# CAMBRIDGE TECHNICAL EXTENDED CERTIFICATE IN IT - Level 3 Qualification

**QUALIFICATION:** **Cambridge Technical Certificate in IT (AS equivalent)**
**Cambridge Technical Extended Certificate in IT (equivalent to one A level)**

**EXAMINATION BOARD:** **OCR**

## Course Outline

The qualification aims to develop your knowledge, understanding and skills of the principles of IT and Global Information Systems. You will gain an insight into the IT sector as they investigate the pace of technological change, IT infrastructure, and the flow of information on a global scale, and the importance of legal and security considerations. Designed in collaboration with experts spanning the breadth of the sector, the Level 3 Cambridge Technicals in IT focus on the requirements that today's universities and employers demand.

You will gain the right combination of knowledge, understanding and skills required for the 21st century.

OCR have worked with IBM, Barclays, CompTIA and Cisco along with a number of colleges and HEIs to design the content for this course.

Entry requirements:
- GCSE English - grade 6
- GCSE Mathematics - grade 6

## Cambridge Technical Certificate in IT (AS equivalent)

Equivalent to one AS Level graded Pass (E), Merit (C), Distinction (A).

Assessment: two exams (available in January and July)

## Cambridge Technical Extended Certificate in IT (equivalent to one A level)

Equivalent to A level and graded Distinction* (A*), Distinction (A), Merit (C), Pass (E)

**What will I study? 5 units are needed from the units below. 1-3 are compulsory and two must be taken from 8-17**

**Units available to study**

| Unit no. | Unit title | Guided learning hours (GLH) | Unit ref no. (URN) | How are they assessed? | Mandatory or optional |
|---|---|---|---|---|---|
| 1 | Fundamentals of IT | 90 | M/507/4999 | E | M |
| 2 | Global information | 90 | R/507/5000 | E | M |
| 3 | Cyber security | 60 | Y/507/5001 | E | M |
| 8 | Project management | 60 | F/507/5008 | I | O |
| 9 | Product development | 60 | A/507/5010 | I | O |
| 11 | Systems analysis and design | 60 | J/507/5012 | I | O |
| 17 | Internet of Everything | 60 | H/507/5020 | I | O |

## Unit 1: Fundamentals of IT (compulsory unit for AS level)

A sound understanding of IT technologies and practices is essential for IT professionals. Information learnt in this unit will create a solid foundation in the fundamentals of hardware, networks, software, the ethical use of computers and how businesses use IT. After completing this unit, the knowledge, skills and understanding you have developed will underpin your study for the additional units. Knowledge gained in the study of this unit will also help prepare you for relevant industry qualifications such as CompTIA A+, CompTIA Mobility+ and Cisco IT Essentials.

## Unit 2: Global information (compulsory unit for AS level)

The purpose of this unit is to demonstrate the uses of information in the public domain, globally, in the cloud and across the Internet, by individuals and organisations.

You will discover that good management of both data and information is essential and that it can give any organisation a competitive edge. This unit will provide you with a greater understanding of how organisations use information sources both internally and externally and the types of information you will encounter. The skills gained by completing this unit will give you knowledge of the functionality of information and how data is stored and processed by organisations. You will also learn about how individuals use information of various types. This unit will help you to understand the legislation and regulation governing information which flows into and out of an organisation and the constraints and limitations that apply to it. You will also learn the relationship between data and

Information. Knowledge gained in the study of this unit will also help prepare you for relevant industry qualifications such as VM Ware.

## Unit 3: Cyber security (compulsory unit for A level)

This unit has been designed to enable you to gain knowledge and understanding of the range of threats, vulnerabilities and risks that impact on both individuals and organisations.

You will learn about the solutions that can be used to prevent or deal with cyber security incidents resulting from these challenges. You will be able to apply your knowledge and understanding of cyber security issues and solutions by reviewing and making recommendations for ways to best protect digital systems and information.

## UNIT 8: Project management

This unit will provide you with the opportunity to understand and use various project planning skills and techniques, thereby enabling you to become more effective in the workplace.

The key to any project being a success is the planning that takes place. Project management skills are essential transferable skills that can be used for all IT related projects whether it's traditional methodologies or more recently adapted agile approaches within the IT development environment. These skills can be adapted and used even on the smallest 'tasks' during the planning and implementation stages.

Regardless of your job role, you will often be called upon to participate in projects for a variety of reasons; consequently this unit is optional within all four of the specialist pathways. This unit will assist you in developing your skills, knowledge and understanding of different project methodologies and the key factors that can influence the success or failure of a project.

## UNIT 9: Product development

The purpose of this unit is to prepare you to undertake product development activities. You will learn about different product design methodologies and the role of the product development life cycle. In addition, you will discover the factors that influence product developments.

The key to any product development being a success is the analysis, client review, design, testing and final acceptance that takes place. The skills that you will learn can be applied to the development of any product, large or small. You will use product development skills and work through the product development life cycle.

Whether you are building a network, developing a website, developing a system for data analytics or creating an augmented or virtual reality resource, they are all products. It is therefore important that you understand the processes required for the development of products and that you can apply them to a variety of situations.

It is recommended that you develop a product alongside the other units you are studying so that you can explore the units holistically as a wider project. If this unit is being taken as part of a specialist pathway, the product developed could align to your chosen pathway and support progression into your chosen field within the IT industry.

## UNIT 17: Internet of Everything

This unit is about the use of the internet and how it is impacting people and society. You will learn about the Internet of Everything (IoE) and how it is used. Using your knowledge, you will carry out a feasibility study for a potential idea. You will pitch your idea to potential stakeholders and use their feedback to revise your proposal. This unit is an optional unit in the Extended Certificate and all of the specialist pathways in the Diploma suite, as the Internet of Everything is everywhere. The Internet of Everything is expanding, appearing in all of the everyday devices found in homes, businesses and cities. Knowledge gained in the study of this unit will also help prepare you for relevant industry qualifications such as Cisco IoE.