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OCR LEVEL 2 CAMBRIDGE TECHNICAL CERTIFICATE/DIPLOMA IN IT

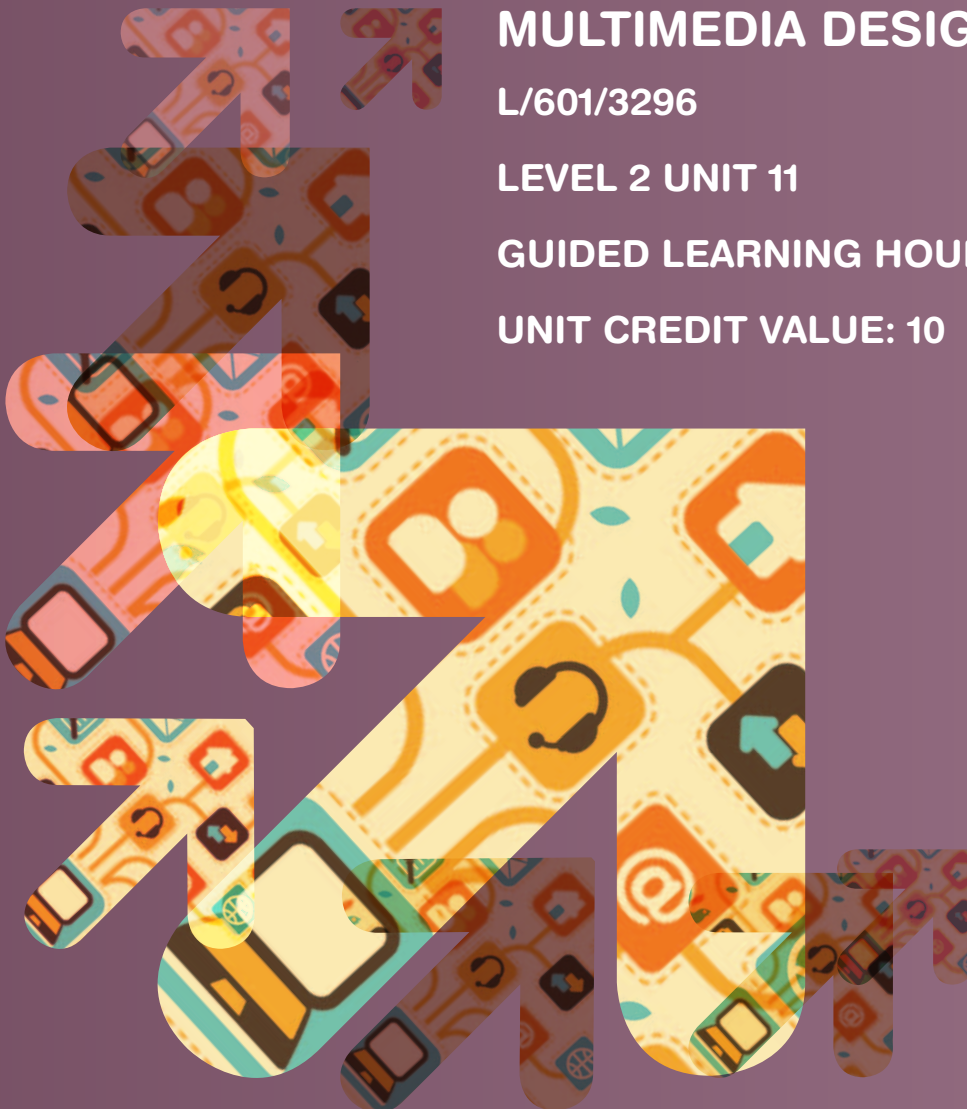
MULTIMEDIA DESIGN

L/601/3296

LEVEL 2 UNIT 11

GUIDED LEARNING HOURS: 60

UNIT CREDIT VALUE: 10



MULTIMEDIA DESIGN

L/601/3296

LEVEL 2

AIM OF THE UNIT

Multimedia programs are used by businesses to convey their message or product to an audience using a combination of images, animation, video and sound. Multimedia can be used for a variety of reasons such as product marketing, to educate, to entertain or a combination of purposes. As new technologies emerge, creativity is essential to capturing and keeping an audience's attention.

This unit will allow learners to investigate a range of multimedia applications through various mediums such as the Internet, DVD-ROM, CD-ROM and mobile phone applications. The unit will prepare learners to design, create, test and review their own multimedia application.

The aim of the unit is to provide learners with an understanding of planning and developing multimedia products for a purpose and an understanding of the importance of presenting appropriately to a client and reviewing own work and accepting and actioning feedback.

ASSESSMENT AND GRADING CRITERIA

Learning Outcome (LO) The learner will:	Pass The assessment criteria are the pass requirements for this unit. The learner can:	Merit To achieve a merit the evidence must show that, in addition to the pass criteria, the learner is able to:	Distinction To achieve a distinction the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
1 Understand different types of digital media	P1 explain the purpose of different types of digital media	M1 discuss the effectiveness of different types of digital media	
2 Be able to design multimedia products	P2 design a multimedia product to meet a given specification	M2 produce annotated designs and layouts for a multimedia product	
3 Be able to develop multimedia products	P3 develop a multimedia product		D1 demonstrate optimisation of multimedia elements
	P4 use appropriate tools to manipulate multimedia products	M3 test a multimedia product for functionality, usability, readability and accessibility	D2 create guidance for users of a multimedia product
4 Be able to present and review multimedia products	P5 present a multimedia product to a defined audience		
	P6 review a multimedia product		

TEACHING CONTENT

The unit content describes what has to be taught to ensure that learners are able to access the highest grade.

Anything which follows an i.e. details what must be taught as part of that area of content.

Anything which follows an e.g. is illustrative, it should be noted that where e.g. is used, learners must know and be able to apply relevant examples to their work though these do not need to be the same ones specified in the unit content.

LO1 Understand different types of digital media

Digital media

- still and moving images, art, video, audio, animation, simulations, games.

Purposes

- entertainment and leisure
- communication and socialising
- education and training
- marketing
- virtual reality simulations
- publishing
- customer services/support.

Target audience

- primary, secondary, tertiary
- criteria (e.g. Age, gender, location, income, education).

LO2 Be able to design multimedia products

Multimedia products

- limited interactivity (e.g. training demonstrations, digital posters, advertisements, quizzes)
- fully interactive (e.g. games, simulation tools, information points, digital stories, virtual tours).

Specification

- purpose
- target audience
- interactivity
- content
- budget
- scope
- copyright implications
- features
- input methods (e.g. keyboard, mouse, voice recognition, touch screen, stylus, digital video or still camera, microphone).

Planning documentation

- visuals (e.g. storyboards, scripts, flow charts, navigation maps, mind maps, annotations, timelines)
- technical details (e.g. size, frames, consistency)
- project management (e.g. plans, task lists, charts).

Elements

- assets (e.g. text, still and moving images, graphics, sound, animation, games)
- interactive features and transitions (e.g. menus/submenus, buttons, links, pop-ups, video and sound clips).

LO3 Be able to develop multimedia products

Develop

- source and prepare components
- prepare product structure
- combine information (e.g. insert, wrap, order, group)
- manipulate content (e.g. size, crop images, position)
- enhance product (e.g. border styles, colours and font schemes, existing styles and schemes).

Multimedia tools for preparation

- use software applications
- graphics, image and video editing and illustration
- animation and digital games
- sound editing, recording
- development with specialist software (e.g. Flash, Silverlight, Director, Mediator).

User guide

- navigation diagram
- navigation methods (e.g. buttons, menus, hyperlinks)
- multimedia functions (e.g. video playback, sound control)
- system requirements
- help facility.

Optimisation

- file formats
- file size

- compression/codecs
- dimensions.

Test

- create test plan/table
- functionality (e.g. working internal/external navigation, content loads/works)
- usability (e.g. clear navigation, easy to use, speed)
- speed
- accuracy of content (e.g. spell checked and proof read)
- readability (e.g. text readable with background colour, size and font are legible)
- accessibility (e.g. viewable in different screen resolutions, computer/laptop)
- overall performance (e.g. the product does what is was required and designed to do, does it work on the identified platform).

LO4 Be able to present and review multimedia products

Presentation and Delivery

- web based
- portable media (e.g. CD/DVD, memory stick)
- on-screen demonstration
- interactive accessibility
- group presentation.

Review

- prepare clear feedback recording documentation
- reviewers (e.g. self, client, audience)
- gather feedback (e.g. questioning, observation, feedback forms)
- analyse feedback (e.g. to identify errors, improve core product, further enhancements).

DELIVERY GUIDANCE

Understand different types of digital media

To enable learners to create their own multimedia product, it is necessary for them to firstly understand the different categories and uses of packages available as well as the delivery methods (e.g. TV, handheld device, gaming device, web pages, CD/DVD-ROM). Tutors must ensure that learners discuss, explore and consider a range of delivery methods as small or large groups. They should discuss the different purposes and compare the differences between content (images, animation, sound, simulations, games and/or video), they could add to this discussion evidence they may have found through research and personal experience. They should look at examples of the uses of digital media from these categories:

- Entertainment and leisure (e.g. Phone apps/games, CD-ROM's – film guides)
- Communication and socialising (e.g. social network, instant messaging and interactive dialog, shared content sites)
- Education and training (e.g. simulation software, encyclopaedias)
- Marketing (e.g. Websites promoting films, music, events)
- Virtual reality (e.g. Websites with virtual tours)
- Publishing (e.g. News and newspaper websites)
- Customer services (e.g. Websites which allow customers to communicate such as utility and telecommunication companies).

There should be an opportunity for discussion of products and for students to engage in using some of the products to enable them to appreciate the content and functionality. Although it is most likely examples will be from an American or British market, it would be beneficial to look at examples from other countries and learners could comment on differences and similarities.

It would be useful for learners to practice in groups or in tutor led discussions analysing products for strengths and weaknesses, and whether the products are suitable for a given target audience to give them a wider understanding of the products. Tutors should encourage small and large group discussions with learners presenting back their findings. Time should be taken for learners to understand the importance of a target audience, the purposes of the products and look at features included by different companies to attract a range of people to use their product. This could then be reinforced

with learner groups reviewing existing products to identify who they think the audience was and the purpose of the product.

Learners should be shown a range of different uses of software packages with the tutor identifying the main features and demonstrating that they can be used to create and/or edit elements that go into the final multimedia product using both commercial and free software. Examples of software packages include:

- images (e.g. Fireworks, PhotoPlus, Photoshop, DrawPlus, Illustrator)
- animation (e.g. Flash, Muvizu, expression blend)
- sound (e.g. Audacity, Wavosaur)
- video (e.g. Windows Movie Maker, Sony Vegas, Adobe Premiere)

It is not essential for centres to have access to all of these software packages; it is more to make learners aware of their existence and capabilities. Examples of work created in these software packages are usually available from the manufacturer's websites. Learners should practice the creation of product to identify the skills required and to appreciate complexities of the software and the capabilities.

Be able to design multimedia products

Learners should be introduced to a range of planning documents and should review various examples of design documents and practice their creation as exercises such as:

- navigation map (showing how the pages link together)
- storyboards (showing the layout of pages with detail on content, formats and styles)
- flow charts (showing the processes that will be carried out on websites)
- mind map (showing initial idea planning)
- mood board (a page showing possible colour, image, style options that could be used)

For good practice and clarity learners should look to annotate planning and design documents to assist in development and to clarify final details. To reinforce their skills, learners may also choose to complete documentation for existing products retrospectively to appreciate all aspects required and they may then choose to review each others work for gaps in detail and content.

Products researched as part of their group working, or use to identify audience and purpose could be reinforced with the learners to expand on the learners awareness of what the needs of the client and the users would be, to identifying house styles and the need for appropriate file sizes depending on method of delivery. Learners could then consider how the various multimedia products display their content, looking for similarities and differences between their group work.

It would be beneficial for learners to review the hardware and software they will be using when they create their product so they are aware of what they are able to do and not do through practice tasks. They should also research and consider the impact of copyright on sourced material e.g. using images, videos from the Internet. This could be covered with learners by looking at case studies within the media of where content has been used without seeking permission.

Be able to develop multimedia products

Learners will need a reasonable amount of time to practice using one or a range of multimedia editing and creation software. This could be taught by tutor demonstration, step by step tutorials or online video tutorials. It would also be beneficial for learners to become familiar with any sound, image or video capture equipment, if being used.

Learners need to be made aware of the options and considerations for file formats for their product to enable them to select the most appropriate formats to save and optimise their multimedia files ensuring file size is kept reasonable, and considering aspects such as file formats, compression, and using appropriate dimensions.

Learners should look at examples of user guides for different multimedia products to see how they are laid out and the information they contain. They could discuss these or annotate them to identify appropriate formats that they may wish to use.

Learners should be taught effective methods for testing. The creation of a test table or plan would be a suitable way to do this considering:

- functionality (e.g. working internal/external navigation, content loads/works)

- usability (e.g. clear navigation, easy to use, speed)
- accuracy of content (e.g. spell checked and proof read)
- readability (e.g. text readable with background colour, size and font are legible)
- accessibility (e.g. viewable in different screen resolutions, computer/laptop)
- overall performance (e.g. the product does what is was required and designed to do, does it work on the identified platform).

Learners need to be taught the importance of testing and the need to develop and apply a consistent style of test plan. The test plan should identify the tests, how they will be carried out, expected and actual outcomes and identify the need to retest.

Be able to present and review multimedia products

Learners should be taught a range of appropriate methods for gaining feedback from users discussing where and how they have received feedback in the past. They should be encouraged to consider both positive and negative feedback and how it could be acted on. It would help learners to research the most effective types of open ended and closed questions, which will help them gather the most effective feedback from users. They should then practice these skills on products they have created or those created by others. They should consider the use of simple feedback forms which they can prepare and provide to a larger audience enabling them to receive more feedback in a shorter time than verbal questioning and where verbal questioning is more appropriate.

Learners should be taught how to write product reviews, using research and literature to see examples of product reviews in the media. They should practice writing reviews for existing products to develop their analytical skills, looking at usability, readability, functionality, accessibility and identifying strengths and weaknesses.

SUGGESTED ASSESSMENT SCENARIOS AND TASK PLUS GUIDANCE ON ASSESSING THE SUGGESTED TASKS

Assessment Criteria P1, M1

Assessment criterion P1 could be evidenced by the use of a report or presentation delivered to a group supported by tutor observation and recorded evidence. There must be at least one example for five of the different purpose categories. Learners must explain for each example, the purpose, and digital media elements that would be used for each.

Some centres may have issues with blocked websites as part of their Internet policy so it may be appropriate for a shortlist of sites/products for each category to be created which learners can select from.

Merit criterion M1 could be an extension of P1. The learner must include a discussion on the effectiveness of the identified different types of digital media to include the strengths and weaknesses across a range of factors which may include target audience, criteria, medium and content.

Assessment Criteria P2, M2

P2 - the learner must provide their design plan for a given specification. Consideration should be given to the areas identified within the teaching content. Evidence will be the learners design plan, which can be produced electronically or hand-drawn.

Merit criterion M2 - This could be an extension of P2. The design plan should be annotated and provide sufficient information to enable an independent developer to create the multimedia product. Evidence will be the learner's annotated design plan.

Assessment Criteria P3, D1

Assessment criterion P3 will be assessed by showing how multimedia elements have been created or manipulated (images, sound, video, animation) using appropriate tools. Learners must create the outline product for structure, layout and format prior to the addition of the multimedia elements. This could be evidenced as a series of annotated screenshots and/or video screen capture. Changes, variations or improvements to the specification must be identified.

*Distinction criterion D1 could also be evidenced through before and after screenshots and/or video screen capture to demonstrating that **effective** optimisation has taken place. At least one example*

must be shown for either images, sound, video or animation.

*Learners **must** clearly identify the process and explain the reasons. This must be evidenced by the product itself, supported by the identified annotated screen shots and/or video screen capture. NB The final product submitted may be post-testing but must be fully functioning.*

Assessment Criteria P4, M3, D2

Learners will develop their working multimedia product; the end product will be the required evidence. The program must function correctly and include the use of appropriate multimedia tools to manipulate assets. It should include as a minimum; images, animation, and sound or video. Centres may wish to consider using a timed assessment for learners to create their products, to give the project a commercial feel with deadlines. The product must reflect the options identified on the design documents. This could be evidenced as an extension of P3.

For merit criterion M3 learners must test the multimedia product, which must be carried out using a test table or plan. The table/plan must include appropriate tests covering functionality, usability, readability and accessibility etc. It is not essential for learners to find errors but any found can be shown separately being corrected through before and after screenshots. This is an iterative process and faults experienced and corrected in the creation of the product could also be included as evidence. The standard of the product after testing must be in full working order, it should show that the student has been able to use the software effectively to create an attractive (appropriate colours, enough content but not cluttered) and user friendly (easy to navigate, appropriate for target audience) product.

This **must** be evidenced by a test plan/table which may be supported by annotated before and after screen shots of any changes made/errors corrected.

*For distinction criterion D2, learners must create a user guide for their developed and tested multimedia product. It must contain all the information included in the teaching content in addition to other considerations that the learner feels are important and be laid out appropriately. This could be evidenced using word processing or desktop publishing packages and must consider the target audience, the use of screen captures correctly edited or images. This **could** be evidenced by a user guide leaflet or booklet.*

Assessment Criterion P5

Learners must present their multimedia product to their defined audience. Feedback sheets, questionnaires or interviews must be completed by at least three members of the target audience (identified in P2). It is important that the audience providing feedback are aware of what they are testing and what the product is intended to do and this may be identified within feedback sheets. There must be an opportunity for the target audience to identify possible improvements, which will help learners with assessment criterion P6. Evidence for assessment criterion P5 could be completed feedback forms.

Assessment Criterion P6

This could be evidenced by a short review report or presentation of the multimedia product that summarises the learner's personal opinions in addition to an analysis of those from the target audience. The review could cover functionality, usability, readability and accessibility. Learners must also identify the strengths and weaknesses of the created product, and highlight areas for improvement.

RESOURCES

It is important to realise not all of these resources are needed to deliver the unit but learners will need access to appropriate software.

- **multimedia creation software:** (e.g. Flash, Director, PowerPoint, Dreamweaver, Mediator, Expression Blend or other appropriate alternative)
- **multimedia editing software:** (e.g. Photoshop, PhotoPlus, Fireworks, Movie Maker, Premiere, MoviePlus, Audacity)
- **hardware:** headphones/speakers, video/sound capture equipment.

Centres may have restrictions and policies for some websites which may have games, such as educational or promotional sites.

Suggested scenarios

- A local tourism guide covering shopping, eating out, entertainment, tourist attractions.
- A promotional/marketing guide for the learner's' school/6th form/college.
- An educational product for a specific GCSE topic (e.g. History – WWII).
- A guide for a forthcoming event.

MAPPING WITHIN THE QUALIFICATION TO THE OTHER UNITS

Unit 9: Website Development

Unit 10: Computer Graphics

Unit 13: Interactive Media Production

LINKS TO NOS

MM: Multimedia Software

IM16 Plan Content for Web and Multimedia Products

IM17 Architect Interactive Media Products



CONTACT US

Staff at the OCR Customer Contact Centre are available to take your call between 8am and 5.30pm, Monday to Friday.

We're always delighted to answer questions and give advice.

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