

BTEC National Alternative Academic Qualifications Information Technology (AAQs) (Equivalent to one A Level)

Course Description:

The **BTEC IT** course explores the ethical, social, and economic implications of IT, and how IT resources are used to securely manage data at the workplace. The course embraces the dynamic nature of technology and touches upon cutting-edge innovations like artificial intelligence (AI) and machine learning (ML). The qualification is designed for students who are interested in studying how IT systems are used in business to gain a competitive advantage. It lays the base for progressing to a wide range of higher education courses such as IT, Business Studies and such courses.

Qualifications Required:

Minimum entry requirements apply. A Grade 4 in English Language and Maths preferred and an interest in IT.

Aims of the Course:

The objective of this qualification is to give you the opportunity to develop your knowledge and skills in IT systems, systems management and social media in business as well as data modelling and website development. This will enable you to progress to further study in the IT sector or other sectors.

Future Prospects:

You can progress on to a variety of degrees when combined with other suitable Level 3 qualifications. For example, the qualification supports entry to courses in ICT, Business, Software Development, Accounting and Finance, Computer Art, Software Development for Animation, etc. The qualification also enables students to develop knowledge and skills needed for entry-level roles related to IT, including vocational apprenticeship roles and trainee/entry-level roles such as a social media specialist, web/content developer, or business analyst.

Features of the Course:

Unit number	Unit title	GLH	Type	How assessed
1	Information Technology Systems	120	Mandatory	External
2	Cyber Security and Incident Management	120	Mandatory	External
3	Website Development	60	Mandatory	Internal
4	Relational Database Development	60	Mandatory	Internal

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Teaching Units

Unit 1: Information Technology Systems

Unit type: External

Guided learning hours: 120

IT systems have a significant role in the world around us and play a part in almost everything we do. Having sound knowledge and understanding of how to effectively select and use appropriate IT systems will benefit you personally and professionally. You will explore the relationships between the hardware and software that form an IT system, how systems work individually and together, and the relationship between the user and the system.

You will examine issues related to the use of IT systems and the impact that they have on organisations and individuals. This unit will give you a fundamental understanding of all areas of IT, supporting your progression to an IT-related higher education course.

Unit 2: Cyber Security and Incident Management

Unit type: External

Guided learning hours: 120

In this unit, you will examine the many types of cyber security attacks, the vulnerabilities in networked systems and the techniques that can be used to defend an organisation's networked systems. You will examine scenarios and explain appropriate protection measures for networked systems. You will also look at the forensic methods used to investigate cyber security incidents and analyse the suitability of those methods for a given scenario.

As IT systems evolve, there is an increasing need for IT professionals to protect networked systems and the information they contain, while providing enhanced features and benefits for organisations, customers and individuals. This unit will help prepare you for IT courses in higher education.

Unit 3: Website Development

Unit type: Internal

Guided learning hours: 60

In this unit, you will explore how existing websites use the principles of website development to appeal to their intended audience and meet their specific purpose. You will plan, design and develop a website in response to a client brief by applying website development tools, techniques and processes. You will also reflect on the usability, functionality and fitness for purpose of the website using a testing and review process. Many software developers, database experts and systems managers need web-client development skills as an integral part of their overall portfolio of expertise. This unit will benefit you to progress on to information technology courses in higher education.

Unit 4: Relational Database Development

Unit type: Internal

Guided learning hours: 60

Database developers understand and use practical skills utilising technologies that will enable them to design and develop databases that can be used by many different connecting systems. In this unit, you will examine the structure of data and how an efficient data design follows through into an effective, useful database.

You will investigate database management systems (DBMS) and apply practical skills in designing and developing a database within a given DBMS. This unit will provide you with the knowledge, and skills needed for progression on to higher education programmes in Information Technology.

