IT

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How do I borrow a laptop?

We operate a laptop locker system that issues laptops until the end of each day. The laptops can be used anywhere on the site where they were issued and provide access to the software you need to undertake your class.

There is no late fee, but we do not give out chargers for the laptops to prevent people from taking them home. Users who return laptops late will automatically be blocked until they speak to a technician.

> **Important:**
> Loaned laptops must stay on the site they were borrowed from and be returned before each day's end. You are responsible for the safety of the laptop when it is on loan to you.

Laptop lockers

Laptops can be loaned at any time by visiting one of the laptop lockers at each of our buildings.

Peckham Road

The laptop locker at Peckham Road is on the 5th floor of the B block, just before you enter the classrooms and kitchen.

Greencoat Building

The laptop locker at Greencoat is on the main corridor outside the Dark Lab.

High Holborn

The laptop locker at High Holborn is outside the technician's office.

How to loan a laptop

To loan a laptop you will need to have your UAL ID card.

1. Visit one of the laptop lockers.
2. Swipe your UAL ID card on the card reader below the touch screen.
3. Read and agree to the terms and conditions of the loan.
4. Press "Borrow" on the touch screen.
5. Select the type of device you want to loan.
6. Look for the flashing locker.
7. Open the door and unplug the laptop.

8. Close the door carefully but firmly.

How to return a laptop

1. Go to the laptop locker from which you originally borrowed the laptop.
2. Swipe your UAL ID card on the card reader below the touch screen.
3. Press "Return" on the touch screen.
4. Look for the flashing locker.
5. Open the door.
6. Carefully plug the laptop back into the charging cable.
7. Close the door carefully but firmly.
8. Check the door is fully locked by pulling the handle.

What should I do if there is a problem with issuing or returning a laptop?

If you cannot issue a laptop, please send a Slack message in #technical with a photo of the error on the screen.

If you cannot return a laptop, please visit the staff office at either campus and ask for help from a staff member. NEVER leave the laptop unattended; if there are no staff and you can't return the computer, you should take it home and post it in #technical.

What should I do if there is a problem or damage to the laptop?

We operate a trust system. Things happen, and we trust you to look after the laptop, but sometimes things can go wrong.

If you encounter a software issue, please contact the IT helpdesk at 0207 514 9898.

If the laptop is damaged either when you loan it or during your use or is stolen while in your possession, please speak to a technician in the staff offices.

How to find an Internet Provider

There are a number of different courses at CCI with different modes of study, obviously students studying on fully online courses will need a reliable internet connection, however since the pandemic video calling has become a part of every course as it allows students to attend tutorials and access technical support from home.

As a general guide you should anticipate at least 6 Mbps download per person and 2 Mbps upload internet.

So if you live in a house with 4 other people (5 total) then you should be looking to have at least 30Mbps download and 10Mbps upload for a reliable experience.

You should avoid using mobile data (4G/5G) data plans where possible as they're susceptable to massive variation network congstion which can affect your ability to take part in classes (even now with 5G).

As a general rule from our experience, you should start your search in this order:

1. FTTH (Fibre to the Home) / FTTP (Fibre to the Premises) / FTTB (Fibre to the Building)

- Hyperoptic
- Community Fibre
- G.Network
- openreach

FTTH/FTTP/FTTB providers are by far the best option for home broadband provision. They often offer upwards of 3Gbps for prices that aren't that different from the second and third options on our list. This means you could aim for a much cheaper 150Mbps package for about £25 a month on a 12-month contract.

What's more, most providers of "true" or "full" fibre are symmetrical services, which means about 150Mbps download and upload, as compared to pretty much all the others on this list, where the upload speeds tend to be somewhere between 1/10th and 1/3rd the download speed at best.

As Openreach retires the legacy copper phone network, they're putting Fibre into every home in the country; this could be in addition to fibre-only providers like Hyperoptic, Community Fibre, and G.Network.

You can get Openreach services through almost any Broadband provider, but what counts is that your line has been converted to Openreach Full Fibre. they have a checker on their website.

> A lot of these companies are open to haggling if you want to get the same price, but without the 12-month contract, you might be able to get a rolling monthly plan.

2. Cable (DOCSIS 3)

- [Virgin Media](#)

Virgin Media is the only cable provider in London, and in most of the UK, they offer DOCSIS 3.1 internet connectivity, which can be very fast. However, the cost of Virgin Media broadband, when compared to the above FTTH providers, can be pretty high. There are parts of London where large numbers of customers put strain on the network, and it can be very slow at peak times.

3. Copper Phone Line / FTTC (Fibre to the Cabinet) providers

VDSL and ADSL are the conventional ways that broadband has been rolled out in the UK since its inception. However, running over decades-old copper phone lines and in some highly congested parts of London, conventional copper telephone lines aren't going to offer you either the best value for money or the best performance, but they are preferable to a mobile data plan.

Open Reach, who manage the wired phone infrastructure in the UK, is retiring the copper phone line system for what they call Full Fibre, which is FTTH. [you can check availability here.](#)

4. MNO (Mobile Network Operator) Mobile Data (4G/5G)

- EE
- Vodafone
- O2
- Three

These are the only 4 companies in the UK that operate consumer mobile data and phone networks, with EE, Vodafone and O2 tending to be the best (but more expensive) options in London.

> Three's unlimited data plans for a low cost means they're very popular, but they tend to have pretty slow service across the more densely packed parts of London.

5. MVNO (Movile Virtual Network Operator) Mobile Data (4G/5G)

- GiffGaff
- Smarty
- VOXI
- Tesco
- ASDA

> We don't recommend using MVNO-type broadband as your primary internet provider.

These and other brands of MVNOs are often cheaper because they have a kind of second-class citizen status on the network they operate over. This can make 4G/5G even less reliable, and we wouldn't recommend any of these as your primary internet provider.

How to pick a new computer

This information was updated in Spring 2024 for the 2024-25 academic year. You can see a list of course-specific information on the [Recommended Kit List](#) page.

⬚ Chromebook, Android Tablet, Netbook

We do not recommend students purchase these products because they usually have pretty low specifications and do not have access to most open-source software available for Windows, Linux, and macOS devices.

⬚ iPad

We do not recommend students purchase an iPad because it does not give them proper access to the operating system needed for software development, which will be a core part of most courses at CCI.

⬚ Mac

If you want a new Mac, we recommend any Apple Silicon laptop, such as M1, M2, or M3. We no longer recommend Intel Macs.

The main difference between the MacBook Pro and MacBook Air is that the Air has no cooling fans, which means as it gets hotter, the computer will slow down to avoid overheating, whereas the Pro can turn on fans to keep running cool and at full performance.

> **Memory:** Make sure you buy a computer with at least 16GB RAM.

MacBook Pro 13" with M3

	A	B	C
Chip	M3	M3 Pro	M3 Pro
Processor	8 core	11 core	12 core
Graphics	10 core	14 core	18 core
Neural	16 core	16 core	16 core
Memory	16GB	18GB	36GB
Storage	512GB	1TB	1TB

	A	B	C
Price with discount	£1,789	£2,119	£2,649

MacBook Air 13" with M2

	A
Chip	M3
Processor	8 core
Graphics	10 core
Neural	16 core
Memory	16GB
Storage	512GB
Price with discount	£1,399

We also recommend purchasing AppleCare+ or a similar repair warranty and insurance scheme.

AppleCare+ 3 years	MacBook Air 13" with M2	MacBook Pro 13" with M1
Price with discount	£179	£249

Around August/September each year, Apple will run the Apple Back to School deal, which, in addition to the discounted prices above, will include a giveaway, has included gift cards or AirPods in the past.

🖥 PC

If you are specifically looking at a Windows or Linux computer, you may get better value from purchasing a desktop computer for home use and taking advantage of the large number of PCs and MacBook Pro laptops that are available on campus during and between classes.

PC Laptop

Generally, we're pretty big fans of Dell (Precision, XPS, G Gaming, or Alienware), Razer HP Z and OMEN brand computers. However, there is a large market, and you should pick what's best for you. The following specs give you an idea of what to look for...

> Check for USB-C charging and display connection, as plug-in stations at CCI all use this.

	Minimum	Recommended
Processor	Intel i5 12th, 13th or 14th generation processor	Intel i7 13th or 14th generation processor
Graphics	*See info below!*	Any NVIDIA RTX 3xxx or 4xxx series GPU
Memory	16GB	32GB
Storage	512GB	2TB or better
Display	13" 1080p	13-16" 1440p (QHD) or 2160p (4K)

Minimum graphics

The minimum graphics required will depend on the course. If you study areas such as machine learning, data science, or 3D, you should try to obtain any NVIDIA RTX 3xxx series GPU or higher.

PC Desktop

At CCI, we primarily use Dell desktop computers, with some HP and Viglen computers used elsewhere at UAL.

	Minimum	Recommended
Processor	Intel i5 12th, 13th or 14th generation processor	Intel i7 13th or 14th generation processor
Graphics	Any NVIDIA RTX 3xxx series GPU	NVIDIA RTX 4xxx series GPU
Memory	16GB	32GB
Storage	512GB	1TB or better
Display	24" 1080p (FHD)	27" 1440p (QHD) or 2160p (4K)

How to add a device to the UAL-IoT Wi-Fi network

The UAL IoT network is set up for devices that cannot authenticate to UAL-WiFi or eduroam because they don't support WPA Enterprise (802.1x) authentication using a username and password. Or because, like with Raspberry Pi, configuration is prohibitively complicated.

Examples include:

- Arduino
- Raspberry Pi
- NVIDIA Jetson
- AirGradient
- ESP8266/32

> This network is not for general network access and web browsing. You will not be able to get a device like a Windows or Mac laptop.

Both students and staff can request access, however for students the access will remain for up to 3 years, where staff device access is permanent until the device is requested to be removed.

How to request access

All devices have to be requested through a UAL MySupport ticket to IT.

[Click here to raise a request](#)

Once you log in, you'll be redirected to the "WiFi: Internet of Things WiFi Request" form.

- **Which site are you based at?**
  This asks you to say which UAL building, for example, Peckham Road, Greencoat Building, or High Holborn.
- **Please provide a contact number**
  This means a telephone number in case questions about the request or illegal activity are detected.
- **Make of Device**
  Who manufactured the device, for example, Raspberry Pi or Arduino?
- **Device Model Number**
  What model is it, for example, Raspberry Pi 4, or Arduino Uno Wi-Fi
- **Device MAC Address**
  What is the MAC address of the device, for example, `00:00:00:00:00:00` this will often be printed on the device. (More details below)
- **What is the WiFi required for**

What do you need the Wi-Fi access for, for example: "This device will collect sensor data and upload it to an MQTT server" or "This device accesses an API to display a value on its screen".

- **Please read and agree with the UAL IoT WiFi Disclaimer**
  You need to read the IoT Disclaimer, as you are responsible for any network traffic this device generates.

How to find your device MAC address

The MAC address is the hardware address used by Wi-Fi and Ethernet devices, it is a unique address to the product you have.

In general, on a computer, you can find the MAC address in the network adapter settings, but as you are working with IoT / Physical Computing devices without graphical GUIs, you may need to do a bit more work to find it.

> MAC addresses are always formatted as 6 Hexadecimal numbers most commonly delineated with a ":" (colon) but sometimes you will find a "-" (hyphen) (on Windows) or a "." (full stop/period) (on Cisco).
>
> For example, 00:00:00:00:00:00

Microcontrollers

Because Microcontrollers are programmable chips integrated into many manufacturers' products, they may not always come programmed with a MAC address.

[This guide from Random Nerd tutorials may be useful to you, it applies to most if not all Arduino language devices including Arduino, ESP, and Particle products.](#)

Arduino

Most Arduino Wi-Fi and Ethernet boards will require you to specify (make) a MAC address. This can be risky if your MAC address clashes with something else on the UAL network, but it's also extremely unlikely, so you can make something up that is unique. Just be careful if you upload the same program to 2 different Arduinos.

ESP 8266/32 and Particle Photon

ESP and Particle boards come with a programmed MAC address you can get by print out in your setup function using `Serial.println(WiFi.macAddress());` .

Single Board Computers

Most SBCs like Raspberry Pi do not have a MAC address printed on them, the only way around this is to boot the device and using the terminal use a command like `ifconfig` or `ip a` to get the MAC Address of the WiFi adapter. Be careful not to mix it up with the Ethernet interface.

WiFi adapters are usually labeled wlanXX while Ethernet adapters are usually labeled enoXX or ethXX.

Other types of device

Most devices should have the MAC address printed on the packaging as well as the back of the box, so have a look for a number that looks like a MAC address.

How to use Apporto

Apporto is a system used for remote access Cyber Security Labs.

- [GN3 User guide](#)
- [Apporto Guide](#)

How can I pre-book a laptop loan?

We have dozens of laptops in our laptop lockers, which is more than enough most of the time, and we do add more as demand grows; however, sometimes, we will run out of laptops on one of our sides due to extraordinary demand.

What should I do when there are no laptops left?

In this situation, students will need to use the bookable desktop computers or, in a class, share 1 between 2 for the class.

Can I get access to pre-book a laptop?

Students who have an Individual Support Agreement (ISA) can have additional access to book laptops for a short period of time while they access the hardship fund or save for their own laptops.

If you need pre-booking access, you must discuss this with the UAL Disability Advisors.

How to pre-book a laptop

If you have pre-booking access, you can log in to our locker management system, ONARKEN, and use the online booking system from home.

Step 1 – Setting/resetting your password

The first time you log in, you'll need to set a password by using this password reset process:

1. Go to lapsafe.arts.ac.uk
2. Press "Forgot Password"
3. Enter your UAL email address
4. Check your mail for the password reset link.
5. Set your password.

Step 2 – Logging in

Once you've created a new password, you can log in:

1. Go to lapsafe.arts.ac.uk
2. Enter your UAL email address and password

Step 3 – Reserving a laptop

When you log in, if you've been given access, you can reserve an asset from home for up to an hour before you arrive:

1. On the ONARKEN dashboard, press "Reserve an Asset".
2. Pick the location you want to book from.
3. Pick the type of asset.

Step 4 – Collection of your reservation

When you arrive on site, you can collect your reserved laptop:

1. Tap your UAL ID card on the reader.
2. Select COLLECT from the menu.
3. Select Reservations on the left side.
4. Select the asset you reserved.
5. Open the door of the locker that is flashing.
6. Confirm on the screen you have collected the laptop.

Step 5 - Return your reserved laptop

You must return the laptop before the end of each day:

1. Tap your UAL ID card on the reader.
2. Select RETURN from the menu.
3. Return the laptop to the flashing locker.
4. Make sure the USB-C cable is connected correctly.
5. Make sure the door is firmly closed and won't open again.
6. Press Finish.

FAQ

How do I cancel a reservation

You cannot cancel a reservation. It will expire automatically after 1 hour.

My reservation was cancelled

You must collect the laptop within 1 hour, or it will be released to other students, you can make another booking if necessary.

An hour is not enough for me to get to Uni

The reservation system is a compromise that enables students who need a laptop for their disability to be more confident that they will get one.

The app can be used from your phone as you travel, and as all our classes start at 09:30 or 14:00, reserving a laptop on the way to Uni should be possible.

I need more help

Please post a message in #technical.