

Cambridge TECHNICALS LEVEL 2 & 3

Cambridge
TECHNICALS
2016

INFORMATION TECHNOLOGY

Summary Brochure
2016/2017
Version 2



PROTOTYPING
TECHICAL
PROGRAMMING
SYSTEMS
DIGITAL
DESIGN 3D
SOCIAL MEDIA
CYBER SECURITY
PRODUCT DEVELOPMENT

EMERGING TECHNOLOGIES

DATA ANALYSIS

PRAGMATIC

OCR is a not-for-profit organisation. For us, success is measured through the impact and reach of our activities and the scale of our contribution in helping students realise their aspirations.

Cambridge
TECHNICALS
2016

Our purpose is to work in partnership with others to provide general and vocational qualifications that support education in ways that enable students to reach their full potential, equip them with the knowledge and skills they need for their future, and to recognise and celebrate their achievements.

We develop our qualifications in close consultation with teachers, industry leaders and government to ensure they are relevant for today's students and meet requirements set by the Office of Qualifications and Examinations Regulation (Ofqual).

We are delighted to be working in partnership with Hodder Education to deliver you quality teaching resources.

www.hoddereducation.co.uk

Cambridge
TECHNICALS
2016

Level 2 Cambridge Technical Suite

- New suite for first teaching September 2017
- Externally assessed content
- Eligible for Key Stage 5 performance points from 2019
- Designed to meet the DfE technical guidance

Cambridge
TECHNICALS
2016

Level 3 Cambridge Technical Suite

- New suite for first teaching September 2016
- Externally assessed content
- Eligible for Key Stage 5 performance points from 2018 performance tables and 2019 performance tables
- Designed to meet the DfE technical guidance
- Attracts UCAS points at Level 3



Our Cambridge Technicals suite gives you the reassurance that you have the right qualifications to support your students' lifelong learning journey.

Cambridge Technicals are vocational qualifications at Level 2 and Level 3 for students aged 16+. They're designed with the workplace in mind and provide a high-quality alternative to A Levels, with a great range of subjects to choose from.

Vocational education is not just about results, it's about educating people in the knowledge and skills required for employment and for the community as a whole. It's also about developing the behaviours and attributes needed to progress and succeed in education and in work.

Our offer:

Subject	Level 2	Level 3
Art and Design	✓	✓
Business	✓	✓
Media/Digital Media	✓	✓
Engineering	✓	✓
Health and Social Care	✓	✓
IT	✓	✓
Science/Laboratory Skills	✓	✓
Performing Arts	✓	✓
Sport and Physical Activity	✓	✓

The qualifications allow for a high degree of flexibility with the choice of units that make up the qualifications, so your students can specialise in the specific areas of the subject that interest them most.

LEVEL 2 CAMBRIDGE TECHNICALS IN IT

Launched for first teaching September 2017, our Level 2 Cambridge Technicals in IT qualifications will allow your students to achieve their potential and progress to the next stage of their lives, whether further study, an apprenticeship, or employment.

We've designed refreshing and exciting content, that's up to date, engaging, fit for purpose and suitable for the needs of your students in 2017 and beyond. To do this we've consulted with employers and industry specialists to make sure that your students will gain the right combination of knowledge, understanding and skills required for the 21st century.

These qualifications aim to develop your students' knowledge, understanding and skills of the essentials of IT and Cyber Security. Your students will gain an insight into the IT sector as they investigate the pace of technological change, IT infrastructure on a global scale, and the importance of legal and security considerations. Designed in collaboration with industry experts the qualifications focus on the requirements that today's employers demand.

A wide range of centre assessed units with practical and wider project-based assessment opportunities, as well as examined units on the Essentials of IT and Essentials of Cyber Security has resulted in a range of focused qualifications. Dependent on the size chosen the qualifications can complement a Key Stage 5 study programme alongside other post 16 vocational qualifications. Your students will practically apply their skills and knowledge in preparation for further study, apprenticeship or the workplace.

Your students will also develop professional, personal and social skills through interaction with peers, stakeholders and clients, as well as theoretical knowledge and understanding to underpin these skills. These support the transferable skills required by employers such as communication, problem solving, time management, research and analytical skills.



The Qualifications

All Level 2 qualifications across the Cambridge Technical in IT suite have the ability to be co-teachable; allowing for flexibility within the delivery of a study programme.

Level 2 Cambridge Technicals in IT

Scheme code	Qualification title	Guided learning hours (GLH)
05882	Level 2 Cambridge Award in Digital Business Technologies	90
05883	Level 2 Cambridge Technical Certificate in IT	180
05884	Level 2 Cambridge Technical Diploma in IT	360

Award Pathway

Digital Business Technologies

This qualification provides an introduction to the IT sector. Students are not required to take external assessments and the expectation is that they will use the Award as a stepping stone into employment or further study.

Certificate Pathway

Digital Administrator

This pathway focuses on the skills required to support the needs of business through data analysis and decision making, to identifying the most suitable channel to communicate a business need and creating suitable content, or considering how emerging technologies can be used to support business needs.

In addition to the mandatory units, your students must also achieve the synoptic mandatory pathway unit *Using Data Analysis Software*.

Diploma Pathways

IT Technical Practitioner

This pathway focuses on the design and implementation of an organisation's IT infrastructure together with the activities and roles that are carried out in the workplace, such as selecting hardware and software to meet client's needs, and learning how to build, upgrade or install computer systems and networks that are safe and secure.

In addition to the mandatory units, your students must also achieve the synoptic mandatory pathway unit *Building IT Systems*. It is recommended that students complete this unit at the end of the learning programme in order to fully utilise the synoptic skills and knowledge learned in other units of this pathway.

Digital Software Practitioner

This pathway focuses on the job role of a software practitioner across a range of sectors including website creation, mobile applications and games creation. Students will also explore programming languages and the contexts in which these may be used.

In addition to the mandatory units, your students must also achieve the synoptic mandatory pathway unit *Creating Programming Solutions for Business*. It is recommended that students complete this unit at the end of the learning programme in order to fully utilise the synoptic skills and knowledge learned in other units of this pathway.

Digital Business Practitioner

This pathway focuses on preparing students for a role as a digital business practitioner through the research and discussion of IT applications which can be used to solve business problems. They will develop skills to identify the most suitable channel to communicate a business need, create content and use social media tools available to publish this content. They will also learn the skills required to support the needs of business through data analysis and decision making and learn about the design fundamentals, software and hardware required to create computer generated visual products to meet business needs.

In addition to the mandatory units, your students must also achieve the synoptic mandatory pathway unit *Creating Business Solutions*. It is recommended that students complete this unit at the end of the learning programme in order to fully utilise the synoptic skills and knowledge learned in other units of this pathway.



Progression

If your students leave your institution or change their mind on their final destination, they have the opportunity to move up/move down different qualification sizes.

Cambridge Technicals provide a strong base for progression to further study apprenticeships or employment.

DfE Key Stage 5 Performance Measures

We've made the decision to position the 180GLH and 360GLH Level 2 Cambridge Technicals in the 'Technical Certificate' category as outlined in the DfE's technical guidance. Technical Certificates have characteristics defined by the DfE in order for the qualification to be recognised in the new Key Stage 5 accountability measures.

Technical Certificate

Level 2 Cambridge Technicals are designed to meet the DfE's Technical Certificate characteristics and will provide your students with the skills required when starting out in their chosen career. We've worked with key industry employers and experts to make sure the Cambridge Technicals in IT provide your students with the right knowledge and competence required when entering into employment, or progressing onto an apprenticeship or Level 3 Tech Level qualification.

The qualifications include a range of mandatory and specialist pathway units allowing your students to really focus on what is right for their chosen career path.



M = Mandatory O = Optional				Cambridge Technical Award in Digital Business Technologies 90 GLH	Cambridge Technical Certificate in IT 180 GLH	Cambridge Technical Diploma in IT 360 GLH		
Number of units needed				Up to 3	4	8		
				PATHWAYS	PATHWAYS	PATHWAYS		
Unit number	Unit title	GLH	Assessment method	Digital Business Technologies Pathway	Digital Administrator	IT Technical Practitioner	Digital Software Practitioner	Digital Business Practitioner
1	Essentials of IT	60	E		M	M	M	M
2	Essentials of Cyber Security	30	E		M	M	M	M
3	Building IT Systems	60	I	-	-	M	-	-
4	Creating Programming Solutions for Business	60	I	-	-	-	M	-
5	Creating Business Solutions	60	I	-	-	-	-	M
6	Participating in a Project	30	I	-	-	O	O	O
7	Pitching the Product	30	I	-	-	-	O	O
8	Using Emerging Technologies	30	I	O	O	O	O	O
9	Supporting IT Functions	60	I	O	-	M	-	-
10	IT Software Installation and Upgrade	30	I	O	-	O	-	-
11	IT Hardware Installation and Upgrade	30	I	O	-	O	-	-
12	Creating a Computer Network	60	I	O	-	M	-	-
13	Creating Websites	60	I	O	-	-	M	-
14	Creating Mobile Applications for Business	30	I	O	-	-	M	-
15	Games Creation	60	I	O	-	-	M	-
16	Using Social Media Channels for Business	30	I	O	O	-	-	M
17	Using Data Analysis Software	60	I	O	M	-	-	M
18	Creating Visual Business Products	60	I	O	-	-	-	M

UNITS – AIM AND PURPOSE

Unit 1 *Essentials of IT*

The IT solutions that businesses use in the modern world are made up of many different component parts. These parts can include PCs, PCs that are linked together to form a network, devices and wearable technologies that are attached to the PC or the network via the Cloud and the internet. These business solutions are designed to help businesses to operate.

This unit is the foundation for this qualification and it is designed give you the underpinning synoptic knowledge that will prepare you to study this suite of qualifications. It is a mandatory externally assessed unit for all sizes and pathways within the suite. You will learn about computer hardware and software. You will gain an understanding of how to perform hardware and software maintenance and how to keep safe while you perform these tasks. You will also learn about the benefits to you and businesses of using IT and the internet to help prepare you for a career in the Information Technology sector.

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

Essentials of Cyber Security

With so much data and information being stored on computer systems, the need for security is more important than ever. To lose, or have this information and data manipulated, can cause individuals and organisations loss of time, reputation and, possibly financial loss. It is important that good security procedures are implemented to keep data and information as safe as possible.

This unit has been designed to enable you to gain knowledge and understanding of some of the threats and vulnerabilities that can have an impact on individuals and organisations. You will learn about some of the measures that can be used to protect against a cyber-security attack. You will be able to apply your knowledge and understanding of these measures by recommending ways in which a digital system can be best protected.

This unit is designed to give you an understanding of cyber security issues that will prepare you to study this suite of qualifications. It is a mandatory externally assessed unit for all sizes and pathways within the suite.

Learning within this unit will also support the delivery of the Cisco Cyber Security and CompTia Security+, CompTIA IT Fundamentals and CompTIA A+ qualifications. The unit also makes reference to the UK National Cyber Security Strategy, Cyber Essentials Scheme, 10 Steps to Cyber Security and Cyber Streetwise.

Unit 3

Building IT Systems

The aim of this unit is to enable you to understand how to build an IT system that meets the needs of businesses. It is important that IT technicians have an introductory knowledge, skills and understanding associated with the building of IT systems. You will develop the skills needed to recommend appropriate hardware and software for various purposes.

The learning within this unit will also support the delivery of the CompTIA IT Fundamentals, CompTIA A+ and Cisco qualification objectives.

This is a mandatory unit within the IT Technical Practitioner pathway in the Diploma.

It is highly recommended that this unit is completed at the end of your learning programme as you will need to draw on the synoptic knowledge and understanding from other units you have studied in this pathway.

Unit 4

Creating Programming Solutions for Business

This unit will enable you to explore the job role of a software practitioner. You will then go on to explore programming languages and the contexts in which these may be used.

You will plan a business solution using a programming language, create the program using an appropriate development environment, test the program and reflect on the program created.

On completing this unit you will know about language options together with syntax, structure and layout of a programming language and be able to apply them to a programming solution.

This unit is a mandatory unit in the Digital Software Practitioner pathway in the Diploma.

It is highly recommended that this unit is completed at the end of your learning programme as you will need to draw on the synoptic knowledge and understanding from other units you have studied in this pathway.

Unit 5

Creating Business Solutions

The digital world is growing very fast with new ideas, applications and hardware changing constantly.

This unit will prepare you for a role in the Digital Business Practitioner pathway through the research and discussion of IT applications which can be used to solve business problems. You will learn to differentiate between generic and specialist software and be able to select the most appropriate application for a particular business need and then use the selected application to create the solution.

This unit is a mandatory unit in the Digital Business Practitioner pathway of the Diploma.

It is highly recommended that this unit is completed at the end of your learning programme as you will need to draw on the synoptic knowledge and understanding from other units you have studied in this pathway.

Unit 6

Participating in a Project

Participating in projects can lead to career progression as it enables you to develop your skills in team working, problem solving, time management, communication, project planning and control. It can broaden your experience and enable you to learn about other areas within the organisation you are working in.

For this unit you will participate in a project that will require you to use your skills, knowledge and understanding to effectively carry out your role within the project team.

You will be required to manage your time to ensure that you complete your work to the required timescales and communicate with the other members of the project team.

You will carry out a review of how you have supported the project team to meet the overall aims and objectives of the project. In addition, you will reflect on your participating within the project and how you would adapt your working practices to improve any future contribution within a project.

This unit is optional in the IT Technical Practitioner pathway, the Digital Software Practitioner pathway and the Digital Business practitioner pathway of the Diploma.

Unit 7

Pitching the Product

Once an IT product has been designed, pitching it to the right people in an appropriate format ensures that it gains approval. Using recognised tools and techniques to pitch products to internal stakeholders provides a stable springboard from which products can be launched. For a pitch to have a positive and memorable effect on a client, it must be innovative and provide an honest reflection of the product, its features and its capabilities.

This unit will give you the opportunity to learn about pitching a product to a client and the different communication methods used to pitch products to stakeholders.

Knowledge gained in the study of this unit will also help prepare you for relevant industry qualifications such as CompTIA Project+.

This unit is optional in the Digital Software Practitioner and Digital Business Practitioner pathways in the Diploma.

Unit 8

Using Emerging Technologies

You will understand the features and potential uses of emerging technologies. You will be asked to consider how emerging technologies can be used to support businesses and explain the benefits and drawbacks of these technologies. You will understand the social, commercial and legal implications when using emerging technologies and be able to identify future impacts from the application of these new technologies.

This unit is optional within all pathways of this qualification suite.

Unit 9 **Supporting IT Functions**

The aim of this unit is to allow you to discover the types of activities carried out by IT Support professionals. You will learn about many of the tasks that they carry out and also about how organisations use IT Support.

You will learn how to diagnose common hardware and software in IT Systems, using a range of tools, techniques and other resources. You will analyse the results of your diagnostic testing and learn the importance of good communication when reporting system faults to your client.

The role of IT Support in delivering both preventative and routine maintenance of IT systems will be introduced and you will develop your understanding of these important areas.

All IT support technicians require the skills, knowledge and understanding to diagnose a wide variety of hardware and software faults and provide advice and guidance to different stakeholders.

The learning in this unit will support the delivery of the CompTIA A+, as well as the Cisco IT Essentials qualification.

This unit is mandatory within the IT Technical Practitioner pathway of the Diploma and is optional in the Award in Digital Business Technologies.

Unit 10 **IT Software Installation and Upgrade**

The aim of this unit is to allow you to demonstrate an understanding of the installation and/or upgrade of software. This includes having an understanding of the reasons why upgrades/installations are required and the factors to be considered when carrying out an installation or upgrade. You will be expected to carry out software installation and upgrades for a specified purpose. Testing will be required with review of the test results and you will be expected to evaluate the effectiveness of the installation and upgrade you have carried out.

The unit will cover aspects of the CompTIA A+ Certification, specifically with reference to installing and upgrading software, and will also support the delivery of CompTIA IT Fundamentals.

This unit is optional within the Award in Digital Business Technologies and in the IT Technical Practitioner pathway in the Diploma.



Unit 11

IT Hardware Installation and Hardware

For this unit, hardware refers to the internal components of an IT system and NOT peripherals such as printers, keyboards etc.

The aim of this unit is to allow you to demonstrate an understanding of the installation and upgrade of hardware. This includes having an understanding of the reasons why upgrades/installations are required and the factors to be considered when carrying out an installation or upgrade. You will be expected to carry out hardware installation and/or upgrades for a specified purpose. Testing will be required with review of the test results and you will be expected to evaluate the effectiveness of the installation and/or upgrade you have carried out.

The unit will cover aspects of the CompTIA A+ Certification, specifically with reference to installing and upgrading hardware, and will also support the delivery of CompTIA IT Fundamentals.

This unit is optional within the Award in Digital Business technologies and in the IT Technical Practitioner pathway in the Diploma.

Unit 12

Creating a Computer Network

Computer networks have changed the way we live our lives, from streaming a movie, browsing the internet, uploading a photo, to file sharing and remote working.

In any IT technical role, you will benefit from having a good grasp of the fundamentals of networking and its application. This unit has been developed to help you gain these skills and put them into practice by installing and securing a network.

The teaching content supports the delivery the Cisco networking certification (CCNA), CompTIA A+ and CompTIA IT Fundamentals.

This is an optional unit within the Award in Digital Business Technologies and is mandatory within the IT Technical Practitioner pathway in the Diploma.

Unit 13

Creating Websites

The purpose of this unit is to provide you with the knowledge and skills required to create basic websites to meet business needs.

As websites become an increasingly essential tool for organisations to communicate with clients and customers, market goods and services and promote their business, an understanding of their use by organisations becomes more important.

This unit will enable you to know how organisations use websites. You will be able to review existing websites to identify how they meet business needs and suggest improvements to support business developments. You will be able to prepare plans for the improvement or enhancement of websites. It will prepare you in the process and skills required to design, create or modify website components and enable you to update an existing website to meet business needs. You will be able to test the functionality of your updated website and know how to resolve any issues that arise. You will be able to present website components and updated websites to stakeholders for approval. You will discover how to respond to stakeholder feedback by recommending changes to website components and evaluating your updated website.

This is an optional unit within the Award in Digital Business Technologies and is mandatory within the Digital Software Practitioner path

Unit 14

Creating Mobile Applications for Business

Mobile technology is becoming more and more prevalent within society both from a personal point of view as well as within business.

The aim of this unit is to provide an understanding of the uses of mobile applications for business. You will plan, create, update and improve mobile applications to meet business requirements. Feedback gathered from users and the client will form the basis of the improvements you make to the mobile application.

This is an optional unit within the Award in Digital Business and is mandatory within the Digital Software Practitioner pathway in the Diploma.

Unit 15 **Games Creation**

Game design is a popular area within the industry that continues to develop new concepts and technologies, attracting a much wider diverse audience with multiple requirements for multiple platforms.

The aim of the unit is to give you the opportunity to use the fundamentals of game design. You will acquire the skills to produce games from game designs and explore how to enhance the games by incorporating additional features.

This is an optional unit within the Award in Digital Business Technologies and is mandatory within the Digital Software Practitioner pathway in the Diploma.

Unit 16 **Using Social Media Channels for Business**

Social media plays a large role in the way people communicate with each other. It has become a powerful tool for businesses to communicate and interact with its customers. Businesses need to use social media effectively or this medium for communication maybe ineffective.

The use of social media has become so extensive in business that customers expect companies of all sizes to have a social media presence. Companies are required to create and manage regular social media content and interact appropriately. It is important that content is well designed and delivered to ensure a positive response from their target audience and to achieve their business objectives.

You will develop skills to identify the most suitable channel to communicate a business need. You will create content and use the social media tools available to publish this content. To help you do this you will need to know about different social media channels and understand the implications of what you create on the business and the opportunities the business will gain as a result.

This unit is optional in the Award in Digital Business Technologies and in the Certificate in IT. It is a mandatory unit in the Digital Business Practitioner pathway in the Diploma.



Unit 17

Using Data Analysis Software

Everyone and every business uses data, whether it is the brain calculating the speed of a car, a business forecasting sales or a manufacturer identifying colours for new products based on historical customer preferences. The data used must be grouped, sorted, validated and processed to make it understandable and useful. Software is used to analyse this data and provide businesses with the ability to carry out the necessary actions to convert it into business information.

This unit will enable you to understand the difference between data and information and the quality of the data, which data needs to be analysed for a given business need and how to carry out the analysis and present the findings and recommend the use of your analysis model for future analyses and decision making.

This unit is optional in the Award in Digital Business Technologies and is mandatory in the Certificate in IT. It is also a mandatory unit in the Digital Business Practitioner pathway in the Diploma.

Unit 18

Creating Visual Business products

Visual products come in a variety of different formats, sizes and purposes. These visual products will have been carefully designed so that they have the highest impact on its intended audience in order to achieve their purpose. These visual products will have been generated using computer technology and require fundamental design knowledge to ensure they are designed to be functional, easy to use, accessible, attractive and have suitable content.

Visual products could take the form of printed materials, web products (e.g. banners, adverts and interactive content), film, animation, augmented reality and more.

Businesses need to give themselves a professional image when they use visual products and in a rapidly moving industry, it is important that their visual products are of a high quality or else a poor image can be given of the company.

This unit will provide you with the knowledge of design fundamentals, software and hardware required to create computer generated visual products. It will also guide you in the skills needed to design and create visual products to meet a business need.

The aim of the unit is to give you experience and understanding of the process involved in creating visual products to a business need as well as the skills to create them.

This unit is optional in the Award in Digital Business Technologies and is mandatory within the the Digital Business Pathway in the Diploma qualification.

LEVEL 3 CAMBRIDGE TECHNICALS IN IT

Launched for first teaching September 2016, our Level 3 Cambridge Technicals in IT qualifications allow your students to achieve their potential and progress to the next stage of their lives, whether it be Higher Education, an apprenticeship, or employment.

We've designed refreshing and exciting content, that's up to date, engaging, fit for purpose and suitable for the needs of your students in 2016 and beyond. To do this we've consulted with universities, employers and industry specialists to make sure that your students will gain the right combination of knowledge, understanding and skills required for the 21st century.

The qualifications aim to develop your students' knowledge, understanding and skills of the principles of IT and Global Information Systems. Your students 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.

A wide range of centre assessed units with practical and wider project-based assessment opportunities, as well as examined units on the Fundamentals of IT, Global Information, Cyber Security, and Cloud Technology has resulted in focused qualifications. Dependent on the size chosen the qualifications either complement a Key Stage 5 study programme alongside other vocational qualifications, A Levels, or may constitute the bulk of a two-year study programme. Your students will practically apply their skills and knowledge in preparation for further study, apprenticeship or the workplace.

Your students will also develop professional, personal and social skills through interaction with peers, stakeholders and clients, as well as theoretical knowledge and understanding to underpin these skills. These support the transferable skills required by universities and employers such as communication, problem solving, time management, research and analytical skills.



The Qualifications

All qualifications across the Cambridge Technicals in IT suite have the ability to be co-teachable; allowing for flexibility within the delivery of a study programme.

Level 3 Cambridge Technicals in IT

Scheme code	Qualification title	Guided learning hours (GLH)
5838	Level 3 Cambridge Technical Certificate in IT	180
5839	Level 3 Cambridge Technical Extended Certificate in IT	360
5840	Level 3 Cambridge Technical Introductory Diploma in IT	360
5841	Level 3 Cambridge Technical Foundation Diploma in IT	540
5842	Level 3 Cambridge Technical Diploma in IT	720
5877	Level 3 Cambridge Technical Extended Diploma in IT	1080

To help you define which of the Cambridge Technicals sits in either the Applied General or Tech Level category, we've followed the naming conventions below:

- Certificates = Applied General
- Diplomas = Tech Level

Diploma Pathways

Three of our Diplomas have four vocational pathways within them that can be followed: one pathway must be achieved.

The Extended Diploma has merged the four pathways into two vocational pathways that can be followed: one pathway must be achieved.

We have worked with IBM, Barclays, CompTIA and Cisco along with a number of colleges and HEIs to design the content for these pathways to ensure the units have refreshing and exciting content, that's up to date, engaging, fit for purpose and suitable for the needs of your students.

IT Infrastructure Technician

This pathway focuses on the design, implementation and management of an organisation's IT Infrastructure. Plus, the activities and roles that are carried out in the workplace such as selecting hardware and software for clients, and learning how to build, upgrade or develop computer systems and networks that are safe and secure.

In addition to the mandatory units, your students must also achieve the mandatory pathway unit Computer Networks.

Emerging Digital Technology Practitioner

This pathway focuses on the use and development of virtual and augmented reality and emerging technologies for application across a range of sectors, to include: mobile technology, digital marketing and the visualisation of Big Data.

In addition to the mandatory units, your students must also achieve the mandatory pathway unit Virtual and Augmented Reality.

Application Developer

This pathway focuses on the development of a range of applications across platforms and sectors. We've made sure your students will gain the right combination of knowledge, understanding and skills required for the 21st century, enabling them to demonstrate the skills of writing specifications, and the design, build, testing and implementation of applications.

In addition to the mandatory units, your students must also achieve the mandatory pathway unit Application Design.

Data Analyst

This pathway focuses on the data analytics business. Your students will learn how organisations evaluate risks with data and analyse statistical information to determine whether they could accidentally damage business potential or identify opportunities to increase business potential.

In addition to the mandatory units, your students must also achieve the mandatory pathway unit Data Analysis and Design.

Extended Diploma pathways are:

Data Technician which combines the focus of the **IT Infrastructure Technician** and the **Emerging Digital Technology Practitioner** pathways.

Application Data Practitioner which combines the focus of the **Application Developer** and **Data Analyst** pathways.

The additional mandatory units available in these pathways will allow students to specialise with breadth and depth into more specialist and cutting edge job roles across sectors.



Progression

If your students leave your institution or change their mind on their final destination, they have the opportunity to move up/move down different qualification sizes.

Cambridge Technicals provide a strong base for progression to university, apprenticeships or work and are recognised for UCAS tariff points*.

DfE Key Stage 5 Performance Measures

We've made a decision to position the Cambridge Technicals in IT across the 'Applied General' and 'Tech Level' categories outlined in the DfE's technical guidance. Each category has characteristics defined by the DfE in order for the qualification to be recognised in the new Key Stage 5 accountability measures. We believe that providing your students with qualifications that are right for their chosen destination will better equip them for the future.

Applied General – Certificates

You can be confident that we are working with universities to make sure that Cambridge Technicals designed to meet the Applied General characteristics will provide your students with the depth and breadth of knowledge, understanding and skills required for further study in that subject area at Higher Education. These qualifications will include a range of mandatory and optional units.

We're conscious that due to changes in A Level curriculum and assessment, some students who would generally undertake an academic qualification may benefit from taking an Applied General vocational qualification that is designed for progression to Higher Education.

The Cambridge Technicals in IT include AS and A2 equivalent size qualifications, which have nested units enabling your students to move from one size to the other. We're aware that the decoupling of the AS from the A Level may not provide the flexibility you need in order to offer a comprehensive study programme. Therefore, the Cambridge Technicals provide you with the solution you need in order to give students optionality within their study programme, at the same time as making sure they have a recognised qualification designed to take them to university.

Tech Level – Diplomas

Cambridge Technicals designed to meet the DfE's Tech Level characteristics will provide your students with the skills required when starting out in their chosen career. We've worked with key industry employers and experts to make sure the Cambridge Technicals in IT provide your students with the right knowledge and competence required when entering into employment. These qualifications will include a range of mandatory, optional and specialist pathway units; allowing your students to really focus on what is right for their chosen career path.

*It is important to check individual course requirements when applying to university.

Collaborators

The Cambridge Technicals in IT have had support from a range of employers and universities. These include:

Employers	HEIs
BT	Anglia Ruskin University
Barclays	Arden University
Cisco	Birmingham City University
CompTIA	University of Bath
IBM	
Naace	
Tech Partnership (SSC)	



M = Mandatory O = Optional				Applied General		Tech Level														
				Certificate in IT 180 GLH	Extended Certificate in IT 360 GLH	Introductory Diploma in IT 360 GLH				Foundation Diploma in IT 540 GLH				Diploma in IT 720 GLH				Extended Diploma in IT 1080 GLH*		
Number of units needed				2	5	5				8				11				17		
						PATHWAYS				PATHWAYS				PATHWAYS				PATHWAYS		
Unit number	Unit title	GLH	Assessment method			IT Infrastructure Technician	Emerging Digital Technology Practitioner	Application Developer	Data Analyst	IT Infrastructure Technician	Emerging Digital Technology Practitioner	Application Developer	Data Analyst	IT Infrastructure Technician	Emerging Digital Technology Practitioner	Application Developer	Data Analyst	Digital Technician	Application Data Practitioner	
1	Fundamentals of IT	90	E	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
2	Global Information	90	E	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
3	Cyber Security	60	E	-	M	O	O	O	O	O	O	O	O	M	M	M	M	M	M	M
CC ⁺	Cloud Technology	90	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	M	
4	Computer Networks	60	I	-	-	M	-	-	-	M	-	-	-	M	-	-	-	M	-	
5	Virtual and Augmented Reality	60	I	-	-	-	M	-	-	-	M	-	-	-	M	-	-	M	-	
6	Application Design	60	I	-	-	-	-	M	-	-	-	M	-	-	-	M	-	-	M	
7	Data Analysis and Design	60	I	-	-	-	-	-	M	-	-	-	M	-	-	-	M	-	M	
8	Project Management	60	I	-	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
9	Product Development	60	I	-	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
10	Business Computing	60	I	-	-	-	-	-	O	-	-	-	O	-	-	-	O	-	O	
11	Systems Analysis and Design	60	I	-	O	O	O	-	O	O	O	-	O	O	O	-	O	O	O	O
12	Mobile Technology	60	I	-	-	O	O	O	-	O	O	O	-	O	O	O	-	O	O	O
13	Social Media and Digital Marketing	60	I	-	-	-	O	O	O	-	O	O	O	-	O	O	O	O	O	O
14	Software Engineering for Business	60	I	-	-	-	-	O	O	-	-	O	O	-	-	O	O	-	O	O
15	Games Design and Prototyping	60	I	-	-	-	-	O	-	-	-	O	-	-	-	O	-	-	O	O
16	Developing a Smarter Planet	60	I	-	-	O	O	-	-	O	O	-	-	O	O	-	-	O	-	O
17	Internet of Everything	60	I	-	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
18	Computer Systems – Hardware	60	I	-	-	O	one of	-	-	O	one of	-	-	O	one of	-	-	O	-	O
19	Computer Systems – Software	60	I	-	-	O	one of	-	-	O	one of	-	-	O	one of	-	-	O	-	O
20	IT Technical Support	60	I	-	-	O	-	-	-	O	-	-	-	O	-	-	-	O	-	O
21	Web Design and Prototyping	60	I	-	-	-	-	O	-	-	-	O	-	-	-	O	-	-	O	O
22	Big Data Analytics	60	I	-	-	-	O	O	O	-	O	O	O	-	O	O	O	O	O	O
23	Cognitive Computing	30	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	O	O	O
24	Enterprise Computing	60	I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	M	M

⁺ Formally Unit 25

*1080 GLH unit content is currently draft until submitted and approved by the Department for Education

UNITS – AIM AND PURPOSE

Unit 1 *Fundamentals of IT*

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*

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 in to 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

The need for secure digital systems is more crucial than ever before. We rely on computerised systems and networks to collect, process, store and transfer vast amounts of data and to control critical systems such as water and power supplies.

Business and e-commerce can be undertaken twenty four hours a day, seven days a week and telecommunications enable us to keep in touch with family and friends and collaborate with colleagues at any time. Mobile devices offer us freedom and flexibility of where and how we learn and work. However, for all the advantages that these systems offer us, some people have found ways to exploit them and this poses a threat to our safety and security in the real world, as much as in the cyber world. To deal with this problem, the cyber security industry is expanding at a rapid rate.

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.

Learning within this unit will also support the delivery of the Cisco Cyber Security and CompTIA A+, CompTIA Security+, CompTIA Mobility+ qualifications. The unit also makes reference to UK government cyber security initiatives, for example, the UK government's UK Cyber Security Strategy, Cyber Essentials Scheme, 10 Steps Strategy, and Cyber Streetwise.

Unit 4 Computer Networks

Computer networks form a key part of the information economy; they are the foundation of the World Wide Web on which eBay, Amazon, Facebook and a multitude of other companies depend for their success. The demand for networking capability is enormous and increasing daily. The business world demands network administrators, engineers and technicians that can set up, manage and maintain their networks.

The emphasis of this unit is to give you the practical ability to plan, implement and maintain computer networks. The approach adopted by this unit is 'bottom up' where you begin with a solid set of components, cables and connectors of a network and then progressively build a networking capability. The range of protocols has been deliberately limited to those which are used in the vast majority of computer networks; TCP/IP and Ethernet.

The teaching content is designed to support networking qualifications for certifications such as Microsoft, Cisco and CompTIA Network+.

This unit is mandatory in the IT Infrastructure Technician pathway due to its relevance in an IT technical environment. The unit supports the development of skills, knowledge and understanding relevant to a technical support or network technician job role.

Unit 5 **Virtual and Augmented Reality**

Virtual Reality is a simulated environment that is intended to replicate the physical experience of being in places in the real or imagined worlds, by giving the user sensory experiences that match those which would be experienced were the user actually in that environment. Augmented Reality is the process of changing the user's view of the real world in order to give them an improved, or more detailed view of what they are seeing.

You will learn about both technologies and how they are used. You will research both technologies and design both a Virtual and an Augmented Reality resource. Finally, you will use your research skills learnt whilst designing and creating resources to suggest future applications of Virtual and Augmented Reality.

This unit is mandatory to the Emerging Digital Technology Practitioner pathway due to its relevance as an emerging digital technology. The unit supports the development of skills, knowledge and understanding relevant to a job role in the areas of 3D modelling, digital transformation and even the film and games industry.

Unit 6 **Application Design**

The world is increasingly reliant on applications that help individuals, business and organisations achieve specific activities or purposes. In this unit you will explore potential ideas for a new application and develop the fundamental design for it. You will then develop the designs for an application and how users will interact with it. The application that you will design could be for any sector and for any purpose. You will have the opportunity to present your ideas, prototype them and gain feedback before refining your design.

Besides the technical knowledge that you will gain about designing an application, you will also learn key transferable skills about liaising with clients, questioning people effectively to gain the information you need to develop successful designs, and presenting your ideas to an audience and getting feedback from them.

This unit is mandatory to the Application Developer pathway due to its relevance to the job role of an application developer. The unit supports the development of skills, knowledge and understanding appropriate to a wide range of job roles requiring the development of applications within mobile technology, business software, graphics, games and web design to name but a few.

Unit 7

Data Analysis and Design

This unit will enable you to develop the skills and knowledge required to actively use data analysis techniques to provide evidence and interpretation for decision making for a range of organisational needs. Organisations and individuals collect both quantitative and qualitative data and store it for current or future use. The data analyst examines, cleanses, transforms and models data in order to support decision making and understanding.

This unit is mandatory to the Data Analyst pathway due to its relevance in conducting data analysis and design solutions to meet business requirements. The unit supports the development of skills, knowledge and understanding relevant to the role of a data analyst and the techniques required.

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 and management that takes place. Project management skills are essential transferable skills that can be used for all projects whether it's traditional methodologies or more recently adopted 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 wide variety of reasons, consequentially this unit is optional within all four 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.

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

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. This will align to your chosen pathway and support progression into your chosen field within the IT industry.

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. Consequently, this unit is optional within all four specialist pathways.

Unit 10 **Business Computing**

Businesses and organisations are driven by the information that they gather, process and provide. This involves computers, networks, and databases. In this unit you will gain an understanding of how information technology and computer-based systems facilitate the needs of business and how businesses use information. You will learn about the skills and attributes needed by people working in data analysis and gain practical experience of editing and manipulating a variety of different forms of information before applying these skills to solve a specific problem.

This unit is within the Data Analyst pathway due to its relevance to a business and data analytical environment. The unit supports the development of skills, knowledge and understanding relevant to a data analyst role and can be used as a starting point to further develop their understanding of working with and analysing data, regardless of the size and complexity.

Unit 11

Systems Analysis and Design

All organisations have information systems; some are informal such as the 'grapevine' which deals in predominantly unreliable, unstructured data to produce equally unreliable information: it is not that the information cannot be correct, but that no one can guarantee it.

This unit will provide you with the knowledge and skills to support the design of formal information systems. These systems provide useful reliable, validated information through the integration of data, hardware, software and humans into processes which enable the organisation to meet its internal goals and its external obligations.

IT technicians are involved in the implementation of systems which have been designed and in many instances assist in their design. Emerging digital technology practitioners also have to have a knowledge and understanding of how to analyse and design systems that are supported by the emerging technologies such as Virtual and Augmented Reality, mobile technologies as well as the Internet of Everything.

This unit is optional within the IT Infrastructure Technician, Emerging Digital Practitioner, and Data Analyst pathways.



Unit 12

Mobile Technology

You may come to this unit as a proficient user of a mobile phone, but you may be less familiar with other mobile technologies and their operating systems. The aim of this unit is to broaden your knowledge and understanding of the wider potential of mobile technologies and its consequences to people and businesses. This unit is as much about new technologies as it is about promoting critical analysis of existing situations and proposing better solutions.

Technical developments move quickly and legislation usually lags behind. Tutors are encouraged to incorporate new relevant developments and laws into this unit.

This unit is optional within the IT Infrastructure Technician, Emerging Digital Practitioner, and Application Developer pathways.

Knowledge gained in the study of this unit will also help prepare you for relevant industry qualifications such as CompTIA Mobility+.

Unit 13

Social Media and Digital Marketing

The use of social media has increased massively over recent years and is now a world-wide phenomenon. Users of social media are able to share ideas and files, compare opinions and pass comment on the activities of their friends and contacts. In doing so, they are not only generating huge amounts of data about themselves, but also allowing others the opportunity to contact them and monitor some of their online activities. Social media also allows users to collaborate with others across the globe.

Digital marketing is part of the overall process of marketing as is the use of digital media to increase awareness of a product or service. As social media offers such a wealth of data and the ability to contact potential customers in their own homes across a range of media channels, it is only natural that digital marketing seeks to use social media as part of the marketing mix for goods and services.

This unit looks at digital marketing as a concept and then offers you the opportunity to explore the possible impacts, both positive and negative, that may be generated by the use of social media as a tool.

This unit is optional within the Emerging Digital Practitioner, Application Developer, and Data Analyst pathways.

Unit 14

Software Engineering for Business

The aim of this unit is to give you practical experience of writing computer programs for specific requirements, such as those found in a business. Programmers' first jobs tend to be coding against specific requirements or maintaining an existing program. You need only a basic appreciation of the full system life cycle at this level, freeing up more time for practical programming experience.

This unit focuses on developing code for a single customer with specific requirements. You could follow this unit with the Games Design and Prototyping unit, which focuses on developing for a mass market, allowing you to further develop your coding skills and experience.

This unit is optional within the Applications Developer and Data Analyst technical pathways. Application developers create, test and program applications software and therefore use the knowledge skills and understanding associated with software engineering. Data analysts require a good understanding of computers and software, and an insight into software engineering can assist them in their design and analysis of systems and data.

Unit 15

Game Design and Prototyping

Gaming is a continuously developing market. There are a number of platforms available for amateur and professional game developers to release games that they have designed and developed. This unit will help you develop skills in designing and developing a prototype for a simple game. It will enable you to consider the logic of the programming structures required, as well as the interface design. You will then build a prototype to demonstrate an element of your game.

This unit is optional within the Application Developer pathway. Games designers and developers design and develop games across a wide range of applications and platforms. The selection of optional units within this pathway will support the overall development of job roles within the gaming industry.

Unit 16 **Developing a Smarter Planet**

Changes in technology over the last century now mean that we live in a Smarter Planet. You will consider how the evolution of technology has impacted on everyday life, and why the Smarter Planet is important for a global society. You will investigate the evolution of the Smarter Planet in a variety of contexts, including the impact it is having on society. You will consider potential Smarter Planet developments and put forward a business proposal for a Smarter Planet concept to potential stakeholders, revising the business proposal as necessary following their feedback.

This unit is optional within the Emerging Digital Technology Practitioner and IT Infrastructure Technician pathways. The technology used within these two pathways can have a major impact on the sustainability of the Smarter Planet.

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

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 and how it is used. Using your knowledge you'll 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 optional within all four pathways.

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

Unit 18 **Computer Systems – Hardware**

The aim of this unit is to enable you to understand how the components of computer systems work together. You will develop the skills needed to recommend appropriate hardware systems for various purposes. With the skills developed you will build/upgrade a full computer system with a view to testing and considering preventive maintenance procedures.

This unit is an optional unit within the IT Infrastructure Technician and Emerging Digital Technology Practitioner pathways. It is important that IT technicians and network technicians have in-depth knowledge, skills and understanding associated with the installation, upgrade, troubleshooting and maintenance of hardware for computer systems. Computer systems and associated hardware is an important area within emerging digital technologies.

The learning within this unit will also support the delivery of the CompTIA A+ and Cisco ITE qualification objectives.

Unit 19

Computer Systems – Software

Computer systems rely on the combination of hardware and software to work effectively together to support the needs of all types of users, whether it is for business or an individual. Software comprising of operating systems and application software needs to be installed, configured and maintained correctly in order for the systems to remain efficient. This unit will help you develop your knowledge, skills and understanding to successfully install or upgrade a wide range of software including operating systems and application software. It will enable you to select and use appropriate utility software to carry out maintenance activities. In addition, you will be able to ascertain end user requirements in order to plan and carry out installation, upgrade and/or maintenance activities.

This unit is optional to the IT Infrastructure Technician technical pathway due to its relevance in an IT technical environment. The unit supports the development of skills, knowledge and understanding relevant to a technical support or network technician job role. The unit is also an optional unit within the Emerging Digital Technology Practitioner Pathway.

The learning in this unit will also support the delivery of the CompTIA A+, the CompTIA Mobility+ qualification objectives, as well as the Cisco ITE qualification.

Unit 20

IT Technical Support

The aim of this unit is to explore the problems that are likely to be encountered by IT professionals working in a technical support role. You will learn about many of the tasks carried out by IT support professionals.

You will develop an understanding of technical support tools and techniques. This will include looking at organisational policies and procedures to source technical information and communicating advice and guidance to clients.

This unit is optional within the IT Infrastructure Technician pathway. All technicians require skills, knowledge and understanding which enable them to troubleshoot a wide variety of hardware and software issues and provide advice and guidance to different stakeholders.

The learning in this unit will also support the delivery of the CompTIA A+, the CompTIA Mobility+ qualification objectives, as well as the Cisco ITE qualification.

Unit 21

Web Design and Prototyping

Organisations are increasingly reliant on their website to market goods or services and interact with clients and customers. In this unit you will research, design and produce an interactive responsive website that is specific to a client's needs, culminating in presenting the concept of the website using the prototype to the client. You will learn about the security risks within website design, and how to minimise these threats. This unit will also allow you to incorporate existing interactive elements, as well as prototyping your own website.

This unit is optional within the Application Developer pathway. Job roles within this pathway include web app developers as well as website designers. These are different roles using similar skills, knowledge and understanding.

Unit 22 **Big Data Analytics**

Data is all around us and the amount of data being gathered is growing. Big Data deals with extremely large data sets that can be analysed computationally to reveal patterns, trends and associations. This is especially the case in relation to human behaviour and interactions. In this unit you will learn what Big Data is, how it can be gathered, analysed and used by businesses. You will also look at how a company could use Big Data for planning for the future.

Due to the increased use of Big Data this is an optional unit within the Emerging Digital Technology Practitioner, Application Developer, and Data Analyst pathways.

Unit 23 **Cognitive computing**

Cognitive computing is an aspect of artificial intelligence where human thought processes are simulated in a computerised model. This unit will provide you with the opportunity to gain a better understanding of cognitive computing and the role it has to play in current technologies and emerging technologies. Using your knowledge and understanding of cognitive computing you will consider how cognitive computing can be used on a global scale in the future. In addition, you will develop a business proposal for the use of cognitive computing concepts to meet an identified business' needs.

This unit is only available in the Extended Diploma and is optional within both the Digital Technician and Application Data Practitioner pathways.

Unit 24 **Enterprise Computing**

Enterprise computing is sold to business users as an entire solution that can be applied broadly across an organisation and then further customised by users within each business function. This means the analytics, reporting, database management and other applications are standard across the system, whilst the application packages used and the data accessed in each business function will be different. In this sense, enterprise computing is a departure from finding single software solutions to specific business problems, such as inventory or accounting software. Instead, enterprise computing is intended to offer integrated solutions to these problems. Enterprise computing is a concept for software and hardware solutions designed to meet the needs of large global organisations.

This unit is only available in the Extended Diploma and is mandatory and internally assessed.

This unit is to be assessed at the end of your learning programme because whilst carrying out tasks for the summative assessment activity, you will draw on the skills, knowledge and understanding acquired through other units in your chosen pathway.

Unit CC (Formally Unit 25) Cloud Technology

The way in which we interact with IT systems has changed. The explosion of mobile devices such as phones and tablets has led to the need for an IT infrastructure that can support these technologies, i.e. the cloud.

In this unit you will learn the basic concepts of cloud technology as it exists in an international setting. You will know the specific terminology and its application in the continued shift into the cloud, where costs are billed like electricity and reflect monthly usage levels rather than the traditional upfront cost of new servers and storage for a data centre. Migration into the cloud also poses issues for business culture, legal requirements and security.

This unit is only available in the Extended Diploma and will be mandatory and externally assessed within both the Digital Technician and the Application Data Practitioner pathways.

Knowledge gained in the study of this unit will also help prepare you for relevant industry qualifications such as CompTIA Cloud Essentials, Cisco Cloud Fundamentals and to a lesser extent, the CompTIA Cloud +.



YOUR JOURNEY WITH US...

Our aim is to support you on your journey with us – from initial enquiry right through to results day.

To get you off on the right foot you might want to take advantage of the customer support we provide for Cambridge Technicals.

Welcome process

All brand new Cambridge Technical centres will receive a welcome email to get you off on the right foot.

This will support you with locating on-line resources and training that's right for you, and make sure you have everything you need to start your journey with us.

Cambridge Technical introductory welcome videos

We have a number of support videos you can watch at your leisure. The 2016 Cambridge Technical introductory video provides you with an overarching guide to the suite and our wrap-around resources and customer support offer.

Each of the 2016 Level 3 Cambridge Technicals has a subject introductory video that guides you through each qualification size; including the structure, information on the externally assessed units, and our flexible internal assessment that puts your student at the heart of the process.

Advisory support

If your centre is intending to deliver or has already started delivering Cambridge Technicals, but would like some additional support, you can take advantage of our Advisory Support services.

Advisory Support covers a variety of topics such as: entry and assessment administration, qualification structure, *assessment methods, teaching and learning materials, and delivery ideas.

We provide our support in a range of different ways. This includes downloadable teaching and assessment materials, support videos, live online Q&A sessions, and face to face CPD.

CPD Training Events

We also provide INSET events; these are offered on various dates and locations throughout the UK. On our CPD Hub www.cpdhub.ocr.org.uk you can take a look at the courses, find out what the aims and objectives of the course are, and book your place. For those of you who are new to the qualification we'd suggest attending 'getting to know the specification'. This will provide an introduction to the qualification structure, assessment model, resources, support and guidance on delivery, and assessment requirements for the mandatory units.

On the CPD Hub you can also find all the materials that are provided to delegates on the day. So, if you can't attend a face-to-face event... don't worry, you can still download the materials free of charge.

Assignment Checking Service

To support your internal assessment we'll provide a model assignment for every mandatory unit in the specification. You can use these with your students, adapt it to meet your local environment, or use it as a basis to create your own assignment.

Because of the vocational nature of Cambridge Technicals, we believe that allowing you to create assignments that meet your students' needs and interests will benefit them more and give them greater success. Your assessment assignments should reflect the practical nature of the units, and your students should really feel what it's like to work in the sector.

But... if you're unsure, an Assignment Checking Service is available, and can be accessed through the CPD hub on our website; however it's not mandatory for assignments to be endorsed by OCR. We'll check your centre set assignment for you and provide feedback before you use it with your students.

Online Community

If you want to interact with other tutors you could try our online community.

Of course, online communities are only as good as the members who contribute to them. Within a virtual professional development community you can share and swap ideas for delivery, post questions, support others, suggest ideas for employer engagement, and share links to other teaching and learning resources.



TEACHING, LEARNING AND ASSESSMENT SUPPORT



Teaching and Learning Materials

In addition to our face-to-face support, we also provide a range of materials to assist you in your teaching and assessment. This will include:

Rule of Combination Calculator

An Excel based tool to help you make sure students select the right number and combination of units for their chosen qualification.

Progress Tracker

An Excel based tracking tool to help you monitor students' progress throughout the qualification.

Delivery Guide

A range of lesson ideas with associated activities you can use with students to deliver the content of the unit.

Lesson Elements

Task sheets and accompanying instructions for some of the activities within the unit Delivery Guide.

Resource Link

An e-resource providing you with a range of links to teaching and learning websites and materials.

Project Delivery Resources

Whole projects designed to ensure holistic teaching coverage of the content of each vocational pathway.

Skills Guide

A range of generic skills guides covering topics such as Communication, Research Skills, and Exam Techniques.

Internal Assessment

The majority of the qualification content will be internally assessed through centre-set assignments created by you. We'll provide you with a range of model assignments across the qualification for you to use or adapt where necessary. Alternatively, you can create your own assignment to reflect your local area and needs that are relevant to your centre; plus you can use our Assignment Checking Service to make sure you're on the right lines.

Visiting Moderation

For the internally assessed units, we provide two free visiting moderation visits per academic year. At these visits we will be able to provide you with supportive feedback, advice and guidance.

Sample Learner Work

We know that you like to make sure your students are on the right track and working towards gaining the best possible outcome they can.

We can't look at your students' live work, but the CPD Hub has a range of sample learner work for Cambridge Technicals.

Sample learner work is just that... a sample – it's not exemplary or a 'gold standard'. The work has been looked at by our Lead Moderator and in many cases they've provided a commentary on how the work stacks up against the assessment criteria, or have annotated the script to show which assessment criteria have been met. This should help you get a feeling for what is expected, and how your students are getting on – you may also find the command verb resource useful too, this can be found on the qualification page of the OCR website.

External Assessment

We're working with subject experts to make sure that for externally assessed units we create assessment solutions that retain the vocational nature of the qualification and be relevant for the sector. External assessment across the Cambridge Technicals suite could involve written examinations including case studies, pre-release materials, controlled projects or tasks, or computer based tests relating to the subject which students will need to apply their knowledge and understanding to.

More information about each units external assessment can be found in the qualification Centre Handbook.

External assessment will be set and marked by us; there will be two opportunities for your students to take them, in January and June, so you can decide when they are ready to take their assessment.

Sample Assessment Materials

We have produced Sample Assessment Materials for each externally assessed unit. This will provide you with an idea of the type of assessment for each unit and give the opportunity for your students to practice.

Combined Past Paper

This resource is a combination of:

- Past Paper
- Mark Scheme
- Examiner Comments

Following each exam series, we'll produce a Combined Past Paper so you can see the paper, alongside the mark scheme and examiner comments to demonstrate how students responded and where improvements could have been made.

Student Textbooks

Support your teaching of the new Cambridge Technicals 2016 suite with textbooks, developed in partnership between OCR and Hodder Education; the resources cover each specialist pathway for every subject and ensure your ability to deliver a flexible course that is both vocationally focused and academically thorough.



Working in partnership to deliver quality resources



To find out more

ocr.org.uk/it

or call our Customer Contact Centre on **02476 851509**

Alternatively, you can email us on **vocational.qualifications@ocr.org.uk**



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