Information System Design and Development (Advanced Higher) Unit

SCQF: level 7 (12 SCQF credit points)

Unit code: H226 77

Unit outline

The general aim of this Unit is for learners to develop a deep knowledge and understanding of advanced concepts and processes relating to information system design and development. Learners will develop skills in developing and implementing complex information systems through practical tasks, using appropriate development tools.

Learners who complete this Unit will be able to:

1   Develop complex information systems using appropriate development tools
2   Explain how information systems are developed and managed

This Unit is a mandatory Unit of the Advanced Higher Computing Science Course and is also available as a free-standing Unit. The Unit Specification should be read in conjunction with the *Unit Support Notes*, which provide advice and guidance on delivery, assessment approaches and development of skills for learning, skills for life and skills for work. Exemplification of the standards in this Unit is given in *Unit Assessment Support*.

The *Course Assessment Specification* for the Advanced Higher Computing Science Course gives further mandatory information on Course coverage for learners taking this Unit as part of the Advanced Higher Computing Science Course.

Recommended entry

Entry to this Unit is at the discretion of the centre. However, learners would normally be expected to have attained the skills, knowledge and understanding required by one or more of the following or equivalent qualifications and/or experience:

♦ Information System Design and Development (Higher) Unit
♦ Higher Computing Science Course

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. For further information, please refer to the *Unit Support Notes.*

Standards

Outcomes and assessment standards

Outcome 1

The learner will:

1 Develop complex information systems using appropriate development tools by:

1.1 Using an appropriate design methodology
1.2 Implementing a searchable structure with a user interface
1.3 Writing code using a query language

Outcome 2

The learner will:

2 Explain how information systems are developed and managed by:

2.1 Explaining the role of project planning and management techniques
2.2 Explaining the need for testing, evaluation and maintenance

Evidence requirements for the Unit

Assessors should use their professional judgement, subject knowledge and experience, and understanding of their learners, to determine the most appropriate ways to generate evidence and the conditions and contexts in which they are used.

Evidence for Outcome 1 may be derived from a single information system of suitable complexity, or by developing a number of complex information systems, which may be of one or more types.

Evidence for Outcome 2 may be oral or written.

Exemplification of assessment is provided in *Unit Assessment Support*. Advice and guidance on possible approaches to assessment is provided in the *Unit Support Notes.*

Assessment standard thresholds

If a candidate successfully meets the requirements of the specified number of Assessment Standards they will be judged to have passed the Unit overall and no further re-assessment will be required.

The specific requirements for this Unit is as follows:

♦ 6 out of 9 Assessment Standards must be achieved.

It should be noted that there will still be the requirement for candidates to be given the opportunity to meet all Assessment Standards. The above threshold has been put in place to reduce the volume of re-assessment where that is required.

Development of skills for learning, skills for life and skills for work

It is expected that learners will develop broad, generic skills through this Unit. The skills that learners will be expected to improve on and develop through the Unit are based on SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work* and drawn from the main skills areas listed below. These must be built into the Unit where there are appropriate opportunities.

2   Numeracy

2.3   Information handling

3   Health and wellbeing

3.1   Personal learning

4   Employability, enterprise and citizenship

4.2   Information and communication technology (ICT)

5   Thinking skills

5.3   Applying
5.4   Analysing and evaluating

Amplification of these is given in SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work.* The level of these skills should be at the same SCQF level as the Unit and be consistent with the SCQF level descriptor. Further information on building in skills for learning, skills for life and skills for work is given in the *Unit Support Notes.*

Administrative information

Published: September 2018 (version 3.1)

Superclass: CB

History of changes to National Unit Specification

Version	Description of change	Authorised by	Date
2.0	Addition of new Outcome1. Revised Outcomes 2 and 3, and streamlined their respective Assessment Standards. Revised Unit Outline to reflect above changes.	Qualifications Development Manager	April 2015
3.0	Deletion of outcome 3	Qualifications Manager	February 2016
3.1	Assessment standard threshold added.	Qualifications Manager	September 2018