knowledge. In addition, businesses are also looking for certain 'soft skills' which enable an individual to function more effectively as part of an organisation.

Soft skills relate to an individual's ability to communicate and work effectively with others, use appropriate language, be dependable and conscientious, and generally behave in an acceptable manner in the workplace. Soft skills complement hard skills, which are the knowledge, understanding and technical skills required to carry out a job. It is this combination of technical and soft skills which can improve a person's employability.

This unit provides an opportunity for learners to explore the personal attributes which can play an important role in establishing a successful career as an IT professional.

As part of this unit, learners will become familiar with the range of job roles available to people with professional IT qualifications and consider the personal attributes these roles require.

This unit introduces the relevant employability skills for those interested in a career in the IT Industry.

Additionally, this unit could be taught in conjunction with other units from the course to emphasise vocational contexts and make use of naturally occurring assessment opportunities.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

On completion of this unit a learner should:

Learning Outcomes	Assessment criteria
1 Know the characteristics that are valued by employers in the IT industry	1.1 describe the characteristics valued by employers in the IT industry
2 Know the common job roles undertaken by people working in the IT industry	2.1 describe common IT industry job roles 2.2 explain the characteristics required for a specific job role in the IT industry

Unit content

1 Know the characteristics that are valued by employers in the IT industry

Industry specific: technical knowledge, working procedures, health and safety knowledge

General: skills eg interpersonal skills, planning skills, organisational skills, time management, team working, numeric skills, creativity, problem solving

Attitudes: preferred eg determined, independent, integrity, tolerant, dependable, leadership, confidence, self-motivation

2 Know the common job roles undertaken by people working in the IT industry

General IT: roles eg solutions architecture, solution development and implementation, network management, information security, technical writers, data administrators, IT service management and delivery; hardware specific eg manufacturing, repair, supply, installation, networks; software specific eg applications programmers, systems programmers, website developer, communications programmers

Investigation and design: analysts; designers; project managers

Essential guidance for tutors

Delivery

There are two major ways in which this unit can be delivered, one is as a conventional, continuous unit, and the other is to run it in parallel with other units to gain the maximum benefit from using naturally occurring evidence for assessment purposes.

Whichever method is chosen, the logical plan for delivering the unit will be the same, just different elapsed times.

It is recommended that tutors start with an introduction to what is meant by 'attributes' and why they are important. This may have to be delivered initially by whole class teaching since it is probably beyond the experience of many of learners. A good exercise to reinforce information on attributes is to give learners a checklist of the type of attributes which are important, and for learners to use this to start to prepare a profile of useful IT-specific characteristics.

Learners can scan job adverts to identify general attributes implied in the job descriptions. In small groups learners can add items to the profile they are building.

Attitude in relation to the workplace will probably need to be explained since learners may not be too familiar with the subject. Tutor-led class discussions on attitudes are important to employers and why they are important can be followed by small groups of learners discussing and adding this information to the profile they are building.

Groups will feed back their profile information to the whole class from which the class will build a composite list. This list can then be refined into a generic profile by class discussions.

This can be followed by looking at jobs in the IT industry. Today there is sometimes less division of the discipline into specific jobs, with one job role covering several disciplines. Tutors can divide the topic as they like providing their delivery covers the relative sub divisions. Jobs and job titles change quite rapidly in IT related industries and it is assumed that tutors will change their subject delivery to reflect this.

A visiting speaker or learner visits can provide excellent primary and supporting evidence for although it is recognised that this is not always available. The use of case studies which illustrate various job roles is a useful alternative.

The following suggestions are designed to add some variety to the basic format.

Hardware-based jobs can be introduced by learners looking through example job descriptions and advertisements before looking at case studies or talking to visiting speakers.

Software-based jobs can be introduced by setting learners some directed study to investigate three different job roles. This can be reinforced by tutor-led class discussions on the sum of their investigations. The use of example work produced in some of these job roles can be helpful in supporting case studies.

Jobs in investigation and development can be dealt with in a similar manner where examples of the work of, for example, analysts and designers can be used to illustrate the work of these practitioners, when combined with tutor-led discussions.

Other jobs in IT need to be identified and a list compiled, possibly by groups feeding back to compile an overall list. The use of case studies and examples will support the basic information.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments. The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Introduction to the unit
<p>Characteristics that are valued by employers:</p> <ul style="list-style-type: none"> • whole-class exercise – tutor presentation on industry specific job attributes • whole-class exercise – tutor presentation on general job attributes • group discussions – which attitudes are important and why they are important • directed research – job descriptions and employer requirements.
Assignment 1 - Skills and Attributes
<p>Common job roles:</p> <ul style="list-style-type: none"> • whole-class exercise – discussion of various general IT roles • individual exercise – look at investigation and design roles • directed research – investigating the range of IT jobs.
Assignment 2 - IT Jobs

Assessment

It is suggested that this unit is assessed using two assignments as summarised in the *Programme of suggested assignments* table.

Some of the evidence required to complete the assignments could be naturally occurring within learners work for other units within the qualification, or for other courses they are undertaking, and tutors are encouraged to use such evidence.

For 1.1, learners must describe the characteristics that are valued by the IT industry. The characteristics should encompass the three elements outlined in the unit content.

For 2.1, learners need to describe common job roles in the IT industry. This is a straightforward descriptive criterion, where learners purely describes the job for example what the person does. Learners do not need to describe why they do that job. Learners can select the jobs for themselves or the tutor can direct them.

For 2.2, learners will select a specific job role and explain in detail the characteristics required for the job. This could be an extension of the work for 2.1.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the assessment criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
1.1	Skills and Attributes for IT Roles	An IT recruitment agency wants to place an article in a trade magazine describing the characteristics valued in the IT industry and suggest complementary job roles.	Article (paper based or web based).
2.1, 2.2	IT Jobs on Offer	An IT recruitment agency wants to advertise available job roles to include ideal employee attributes.	Advertisement (paper based or web based).

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC in IT sector suite. This unit has particular links with:

Level 1	Level 2	Level 3
	Communicating in the IT Industry	Communication and Employability Skills for IT

This unit maps to some of the underpinning knowledge from the following areas of competence in the Level 2 National Occupational Standards for IT (ProCom):

4.3 Human Needs Analysis.

Essential resources

There are no essential resources for this unit.

Employer engagement and vocational contexts

The use of vocational context is essential in the delivery and assessment of this unit. Learners will require access to computer equipment to enable them to gain a practical awareness and enable them to apply their knowledge and understanding in a practical situation.

There is a range of organisations that may be able help centres to engage and involve local employers in the delivery of this unit, for example:

- Learning and Skills Network – www.vocationallearning.org.uk
- Local, regional business links – www.businesslink.gov.uk
- National Education and Business Partnership Network – www.nebpn.org
- Network for Science, Technology, Engineering and Maths Network Ambassadors Scheme – www.stemnet.org.uk
- Work-based learning guidance – www.aimhighersw.ac.uk/wbl.htm
- Work experience/workplace learning frameworks – Centre for Education and Industry (CEI University of Warwick) – www.warwick.ac.uk/wie/cei

Indicative reading for learners

Textbooks

NCCER – *Employability Skills: Trainee Guide 00108-04* (Prentice Hall, 2005) ISBN 0131600125

CD

Teaching-you Communication Skills (Focus Multimedia Ltd, 2005) ASIN B000A6BBH0

Websites

www.bcs.org/server.php?show=nav.5677

www.computingcareers.co.uk/

www.mindtools.com