



National Unit specification: general information

Unit title: Mobile Technology: Web Page Creation (SCQF level 6)

Unit code: H2PD 12

Superclass: CB

Publication date: October 2012

Source: Scottish Qualifications Authority

Version: 01

Summary

This Unit develops understanding of website development for mobile devices and allows candidates to apply that knowledge when planning, designing and developing a mobile website with static content to recognised standards.

While the Unit is suitable for candidates who have no prior knowledge of mobile technology, a working knowledge of the basics of a computer operating system would be an advantage.

This is an optional Unit within the National Progression Award (NPA) in Mobile Technology (SCQF level 6), but is also available as a freestanding Unit.

Outcomes

- 1 Plan and design a website for a mobile device.
- 2 Develop the layout and content of a website using a mark-up language.
- 3 Upload and test the website.

Recommended entry

While entry is at the discretion of the centre, it would be beneficial if candidates have achieved the Unit *Mobile Technology: Web Page Creation* (H1T2 11), or equivalent:

Credit points and level

1 National Unit credit at SCQF level 6: (6 SCQF credit points at SCQF level 6*)

**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.*

General information (cont)

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Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the support notes of this Unit specification.

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

National 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.

Outcome 1

Plan and design a website for a mobile device.

Performance Criteria

- (a) Create a Design Specification for a mobile website.
- (b) Identify the media that will be used in the website.
- (c) Identify the restrictions on the site media.

Outcome 2

Develop the layout and content of a website using a mark-up language.

Performance Criteria

- (a) The website is structured and developed using HTML.
- (b) The website is formatted using CSS.
- (c) Appropriate images are sourced/created.
- (d) An appropriate site icon is created and used.

Outcome 3

Upload and test the website.

Performance Criteria

- (a) The web page is validated against the W3C standards.
- (b) The website is evaluated against the requirements spec.
- (c) The website is uploaded to a web server.
- (d) The website is tested and fully operational.

National Unit specification: statement of standards (cont)

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Evidence Requirements for this Unit

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

Evidence will be produced in open-book conditions at appropriate points throughout the Unit. Candidates must produce a folio containing the following:

- ◆ a design specification for a proposed website for a mobile device that meets a client brief and takes into account the output medium and needs of the client
- ◆ description of all media, and media specification (to include dimensions, file size, file format)
- ◆ a justification for file types, dimensions and sizes
- ◆ a website consisting of four pages which includes text and graphical content. The website must use cascading style sheets (CSS) and feature all of the following:
 - text
 - optimised images
 - div tags
 - unordered list
 - a favicon
- ◆ test documentation which details functional errors, accessibility and usability issues which have been identified
- ◆ evaluation documentation which details the client's requirements and how the website meets these requirements
- ◆ screenshots of validation of code

The website must be uploaded, available and operational on a web server (either a server on an internal network, or a server accessible on the internet).

National Unit specification: support notes

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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 introduction to this Unit should outline the website design and development process, ie definitions, structure, design, build, test, launch, and redesign. Emphasis should be made on the cyclical and iterative nature of the design process.

Candidates should be presented with a scenario where they have to create a website for a mobile device to a given brief. Based on this brief, a design specification should be created, identifying the aims of the project, and the way in which they aim to design the pages to suit the needs of the brief.

The identification of media to be used in the site should be presented in the form of a list, documenting the type of media and, if applicable the file size, dimensions and format. Whilst identifying/creating the text that will be used, it would be advantageous if the text was saved in a text file and documented in this list.

A simple knowledge of usability should be demonstrated, giving examples of layout issues of web pages. Design principles that are particular to mobile devices should be delivered in the context of web design and examples of good and bad use of design should be demonstrated.

Candidates are expected to take a project-based approach to Outcomes 1, 2 and 3. In Outcome 2 candidates should develop or source media to be used in the project. If sourcing files, copyright laws must be adhered to. The web pages and style sheets that are to be developed in Outcome 2 should be hand-coded, although use of the code editor in a WYSIWYG package is acceptable. Candidates should be encouraged to apply design, usability and accessibility principles in developing their web pages.

The site icon could take the form of a favicon which can be used by various systems as a desktop icon.

Although informal testing and evaluation will take place throughout the project, Outcome 3 will provide a change to document the functional testing of the project. A checklist of functioning elements would be a possible method of testing. Usability and accessibility evaluation could be presented in the form of a short report documenting the considerations and Outcomes of these considerations.

National Unit specification: support notes (cont)

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Guidance on learning and teaching approaches for this Unit

While all of the Outcomes in this Unit can be thought of as practical, it is important to develop the knowledge and understanding of the underpinning theory. With regards to the design specification, the theory behind good mobile design should be covered, such as the sizing and positioning of elements, the reason behind the selection of certain media and the restrictions on file type and file size. Examples of mobile versions of websites could be discussed in relation to their 'full' site or 'desktop' site.

In Outcome 2, HTML tags could be taught to candidates as individual tags. Demonstrations of the uses of HTML tags would be useful. The power of CSS, in terms of presentations, should be encouraged at an early stage in order to build familiarity and confidence. The advantages of using CSS should also be emphasised, both as a time and resource saver. Candidates should try building and linking their own pages based on a theme of their (or the tutor's) choice. The creation of images should be taught in relation to mobile devices, ie compact and compressed. Candidates should also be encouraged to use graphics that relate well to the subject matter. The same ideas should be applied to a site icon.

Outcome 3 involves testing and evaluating the live site. This can be fitted into the development life cycle if the tutor wishes. The importance of implementing sites to W3C standards should be introduced to candidates at an early point in the Unit, and shouldn't be seen as an afterthought. It would be advantageous for this to be in the minds of candidates as they begin implementation of the HTML code. Uploading to a server can be a local server or a server on the worldwide web. A simple testing document would establish that candidates have understood what makes the site functional.

Guidance on approaches to assessment for this Unit

This Unit can be holistically assessed. However, centres must ensure the requirements for each Outcome are appropriately met. This could involve designing specific checks for Outcomes 1, 2 and 3 separately, into the assessment, possibly by means of a checklist.

Evidence will be produced in open-book conditions and is intended to be gathered at appropriate points throughout the Unit rather than on one assessment occasion. However, assessors must assure themselves of the authenticity of each candidate's work.

For Outcome 3, an observation checklist should be used, indicating that the website is uploaded, available and operational on a web server (either a server on an internal network, or a server accessible on the internet), has been tested and revisions made after testing.

Opportunities for the use of 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 e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

National Unit specification: support notes (cont)

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Opportunities for developing Core Skills

In this Unit candidates are required to use computer applications software to create, capture and edit graphics and to create and upload web pages. These tasks provide opportunities to develop aspects of the Core Skills of *Information and Communication Technology*.

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

History of changes to Unit

Version	Description of change	Date

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