# Cambridge National
# IT Handbook

## THE QUALIFICATION

Our Cambridge National in IT raises students' confidence and understanding in the use of IT in the digital world.

Students will be equipped with the confidence to apply and use skills that are relevant both to the IT sector and more widely.

### Students will learn about:

• the use of IT in the digital world
• the Internet of Everything (IoE)
• data manipulation using spreadsheets
• the design and implementation of human-computer interface (HCI)
• Augmented Reality

Students will develop knowledge and understanding in a number of key areas as they plan, design, create, test and evaluate/review IT solutions using spreadsheets and Augmented Reality (AR) products to meet client and target audience requirements

## ASSESSMENT

Our Level 1/Level 2 Cambridge National in IT consists of three units.
- IT in the digital world (R050) is externally assessed and worth 40% of the total qualification.

- Data manipulation using spreadsheets (R060)
- Augmented Reality to present information (R070) are both NEA units worth 30% of the qualification each

### Unit R050: IT in the digital world

The IT industry is vast and provides work for a wide range of people across sectors, from those working as freelance IT consultants, right through to those in large or specialist IT teams in multinational companies. Job roles frequently overlap across multiple sectors as there are common aspects to inputs, processing and outputs of IT systems which can be used in many ways, from supporting the planning, designing and implementation of services or products to enhancing our daily lives in the digital world.

In this unit you will learn the theoretical knowledge and understanding to apply design tools for applications, principles of human computer interfaces and the use of data and testing in different contexts when creating IT solutions or products. You will understand the uses of Internet of Everything and the application of this in everyday life, cyber-security and legislations related to the use of IT systems, and the different types of digital communications software, devices, and distribution channels.

### Unit R060: Data manipulation using spreadsheets

Data manipulation is an important part of many job roles, supporting development and growth in different sectors. Businesses in different sectors such as IT, finance, retail, hospitality, education and government all manipulate data for different purposes. Spreadsheet applications are commonly used to create input, processing and output solutions which manipulate data.

In this unit you will learn the skills to be able to plan and design a spreadsheet solution to meet client requirements. You will be able to use a range of tools and techniques to create a spreadsheet solution based on your design, which you will test. You will be able to evaluate your solution based on the user requirements.

### Unit R070: Using Augmented Reality to present information

Augmented Reality (AR) has made it possible to present information so that users can see more detail in items/ products with 2D or 3D images and can place the item digitally in their surroundings. AR provides increased engagement, interaction and a richer user experience. Businesses in different sectors such as IT, architecture, retail and hospitality, education and government are presenting information and/or products in a digital world using a range of digital devices. Augmented Reality software development kits (SDK) are used to create the AR product for different contexts.

In this unit you will learn the basics of Augmented Reality (AR) and the creation of a model prototype product to showcase how it can be used appropriately for a defined target audience to present information. You will also learn the purpose, use and types of AR in different contexts and how they are used on different digital devices. You will develop the skills to be able to

design and create an AR model prototype, using a range of tools and techniques. You will also be able to test and review your AR model prototype.

## Assessment summary

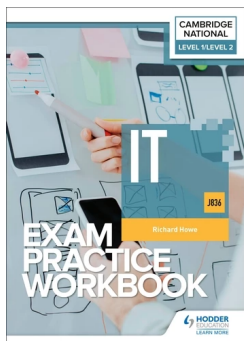| **Examined assessment (40% of the course)** | |
|---|---|
| **R050 IT in the digital world**<br><br>In this unit students will learn the theoretical knowledge and understanding to apply design tools for applications, principles of human computer interfaces and the use of data and testing in different contexts when creating IT solutions or products.<br><br>Topics include:<br><br>● Design Tools<br><br>● Human Computer Interface (HCI) in everyday life<br><br>● Data and testing<br><br>● Cyber-security and legislation<br><br>● Digital Communications<br><br>● Internet of Everything (IoE).<br><br>This question paper has two parts:<br><br>● Part A – worth 15 marks. Includes closed response, multiple choice and short response questions<br><br>● Part B – worth 55 marks. Includes scenario based short, medium and extended response questions. One question will be a create style question [8 marks]. One extended response question [9 marks] will be assessed using a levels of response mark scheme.<br><br>Examination: 1 hour 30 minutes. | 48 GLH<br><br>70 Marks |

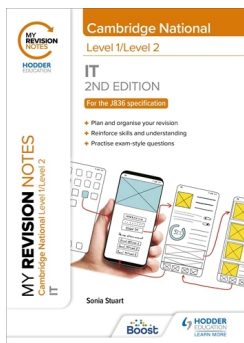| | |
|---|---|
| **Non-examined assessment (60% of the course)** | |
| **R060 Data manipulation using spreadsheets**<br><br>This OCR-set assignment contains three to five practical tasks.<br><br>Topics include:<br><br>● Planning and designing the spreadsheet solution<br>● Creating the spreadsheet solution<br>● Testing the spreadsheet solution<br>● Evaluating the spreadsheet solution.<br><br>Centre-assessed and OCR moderated. | 36 GLH<br><br>60 Marks |
| **R070 Using Augmented Reality to present information**<br><br>This OCR-set assignment contains three to five practical tasks.<br><br>Topics include:<br><br>● Augmented Reality (AR)<br>● Designing an Augmented Reality (AR) model prototype<br>● Creating an Augmented Reality (AR) model prototype<br>● Testing and reviewing.<br><br>Centre-assessed and OCR moderated. | 36 GLH<br><br>60 Marks |

**READ MORE:**

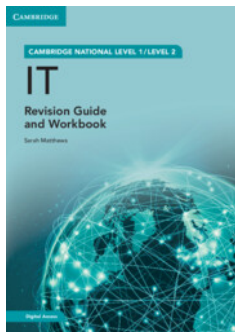ocr.org.uk/qualifications/cambridge-nationals/it-level-1-2-j836

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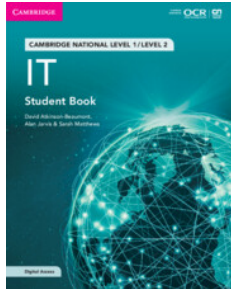


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