Before you start your SKE course:

In brief you will need the following for the course:
(See the next pages for more details about hardware and software)

✓	A desktop or laptop computer (PC or Mac)	essential
✓	A reliable Broadband internet connection	essential
✓	A headset with a USB connection including integrated microphone and noise-cancellation capability*	essential
✓	A webcam	desirable (especially for languages), but not essential

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Guidance on home computer specification for SKE Participants

As a minimum, to study on the SKE course, you have to be able to:

- Use your University e-mail
- Access key University websites (including the Student Portal)
- Use the University's Blackboard Virtual Learning Environment
- Take part in remote tutorials (using Blackboard Collaborate online videoconferencing)
- Access the online Pebblepad software for the e-portfolio (for STEM courses)
  or online Rosetta Stone Advantage software (for Language courses)
- Access subscribed e-books and journals provided by CCCU Library Services

Computers with the specification shown on the following pages will allow you to carry out all of the activities listed above, plus other possible learning-related activities on your course.

This specification is primarily for Microsoft Windows PCs, the system used and supported by the University. However, if you use a Mac, ensure it has:

- an internet connection and the **Chrome web browse**r (see next page).
- QuickTime to play .WMV files
- Office software: see note about Office 365 (page 3)

Whilst *some* features of the courses *may* be accessible via other devices, many are not. Therefore, we do **NOT** support the following as your primary mode of accessing the course:

- Tablets (whether iPad or Android)
- Smart phones
- Chromebooks

Internet Connection

You will need a **stable, reliable internet connection** to access the Blackboard VLE, other software and your University email from home.

Headset

- *For ALL our courses*: We specify a USB headset as listed above because it automatically switches off the internal speaker and microphone on your laptop or computer during use – otherwise the quality of online tutorials will be adversely affected for all participants.

- *For our language courses:* Speech-recognition technology is a key element of the course. For best results, the USB headset should be certified for speech recognition, either by the vendor or a third party. We recommend the microphone should easily adjust into a consistent position, one to two inches from the corner of your mouth.

Retailers, Brands & Prices

The University cannot recommend where you buy your PC from, or what makes to consider, except to suggest that:

- you buy from a well-known PC retailer you can trust so that, if something goes wrong, you easily have somewhere to go and get help.
- you buy a well-known make as you generally get what you pay for – cheaper, less well-known brands generally are less reliable.

Prices vary, but note from the specification below that you **do NOT need to buy a very expensive, 'high spec' PC**.

A low to middle-of-the-range PC will be fine. Look out for offers of whole packages (including monitor, keyboard, mouse, printer, software etc.) from known manufacturers.

Hardware Specification

Hardware	Minimum	Recommended
Processor	Desktop or laptop computer with a 1.5Ghz processor	2.0 Ghz+ multi-core processor
Memory (RAM)	at least 1 GB (Gigabyte) of memory, more for later operating systems like Windows 8 or 10.	4 GB+ will be more than enough.
Hard Drive	50 GB (Gigabytes) minimum	120 GB+
Available Hard Disk Space	50 MB • *For live videoconferencing (all courses):* 20 MB (Megabytes) free space minimum • *For SKE Language courses only:* 50 MB free space minimum [for the Rosetta Stone Advantage software]	100 MB +
Sound Card	You will need a sound card suitable for playing audio and video clips. Almost all new PCs come with one.	
Graphics Card	You won't need a special graphics card – any PC in this specification will have a graphics card built in that will be sufficient. NB: a **minimum screen resolution of 1024x768** is recommended.	128 MB Graphics Card such as an Nvidia / Ati chipset
Internet connection	Your PC must be capable of **connecting and sustaining a reliable internet connection.** **Speed:** **STEM** (Maths, Chemistry, Computing, Physics): *at least 28.8 kbps* (kilobits per second) or above **Languages**: a*t least 192 kbps* for French, German or Spanish.	Broadband with a speed of 1mbps (megabits per second) or above
USB Ports	You will need at least enough USB ports to connect any devices such as a USB keyboard, mouse, printer/scanner etc.	4 or more USB ports will be useful. [Other devices that need a USB connection include digital cameras, flash drives/memory sticks and portable external hard drives.]
Headset (USB)	A comfortable headset with speakers and integrated, noise-cancelling microphone with wired USB connection. **Notes:** • Must have stereo sound (**NOT** 7.1 surround sound). • Bluetooth connections will not work.	Examples include Logitech PC Headset 960 USB and Microsoft Lifechat LX-3000 USB headset.
Webcam		*Especially for language courses:* External or internal webcam
Scanner or digital camera	*For STEM courses only:* If you have hand-written evidence, you will need a scanner or digital camera to capture any hand-written work for the e-portfolio.	*For STEM courses (for e-portfolio):* Scanner with ability to create multiple page pdf files.

Software Specification

Software	Minimum	Recommended
Operating System	Windows Vista (SP2) Mac OS 10.7	Windows 7, 8, or 10 Mac OS 10.8, 10.9, 10.10
Supported Browsers	**When accessing Blackboard, all users are recommended to use Google Chrome.** To download the latest version of Google Chrome: https://www.google.com/intl/en/chrome/browser	**Google Chrome** is the recommended browser for Blackboard. It is, however, a best practice to have more than one browser available for use, e.g. Mozilla Firefox, Safari v. 11, Safari v. 12, or Microsoft Edge. **(Please note**: The software we use does *not* support Internet Explorer or versions of Safari older than version 11.)
Office Software	• As part of the course, from time to time you will need to access Microsoft Word documents, Excel spreadsheets and PowerPoint presentations. Students can now download Office 365 ProPlus free of charge**,** *to use while they are studying at the University.* Instructions can be found here: http://www.canterbury.ac.uk/students/it-services/free-and-discounted-software.aspx	Although not needed for the course, you can find a wide range of software which can also be purchased at discounted process through Student Software Suppliers: • Software4 students • Minitab can be purchased at a reduced price from 'OntheHub'
Other Software	• You will need to read 'PDF' files. A free **Adobe Acrobat PDF reader** can be downloaded from http://www.adobe.com/ • You will need to have the latest **Flash Player plug-in** installed on your computer for the browser/s you are using (NB: With Chrome, you get Adobe Flash player automatically, and it updates when Chrome does. Flash Player is also integrated with Microsoft Edge in Windows 10.) **In your browser, you will need to have Flash and JavaScript enabled, and allow pop-ups.**	**Save to PDF:** For STEM courses (Maths, Physics, Computing, Chemistry), we prefer that you save or print your e-portfolio evidence files to PDF format. **PC:** PDF facility built into Windows 10. If you don't have a save or to pdf facility with your operating system, you can use a free PDF converter software such as CutePDF Writer: http://www.cutepdf.com/products/cutepdf/writer.asp **Mac:** PDF facility built into the operating system.
Anti-virus/ Internet Security	All professionals strongly recommend anti-virus and internet security 'firewall' software. Ensure that you keep your anti-virus software updated regularly. **Note:** *Certain settings on some security software may affect the running of the video conferencing software. Check with the Learning Technologists for assistance.*	**Sophos Anti-Virus** for home use: http://www.canterbury.ac.uk/students/it-services/free-and-discounted-software.aspx The CCCU licence provides Sophos Antivirus free for CCCU students on both Windows and Mac systems.