

Transition Y11 into Y12



OCR Cambridge Technical L3 - Information Technology [Equivalent to 1 A 'Level]

About the Course

The aim of this course is to develop students' knowledge, understanding and skills of the principles of IT and Global Information Systems. Students will gain an insight into the IT sector as they investigate the pace of technological change, IT infrastructure, the flow of information on a global scale, and the importance of legal and security considerations. It will prepare learners to undertake product development activities and learn about different product design methodologies and the role of the product development life cycle, as well as understanding the use of the internet and how it is impacting people and society. Learners will learn about the Internet of Everything (IoE) and how it is used.

Learners will take five units to achieve this qualification.

There are three mandatory units that are externally assessed. These are:

1. **Unit 1: Fundamentals of IT [90hours]**
2. **Unit 2: Global information [90hours]**
3. **Unit 3: Cyber security [60hours]**

The two internally units that are centre-assessed and moderated by OCR.

1. **Unit 9: Product development [60hours]**
2. **Unit 17: The Internet of Everything [60hours]**

Year 12	Unit 1: Fundamentals of IT [Exam] Unit 2: Global information [Exam] Unit 17: The Internet of Everything [Coursework]
Year 13	Unit 9: Product development [Coursework] Unit 3: Cyber security [Exam]

Frequently Asked Questions

- **Is there any programming on the IT course?** No.
- **Do I need to have a computer at home?** It would be helpful, but not required.
- **Do I need to buy any special software?** No, we can provide you with it.
- **Is there a lot of homework?** Sometimes, usually just finishing coursework.
- **Is this course easy?** IT courses have an unjust reputation for being "easy". You will quickly find this is not the case for this qualification. Students must be prepared to do a lot of writing in extended prose and expect to produce 40+ pages of written documentation for each piece of coursework. Also, it should be noted that simply "knowing how to use a computer" will not directly translate into good results. Revision skills are essential to pass three of the units.

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Suggested Hardware and Software

All students have access to the required computer hardware and software at school and there is no need to purchase anything for the course. However, many students wish to evaluate their current facilities or plan to purchase their own computers to help them with sixth form studies.

- Any modern computer capable of running Microsoft Access (a free downloadable copy of Microsoft Office is available to all students through the ICT Support office)
- Latest version of Google Chrome (best for using Google Classroom and GSuite productivity software for coursework documentation).
- Reliable high-speed broadband Internet access. 4G mobile data is not ideal as data allowances may be consumed very quickly.

Additional Accreditation

As part of the course, students will complete two or three online Cisco certification courses, which will help them build their portfolio.

Cisco is a US technology company that is best known for its networking products. It develops, manufactures and sells networking hardware, telecoms equipment and other IT services and products.

These courses are:

- Cybersecurity Introduction
- Cybersecurity Essentials
- IoT – Internet of Things



Preparation Activities

Online Systems - Cloud Computing

Task 1: Create a Presentation [Include: what cloud computing is, give real world examples, advantages, disadvantage, conclusion]

- Describe the personal and professional uses and implications of cloud storage and cloud computing.
- Describe the impact and implications on individuals and organisations of using cloud storage and computing.

Resources to support:

- [Cloud Computing In 6 Minutes | What Is Cloud Computing? | Cloud Computing Explained | Simplilearn \(youtube.com\)](#)
- [Cloud Computing - A Level Computer Science \(learnlearn.uk\)](#)
- [What is Cloud Storage & How Does it Work? | Google Cloud](#)

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Global and Environmental issues – relating to the use of information technology

Task 2: Create a short 2-page report [Introduction, pros and cons, give examples around the world, and summary the main points]

- Describe the moral and ethical factors relating to:
 - Globalisation; on individuals; on organisations
 - Unequal access to information technology
 - Environmental factors
- What happens to old devices? Recycled ethically or not?
 - <https://www.youtube.com/watch?v=vuflW4xOsS4>
- BAN's mission is to champion global environmental health and justice by campaigning for everyone's right to a clean environment. Check out <https://www.ban.org/>

Resources to support:

- [The Environmental Impact of Digitalisation: What's Your Take on Sustainable Technology? | FDM Group UK](#)
- [Electronic waste \(e-waste\) \(who.int\)](#)
- [Global e-Waste Monitor 2024: Electronic Waste Rising Five Times Faster than Documented E-waste Recycling | UNITAR](#)

Cyber Security

Task 3: Create a short 3mins video explaining what cybersecurity is

Cyber security is how individuals and organisations reduce the risk of cyber-attack. Cyber security's core function is to protect the devices we all use and the services we access - both online and at work - from theft or damage.

Cyber security is important because smartphones, computers and the internet are now such a fundamental part of modern life, that it's difficult to imagine how we'd function without them. So therefore, it is even more important than ever to take steps that can prevent cyber criminals getting hold of our accounts, data, and devices.

Resources to support:

- [What Is Cybersecurity? - Cisco](#)
- [Top 20 Most Common Types Of Cyber Attacks | Fortinet](#)
- [What is cyber security? \(youtube.com\)](#)