



UXBRIDGE
HIGH SCHOOL



Sixth Form Transition Pack

[ICT: Cambridge Technical Introductory diploma in IT]

COURSE INTRODUCTION

Students will take five units, made up of three mandatory and two optional units.

They will study the following two mandatory units.

Fundamentals of IT and Global information. These units provide learners with 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, as well as important legal and security considerations.

In addition, learners are required to complete three further units, at Uxbridge High school students follow the Emerging Digital Technology Practitioner pathway.

The three further units are Unit 5, Virtual and Augmented Reality, Unit 13, Social Media and Digital Marketing and Unit 16, Developing a Smarter Planet.

Learners will take the designated mandatory unit for this pathway - Virtual and augmented reality. Learners will research and design both a Virtual and Augmented Reality resources and suggest future applications for Virtual and Augmented Reality.

The two further optional units will draw on the knowledge acquired from the mandatory units and will further enhance learners' knowledge, skills and understanding with respect to the use and development of virtual and augmented reality or emerging technologies for a variety of contexts including mobile technology and digital marketing

They will be firmly en-route to achieving a qualification that is relevant to the job role they wish to pursue as well as equipping them with relevant employability skills.

360 GLH
equivalent
to one A
level in
terms of
size

- 2 x 90 and 3 x 60 GLH units
- At least two externally examined units and a choice of three further units which are either examined or centre-assessed and moderated by us.
- A specialist pathway must be followed. There are four pathways to choose from.

Learners will be able to develop the core knowledge, skills and understanding the IT sector required in the IT sector, and develop further skills by completing a range of units through a choice of these specialist pathways:

- IT Infrastructure Technician
- Emerging Digital Technology Practitioner
- Application Developer
- Data Analyst

“Never before in history has innovation offered promise of so much to so many in so short a time”- Bill Gates

Essential summer reading

Cambridge Technicals Level 3 IT by Victoria Ellis, Graham Manson, Sandra Middleton, Maureen Everett, ISBN 9781471874918

http://www.ocr.org.uk/qualifications/vocational-education-and-skills/cambridge-technicals-itlevel-3-certificate-extended-certificate-introductory-diploma-foundation-diploma-diploma-05838-05842-2016-suite/?qualtype_key=cambridge-technicals/

<http://www.ocr.org.uk/Images/260857-cambridge-technicals-it-summary-brochure.pdf>

<http://www.ocr.org.uk/Images/267354-unit-05-virtual-and-augmented-reality.pdf>

<http://www.ocr.org.uk/Images/267364-unit-13-social-media-and-digital-marketing.pdf>

<http://www.ocr.org.uk/Images/267468-unit-16-developing-a-smarter-planet.pdf>

Essential summer viewing/listening

<https://www.youtube.com/watch?v=Yr11rrbtADc>

<https://www.youtube.com/watch?v=mcgcumKFpQs>

<https://www.youtube.com/watch?v=vz0UUVDt2ps>

<https://www.youtube.com/watch?v=0W6Jz44L1wU>

<https://www.youtube.com/watch?v=usKMKq977iA>

<https://www.youtube.com/watch?v=QZ0o7avcvv4>

https://www.youtube.com/watch?v=kDvW8R4BL0I&list=PLqJeFUp_WQXqzSlyYd2U9vuiaPHYuelqG

<https://www.youtube.com/watch?v=9wfZH6ZWxmk>

Task to be completed

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 will 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.

- 1) Create a list of all the hardware you would find in a typical Laptop, explain the purpose of each one.

Try the exam question, (it relates to technology you might use in a shopping centre/retail park).

18 Shops in each retail park are all connected to a wired Local Area Network (LAN).

- (a) Identify **one** piece of communications hardware needed to create a wired LAN.

.....[1]

- (b) Describe **two** ways Monty Bella Retail could use a wired LAN in its retail parks.

1.....

.....

.....

.....

2.....

.....

.....

[4]

(ii) Identify **two** items of non-sensitive data which could be collected during the market research.

1.....

2.....

[2]

8 A UK-based communications company recently had a breach in security relating to its customer database.

(a) Describe **two** impacts this breach may have had on the customers of the company.

1

.....

.....

.....

2

.....

.....

.....

[4]

Unit 5 Virtual & 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.

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.

- 1) Try to find one example of a Virtual Reality resource and 1 example of an Augmented Reality resource, explain what they are, how they impact on society, try to include images, (you may use any software you wish).

Unit 13 Social Media & 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, you will have the opportunity to explore the possible impacts, both positive and negative, that may be generated by the use of social media as a digital marketing tool.

- 1) Find an example of a successful business/entrepreneur who started the brand/product awareness originally with a social media campaign, create a report on your findings.

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.

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

- 1) Try to find an example of a business who have used a successful Smarter Planet initiative, create a presentation about it.