

Department Curriculum Map



Department	Digital Information Technology
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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
11 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		
10 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 data on individuals and organisations Psa2 Mock	Create a dashboard using data manipulation tools Psa2 actual	Effective Digital Working Practices	Effective Digital Working Practices	
9	Photoshop:	Effective Digital working Practices:	Spreadsheets:	Photoshop:	Effective Digital working Practices:	Spreadsheets:	

Skills Covered	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.	Cloud Storage Cyber security Technology and environment Forms of Notation	Spreadsheet creation Data collecting Mathematics Creating finance models Interactive dashboards.	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.	Cloud Storage Cyber security Technology and environment Forms of Notation	Spreadsheet creation Data collecting Mathematics Creating finance models Interactive dashboards. Photoshop:	- Image manipulation on photoshop - Functions and formulas using spreadsheets - Creation of a dashboard - Knowledge of modern technologies
Theme/ Focus/ Content	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	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	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	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	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	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	
8 Skills Covered	Photoshop Basics & Web design Project Cropping images and text.	Effective Digital working Practices: Communication technologies	Spreadsheets Introduction/Basics Spreadsheet creation Data collecting	Photoshop Basics & Web design Project Cropping images and text.	Effective Digital working Practices: Communication technologies	Spreadsheets Introduction/Basics Spreadsheet creation Data collecting	Blending of images together using photoshop

	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. Image and text manipulation using Photo editing skills. Hyperlinking webpages. Creating Roll Over images. Managing sites for files and folders.	The impact of technology on the environment Intellectual property The criminal use of computer systems	Mathematics Creating finance models Interactive dashboards.	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. Image and text manipulation using Photo editing skills. Hyperlinking webpages. Creating Roll Over images. Managing sites for files and folders.	The impact of technology on the environment Intellectual property The criminal use of computer systems	Mathematics Creating finance models Interactive dashboards.	• Design principles required for effective interface design • Basic formulas and functions for Spreadsheets
Theme/ Focus/ Content	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 Create a working interactive website with links to other pages and content relevant to chosen theme. Design website layout plans and research ideas for mood boards.	Create a presentation on different ways to use technology to communicate effectively Learn about the issues associated with network availability Learn about the benefits and drawbacks of technology when assessing the impact on the environment Different ways to protect your personal information Have a good understanding of how criminals exploit technology to commit crime.	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	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 Create a working interactive website with links to other pages and content relevant to chosen theme. Design website layout plans and research ideas for mood boards.	Create a presentation on different ways to use technology to communicate effectively Learn about the issues associated with network availability Learn about the benefits and drawbacks of technology when assessing the impact on the environment Different ways to protect your personal information Have a good understanding of how criminals exploit technology to commit crime.	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	

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Skills Covered	Photoshop: Create various promotional material for a public event and website. Use advanced Photoshop techniques to edit and manipulate images and text.	KODU and Scratch programming UI Navigation Programming Concepts Object Implementation Concept Art Character Design Camera Angles AI Behaviour Presentation Skills Communication Skills	Spreadsheets Formatting skills Basic tools on Excel Simple calculations using functions and formulas Creating graphs and charts to represent data in a visual way	Photoshop: Create various promotional material for a public event and website. Use advanced Photoshop techniques to edit and manipulate images and text.	KODU and Scratch programming UI Navigation Programming Concepts Object Implementation Concept Art Character Design Camera Angles AI Behaviour Presentation Skills Communication Skills	Spreadsheets Formatting skills Basic tools on Excel Simple calculations using functions and formulas Creating graphs and charts to represent data in a visual way	• Mastery of basic tools on the photoshop software • Animation skills • Basic programming
Theme/ Focus/ Content	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	Program characters and environment objects to move and interact with each other. Manipulate outcomes of AI decisions. Create detailed environments for gameplay. How to use the UI and HUD information to add an extra layer of detail to game designs.	Students will learn the basics of using a spreadsheet document such as: Using Cells, creating a record and a field to create an organised database. Create a well formatted document with formatting, colour, shading, boldening. Use different data sets to perform simple calculations Embed a graph/chart into a document	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	Program characters and environment objects to move and interact with each other. Manipulate outcomes of AI decisions. Create detailed environments for gameplay. How to use the UI and HUD information to add an extra layer of detail to game designs.	Students will learn the basics of using a spreadsheet document such as: Using Cells, creating a record and a field to create an organised database. Create a well formatted document with formatting, colour, shading, boldening. Use different data sets to perform simple calculations Embed a graph/chart into a document	