UCD Engineering

Laptop Advice for First Year Students

Do I need a laptop?

You are not required to have a laptop. We would strongly recommend that you at least have access to a computer where you live. A laptop gives you more flexibility in when and where you work. For some of the optional modules on offer, especially computer science modules, you would need access to a laptop for scheduled practical sessions (typically one session per week).

Can I use a tablet?

A tablet, or even a phone, can do some of what you need, but it cannot be your only computer. Most engineering software will not run on a tablet.

Should I buy a new laptop?

Not yet. If you already have a laptop, it will probably be fine for the modules in first year. Start using what you have and upgrade later if necessary – that way you have a better laptop later in the programme, when you need it most. If you do not have a laptop, you will be able to use desktop computers in UCD for most of your coursework and assignments.

I want to buy a laptop – what should I buy?

The recommendations are different for different branches of engineering, so delay this decision until second year if possible. This table is intended as a guide for general use – # *means that more specific requirements are provided below*.

Operating System	Windows 10 64-bit is recommended. (Windows 7 will also work.) Some engineering software will not run natively on Apple Mac OS, and solving the problems will be your responsibility. #
Screen size	This is a compromise between ease of use and portability – it is your personal choice. #
Processor (CPU)	Look for a mid-range processor, as a good compromise between performance and battery life. In the Intel family, the minimum should be Core-i3, but Core-i5 is better if your budget allows. #
RAM	At least 4 GB. 8 GB is better if your budget allows. #
Graphics	No special requirements. #
Disk Storage	250 GB is enough for your engineering work, but you may want more for entertainment.
Networking	Standard wireless network (WiFi). A wired network connection (Ethernet) may be useful, but can be added later using an adapter.
Battery	Most lecture theatres do not have power outlets, so a good battery life is useful.

Specific Requirements

Some modules use software that needs a computer with a higher or more restricted specification. You can use this software on the desktop computers provided in UCD. If you want to be able to use this software on your own laptop, then you will need a suitable laptop.

Civil Engineering, Structural Engineering with Architecture

Laptop	As above except the following:
Operating System	As above but restricted to Windows
Screen size	Very small screens are not really suitable for design work
RAM	At least 8 GB
Graphics	Nvidia or AMD graphics card

Chemical and Bioprocess Engineering

Laptop	As above except the following:
Processor (CPU)	A minimum of Intel i5 (Haswell microarchitecture onwards) or AMD equivalent
RAM	At least 8 GB

What software do I need?

UCD IT Services provides access to a wide range of software. In particular, Microsoft Office and Sophos Anti-Virus are available free to UCD students.

The engineering software that you need will depend on which branch of engineering you choose, and can be added later.