Higher National Unit specification

General information for centres

Unit title: Interactive Media: Planning

Unit code: F1VS 34

Unit purpose: This Unit is designed to enable candidates to develop knowledge and skills in planning for the development of an interactive media application, website or media element.

On completion of the Unit the candidate should be able to:

1   Produce a requirements specification from a given brief.
2   Produce a detailed design specification.
3   Produce a testing and evaluation strategy.

Credit points and level: 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.

Recommended prior knowledge and skills: Access to this Unit will be at the discretion of the Centre. It is recommended that candidates have already achieved the Core Skill of Problem Solving at Intermediate 1. This may be evidenced by the possession of a relevant National Units or comparable competence gained informally or by suitable work experience.

Core Skills: The achievement of this Unit gives automatic certification of the following:

♦   Critical Thinking at Higher

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.

It is strongly recommended that this Unit be delivered in advance of, or in conjunction with, an associate Unit. An appropriate approach to integrated delivery of the two Units should be considered and this will probably take the form of a common case study to be used for both Units – the investigation, analysis and design stages as required by this Unit – followed by implementation in the relevant associate Unit which is being delivered alongside/subsequently.

General information for centres (cont)

Assessment: Evidence is required that candidates have achieved all Outcomes. Candidates are encouraged to use the Internet in any research, etc however, the evidence produced must be the candidate's own words. Assessors should ensure themselves of the authenticity of candidate's evidence.

Written and/or oral recorded evidence is required which demonstrates that the candidate has achieved the requirements of all of the Outcomes to show that the candidate has appropriate knowledge and understanding of the content of this Unit.

The candidate will be required to produce a requirements specification, design specification, test strategy and evaluation strategy. The format of the evidence generated shall be at the discretion of the Centre. This could be a word processed document with relevant appendices, a series of documents pertaining to each Outcome, a presentation or suitable alternative.

All assessments within this Unit should be presented as open-book. Due to the nature of this open-book assessment presentation assessors should assure themselves of the authenticity of each candidate's submission.

The Assessment Exemplar Pack for this Unit provides sample assessment materials including assessor checklists, practical tasks and an instrument of assessment for the knowledge. Centres wishing to develop their own assessments should refer to the Assessment Exemplar Pack to ensure a comparable standard.

Higher National Unit specification: statement of standards

Unit title: Interactive Media: Planning

Unit code: F1VS 34

The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

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. Candidates 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

Produce a requirements specification from a given brief

Knowledge and/or Skills

♦ Analyse a problem
♦ Identify functional requirements
♦ Identify non-functional requirements
♦ Verify the specification

Outcome 2

Produce a detailed design specification

Knowledge and/or Skills

♦ Prepare an appropriate design specification based on the requirements specification
♦ Justify design decisions in relation to the requirements specification

Outcome 3

Produce a testing and evaluation strategy

Knowledge and/or Skills

♦ Select appropriate methods for testing and evaluation
♦ Prepare a testing strategy, test plan, test cases, test data and expected results
♦ Prepare an evaluation strategy

Higher National Unit specification: statement of standards (cont)

Unit title: Interactive Media: Planning

Evidence Requirements for this Unit

Candidates will need evidence to demonstrate their knowledge and/or skills to show that they can:

♦ Produce a requirements specification which seeks to:

  — Analyse a given brief
  — Establish objectives
  — Identify all functional requirements
  — Identify appropriate non-functional requirements
  — Verify the requirements specification against the given brief

♦ Produce a detailed design specification (based on the requirements specification) and make appropriate justification for design decisions. The content of the design specification will vary depending on the requirements of the brief, analysis and approach. The completed design specification should be suitable for use as the basis for implementation by a third party. It is of the essence that the design specification be clear and concise and that there be a direct correlation between this and the requirements specification. If the requirements specification identifies the need to plan for the development of an interactive media application or website then it would be appropriate to include and justify the following information within the design specification: navigational structure (eg navigation map), interface design (eg storyboards), interaction styles (eg keyboard, mouse, icon, menu), use of colour and typography, proposed acquisition and use of media elements and/or positioning of media elements.

♦ Produce a test strategy:

  — Select and justify at least two methods suitable for use in the testing of the planned solution
  — Define, document and justify a test plan containing appropriate and comprehensive test cases with the aim to ensure that the planned solution satisfies functional requirement and to determining whether the solution is robust and fit for purpose
  — Prepare sample data appropriate for each of the defined test cases and abnormal data should be included.
  — Record the expected result for each test case and data set

♦ Carry out an evaluation strategy:

  — Document how the planned solution will be evaluated
  — Define evaluation criteria
  — Prepare documentation suitable for gathering evaluative data

Assessment Guidelines for this Unit

A holistic approach to assessment would allow candidates to gain an awareness of all Knowledge and Skills from the outset, and allow for the production of structured, methodical and coherent documentation containing the requirements specification, design specification, test strategy and evaluation strategy.

Administrative Information

Unit code: F1VS 34

Unit title: Interactive Media: Planning

Superclass category: CE

Original date of publication: August 2007

Version: 02 (April 2009)

History of changes:

Version	Description of change	Date
02	References made to Outcome 4 removed as Unit only contains three Outcomes.	24/04/09

Source: SQA

Higher National Unit specification: support notes

Unit title: Interactive Media: Planning

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

The Unit focuses on the activity associated with the 'planning for development' of an interactive media application, website or digital media element. This Unit covers the planning and does not require the candidate to undertake the implementation of the actual product produced. This Unit can also be delivered alongside or subsequent to an associate or an accompanying such as HN Unit F1VT 34 *Interactive Media: Authoring* to facilitate the implementation.

Outcome 1 aims to engage candidates in critical thinking by analysing a given problem and establishing a set of (SMART) objectives. Functional (user, system) requirements are likely to become apparent as candidates gain an understanding of what a solution must achieve. Non-functional requirements (eg constraints) should also become apparent as candidates consider the perceived functional requirements against their own knowledge, skills, time and available resources. This should enable candidates to define realistic scope, setting and modifying objectives accordingly. Collectively this will form the requirements specification. On completion of the requirements specification, candidates shall ensure validity by engaging in a process of verifying its contents against the given brief.

Outcome 2 focuses on the development of a design specification. Content may vary depending on the nature of given brief. Typically, in the development of an interactive media application or website, it would be pertinent to address design considerations such as:

♦ Navigation structure
♦ Interface design (layout, use of colour, typography, use and positioning of media elements)
♦ Interaction styles
♦ Accessibility and legislative compliance
♦ Justification of design decisions in relation to the requirements specification

Outcome 3 requires that candidates consider strategies for testing and evaluation. The aim is to ensure that the solution is robust, satisfies these functional requirements and can be considered fit for purpose.

The test strategy requires candidates to select and justify two or more test strategy methods to be used in the testing of a solution. For each method, the candidate will define, document and justify appropriate and comprehensive test cases and prepare sample data for each.

Higher National Unit specification: support notes (cont)

Unit title: Interactive Media: Planning

On completion of the Unit, the candidate is likely to have produced comprehensive planning documentation. In theory, this should allow a third party to implement, test and evaluate a solution based on the planning documentation produced by the candidate – with no, or very limited, requirement by a third party to refer back to the candidate, interpret further or rely on anything other than the planning documentation. The candidate should therefore ideally generate all evidence with a third party in mind.

Guidance on the delivery and assessment of this Unit

Candidates should be provided with a brief from which to work. Examples of the type of brief that may be considered include: a website, interactive media application or a media element. In understanding the problem, it is feasible that the candidate may seek clarification of the brief. This may form part of their analysis (Outcome 1).

Outcome 1

It will be necessary for candidates to produce a requirements specification. Outlined below is an indication of how the requirements specification may relate to each of the Evidence Requirements:

♦ Analysis of the given brief, showing the candidates understanding of the problem, factors involved and perceived relevance with a clear set of measurable objectives are likely to emerge and indication of scope
♦ Identification of functional requirements
♦ Identification of non-functional requirements
♦ Verification that the requirements specification fulfills the criteria of the given brief

Outcome 2

Candidates will develop a design specification based on the evidence generated in Outcome 1. The content of the design specification may vary depending on the original brief – for example, planning for the development of a website is likely to warrant inclusion of the proposed navigation structure. However, planning for the development of a media element, such as a 3D animation, is less likely to have such a requirement.

Where appropriate, a navigational structure will clearly show how the proposed pages (screens or content) relate or a navigation map, structure chart or similar would suffice.

In the majority of cases, storyboards would be appropriate to illustrate the proposed screen layout. Detail of colour scheme, fonts, use of media elements and positioning should be clear. Further documentation will contain justification of how design decisions relate to, and address, specific aspects of the requirements specification.

It would also be appropriate for the candidate to consider, document and provide justification of decisions taken with regards to interaction styles, media acquisition, copyright and accessibility.

Higher National Unit specification: support notes (cont)

Unit title: Interactive Media: Planning

Outcome 3

Candidates will plan a test strategy. This will require selection and justification of two or more methods deemed appropriate to test the solution being planned. Candidates will define, document and justify relevant and comprehensive test cases, preparing sample data for each.

As an example, candidates may plan to test for robustness using a range of data, some of this will be abnormal, recording the expected result. Candidates may also plan to test the solution through controlled observation involving users from the target group. Candidates should be encouraged to be methodical in approach.

Opportunities for developing Core Skills

The achievement of this Unit gives automatic certification of the following:

♦ Critical Thinking at Higher

Open learning

If this Unit is delivered by open and distant learning methods, additional planning and resources may be required for candidate support, assessment and quality assurance.

A combination of new and traditional authentication tools may have to be devised for assessment and re-assessment purposes. For further information and advice, please see *Assessment and Quality Assurance for Open and Distance Learning* (SQA, February 2001 Publication Code A1030).

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website **www.sqa.org.uk/assessmentarrangements**

General information for candidates

Unit title: Interactive Media: Planning

This Unit aims to develop your knowledge and skills in analysing a problem, identifying requirements, planning a design and preparing to test and evaluate a solution.

The focus of this Unit is on the processes of planning. It does not require that you implement a solution. It should however be delivered alongside or subsequent to an associate Unit, eg F1VT 34 *Interactive Media: Authoring* which can be used to implement a solution based on a pre-existing plan. If the Unit is to be delivered in conjunction with the HN Unit F1VT 34 *Interactive Media: Authoring* or another associated HN Unit, then it is likely that the planning documentation be integrated with the delivery and assessment of the other Unit. This is likely to take the form of an on-going case study. Where the Unit is to be presented on its own, then a similar case study approach may still be adopted but will exclude the implementation stage.

On completion of this Unit, you will have produced:

♦   A 'requirements specification' containing analysis of a given brief (problem), set of objectives, functional requirements, non-functional (constraints) requirements and a means of verifying that the requirements specification fulfils the expectations given brief.

♦   A detailed 'design specification' based on the requirements specification. The completed design specification should be comprehensive and should allow a third party to use your design specification as the basis for implementation. It therefore should be clear, concise and detailed. It may contain: a navigation map to clearly show how you propose how to link various pages or screens; a series of detailed storyboards to illustrate page layout, colour schemes, typography (fonts, sizes, styling, alignment), use of media elements (eg icons, graphics, sound, video, animation) or interaction styles. Justification of design decisions should also be present.

♦   A 'test strategy' containing details of what is to be tested, how it is to be tested, why it is being tested and expected Outcomes. The test strategy should ensure that the solution meets the original objectives and that it be deemed robust and fit for purpose. Testing may involve end-users and abnormal data.

♦   An 'evaluation strategy' showing how the solution will be evaluated, evaluation criteria and means of gathering the data. You may use any approach deemed appropriate. Reflection and self-evaluation, as well as end user feedback could be considered.

The knowledge and skills gained in this Unit should serve as a foundation in planning a solution within an interactive media or related development area. Careful attention to good design and thorough testing of the solution to a problem will form a solid basis in the production of high quality, reliable and efficient product.