

SQA Advanced Unit Specification

General information for centres

Unit title: Information and Communication Technology in Business
(SCQF level 8)

Unit code: HP7A 48

Superclass: CA

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Unit purpose

This unit is designed to develop learners' knowledge and skills in identifying, evaluating, managing and presenting business information to facilitate and influence decision-making. The unit requires learners to consider the role of information in the decision-making process, evaluate data communications systems and ICT innovations, use planning and control tools for project management and use software application presentation tools to present findings and recommend actions.

Outcomes

On successful completion of the unit the learner will be able to:

- 1 Identify and evaluate the role of business information in decision-making.
- 2 Describe and evaluate data communications system security and new ICT innovations.
- 3 Plan project development work using project management software to meet client needs.
- 4 Schedule project development work using project management software, to meet client needs.
- 5 Create a presentation using appropriate software application presentation tools.

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Credit points and level

2 SQA Credits at SCQF level 8: (16 SCQF credit points at SCQF level 8)

Recommended entry to the unit

Access to this unit is at the discretion of the centre. However, it would be beneficial if learners have suitable skills in communication and software application packages. Further knowledge concerning business decision making and processes would be advantageous. This may be demonstrated by achievement of the following units, HP75 48 *Communication: Business Communication*, HP6L 47 *Information Technology: Applications Software*, HP0M 47 *Digital Technologies for Administrators*, HP71 47 *Managing People and Organisations*, HP6A 48 *Office Management* or equivalent.

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this unit specification.

There is no automatic certification of Core Skills or Core Skill components in this unit.

Context for delivery

If this unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

The Assessment Support Pack (ASP) for this unit provides assessment and marking guidelines that exemplify the national standard for achievement. It is a valid, reliable and practicable assessment. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard.

Equality and inclusion

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Unit specification: statement of standards

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Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Identify and evaluate the role of business information in decision-making.

Knowledge and/or Skills

- ◆ Levels of decision-making
- ◆ Information requirements
- ◆ Types of Information system
- ◆ Legislation governing the management and handling of information

Outcome 2

Describe and evaluate data communication system security and new ICT innovations.

Knowledge and/or Skills

- ◆ Security threats
- ◆ Security measures
- ◆ ICT innovations

Outcome 3

Plan project development work using project management software to meet client needs.

Knowledge and/or Skills

- ◆ Project development tasks and sub-tasks
- ◆ Project milestones
- ◆ Task dependency
- ◆ Resource determination

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Outcome 4

Schedule project development work using project management software, to meet client needs.

Knowledge and/or Skills

- ◆ Project scheduling
- ◆ Task constraints and dependencies
- ◆ Resource allocation
- ◆ Project management software

Outcome 5

Create a presentation using appropriate software application presentation tools.

Knowledge and/or Skills

- ◆ Presentation techniques
- ◆ Importation techniques
- ◆ Dynamic links
- ◆ Animation and transition effects
- ◆ Multimedia elements

Evidence Requirements for this unit

Outcome 1

Learners will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can provide and justify an evaluation of the role of business information in the decision-making process. Evidence must be provided to demonstrate that learners can:

- ◆ identify and compare the nature of information required at strategic, tactical and operational levels of decision making for a given situation
- ◆ evaluate the information required at strategic, tactical and operational levels of decision making for one internal source and one external source for each level
- ◆ evaluate the nature of information systems required to support decision making at strategic, tactical and operational levels
- ◆ identify and analyse the implications for decision making of two pieces of current legislation governing the management and handling of information

Outcome 2

The learner will need evidence to demonstrate their Knowledge and/or Skills by showing that they can describe and evaluate data communication system security and ICT innovations. Evidence must be provided to demonstrate that learners can:

- ◆ identify and evaluate three threats to the security of networked information
- ◆ identify and evaluate three security procedures to protect networked information that would be appropriate to organisational needs
- ◆ identify and evaluate three ICT innovations which may be relevant to business users and the needs of an organisation

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Outcome 3

The learner will need evidence to demonstrate their Knowledge and/or Skills by showing that they can plan project development work which includes all of the above knowledge and skills topics. Evidence must be provided to demonstrate that learners can:

- ◆ establish the sub-tasks of a project development
- ◆ determine the duration of each sub-task of the project development
- ◆ identify, establish and describe project milestones
- ◆ establish task dependencies
- ◆ determine the resources required for a given project

Outcome 4

The learner will need evidence to demonstrate their Knowledge and/or Skills by showing that they can use project management software to schedule the development of a given project brief. Evidence must be provided to demonstrate that learners can:

- ◆ initiate a project schedule
- ◆ accurately enter project stages, sub tasks and milestones.
- ◆ determine task constraints
- ◆ establish task dependencies
- ◆ assign resources to sub-tasks
- ◆ create base and resource calendars to indicate clear timelines
- ◆ generate meaningful annotated reports and charts with appropriate scales
- ◆ analyse and interpret reports and charts

Outcome 5

The learner will need evidence to demonstrate their Knowledge and/or Skills by showing that they can use application software presentation tools to plan and prepare for a presentation. Evidence must be provided to demonstrate that learners can:

- ◆ plan and produce a presentation with a minimum of five slides using software application package techniques
- ◆ import one object from each of two software applications packages, one of which must be from an external source
- ◆ create and use one dynamic link
- ◆ create and use one multimedia element within the presentation

The Evidence Requirements of this unit are not linked to any specific presentation software. While certain terms are used to illustrate the standard (eg 'slides'), it is the **Knowledge and Skills** in using the relevant feature that are being assessed; therefore packages which employ differing terminology may also be used to assess the same **Knowledge and Skills**.

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Unit specification: support notes

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Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this unit is at the discretion of the centre, the notional design length is 80 hours.

Guidance on the content and context for this unit

This unit is designed to raise awareness of managerial and professional behaviour within a working environment. This unit is in the SQA Advanced Diploma in Administration and Information Technology (GM68 48) and SQA Advanced Diploma in Business (GM51 48) but may form part of other Group Awards and may be delivered as a stand-alone unit.

This unit is designed to allow learners to develop competence in identifying, evaluating, managing and presenting business information to facilitate and influence decision-making. The unit should provide learners with a greater understanding of the nature and uses of information and the various technologies used to manage information and data. The unit requires learners to consider the role of information in the decision-making process, evaluate data communications systems and ICT innovations, use project management software to schedule project development work and use software application presentation tools to present findings and recommend actions.

Delivery of Outcome 2 may cover types of data communication system and aspects of development to enhance managerial decision making and business performance. It is recommended that teaching covers, security, confidentiality, integrity and accessibility with concepts such as authenticity, deterrence, prevention and detection brought to the attention of learners. Emerging technologies influencing networks may also be considered to develop the learner's awareness of change and its impact on working practices.

Outcomes 3, 4 and 5 require project management and presentation software. Learners may require access to other software packages such as word processing, spreadsheets, and database to meet the Evidence Requirements of Outcome 5, although not necessarily all of these.

Upon completion of this unit learners should be able to identify appropriate uses for ICT in business and consider possible uses for ICT innovations.

For delivery within the SQA Advanced Certificate/Diploma in *Business*, this should be considered in its wider context. Learners should be able to pull together concepts and ideas from various other units such as HP6W 48 *Behavioural Skills for Business*, HP6R 48 *Business Culture and Strategy* and HP7D 48 *Business: Graded unit 2*.

For the SQA Advanced Certificate/Diploma in Administration and Information Technology, this unit may be linked with HP6A 48 *Office Management*, HP0G 48 *IT in Business: Advanced Databases*, HP0H 48 *IT in Business: Advanced Spreadsheets*, HP0N 48 *IT in Business: Advanced Word Processing* and HP79 48 *Presentation Skills*. Outcomes 3 and 4 may also be used to assist the planning of the team projects in HP3C 48 *Developing an Individual Within a Team*. This should allow learners to view information communication technologies as tools, which can be used to assist in the management of business organisations.

Guidance on approaches to delivery of this unit

This unit may be delivered using a variety of learning environments, eg the first and second Outcomes lend themselves ideally to lectures followed up by tutorial work or small group work considering case studies. The practical nature of the content lends itself toward a combination of interactive learning and independent study. This is reflected in the assessment guidelines for the Outcomes.

Opportunities exist for integration of delivery and assessment with the following units within the SQA Advanced Certificate/ Diploma in Business (GM8A 47/ GM8Y48) and SQA Advanced Diploma in Administration and Information Technology GM68 48 Group Award — HP6W 48 *Behavioural Skills in Business*, HP6R 48 *Business Culture and Strategy*, HP79 48 *Presentation Skills*, HR63 48 *Business: Graded unit 2*, HP6A 48 *Office Management*, HP3C 48 *Developing an Individual within a Team*, HP0G 48 *IT in Business: Advanced Databases* and HP0H 48 *IT in Business: Advanced Spreadsheets*. In particular, this unit will also provide an excellent foundation for the planning aspect of HP6K 48 *Administration and Information Technology Graded unit 3*.

Outcome 1

In the context of the SQA Advanced Certificate/ Diploma in *Business*, prior knowledge from relevant units such as HP71 47 *Managing People and Organisations* — or in the context of SQA Advanced Certificate/ Diploma in Administration and Information Technology, HP69 47 *Office Administration*, HP6A 48 *Office Management*, HP0M 47 *Digital Technologies for Administrators* and HP3C 48 *Developing an Individual within a Team* — may be revisited to highlight the nature and purpose of the managerial role. This will facilitate the study of information systems in a business and management context.

It is anticipated that internal and external sources of information on both an electronic and printed basis are covered by teaching to enable learners to consider a range of sources. The formal and informal nature of information systems should be addressed to ensure that learners have the ability to assess the suitability of information systems and the ability of those systems to facilitate and influence decision making.

As systems can operate across and within functional areas, it is important that the centralised, decentralised and distributed nature of information management is fully considered. Types of information system and their purpose should be covered to ensure breadth of learning. It is anticipated that a centre will cover a range of information systems, examples of which may include management information systems, decision support systems, transaction processing systems, office automation, knowledge management systems, expert systems and executive information systems.

Centres should ensure coverage of legislative influence is current and appropriate and should include specific primary legislation such as current Data Protection and Freedom of Information legislation but may also consider other forms of secondary legislation. Centres should ensure chosen legislation fully reflects the range of issues surrounding accessibility and confidentiality.

Outcome 2

It is anticipated that centres will illustrate the relationship between the knowledge and skills for Outcome 2 and the knowledge and skills for Outcome 1. The importance of decision making and the ability to highlight communication systems and ICT innovation in relation to

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these will assist the understanding of the learner, but can also promote integrated learning and problem solving that is required in the HR63 48 *Business: Graded unit 2* and HP6K 48 *Administration and Information Technology: Graded unit 3*.

When teaching new ICT innovations, centres should consider emerging technologies that currently have and may have an impact on business organisations over the next few years. It is important to recognise that innovations will change over time and both centres and learners should endeavour to keep up to date with emerging technologies. Emerging technologies such as Cloud computing, mobile devices, social software, web services and Enterprise Resource Planning may also be investigated to enable learners the opportunity to identify and evaluate a range of possible applications.

Outcomes 3 and 4

Learners should be introduced to project management software and provided with suitable opportunities to enable them to plan and schedule project development work. A Projects Requirements Scenario could be provided to learners to facilitate the development of project management software skills. Activities should be contextualised in relation to a business environment and should reflect the importance of meeting internal and external client needs. A typical example of a scenario could be conducting market research, planning an event or activity or planning a training and development programme.

Learners should be encouraged to concentrate upon the development of a plan to meet the objectives outlined within the scenario. This will enable learners to clearly identify an appropriate sequence of sub-tasks, highlight the importance of milestones, investigate the interdependency of sub-tasks and examine the resource requirements of the project. The sequencing of sub-tasks should follow the requirements presented within the scenario. This will enable a learner to explore the key milestones for that project and their value. The possible relationship between tasks on a start-finish, finish-finish, start-start or finish-start basis should be contextualised to ensure learners have the capability to establish task dependencies. The effective identification and allocation of resources for the plan will enable a learner to highlight related areas of business activity including budgeting and financial management and audit.

Emphasis should be placed upon the development of knowledge and skills rather than merely describing software and its application. Learners will be required to provide evidence of planning, design, analysis using project management software. The use of an appropriate base calendar, resource calendar and Gantt and PERT charts would enable a learner to provide evidence of planning and scheduling and provide a basis for analysis and interpretation. Learners will have to provide evidence that they can analyse and interpret reports and charts that could be generated from their scheduled project.

If delivered as part of the SQA Advanced Diploma in Business (GM8Y 48), links could be made with HR63 48 *Business: Graded unit 2*. If delivered as part of the SQA Advanced Diploma in Administration and Information Technology links could be made with HP6A 48 *Office Management*, HP3C 48 *Developing an Individual within a Team* and HP6K 48 *Administration and IT Graded unit 3*.

Outcome 5

It is anticipated that Outcome 5 will provide learners with the opportunity to develop their ability to summarise and make recommendations in relation to a practical activity. It presents opportunities for integration of delivery with other units such as HP79 48 *Presentation Skills*, HP6A 48 *Office Management*, HP0G 48 *IT in Business: Advanced Databases*, HP0H 48 *IT in Business: Advanced Spreadsheets* and HR63 48 *Business: Graded unit 2*.

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Outcome 1 may be delivered first to allow the learners to demonstrate an understanding of the essential underlying concepts (the nature of business information, information requirements for decision-making and information systems within organisations) in the decision-making process. Having successfully demonstrated their skills in this area they should then progress through Outcomes 2, 3 and 4. Finally, they should be given a practical assignment, which asks them to present a summary of their findings and recommendations from previous Outcomes using software application presentation tools (Outcome 5).

Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

Evidence could be generated through the use of case study or other stimulus material. The same case study could be used throughout with additional supplementary information for each Outcome.

An exemplar assessment pack and marking guidelines have been produced to indicate the national standard of achievement required at SCQF level 8.

Outcome 1

Learners may be asked to relate their knowledge to a particular business situation. Evidence could be written and/or diagrammatic representation which may be presented in response to questions based on a case study. There may be opportunities to assess this Outcome with Outcome 1 of the SQA Advanced Unit HP6A 48 *Office Management*.

Outcome 2

The same case study used in Outcome 1 may be used to cover all areas of knowledge and skill for this Outcome. Evidence could be generated through a report, or other assessment instrument.

Outcome 3

This Outcome may be assessed using a Project Requirements Scenario for a project related to the same case study used in Outcomes 1 and 2.

Assessment of Outcome 3 may be fully integrated with Outcome 4. The evidence could be generated through the development of a project using project management software, accompanied by an analysis and interpretation of reports and charts.

If delivered as part of the SQA Advanced Diploma in Administration and Information Technology (GM68 48) Outcome 2 of HP6A 48 *Office Management* may provide an alternative assessment scenario that could be used to create an appropriate project development. Opportunities to assess Outcomes 3 and 4 as part of the planning component of the team project within HP3C 48 *Developing an Individual within a Team* may also arise.

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Outcome 4

This Outcome could be assessed by a practical activity based upon the Project Requirements Scenario used in Outcome 3 to promote the integration of content.

Assessment of Outcome 4 may be fully integrated with Outcome 3. The evidence could be generated through the development of a project using project management software, accompanied by an analysis and interpretation of reports and charts. This analysis and interpretation could form the basis for the presentation in Outcome 5.

If delivered as part of the SQA Advanced Diploma in Administration and Information Technology (GM68 48), Outcome 2 of HP6A 48 *Office Management* may provide an alternative assessment scenario that could be used to create an appropriate project development. Opportunities to assess Outcomes 3 and 4 as part of the planning component of the team project within HP3C 48 *Developing an Individual within a Team* may also arise.

Outcome 5

Learners may be provided with a practical assignment allowing learners to select two areas from the unit upon which they will base their presentation. The presentation could explain or summarise findings from the previous work within the unit. The analysis and interpretation of reports and charts from Outcome 4 is one example of where the presentation could be linked.

This Outcome provides opportunities for the integration of assessment and evidence gathering with other units, particularly Outcome 2 of HP79 48 *Presentation Skills*. There are other opportunities to integrate assessment with HP0G 48 *IT in Business: Advanced Databases*, HP0H 48 *IT in Business: Advanced Spreadsheets* and HR63 48 *Business: Graded unit 2*.

Evidence can also be generated through mapping of content from Outcomes 1 to 4 of this unit such as the nature of information for decision making, implications of legislation governing the management and handling of information and any recommendations that may have been generated via assessment of Outcomes 2, 3 and 4.

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at <http://www.sqa.org.uk/e-assessment>.

Opportunities for developing Core and other essential skills

There are no Core Skills embedded in this unit. However, the unit offers opportunities for learners to gather evidence which could help them demonstrate achievement for the following Core Skills. The following table gives further information on the Core Skills to which the unit may contribute and on the opportunities which the unit provides for Core Skills development.

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Core Skill component Written Communication (Reading) of the Core Skill *Communication* at SCQF level 6

Learners undertaking this unit are expected to read and understand complex written information — the general skill of this component. They are expected to make use of theoretical concepts of *ICT* and will, therefore, have to read relevant material relating to these ideas. This information is conventionally available in textbook and similar sources such as websites which involve complex written material. Learners may be required during their study for the unit to prepare notes from such sources which will require that they identify and summarise relevant ideas and supporting details through their reading of the information available. In this way they will be able to demonstrate the first of the two specific skills associated with this Core Skills component.

Core Skill component Written Communication (Writing) of the Core Skill *Communication* at SCQF level 6

Learners can provide written evidence to meet the Evidence Requirements. For Outcomes 1 and 2 it is anticipated learners will provide a written response which ideally, will have to be well structured, laid out in a logical order showing sequential thinking and organisation of findings. By doing this, they could provide evidence for the general skill of this component which is 'Produce well-structured written communication on complex topics'. A report in particular could allow learners to demonstrate that they can meet all the specific skills associated with this general skill. For example, a good report would present all essential ideas and information on business information and decision making and data communication systems and emergent technologies in a logical and effective order as well as providing suitable supporting detail. The report itself could be presented in a way which can take account of the purpose of the report and the audience and which links major and minor points in ways which assist the clarity of the report and the impact of the writing. To meet the Core Skill component, the report would use a suitable structure, format and layout and, therefore, employ effective conventions to achieve its purpose. Spelling and punctuation would be accurate.

Core Skill component Critical Thinking of the Core Skill *Problem Solving* at SCQF level 6

The general skill for this component is 'Analyse a complex situation or issue'. A summative assessment for Outcomes 1, 2 and 4 in the form of a report would require that learners apply relevant concepts and analyse types of system, emerging technology and planning aids. Learners may also undertake formative assessment to help them prepare for the final assessment. Applying concepts and approaches effectively give learners the opportunity to demonstrate this Core Skill component. Learners could be encouraged to adopt this approach to their assessment to aid the development of this Core Skill. This unit could, therefore, yield evidence which learners could use to demonstrate their achievement of this Core Skill component.

Core Skill component Planning and Organising of the Core Skill *Problem Solving* at SCQF level 6

In Outcomes 3 and 4 learners are provided with a scenario from which they are required to produce a detailed plan, with or without the use of project management software. Learners have to identify where dependencies may exist between tasks, consider the use of resources and identify milestones. Automatic certification of this component is not possible because it is not mandatory for learners to carry out the task. However, the task can be linked with the units HP3C 48 *Developing the Individual within a Team*, and where learners have not already gained the Problem Solving Core Skill, they should be encouraged to seek certification of this component based on the evidence produced for these units.

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Core Skill component Reviewing and Evaluating of the Core Skill *Problem Solving* at SCQF level 6

Outcome 4 could involve the specific skill of ‘draw conclusions and make recommendations’ if learners make use of all the evidence available to them in order to make a recommendation for scheduling and any contingency that should occur. The completion of a response which demonstrates sequential thinking and organisation of findings could, therefore, provide evidence which could be used for this Core Skill component.

Core Skill *Information and Communication Technology (ICT)* at SCQF level 6.

The use of *ICT* independently to access information, provide information and create information across a range of tasks in Outcomes 3–5, could provide evidence for the development of this Core Skills. A combination of complex searches and a wide range of processing tasks could provide evidence of the components ‘Accessing Information and Providing/Creating Information’. Keeping information secure and well managed is an essential aspect of the Providing/Creating Information component at SCQF level 6.

Administrative information

Version	Description of change	Date

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SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of SQA Advanced Qualifications.

FURTHER INFORMATION: Call SQA's Customer Contact Centre on 44 (0) 141 500 5030 or 0345 279 1000. Alternatively, complete our [Centre Feedback Form](#).

General information for learners

Unit title: Information and Communication Technology in Business
(SCQF level 8)

This section will help you decide whether this is the unit for you by explaining what the unit is about, what you should know or be able to do before you start, what you will need to do during the unit and opportunities for further learning and employment.

This unit develops further your knowledge and skills in the area of information and communication technologies and is a two SQA Credit unit. It allows you to develop competence in identifying, evaluating, managing and presenting business information to facilitate and influence decision-making.

In **Outcome 1** you will consider the role of information in the decision-making process, this will involve looking at the difference between data and information, the different types of information required at different levels within organisations and how legislation impacts upon the management of information.

In **Outcome 2** you will also examine and evaluate data communications system security and ICT innovations, this will involve preparing strategies for evaluation and carrying out research on information and communication technologies.

Outcomes 3 and 4 are of a practical nature, in which you will learn how to use planning and control tools for project management.

Outcome 5 covers the use of software application presentation tools to present findings and recommend actions. This requires you to plan and prepare a presentation using a presentation software application, however you will not be required to deliver the presentation.

The unit may be assessed by a variety of means including structured questions, preparing reports, management briefing papers, charting projects and observation of your presentations. All of these assessments may be based upon the same case study though there may be opportunities to integrate some evidence with other appropriate subjects. These assessments may be carried out under a variety of conditions.

This unit may provide you with the opportunity to develop the Core Skills components of Critical Thinking, Planning and Organising, Reviewing and Evaluating, Written Communication (Reading) and Written Communication (Writing) at SCQF level 6, and the Core Skill of *Information and Communication Technology (ICT)* at SCQF level 6.