

# Department Curriculum Map



**Department**

**Digital Information Technology**

Understand how and why modern technologies are used by organisations and stakeholders to access and manipulate data, and to provide access to systems and tools in order to complete tasks. Learners should understand the implications of these tools and technologies for organisations and stakeholders.

Learners must understand how the increased reliance of organisations on digital systems to hold data and perform vital functions presents a range of challenges and dangers. They should understand the nature of threats to digital systems and ways that they can be mitigated through organisation policy, procedures and the actions of individuals. They should be able to apply knowledge of cyber security to a range of vocational contexts.

Learners should understand the wider implications of digital systems and their use. Learners should understand how legislation covering data protection, computer crimes and intellectual property has an impact on the way that organisations and individuals use digital systems and data. Learners should understand the procedures that organisations must follow in order to conform to legal requirements and professional guidelines.

Assess how effectively two different types of user interface meet the design principles and user needs with justified examples.

Create an appropriate project plan for the design of a user interface which makes full and effective use of project planning techniques and create a comprehensive initial design that shows how it meets all user requirements.

Use their plan to develop and refine an effective user interface that shows all features and assess the strengths and weaknesses of their user interface and project plan, justifying decisions made.

Assess data collection methods and features used and how they affect the quality of data and decision making in two sectors, drawing detailed justified conclusions

Select and use relevant methods to effectively and accurately manipulate data and produce a fully efficient and comprehensive dashboard

Select and use relevant methods to effectively and accurately manipulate data and produce a fully efficient and comprehensive dashboard

Assess the effectiveness of the dashboard's presentation of data and how it affects the conclusions drawn and the recommendations made, using justified examples

Year	AUT1	AUT2	SPR1	SPR2	SUM1	SUM2	Secured
<b>11</b> Skills Covered	The wider implications of digital systems Responsible use Legal and ethical  Revision activities For component 3 Weekly topic tests	Planning and communication in digital systems  Forms of notation  Revision activities For component 3 Weekly topic tests	Revision  Components 3 a,b,c and d  Exam techniques  Past papers	Revision for final external assessment	Revision for final external assessment		Knowledge required to be successful on the external assessment  Effective Digital Working Practices
Theme/ Focus/ Content	Effective Digital Working Practices	Effective Digital Working Practices	Component 3 external assessment attempt 1	Effective Digital Working Practices	Effective Digital Working Practices		
<b>10</b> Skills Covered	Investigate user interface design for individuals and organisations What is a user interface? Audience needs Design principles  Designing an efficient user interface	Use project planning techniques to plan and design a user interface Project planning techniques Create a project plan Create an initial design Developing a user interface Refining the user interface Reviewing the user interface	Characteristics of data and information Representing information  Ensuring data is suitable for processing  Data collection	Produce a dashboard Drawing conclusions based on the data  How presentation affects understanding Draw conclusions and review data presentation methods	Component 3a  Modern technologies	Component 3b  Cyber security Prevention and management of threats to data	PSA 1 and PSA2 coursework To be completed by  Spring 2
Theme/ Focus/ Content	Exploring User Interface Design Principles and Psa1 mock exam	Developing a user interface Psa1 Actual exam	Investigate the role and impact of using	Create a dashboard using data manipulation tools	Effective Digital Working Practices	Effective Digital Working Practices	

			data on individuals and organisations	Psa2 actual			
			Psa2 Mock				
<b>9</b>	Photoshop: Cropping images and text. Using lasso to select specific areas of an image. Using filters and layer properties to add effects. Using layers to organise the order of content.	Spreadsheets: Spreadsheet creation Data collecting Mathematics Creating finance models Interactive dashboards.	Effective Digital working Practices:  Cloud Storage Cyber security Technology and environment Forms of Notation	Photoshop: Cropping images and text. Using lasso to select specific areas of an image. Using filters and layer properties to add effects. Using layers to organise the order of content.	Spreadsheets: Spreadsheet creation Data collecting Mathematics Creating finance models Interactive dashboards. Photoshop:	Effective Digital working Practices:  Cloud Storage Cyber security Technology and environment Forms of Notation	<ul style="list-style-type: none"> <li>• Image manipulation on photoshop</li> <li>• Functions and formulas using spreadsheets</li> <li>• Creation of a dashboard</li> <li>• Knowledge of modern technologies</li> </ul>
<b>Theme/ Focus/ Content</b>	Photoshop:  Create various promotional material for a public event and website.  Use advanced Photoshop techniques to edit and manipulate images and text.  Create mind maps and mood board to spark creative planning.  Change dimensions of various images and text to best fit promotional material for student's website design	Present information from a spreadsheet model in a variety of formats.  Create Macros and assign it to a button on a spreadsheet.  Customize charts to present information effectively.  Evaluate the effectiveness of a computer model.  Use conditional functions in calculations.  Use conditional formatting.  Use spreadsheet models to predict and test the outcomes for different scenarios	Develop knowledge of cloud computing and how it applies to different business contexts.  Investigate why and how systems are attacked  Develop computational logical thinking through flow diagrams	Create various promotional material for a public event and website.  Use advanced Photoshop techniques to edit and manipulate images and text.  Create mind maps and mood board to spark creative planning.  Change dimensions of various images and text to best fit promotional material for student's website design	Present information from a spreadsheet model in a variety of formats.  Create Macros and assign it to a button on a spreadsheet.  Customize charts to present information effectively.  Evaluate the effectiveness of a computer model.  Use conditional functions in calculations.  Use conditional formatting.  Use spreadsheet models to predict and test the outcomes for different scenarios	Develop knowledge of cloud computing and how it applies to different business contexts.  Investigate why and how systems are attacked  Develop computational logical thinking through flow diagrams	

<b>8</b>	Photoshop Basics Cropping images and text. Using lasso to select specific areas of an image. Using filters and layer properties to add effects. Using layers to organise the order of content.	Web design Project Image and text manipulation using Photo editing skills. Hyperlinking webpages. Creating Roll Over images. Managing sites for files and folders.	Spreadsheets Introduction/Basics Spreadsheet creation Data collecting Mathematics Creating finance models Interactive dashboards.	Photoshop Basics Cropping images and text. Using lasso to select specific areas of an image. Using filters and layer properties to add effects. Using layers to organise the order of content.	Web design Project Image and text manipulation using Photo editing skills. Hyperlinking webpages. Creating Roll Over images. Managing sites for files and folders.	Spreadsheets Introduction/Basics Spreadsheet creation Data collecting Mathematics Creating finance models Interactive dashboards.	<ul style="list-style-type: none"> <li>Blending of images together using photoshop</li> <li>Design principles required for effective interface design</li> <li>Basic formulas and functions for Spreadsheets</li> </ul>
<b>Theme/ Focus/ Content</b>	<p>Create various promotional material for a public event and website.</p> <p>Use advanced Photoshop techniques to edit and manipulate images and text.</p> <p>Create mind maps and mood board to spark creative planning.</p> <p>Change dimensions of various images and text to best fit promotional material for student's website design</p>	<p>Create a working interactive website with links to other pages and content relevant to chosen theme.</p> <p>Create various multimedia for website implementation.</p> <p>Design website layout plans and research ideas for mood boards.</p>	<p>Present information from a spreadsheet model in a variety of formats.</p> <p>Create Macros and assign it to a button on a spreadsheet.</p> <p>Customize charts to present information effectively.</p> <p>Evaluate the effectiveness of a computer model.</p> <p>Use conditional functions in calculations.</p> <p>Use conditional formatting.</p> <p>Use spreadsheet models to predict and test the outcomes for different scenarios</p>	<p>Create various promotional material for a public event and website.</p> <p>Use advanced Photoshop techniques to edit and manipulate images and text.</p> <p>Create mind maps and mood board to spark creative planning.</p> <p>Change dimensions of various images and text to best fit promotional material for student's website design</p>	<p>Create a working interactive website with links to other pages and content relevant to chosen theme.</p> <p>Create various multimedia for website implementation.</p> <p>Design website layout plans and research ideas for mood boards.</p>	<p>Present information from a spreadsheet model in a variety of formats.</p> <p>Create Macros and assign it to a button on a spreadsheet.</p> <p>Customize charts to present information effectively.</p> <p>Evaluate the effectiveness of a computer model.</p> <p>Use conditional functions in calculations.</p> <p>Use conditional formatting.</p> <p>Use spreadsheet models to predict and test the outcomes for different scenarios</p>	
<b>7</b>	Photoshop:	Flash Animation: UI Navigation	KODU: UI Navigation	Photoshop:	Flash Animation: UI Navigation	KODU: UI Navigation	

<p><b>Skills Covered</b></p>	<p>Create various promotional material for a public event and website.</p> <p>Use advanced Photoshop techniques to edit and manipulate images and text.</p>	<p>Motion Tweens Adding Layers Key frame Animation Implementing Sound Effects</p>	<p>Programming Concepts Object Implementation Concept Art Character Design Camera Angles AI Behaviour Presentation Skills Communication Skills</p>	<p>Create various promotional material for a public event and website.</p> <p>Use advanced Photoshop techniques to edit and manipulate images and text.</p>	<p>Motion Tweens Adding Layers Key frame Animation Implementing Sound Effects</p>	<p>Programming Concepts Object Implementation Concept Art Character Design Camera Angles AI Behaviour Presentation Skills Communication Skills</p>	<ul style="list-style-type: none"> <li>• Mastery of basic tools on the photoshop software</li> <li>• Animation skills</li> <li>• Basic programming</li> </ul>
<p><b>Theme/ Focus/ Content</b></p>	<p>Create mind maps and mood board to spark creative planning.</p> <p>Change dimensions of various images and text to best fit promotional material for student's website design</p>	<p>Understand and navigate the layout of Adobe Flash.</p> <p>Have a good understanding of motion and timelines.</p> <p>Create an animation using techniques learnt within lesson.</p> <p>Draw unique characters and plan a brief story for their animation.</p> <p>make objects move using key frame and motion tweens.</p>	<p>Program characters and environment objects to move and interact with each other.</p> <p>Manipulate outcomes of AI decisions.</p> <p>Create detailed environments for gameplay.</p> <p>How to use the UI and HUD information to add an extra layer of detail to game designs.</p>	<p>Create mind maps and mood board to spark creative planning.</p> <p>Change dimensions of various images and text to best fit promotional material for student's website design</p>	<p>Understand and navigate the layout of Adobe Flash.</p> <p>Have a good understanding of motion and timelines.</p> <p>Create an animation using techniques learnt within lesson.</p> <p>Draw unique characters and plan a brief story for their animation.</p> <p>make objects move using key frame and motion tweens.</p>	<p>Program characters and environment objects to move and interact with each other.</p> <p>Manipulate outcomes of AI decisions.</p> <p>Create detailed environments for gameplay.</p> <p>How to use the UI and HUD information to add an extra layer of detail to game designs.</p>	