

## Computing requirements

### Hardware

Due to the increasing use of remote and online learning activities you will need a device with internet access. While a large number of desktop computers are available for student use within the college buildings, CAFRE recommends that students bring their own device.

Suitable devices are:

- A Windows laptop running Windows 10 or later operating system
- A Macintosh laptop running OS X 10.9 or later operating system.

Tablet computers, such as the Apple iPad, Microsoft Surface Pro and some tablets using the Android operating system may be suitable, however, please ensure your device is capable of running the latest Microsoft 365 Apps and one of the latest versions of the following web browsers.

- Safari
- Chrome
- Firefox
- Edge

If using a tablet computer, a separate keyboard (wired or wireless) will make activities such as word processing much easier.

Many modern smartphones can also run mobile versions of Microsoft 365, however, the small screen size makes it difficult to fully access materials.

You may also wish to acquire a headset with microphone, in order to fully participate in interactive class activities on Microsoft Teams or other conferencing platforms as necessary.

The college also recommends that you insure your personal equipment against theft, loss or damage, as the college accepts no liability for personal equipment.

## Software

CAFRE provides every student with a Microsoft 365 account for the duration of their studies at the college. This includes Microsoft Teams ((video/audio conferencing system for interactive online lectures and activities), Outlook (email), Word (Word Processor), Excel (Spreadsheet) PowerPoint and Sway (Presentation Software) and a number of other Microsoft packages. These can be installed on both computers and mobile devices such as tablets and smartphones.

In addition, each student has 1 Terabyte (1000Gb) of online storage.

Details of this account will be provided on registration.

## Broadband access

As you know, the situation with COVID-19 is unpredictable, and CAFRE's approach to teaching and learning activities will continue to be flexible as the situation develops, while always fully abiding by Public Health Agency requirements.

In order to fully participate in online classes you will need suitable online access with a minimum broadband speed of **2Mbps download and 1Mbps upload**. This speed must be consistent and reliable for the duration of your online exercise/meeting etc.

If you have been attending online classes at school, and having no difficulties with getting online and participating, then you need take no action.

If, however, video regularly freezes, or audio is lost in online classes, or it takes a long time to upload or download files or send/receive emails, please **test your broadband speed** for both download and upload speed.

Methods using a smartphone app are shown in this short video - <https://youtu.be/65N7Uyuw5KA>.

Alternatively, you can use the website [www.speedtest.net](http://www.speedtest.net) and perform a speed test using your laptop.

Remember, if you are sharing broadband with other members of your household, the speed available to you will decrease if others in your household are using it at the same time.

If after testing you are below or close to the recommended speed please, in the first instance, contact your broadband supplier and discuss with them the possibility of improvement of service. If Broadband is not available in your area, an alternative may be 4G mobile data services. Please check with the mobile phone providers.

There are also satellite broadband providers available in Northern Ireland, who claim 100% broadband coverage, however, these packages can be more expensive.

If you cannot get broadband connection at home by any means, please make the college aware of this at registration. It may be possible to grant access to the Wi-Fi network at your closest CAFRE Campus (not necessarily the campus your course is based at).

In the event that broadband speed is ok – but you are still having problems the issue may be with your Wi-Fi. Try the following actions:

1. Connecting lots of devices to your router can eat into your Wi-Fi bandwidth and affect the quality of your connection - so turn these off if you're not using them, as devices like tablets and smartphones often run applications and services in the background.
2. Shut down applications that you're not actively using, especially bandwidth-heavy streaming services.
3. If possible, make sure your Wi-Fi router is plugged directly into your master socket and not an extension. This will be the largest socket in your house, typically located in your hallway or near your front door.
4. If you need to make video calls or have scheduled meetings, ensure family members limit their use of Wi-Fi (streaming movies or games etc.) during this time, as this will impact performance. Some streaming services also allow you to limit data usage per screen from your account settings.

5. If you have a decent 4G signal in your home it's possible to turn your smartphone into a Wi-Fi hotspot - this is known as 'tethering'. Whilst not an ideal long-term solution, it could help to have another way to access the internet.
6. If you have had your router for a few years, you might be able to get an updated one that has more powerful Wi-Fi. Check with your broadband provider, but it may involve resigning a contract.
7. Locate your router in a sensible place. Rather than keeping the router on the floor, make sure it is kept higher up on a table or shelf. Also try to keep it switched on.  
Keep it away other electric equipment such as halogen lamps, dimmer switches, speakers, fairy lights, TVs and monitors, as well as wireless devices.
8. When working from home it might be quicker to go wired rather than wireless. An Ethernet cable connecting your computer or laptop directly to the router should give you a quicker and more reliable connection – Ethernet over power adaptors are also available if you cannot connect directly to your router
9. Extenders may help your signal reach around the house these may help if you are struggling to get Wi-Fi coverage around the house.