Computing (BTEC DIT) Key Stage 4 Curriculum

Curriculum Intent
"Everyone should learn to code; it teaches you how to think!" Steve Jobs.

Intent statement: Computing at Trinity Academy St Edward's equips students to become digital citizens who can communicate effectively, be cyber aware, can creatively use computer devices and systems that enables them to engage fully in a digital society. It supports students to become computational thinkers who can approach problems in a logical way.

Overview

Year 10

There are 3 components to the course, students will complete Components 1 in year 10. Component 1 is 'Exploring User Interface Design Principles and Project Planning Techniques'. Learners will develop their understanding of what makes an effective user interface and how to effectively manage a project. They will use this understanding to plan, design and create a user interface. As digital technologies and organisations continue to evolve, each new development offers new and exciting ways of completing tasks and interacting with our hardware devices and opens a new project with a new set of user requirements that needs to be solved. User interfaces allow individuals and individuals in organisations to interact with digital technologies. The design of the user interface is crucial in ensuring that users can interact positively with their hardware devices. In this component, students will learn different project planning techniques that can be used to plan and deliver a project that meets a set of user requirements. They will learn the different design principles that can be used to design effective user interfaces and apply appropriate project planning techniques to create a user interface that meets user requirements.

Year 11

In Component 2 'Collecting, Presenting and Interpreting Data' students will understand the characteristics of data and information and how they help organisations in decision making. They will use data manipulation methods to create a dashboard to present and draw conclusions from information. In order to make decisions, organisations collect vast amounts of data from a range of different sources. They need to use appropriate data-collection methods and ensure that the data is of sufficient quality to enable decision making. Data must then be converted into information to allow it to become useful. Even when data has been converted into information, it will not provide any conclusions on its own. It is up to the data user to be able to look at the information and draw conclusions, so how the information is presented is key to ensuring that effective and accurate decisions are made. In this component, students will learn the different data manipulation tools that can be used to change the way that data is presented. They will provide clear summaries of the data and present them in a dashboard that will allow organisations to make effective decisions. They will also learn the different

presentation features that can be used to ensure that information is understood clearly in an objective way so that it is not misinterpreted. They will develop their understanding of how to represent information in different ways to give it more meaning.

In the final component, 'Effective Digital Working Practices' this requires students to apply decision-making skills and techniques in line with different organisations' use of digital systems and the wider implications associated with their use. The design of this external assessment ensures that there is sufficient stretch and challenge, enabling the assessment of knowledge and understanding at the end of the learning period. The external assessment is based on key tasks that require learners to demonstrate that they can identify and use effectively an appropriate selection of skills, techniques, concepts, theories and knowledge from across the whole qualification in an integrated way.

Content

Year 10

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Component 1 Learning aim A	**Component 1 Learning aim B**	**Component 1 Learning aim C**	**Component 1 Pearson set assignment**	**Component 1 Pearson set assignment**	**Component 2 Learning aim A**
Students will understand interface design for individuals and organisations.	Students will understand project planning techniques used to develop a project proposal and project plan for the development of a user interface for a given brief.	Students will understand how to review the success of the user interface and the use of their chosen project planning techniques.	In this component, you will learn different project planning techniques that can be used to plan and deliver a project that meets a set of user requirements. You will learn the different design principles that can be used to design effective user interfaces and apply appropriate project planning techniques to create a user interface that meets user requirements.	In this component, you will learn different project planning techniques that can be used to plan and deliver a project that meets a set of user requirements. You will learn the different design principles that can be used to design effective user interfaces and apply appropriate project planning techniques to create a user interface that meets user requirements.	Understand how data is collected and used by organisations and its impact on individuals.

Year 11

Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Component 2 Learning aim B	**Component 2 Pearson set assignment**	**Component 2 Pearson set assignment**	**Component 3**	**Component 3**	
Students will understand how data can be imported from an external source. They will then explore how to accurately apply data processing methods to aid decision making.	This assignment will allow learners to develop their knowledge and understanding of the characteristics of data and information and how they help organisations in decision making. They will use data manipulation methods to create a dashboard to present and draw conclusions from information.	This assignment will allow learners to develop their knowledge and understanding of the characteristics of data and information and how they help organisations in decision making. They will use data manipulation methods to create a dashboard to present and draw conclusions from information.	Learners will explore how organisations use digital systems, and the wider implications associated with their use. The component is designed to allow students to explore the digital systems available to organisations and how their features have an impact on the way organisations operate. They will explore how developments in technology have led to more inclusive and flexible working environments, and how regulation and ethical and security concerns influence the way in which organisations operate.	Students will analyse information in a range of vocational contexts so that you develop a greater understanding of the use of digital systems by organisations and so that they are able to make reasoned judgements on the systems. In this component, they will learn about how organisations can use technology safely and about the cyber security issues when working in a digital organisation.	