

**Long-Term Planning – BTEC Digital Information Technology Curriculum Overview**

Year Group	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
<b>Year 10</b>  <b>Level 1/2 BTEC Tech Award Digital Information Technology</b>	<b>Component 1:</b>  <b>A1: Understanding User Interface and Project Planning</b>  <b>Types of User Interfaces</b> <ul style="list-style-type: none"> <li>• Text-based</li> <li>• Speech/Natural Language</li> <li>• Graphical User Interface (GUI)</li> <li>• Sensors</li> <li>• Menu/Forms</li> </ul> <b>Factors Affecting User Interface Choice</b> <ul style="list-style-type: none"> <li>• Performance/Response Time</li> <li>• Ease of Use</li> <li>• User Requirements</li> <li>• User Experience</li> <li>• Accessibility</li> <li>• Storage Space</li> </ul> <b>Hardware and Software Influences</b>	<b>Component 1:</b>  <b>A1: Understanding User Interface and Project Planning (Continued)</b>  <b>Audience Needs</b> <ul style="list-style-type: none"> <li>• Accessibility Requirements</li> <li>• Skill Levels</li> <li>• Demographics</li> </ul> <b>Design Principles</b> <ul style="list-style-type: none"> <li>• Colours and Textures</li> <li>• Font Style and Size</li> <li>• Language</li> <li>• Amount of Information</li> <li>• Layout</li> <li>• User Perception</li> <li>• Retaining User Attention</li> <li>• Intuitive Design</li> </ul> <b>Designing an Efficient User Interface</b>	<b>Component 1:</b>  <b>B1: Using Project Planning Techniques</b>  <b>Planning Tools</b> <ul style="list-style-type: none"> <li>• Task Lists</li> <li>• Descriptions</li> <li>• Gantt Charts</li> <li>• Mood Boards</li> <li>• Mind maps</li> </ul> <b>Methodologies</b> <ul style="list-style-type: none"> <li>• Waterfall</li> <li>• Agile</li> <li>• Scrum</li> </ul> <b>Creating a Project Proposal</b> <ul style="list-style-type: none"> <li>• Purpose and Audience</li> <li>• Project Requirements</li> <li>• User Accessibility Requirements</li> <li>• Constraints</li> </ul> <b>Creating a Project Plan</b> <ul style="list-style-type: none"> <li>• Timescales</li> </ul>	<b>Component 1:</b>  <b>B2: Designing and Developing User Interfaces</b>  <b>Creating an Initial Design</b> <ul style="list-style-type: none"> <li>• Meeting User Requirements</li> <li>• Design Specification</li> <li>• User Confidence and Familiarity</li> </ul> <b>Developing a User Interface</b>  <b>Initial Design Implementation</b>	<b>Component 1:</b>  <b>C1: Reviewing and Improving User Interfaces</b>  <b>Reviewing the User Interface</b> <ul style="list-style-type: none"> <li>• Assessing Strengths and Weaknesses</li> <li>• Audience Suitability</li> <li>• Ease of Use</li> <li>• Accessibility Features</li> <li>• Meeting Design Principles</li> </ul> <b>Suggesting Improvements</b>	<b>Component 2:</b>  <b>A1: Characteristics of Data and Information</b>  <b>Concepts of Data and Information</b> <ul style="list-style-type: none"> <li>• Characteristics of Data</li> <li>• Characteristics of Information</li> </ul> <b>A2: Representing Information</b>  <b>Different Ways of Representing Information</b>  <b>A3: Ensuring Data is Suitable for Processing</b>  <b>Validation and Verification Methods</b>  <b>A4: Data Collection</b> <ul style="list-style-type: none"> <li>• Data Collection Methods</li> <li>• Data Collection Features</li> </ul>

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	<ul style="list-style-type: none"> <li>• <b>Operating Systems/Platforms</b></li> <li>• <b>Screen Types and Sizes</b></li> <li>• <b>User Input Methods</b></li> <li>• <b>Hardware Resources</b></li> <li>• <b>Emerging Technologies</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Use of Keyboard Shortcuts</b></li> <li>• <b>Informative Feedback</b></li> <li>• <b>Easy Reversal of Actions</b></li> <li>• <b>Distinguishable Buttons/Links</b></li> <li>• <b>Enlarged Objects</b></li> <li>• <b>Objects That Stand Out</b></li> <li>• <b>Grouping Related Objects</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Milestones</b></li> </ul>			<p><b>A5: Quality of Information</b></p> <p><b>Factors Affecting Information Quality</b></p> <p><b>A6: Sectors that use Data Modelling</b></p> <p><b>Different Sectors Utilising Data Modelling</b></p> <p><b>A7: Threats to Individuals</b></p> <p><b>Threats to Individuals Related to Data Storage</b></p>
<p><b>Skill(s)</b></p> <p>Practical</p> <p>Communication &amp; Interpersonal</p>	<p><b>Understanding different types of user interfaces.</b></p> <p><b>Collaborating with others to plan and develop user interfaces.</b></p>	<p><b>Understanding different types of user interfaces.</b></p> <p><b>Collaborating with others to plan and develop user interfaces.</b></p>	<p><b>Utilising project planning tools such as Gantt Charts, Task Lists, and Mind Maps.</b></p> <p><b>Collaborating with team members to create a project</b></p>	<p><b>Creating an initial design that meets user requirements and design specifications.</b></p> <p><b>Collaborating with users and stakeholders to ensure the user interface design</b></p>	<p><b>Reviewing user interfaces by assessing their strengths and weaknesses.</b></p> <p><b>Collaborating with stakeholders to evaluate audience suitability and</b></p>	<p><b>Developing a practical understanding of data and information characteristics, data collection methods, and different sectors using data modelling.</b></p> <p><b>Collaborating effectively with teams and</b></p>

Resilience	<b>Adapting to changes in user interface design based on emerging technologies.</b>	<b>Adapting to changes in user interface design based on emerging technologies.</b>	<b>proposal that addresses purpose, audience, requirements, and constraints.</b>	<b>instils confidence and familiarity.</b>	<b>gather feedback on ease of use and accessibility features.</b>	<b>professionals in various sectors.</b>
Critical Thinking	<b>Evaluating the pros and cons of different user interface types. Taking the lead in proposing user interface options.</b>	<b>Evaluating the pros and cons of different user interface types. Taking the lead in proposing user interface options.</b>	<b>Adapting project plans based on changing timescales and milestones.</b>	<b>Adapting the initial design based on feedback and changing user requirements.</b>	<b>Adapting the user interface review process based on findings and feedback.</b>	<b>Adapting to changing data conditions and dealing with threats related to data storage.</b>
Initiative	<b>Taking the lead in proposing user interface options.</b>	<b>Taking the lead in proposing user interface options.</b>	<b>Evaluating and selecting the most suitable project planning methodology (Waterfall, Agile, or Scrum) for a given project.</b>	<b>Evaluating and refining the design specification to optimise user interface development.</b>	<b>Analysing the user interface against design principles to identify areas for improvement.</b>	<b>Analysing data and information characteristics, evaluating methods for representing information, identifying factors affecting information quality, and addressing threats.</b>
Complex Problem Solving	<b>Solving complex issues related to user interface design and implementation.</b>	<b>Solving complex issues related to user interface design and implementation.</b>	<b>Taking the lead in creating a project proposal that effectively communicates project requirements and user accessibility needs.</b>	<b>Taking the lead in developing the user interface based on the initial design.</b>	<b>Taking the lead in suggesting and implementing improvements to enhance the user interface.</b>	<b>Taking proactive steps to enhance information quality.</b>
				<b>Addressing complex challenges in the</b>	<b>Addressing complex issues in the user</b>	

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Productivity and Accountability	Managing project planning efficiently to meet deadlines and goals.	Managing project planning efficiently to meet deadlines and goals.	Addressing complex issues related to project planning, such as managing constraints and balancing timescales.  Managing project planning efficiently to meet deadlines and milestones.	implementation of the initial design.  Managing the development process efficiently to ensure the successful implementation of the user interface.	interface by proposing effective improvements.  Managing the review and improvement process efficiently to ensure the user interface meets high standards.	Finding solutions to mitigate threats and complex issues related to data.  Managing data-related tasks efficiently to ensure data readiness for processing.
PD/T&E	Effective time management for project planning.	User-centred design principles.	Agile project management practices.	Enhancing user interface accessibility.	User-centric design principles.	Ethical data handling and privacy considerations.
Futures	Project Manager (in a tech company)	User Experience (UX) Designer	Agile Project Manager	Web Accessibility Specialist	Usability Analyst	Data Privacy Officer
<b>Year 11</b> <b>Level 1/2 BTEC Tech Award Digital Information Technology</b>	<b>Component 2:</b> <b>BI: Data Processing Methods</b> <ul style="list-style-type: none"><li>Data Manipulation Methods</li><li>Advanced Manipulation Methods</li></ul>	<b>Component 2:</b> <b>CI: Drawing Conclusions based on Findings in the Data</b> <ul style="list-style-type: none"><li>Drawing Conclusions from a Dataset and Dashboard</li></ul>	<b>Component 3:</b> <b>The Exam:</b> The brief will be released in February 2024 and the deadline for submission is May 2024	<b>Component 3:</b> <b>The Exam:</b> <ul style="list-style-type: none"><li>Ideas Log</li><li>Planning Material</li><li>Final Product(s) and a Technical and Review Record</li></ul>	Catch-up opportunity	

	<ul style="list-style-type: none"> <li>• <b>Other Processing Methods</b></li> </ul> <p><b>B2: Producing a Dashboard</b></p> <ul style="list-style-type: none"> <li>• <b>Showing Data Summaries</b></li> <li>• <b>Appropriate Presentation Methods</b></li> <li>• <b>Using Appropriate Presentation Features</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Identifying Findings</b></li> </ul> <p><b>C2: How Presentation Affects Understanding</b></p> <p><b>Investigating the Impact of Presentation Methods and Features</b></p> <ul style="list-style-type: none"> <li>• <b>Avoiding Misinterpretation</b></li> <li>• <b>Preventing Bias</b></li> <li>• <b>Ensuring Accurate Conclusions</b></li> </ul>				
<p><b>Skill(s)</b></p> <p>Practical</p> <p>Communication &amp;</p>	<p><b>Gaining practical knowledge of data processing methods, including data manipulation, advanced manipulation, and other processing methods.</b></p>	<p><b>Developing practical skills to draw conclusions from datasets and dashboards, and investigating the impact of presentation methods and features.</b></p> <p><b>Collaborating with team</b></p>	<p><b>Understanding of brief &amp; planning of the solution</b></p> <p><b>Analysis, production and</b></p>	<p><b>Development of brief &amp; actioning of a solution</b></p> <p><b>Professional log</b></p>	--	

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Interpersonal	<b>Collaborating with team members and stakeholders to produce informative dashboards and present data summaries effectively.</b>	<b>members to ensure accurate conclusions and effective presentations that avoid misinterpretation and bias.</b>	<b>application skills</b>			
Resilience		<b>Adapting conclusions and presentation methods based on feedback and changing requirements.</b>	<b>Completion of a project to near-professional standard</b>	<b>Continuity in planning and improvement</b>		
Critical Thinking	<b>Adapting data processing methods to changing requirements and data conditions.</b>	<b>Evaluating the impact of different presentation methods and features on data understanding, and ensuring that conclusions are accurate.</b>	<b>Creative solution to a given brief (re-dress, creation, contexts, transferable skills etc.)</b>	<b>Creative solution to a given brief (re-dress, creation, contexts, transferable skills etc.)</b>		
Initiative	<b>Evaluating the most suitable data manipulation methods, presentation methods, and features for producing informative dashboards.</b>	<b>Taking the lead in drawing accurate conclusions from data and preventing bias in presentations.</b>	<b>Project solution</b>	<b>Project development and finalisation</b>		
Complex Problem Solving	<b>Taking the lead in producing dashboards that</b>					

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<p>Productivity and Accountability</p>	<p>effectively present data summaries.</p> <p>Addressing complex challenges in data processing and dashboard production.</p> <p>Managing data processing tasks efficiently to ensure accurate and informative dashboards are produced.</p>	<p>Addressing complex challenges related to data analysis and presentation to ensure accurate and unbiased conclusions.</p> <p>Managing data analysis and presentation tasks efficiently to ensure accurate and unbiased conclusions are drawn.</p>	<p>Whole project creation (knowledge and skills)</p> <p>Completion against set standards</p>	<p>Creative skills application</p> <p>Completion against set standards</p>		
<p>PD/T&amp;E</p>	<p>Ethical considerations in data processing, such as privacy and data security.</p>	<p>Ethical considerations in data presentation, like ensuring data accuracy and avoiding bias.</p>	<p>Ethical considerations in project development, including privacy and data handling.</p>	<p>Post 16 choices.</p>	<p>--</p>	
<p>Futures</p>	<p>Data Analyst or Data Scientist</p>	<p>Business Intelligence Analyst or Data Visualisation Specialist</p>	<p>Project Manager or IT Consultant</p>		<p>--</p>	