National Unit specification

General information

Unit title: Computing: Website Design Fundamentals (SCQF level 5)

Unit code: H613 45

Superclass: CB

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Unit purpose

The Unit is designed to develop knowledge and understanding in recognised design principles which should be applied to web pages in order to make them usable, effective and efficient. Learners will develop practical skills in creating web pages from unformatted source material using web authoring software. The web pages will then be browser tested and evaluated against the design principles.

This is an introductory Unit aimed at learners who have an interest in designing usable and effective websites.

This is an optional Unit within the National Certificate in Computing with Digital Media at SCQF level 5, but is also available as a free-standing Unit.

Outcomes

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

1 Evaluate existing web pages for visual design, effectiveness and efficiency.
2 Design and create web pages that follow recognised design principles using unformatted source material.
3 Test the appearance of web pages.

Credit points and level

1 National Unit credit at SCQF level 5: (6 SCQF credit points at SCQF level 5)

National Unit specification: General information (cont)

Unit title: Computing: Website Design Fundamentals (SCQF level 5)

Recommended entry to the Unit

Entry is at the discretion of the centre. Learners doing this Unit do not need prior knowledge. However it would be beneficial if learners possessed basic digital literacy skills. This may be evidenced by possession of: F3GC 10 *Information and Communication Technology* or equivalent qualifications or experience.

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. A list of existing ASPs is available to download from SQA's website **(http://www.sqa.org.uk/sqa/46233.2769.html)**.

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**.

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

Evaluate existing web pages for visual design, effectiveness and efficiency.

Performance Criteria

(a) Evaluate different web pages according to the principles of visual design.
(b) Evaluate different web pages for effectiveness in communicating information.
(c) Evaluate different web pages for efficiency in downloading.

Outcome 2

Design and create web pages that follow recognised design principles using unformatted source material.

Performance Criteria

(a) Design web pages that follow design principles for visual appearance.
(b) Select unformatted material from legitimate sources for inclusion in these web pages.
(c) Use web authoring software to create the designed web pages from the unformatted source material.
(d) Use web authoring software features to control style, position content and set dimensions in the designed web pages.

Outcome 3

Test the appearance of web pages.

Performance Criteria

(a) Test the completed web pages for their appearance on different web browsers.
(b) Review the completed web pages against design principles for visual appearance.

National Unit specification: Statement of standards (cont)

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Evidence Requirements for this Unit

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

Learners must demonstrate an understanding of recognised design principles which should be considered in the creation of web pages which are both effective and efficient. Learners must demonstrate that they can design and create web pages using web authoring software.

Learners are allowed access to suitable online and offline materials.

Outcome 1

For Outcome 1, evidence generated under supervised open-book conditions is required.

The evidence must show that learners can evaluate three or more existing web pages against at least four of the following design principles for visual appearance, effectiveness and efficiency:

- Communication
- Layout
- Consistency
- Visual clarity
- Navigation
- Download time

Outcome 2

For Outcome 2, product evidence generated under supervised open-book conditions is required.

The evidence must show that learners can design and create a minimum of four web pages.

The design and completed web pages must demonstrate that the learner can incorporate recognised design principles and use web authoring software to create web pages from unformatted material.

The learner must design and create a minimum of four web pages with each page containing, text, at least one image and working navigation between the pages.

The HTML produced must demonstrate at least:

- Structure and layout tags
- Paragraph and headings
- Links
- Images

The CSS produced must demonstrate at least:

- Text formatting
- Background colour
- Dimensions and position
- Borders

Outcome 3

For Outcome 3, evidence generated under supervised open-book conditions is required.

The evidence must show that learners can test their web pages on at **least two different web browsers** and can compare their own web pages against all of the design principles:

- Communication
- Layout
- Consistency
- Visual clarity
- Navigation
- Download time

National Unit Support Notes

Unit title: Computing: Website Design Fundamentals (SCQF level 5)

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 40 hours.

Guidance on the content and context for this Unit

This is an optional Unit within the NC in Computing with Digital Media at SCQF level 5, but is also available as a free-standing Unit.

The overall aim of the Unit is to provide the learners with knowledge and skills to design and create visually pleasing, efficient and effective web pages using web authoring software.

The precise content of this Unit will change over time, as technology develops and new devices are introduced.

Outcome 1

The aim of Outcome 1 is to allow the learner to gain knowledge of recognised design principles to be considered when creating a web page which has good visual appearance. Learners must be aware of:

Communication

Does the website communicate the information that you would expect? Is it easy to read? Is the information relevant, up-to-date and correct? Is the information written in a way that suits the target users?

Layout

Is the layout visually pleasing? Is it in a logical order? Does it make sense?

Consistency

Are text fonts, colours and sizes consistent between pages in the body text, headings and links? Are the colours used in the website consistent throughout? Is the navigation position and link order the same on each page?

Visual clarity

Is text easy to read? Are images good quality and relevant? Do the website colours make it easy to use? Is related information in close proximity?

National Unit Support Notes (Cont)

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Navigation

Is the navigation easy to use? Are links obvious?

Download time

Does the website load fast? Do any images or other media elements take a while to load?

Outcome 2

The aim of Outcome 2 is to allow the learner to design web pages which incorporate recognised design principles and to become proficient in the use of web authoring software to create web pages which include text, images and links.

The learner does not need to code HTML and CSS to achieve this.

The website layout should be constructed and text and image content added. This will generate HTML.

Formatting of the layout, text, images and links should be achieved using the authoring tools built in CSS properties.

Learners should also gain the skills to allow them to obtain unformatted material which can take the form of text and images to use for the creation of web pages and that the use of this material adheres to copyright laws.

Outcome 3

The aim of Outcome 3 is to allow the learner to gain skills in testing web pages in different browsers and evaluating their own web pages against recognised design principles for visual appearance, effectiveness and efficiency.

Guidance on approaches to delivery of this Unit

Learners will require individual access to the internet and appropriate hardware and software throughout this Unit.

It is advisable that the Outcomes are delivered in the sequence in which they were written.

Learners will benefit from being introduced to basic design principles before designing, creating and testing web pages.

National Unit Support Notes (cont)

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Outcome 1

The purpose of each of the design principles will have to be introduced. Learners should be encouraged to study a variety of websites and evaluate them against the principles and discuss the findings. The design principles that should be covered are:

- Communication
- Layout
- Consistency
- Visual clarity
- Navigation
- Download time

If resources are available it would be beneficial for the learners to view websites on different devices and compare the usability, effectiveness and efficiency.

Outcomes 2 and 3 should be delivered in a holistic way.

The learner should be taught to produce a design for a web page before creating it. This can be done in various ways, either on paper or digitally.

Appropriate practical activities should be taught and used to illustrate and exemplify the knowledge and understanding required to enable the learner to use web authoring software to create web pages which will include text, images and links.

It may be beneficial to introduce the learner to basic HTML and CSS prior to using web authoring software.

As well as testing their own web pages out on different browsers, it would be useful for learners to compare existing websites on different browsers. It may be beneficial to introduce the learner to viewing websites on various devices as well as different browsers.

Learners should also compare their own web pages against recognised design principles for visual appearance. The comparison feedback could be recorded in a table where the learner can give a score for each principle and a reason for the score given.

The amount of time spent on each area of content will vary depending on the teaching methodology used and the ability and prior experience of the learners. While the actual distribution of time is at the discretion of the centre a recommended distribution of time is as follows:

Outcome 1 10 hours
Outcome 2 25 hours
Outcome 3 5 hours

National Unit Support Notes (cont)

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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 for 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.

Outcome 1

Learners should be given access to web pages that demonstrate various aspects of visual appearance, effectiveness and efficiency. A pro forma might be provided to assist learners in their evaluation of different web pages against each of the following criteria:

- Communication
- Layout
- Consistency
- Visual clarity
- Navigation
- Download time

The learner will be expected to evaluate a minimum of three given web pages against the design principles for visual appearance and effectiveness and efficiency. The web pages should be varied and demonstrate a variety of the listed design principles.

The evidence for Outcomes 2 and 3 should be generated under open-book conditions. Whether this need be under supervised or unsupervised conditions is at the discretion of the assessor and the centre; however evidence must be produced under controlled conditions whenever possible and where appropriate. The amount of control will vary from context to context. However, in every case, the conditions of assessment must be controlled to some extent. Where the amount of control is low, the amount of authentication should rise. It is not acceptable to produce evidence in lightly controlled conditions with little authentication.

Authentication may take various forms including, but not limited to, oral questioning and plagiarism checks. Some forms of evidence generation (such as video recordings) have intrinsic authentication and would require no further means of verification. Where evidence is not generated under closely controlled conditions (for example, out of class) then a statement of authenticity should be provided by the learner to verify the work as their own, and also state any necessary sources and permissions.

National Unit Support Notes (cont)

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Outcome 2

This Outcome is practical by nature and requires the learner to demonstrate practical skills by designing and creating a minimum of four web pages which must consider the above design principles. The topic for the practical activity should be supplied by the assessor. Alternatively, learners can suggest their own topic but this must also be agreed with their assessor.

The design for each page could be produced on paper or digitally and should demonstrate the design principles.

Outcome 3

An assessor observation checklist could be completed by the assessor to confirm the learner has tested the web pages on two or more browsers for visual appearance, effectiveness and efficiency.

An evaluation form could be completed by the learner to give evidence that they have evaluated their own web pages against the design principles for visual appearance, effectiveness and efficiency. The evaluation form could be a pro forma which lists the principles and allows the learner to give a score and reason for the score for each principle.

An assessor observation checklist could be used to record that all the tasks have been undertaken correctly by the learner. An assessor should endorse each checklist with the learner's name, signature and date.

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 **www.sqa.org.uk/e-assessment**.

Opportunities for developing Core and other essential skills

This Unit will provide opportunities for learners to develop Core Skills in *Information and Communication Technology (ICT)* and *Problem Solving.*

Enterprise, employability and citizenship could also be incorporated depending on the nature of the website being designed and created. Skills in testing and evaluation will also be developed.

History of changes to Unit

Version	Description of change	Date

General information for learners

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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 will introduce you to recognised design principles, for example layout, consistency, and readability which should be applied when you create websites.

You will develop practical skills in creating web pages using web authoring software and be encouraged to apply the design principles that you have learned.

You will test web pages in different browsers to see how they look and if they comply with the design principles.

To achieve this Unit you will be assessed on your ability to evaluate existing websites and carry out a practical assessment where you will apply design principles to web pages that you create.

You do not need experience of creating web pages before attempting this Unit, however it would be beneficial if you possessed basic digital literacy skills.

On completion of this Unit you will be able to:

1 Evaluate existing web pages for visual design, effectiveness and efficiency.
2 Design and create web pages that follow recognised design principles using unformatted source material.
3 Test the appearance of web pages.