Curriculum – Year 13 IT

Year 13 IT	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2
Qualification **BTEC IT L3 Extended Certificate (360 GLH)**	**Unit 1: Information Technology Systems (2 Hour Written exam – 120 GLH)**		**Unit 5: Data Modelling (NEA – 60 GLH)**	
Ethos Links	Character – (LAF) Confidence Creativity Contributing Community – (LAC) Relationships – (LAE) Routines Recognition Restorative approach		Character - Confidence – (LAB) Creativity – (LAC) Contributing Community Relationships Routines – (LAC) Recognition Restorative approach	
Learning End Points	**Learning Aim A** Digital devices and how they connect with IT systems. This will be in a personal, business, and educational environment. This will involve hardware software. Additionally, about emerging technology and how that is changing the way people work with computers and artificial intelligence. **Learning Aim B** How computer networks are constructed and how data is transmitted over a network. This will include network performance and security. **Learning Aim C** Online communities and how as well as having a real profile in real life. There is also a need for an online profile as businesses now operate online using various online platforms. **Learning Aim D** Students will be familiar with the threats to data, information, and systems. They will also develop the ability to providing solutions to these threats. This will include the importance of protecting data and the consequences if data is destroyed, stolen, or compromised in any way. **Learning Aim E** How business models are now shifting online. This will include the various online communities, the impact of organisations conducting more business online and using and manipulating data gathered from clients and any business transactions to enhance productivity and subsequently generating more profit.		**Learning Aim A** The students will be familiar spreadsheet models. They will understand the processes of creating an effective spreadsheet model. They will be able to understand the key decisions that need to be made to ensure that the final product meets the requirements of the end user and is fit for the final audience and purpose. **Learning Aim B** Be able to produce high quality designs. This will demonstrate the functions and formulae used in the model. This will also illustrate the design and layout. Subsequently, linking on to the Human Computer Interaction (HCI) with the client. **Learning Aim C** Finally, combining the prior learning aims together and creating a robust spreadsheet model fit for the final audience and purpose. Demonstrating efficient Microsoft Excel skills. VLOOKUP, IF statements, Pivot charts. Additionally, providing evidence of skills such as time management, organisational skills, independent working skills and an element of creativity.	

	Learning Aim F The students will be aware of the legal, moral, and ethical issues when using IT in society. This will consist of the legislation and the reasons why any IT user would breach these rules and regulations, and the consequences.	
Substantive knowledge	*Learning Aim A* • Hardware and software • Emerging Technologies • Different IT systems • Digital devices *Learning Aim B* • Connectivity • Networks • Data Transmission *Learning Aim C* • Online systems • Online communities *Learning Aim D* • Threats to data • Protecting Data *Learning Aim E* • Online services • Impact on organisations • Manipulating data *Learning Aim F* • Moral and ethical issues • Legislations	*Learning Aim A* • The decision-making process • Spreadsheet features used. • Evaluating existing models and how to evaluate of own work. • Be able to justify any decisions made. *Learning Aim B* • Design a functional specification to meet the needs of an end user. • Create a design to demonstrate an outcome for a scenario. • Refine and improve data models. • Improve effectiveness of the final product based on ongoing client reviews. *Learning Aim C* • Develop a data Model solution. • Test the spreadsheet data model. • Review and refine a model further after conducting initial testing process. • Reflect on personal professional conduct during the completion of the project. E.g., Meeting deadlines and completing work to a good standard.
Disciplinary knowledge	The students should develop the technical knowledge of how IT specialists monitor and implement IT systems. This should include their daily duties such as network analysis, security, IT audits, trouble shooting, web and database administration. In addition, they should also be familiar with how IT specialists work in the community and how various users interact with IT systems. Whether it is for education, retail or for business.	The students should be able to plan, design, create test and evaluate a spreadsheet model. The students will develop key Microsoft Excel skills that are used in most industries. This application is used by IT and Non – IT specialists.
Key Vocabulary	• Aesthetic pleasing • Bandwidth • Click Bait • Data Cleansing • Encrypting • Fibre optics • GPS • Human Computer interaction (HCI) • Immersive • Jargon • Social Engineering	• Plan • Design • Implementation • Test • Evaluate • Modelling • Decision making • Formulae • Function • Validation / Verification • Constraints