

Structure of the qualification

Edexcel Level 2 BTEC First Certificate for ICT Practitioners

The Edexcel Level 2 BTEC First Certificate for ICT Practitioners consists of one core unit plus specialist units that provide for a combined total of 180 guided learning hours (GLH) for the completed qualification. Units based on vendor qualifications can account for up to a maximum of one third of the total guided learning hours.

Some units embed Microsoft, CompTIA and Cisco specialist IT vendor qualifications. In some cases the content of these overlaps with other units and in such situations, learners may not claim achievement for such overlapping units. Details of the particular vendor qualification concerned (MCDST, IT Essentials 1, A+) are given in the unit specification concerned.

Edexcel Level 2 BTEC First Certificate for ICT Practitioners			
Unit	Core unit	GLH	Level
1	Using ICT to Present Information	60	2
Unit	Specialist units		
2	Introduction to Computer Systems	60	2
3	ICT Project	60	2
4	Website Development	60	2
5	ICT Supporting Organisations	60	2
6	Networking Essentials	60	2
7	Software Design and Development	60	2
8	Customising Applications Software	60	2
9	Database Software	30	2
10	Spreadsheet Software	30	2
11	Numerical Applications	60	2
12	Installing Hardware Components (cannot be studied with Unit 22)	60	2
13	Software Installation and Upgrade	60	2
14	Technical Fault Diagnosis and Remedy (cannot be studied with Units 24 or 25)	60	2
15	Providing ICT Technical Advice and Guidance (cannot be studied with Units 24 or 25)	60	2
16	Mobile Communications Technology	30	2
17	Security of ICT Systems	30	2
18	ICT Graphics	60	2
19	Installing and Maintaining Home Entertainment Systems	60	2
20	Telecommunications Technology	60	2
21	Doing Business Online	60	2
22	Core ICT Hardware ¹ (cannot be studied with Unit 12)	60	2
23	Operating System Technologies ¹	60	2
24	Supporting Users and Troubleshooting the XP Operating System ² (cannot be studied with Units 14 or 15)	60	2
25	Supporting Users and Troubleshooting XP Desktop Applications on the XP Operating System ² (cannot be studied with Units 14 or 15)	60	2

¹ CompTIA

² Microsoft

Edexcel Level 2 BTEC First Diploma for ICT Practitioners

The Edexcel Level 2 BTEC First Diploma for ICT Practitioners consists of two core units plus specialist units that provide for a combined total of 360 guided learning hours (GLH) for the completed qualification. Units based on vendor qualifications can account for up to a maximum of one third of the total guided learning hours.

Some units embed Microsoft, CompTIA and Cisco specialist IT vendor qualifications. In some cases the content of these overlaps with other units and in such situations, learners may not claim achievement for such overlapping units. Details of the particular vendor qualification concerned (MCDST, IT Essentials 1, A+) are given in the unit specification concerned.

Edexcel Level 2 BTEC First Diploma for ICT Practitioners			
Unit	Core units	GLH	Level
1	Using ICT to Present Information	60	2
2	Introduction to Computer Systems	60	2
Unit	Specialist units		
3	ICT Project	60	2
4	Website Development	60	2
5	ICT Supporting Organisations	60	2
6	Networking Essentials	60	2
7	Software Design and Development	60	2
8	Customising Applications Software	60	2
9	Database Software	30	2
10	Spreadsheet Software	30	2
11	Numerical Applications	60	2
12	Installing Hardware Components (cannot be studied with Units 22 or 26)	60	2
13	Software Installation and Upgrade	60	2
14	Technical Fault Diagnosis and Remedy (cannot be studied with Units 24 or 25)	60	2
15	Providing ICT Technical Advice and Guidance (cannot be studied with Units 24 or 25)	60	2
16	Mobile Communications Technology	30	2
17	Security of ICT Systems	30	2
18	ICT Graphics	60	2
19	Installing and Maintaining Home Entertainment Systems	60	2
20	Telecommunications Technology	60	2
21	Doing Business Online	60	2
22	Core ICT Hardware ¹ (cannot be studied with Units 12 or 26)	60	2
23	Operating System Technologies ¹ (cannot be studied with Unit 26)	60	2
24	Supporting Users and Troubleshooting the XP Operating System ² (cannot be studied with Units 14 or 15)	60	2
25	Supporting Users and Troubleshooting XP Desktop Applications on the XP Operating System ² (cannot be studied with Units 14 or 15)	60	2
26	IT Essentials ³ (cannot be studied with Units 12, 22 or 23)	120	2

¹ CompTIA

² Microsoft

³ CISCO

Unit 9: Database Software

NQF Level 2: BTEC First

Guided learning hours: 30

Unit abstract

Database software is one of the most commonly used application packages in business. Therefore, it is important that all IT users should have a working knowledge of this type of software and an understanding of the advantages and disadvantages so that they can identify appropriate situations in which to use a computerised database.

In this unit, learners will gain an understanding of the basic principles of database design and the structures and terminologies of databases as well as developing useful practical skills such as creating single table databases with associated forms and reports. Databases deal with structured information and this is information that can be broken down into lots of similar records, each having the same fields.

Sometimes people want to see all of the fields of all of the records but in other cases, they may only want to see some of the fields or maybe a limited set of records for a particular purpose. For example in a stock file, we might only want a list of products that are out of stock for when we want to re-order. Queries are used to restrict the information seen and learners will understand how to create queries and use them as the basis for forms or printed reports.

When databases are used to store information, it is important that people can rely on it. There are various methods for ensuring that the information contained within databases is correct and a number of these will be considered. Particularly effective techniques are those that control and validate the information as it is being entered.

Documentation is necessary for every application and system so that they can be maintained and adapted over time. Learners will gain knowledge of the documentation necessary to support the databases that they create, to show how it works and what features have been used. They will also learn how to check their databases to ensure that everything works correctly.

Learning outcomes

On completion of this unit a learner should:

- 1 Understand the structure and principles of databases
- 2 Be able to create a simple database to meet user needs
- 3 Be able to create database queries, forms and reports
- 4 Be able to document a database.

Unit content

1 **Be able to carry out calculations using integers, decimals, fractions and binary numbers**

Calculations: calculations involving two or more steps; numbers of any size and sign; approximation; fractions; ratios; simple binary arithmetic; degree of accuracy; extended calculations eg loans calculations, depreciation

2 **Be able to use formulae**

Formulae: algebraic formulae eg calculating volumes, areas, wages, currency conversion; use of variables

3 **Understand and use basic statistical techniques**

Numerical techniques: mean; median; mode; rank; quartile and interquartile ranges; maximum; minimum

Classification of data: collection eg tally charts; tabulation of large data sets; frequency tables

Interpretation of graphical representations: pictograms eg pie charts, bar charts, histograms; line graphs (scattergrams, linear equations, frequency curves)

4 **Be able to present data graphically**

Pictograms: charts eg pie, bar; histograms

Line graphs: scattergrams; linear equations; frequency curves

Appropriateness: context; labelling; scale; communication

5 **Be able to use spreadsheets to model calculations involving numerical data**

Features: graphical representation; inbuilt functions eg mean, mode; tools

Extended mathematical and statistical functions: eg standard deviation, slope

Benefits: speed; accuracy

Modelling: budgeting; 'what if' eg forecasting