



**Sawtry Village Academy**



**BTEC**

**Extended Certificate Level 3 in IT- Single Award**

# **BTEC IT Transition Pack**

# BTEC IT- Skills for the real business world

In today's world, where ICT is constantly changing, individuals will increasingly need technological and information literacy skills. These skills are now as essential as the traditional skills of numeracy and literacy.

As well as the rapid development of new technologies, familiar technologies like television, telephone and computers are evolving and being expanded by digitised information. As a result of this, there is a growing need for individuals who can master and manipulate these new technologies.

BTEC IT encourages learners to become discerning users of IT. It allows them to develop a broad range of IT skills, knowledge and understanding.

## **General requirements to succeed in BTEC IT:**

- Attendance: Must be at least 90%.
- Independent Study: Must be at least 3hrs per week
- Focus and contribution in lessons: Very important
- Preparation for assessment: Must be rigorous
- Homework: Must be completed on time and to a very high standard, homework is a major part of the overall assessment.
- Self-Review: you must be able to realistically review your own progress every half term and make changes to your academic progress.

## **NOTE:**

Sawtry Village Academy offers BTEC Nationals Level 3 (PEARSON) Alternative Academic Qualification at AS and A2 Level, this is a single award equivalent to an A level.

- BTEC Nationals Level 3 AAQ in ICT is at least 33.3% coursework and 66.6% theory exam.
- The BTEC ICT coursework is submitted electronically in the form of e-portfolios.

# BTEC Nationals Level 3 ICT Extended Certificate Alternative Academic Qualification (PEARSON) - Single Award

## Course details

- **Mandatory Units**

- *Unit 1: Information Technology Systems*
  - *Unit 2: Cyber Security and Incident Management*
  - *Unit 3: Website Development*
  - *Unit 4: Relational Database Development*
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- • Information Technology Systems – Information technology systems, including the relationship between software and hardware, and the issues related to IT systems
  - • Cyber Security and Incident Management – Types of cyber security attacks, the vulnerabilities in networked systems and how to plan and respond to attacks
  - • Website Development – The development tools, techniques and processes used in website development and how to test usability, functionality and fitness for purpose
  - • Relational Database Development – Structure of data, data design and database management systems (DBMS).

### **Unit 1 – Information Technology Systems (90min exam) – Externally assessed - AS- 120GLH**

- You will learn how hardware and software works together to meet specific user needs.
- You will be able to select and use computer systems to meet user needs, understanding the implications of computer systems used in personal and professional situations.
- The unit is worth about 33% of the overall qualification.

## **Unit 2 - Cyber Security and Incident Management (90min exam) – Externally assessed – A2- 120GLH**

- You will study cyber security threats and vulnerabilities, the methods used to protect organizations against threats and managing security incidents.
- The unit is assessed by a written examination set and marked by the exam board, usually in May/June.
- The unit is worth about 33% of the overall qualification

## **Unit 3 – Website Development - Internally assessed - AS- 60GLH**

- You will understand how the principles of website development are used to create effective websites. You will explore web design techniques and develop a website to meet client requirements.
- You will produce a portfolio of evidence that will be internally marked and externally moderated.
- The unit is worth about 17% of the overall qualification.

## **Unit 4 – Relational Database Management Development (Practical exam) - Internally assessed - AS- 60GLH**

- You will learn about the importance of making informed decisions using the knowledge available to you. As you already know, not all information is current or accurate.
- You will learn the skills of creating advanced databases and effectively using databases to meet user needs.
- Scenario will be produced by the exam board.
- Your teacher will talk you through the scenario ready for the exam.
- Practical 15 hours-controlled-assessment to be submitted in May/June.
- The unit is worth about 17% of the overall qualification.

## BTEC Grading:

These are Level 3 qualifications, and the certification may show a grade of Pass, Merit, Distinction, Distinction\* or Unclassified (or a combination of these grades appropriate to the qualification).

Distinction\* is an aggregated grade for the qualification, based on the learner's overall performance. To achieve this grade (or this grade as part of a grade combination), learners will have to demonstrate a strong performance across the qualification as a whole.

Each individual unit will be awarded a grade of Pass, Merit or Distinction or Unclassified. Distinction\* is not available at unit level.

All mandatory and optional units contribute proportionately to the overall qualification grade, for example a unit of 120 GLH will contribute double that of a 60 GLH unit.

### BTEC Unit weighting

#### Internally accessed units:

Grade	Unit size (60 GLH)
U	0
Pass	6
Merit	10
Distinction	16

#### Externally assessed units:

Grade	Unit size (120 GLH)
U	0
Near Pass	8
Pass	12
Merit	20
Distinction	32

## Overall qualification weighting and UCAS point

### Extended Certificate (360 GLH)

Grade	Points threshold
U	0
Pass	36
Merit	52
Distinction	74
Distinction *	90

The table is subject to review over the lifetime of the qualification.

Please note that the exam board can review this from time to time and the most up-to-date version will be on the exam board website at [www.pearson.com](http://www.pearson.com)

– **Further details available at:**

- <https://qualifications.pearson.com/en/qualifications/btec-nationals/information-technology-aaq.html>
- <https://www.ucas.com/undergraduate/applying-university/entry-requirements/ucas-tariff-points>

# The preparatory work:

## *Organisation...*

Prepare a learning folder in which to keep all the work you do in the coming year.

You need to split it into the following sections:

1. Course outline & introduction
2. Transition work
3. Unit 1 – Notes and Research Documents
4. Unit 1 – Exam Practice / Preparations
5. Unit 2 – Skills Note and Research documents
6. Unit 2 – Coursework Notes
7. Unit 3 – Skills Note and Research documents
8. Glossary

## *Transition Task*

The transition task is aimed at preparing you for the course. It would also help in evaluating your suitability and ability to successfully complete the course. You are advised to answer the questions comprehensively.

Deadline – First lesson back in September.

## **Instructions:**

**Answer questions 1, 2, 3 and 4.** Take time to carry out independent research to answer some of the questions properly.

## **Question 1 – Research and presentation:** 20 marks

Miss Anderson has recently retired and is thinking of setting up a landscape gardening company. She knows how to use ICT to the level of an average Y11 student. Miss Anderson is concerned about health problems that she might get from working with ICT.

*Research and identify 5 health problems that Miss Anderson might get from working with ICT. For each health problem give an appropriate different solution.*

Your research should cover all aspects of the different possible health problems and preventions, government agencies / organisations involved, relevant examples and your own experience. Your write up should be at least 1000 words.

Think about using advanced search techniques to find relevant /up-to-date information. Include relevant images, examples, links and references.

Check your work for spelling and grammar errors.

**Question 2 – Research and report:** 20 marks

Miss Anderson wants to make use of new developments in ICT to assist her marketing the landscape gardening business, especially social media, and a website.

Write a structured essay (introduction, key point paragraphs with advantage, disadvantages, examples/opinion and then conclusion) on *“Possible current and future developments in web design and social media, and their impact on marketing the landscape gardening business.*

Your report should be of very high quality covering at least 5 social media, and at least 1500 words. Create a list of all references and glossary of key words.

**Question 3 - Database:** 20 Marks

Whilst looking for vehicles, Mrs Anderson notes down details of those she is interested in purchasing. The information she records about each vehicle is:

- make (e.g. Vauxhall)
- model (e.g. Astra)
- engine size (e.g. 1300 cc)
  - power (e.g. 110 bhp)
- manual or automatic
- colour (to be picked from a drop down of colours)
- metallic or standard paint
- where it is being sold ( the Postcode)
- registration mark (e.g. ZZ 05 ANG)
- year of first registration (e.g. 2005)
- current mileage
- whether or not it has
  - o air conditioning
  - o alloy wheels
- the purchase price (in £ )

(a) Explain three advantages of using a database to manage this type of information.

- (b) (i) Find out 3 different types of query.
- (ii) Using Mrs Anderson's system described above, explain how queries might be used help her create an effective database.
- (c) (i) Design a form that could be used to enter the data into a database
- (ii) Justify the reasons for the layout and location of items on the form.
- (d)(i) In the context of a database, what is a report.
- (ii) Give 2 examples of report that could be produced from the above car data.

**Question 4 – Research and report: 20 Marks**

Mrs Anderson will be relying heavily on the use of IT systems to store data and communicate with customers. Analyse the treats to the business when using IT systems in this way and make recommendations on what Mrs Anderson could do to reduce the risks.