BTEC Digital Information Technology Tech Award – Curriculum Journey

Component 1
Learning Aim A -
Investigate user interface design for individuals and organisations

A1 What is a user interface?
Investigate different types of user interface used by individuals and organisations and explore how they vary across different uses, devices and purposes.

A2 Audience needs
Investigate the varying needs of the audience and how they affect both the type and the design of the interface.

A3 Design principles
Investigate a wide variety of design principles that provides both appropriate and effective user interaction with hardware devices.

A4 Designing an efficient user interface
Investigate techniques that can be used to improve both the speed and access to user interfaces.

Component 1
Learning Aim B -
Use project planning techniques to plan and design a user interface

B1 Project planning techniques
Investigate different planning tools and design methodologies that can be used to plan, monitor and execute projects.

B2 Create a project plan
Select suitable project planning techniques to develop a project plan for the development of a user interface for a given brief.

B3 Create an initial design
Create an initial design using the design principles listed in section A3.

Component 1
Learning Aim C -
Develop and review a user interface

C1 Developing a user interface
Use their design to produce a user interface.

C2 Refining the user interface
Refine their user interface using an iterative process with potential users.

C3 Review
Review the success of the user interface and the use of their chosen project planning techniques.

Component 2
Learning Aim A -
Investigate the role and impact of using data on individuals and organisations

A1 Characteristics of data and information
Understand the concepts of data and that data is meaningless without converting it into information by adding structure and context.

A2 Representing information
Know the different ways of representing information and be able to explain situations where they would be used.

A3 Ensuring data is suitable for processing
Understand the methods that can be used to ensure data input is suitable and within boundaries so that it is ready to be processed.

A4 Data collection
Understand how the data collection method and data collection features affect its reliability.

A5 Quality of information and its impact on decision making
Recognise the factors that affect the quality of information and their impact on decision making.

A6 Sectors that use data modelling
Understand that different types of organisations use data modelling to help make decisions.

A7 Threats to individuals
Understand the different threats that face individuals who have data stored about them.

Component 2
Learning Aim B -
Create a dashboard using data manipulation tools

B1 Data processing methods
Understand how data can be imported from an external source and explore how to apply data processing methods.

B2 Produce a dashboard
Use a dashboard to select and display information summaries based on a given large data set.

Component 2
Learning Aim C -
Draw conclusions and review data presentation methods

C1 Drawing conclusions based on the data
Draw conclusions on the data set and use a dashboard in order to make recommendations.

C2 How presentation affects understanding
Assess how well they have used the presentation features listed in B2, to ensure they do not lead to information being misinterpreted, bias or inaccurate conclusions being made.

Component 3-
Effective Digital Working Practices
Assessment objectives

AO1 Demonstrate knowledge of facts, terms, processes and issues in relation to digital information technology

AO2 Apply an understanding of facts, terms, processes and issues in relation to digital information technology

AO3 Analyse, evaluate and make reasoned judgements about the use, factors and implications influencing digital information technology

AO4 Make connections with the concepts, issues, terms and processes in digital information technology

A Modern technologies
Learn about how current and modern technologies are used by and have an impact on organisations and their stakeholders.
Know the ways in which organisations and associated individuals use modern technologies to exchange information, communicate, and complete work-related tasks.
Apply knowledge to a range of vocational contexts.

B Cyber security
Understand how the increased reliance of organisations on digital systems to hold data and perform vital functions presents a range of challenges and dangers.
Understand the nature of threats to digital systems and ways that they can be mitigated through organisation policy, procedures and the actions of individuals.
Apply knowledge of cyber security to a range of vocational contexts.

C The wider implications of digital systems
Appreciate the wider implications of digital systems and their use.
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.
Know the procedures which organisations must follow in order to conform to legal requirements and professional guidelines.

D Planning and communication in digital systems
Understand how individuals in the digital sector plan solutions and communicate meaning and intention.
Recognise how different forms of written and diagrammatical communication can be used to express understanding and demonstrate the flow of data and information.