WATERLOO | ARCHITECTURE

Computer Hardware/Software for Students in School of Architecture, Cambridge Campus

As a student in the School of Architecture at the University of Waterloo (UW), Cambridge campus, computers are an essential tool both in the design studio and lecture hall. Each studio workstation includes a lockable unit to store your laptop. As you will be moving between the studio, the library, and classrooms, and traveling on work terms, you must have a laptop. This is an essential tool for your academic studies.

Formal teaching that requires a computer begins in the first term. Each student requires a laptop with the processing power, memory, storage space and display resolution to support moderate 3D graphics work. It is highly recommended to have warranty protection for your purchase, which includes accidental damage protection. Although an expensive purchase, a high-quality device should last you for the duration of your undergraduate degree. While not an alternative to purchasing your own computer, The School of Architecture computer lab provides supplementary support during rendering or in an emergency.

1. Mandatory Minimum Laptop Requirements

Hardware component	Specification	Comments
Processor	Intel Core i7 or better	Minimum 6 cores
Display	1920 x 1080 pixels resolution minimum	15-inch screen is preferable in lecture spaces however work student studio spaces and external 24-inch or 27-inch is recommended for designing.
Memory	16 GB RAM minimum	
Storage	1TB M.2 style SSD storage drive minimum	5400rpm or 7200rpm SATA drives are not recommended
Network	Wireless Minimum 802.11AC	
Video card	8GB minimum - GPU	A GPU that is using shared memory or system processing power is not recommended or supported by the various applications used during the school terms.
Ethernet port or adapter	10/100/1000BASE-T Gigabit Ethernet	Wireless is the preferred connectivity at the School of Architecture
Webcam	HD Webcam built-in	Optional for online meetings however manylaptops include cameras

NOTE: Apple computers are not recommended for use.

2. Recommended Supplementary Purchases

Hardware component	Specification	Comments
Extended Warranty and accidental damage protection (Highly recommended)	Extended support	Highly recommended however it is not required but helps protect your investment, which will often be in an environment with high traffic and close quarters.
Mouse	Multiple button mouse with scroll wheel	Having a mouse can aid in productivity and efficiency
External Display	Larger resolution display screen (24-27inch)	A recommended purchase for professional work.
USB 3.0 Flash Drive, or Thunderbolt/USB external Hard Drive	32 GB or better	See section 6 on Data Security for more information. Note: A USB Flash Drive is not adequate as a primary means of backup

NOTE: Your individual computer needs may vary. You may choose to purchase additional supporting equipment such as a backup hard drive, a small desktop printer, docking station, etc.

Apple or Microsoft Windows OS?

While the School of Architecture has historically supported both Windows and Apple platforms, we no longer recommend Apple-based hardware or operating systems for use within the undergraduate program. The architecture, engineering, and design industries predominantly rely on Windows-based software and workflows, and many of the applications used throughout the curriculum are developed and optimized for the Windows operating system.

Students are therefore strongly encouraged to use a Windows-based device to ensure the best compatibility with required software, course deliverables, and industry-standard practices.

3. Required Software

Required Software	How to obtain
Windows 11	Windows OS is provided with the purchase of your laptop by the reseller i.e., Dell, Lenovo, HP or others
Office 365	Office 365 (Word, PowerPoint, Excel and more) is provided free of charge to UW students for Microsoft platforms and can be installed on up to 5 devices. Activate your Office 365 account using your WatIAM username and password
Other Software	At the beginning of each term, a list of software applications will be provided for each class' requirement(s)

4. Optional Software

Optional Software	How to obtain
Rhino	Rhino is available to UW students on computers in a computer lab. We offer students the opportunity to purchase a student license at a considerably discounted rate, at the beginning of the 1B academic term. It is also purchasable in the Waterloo Store
Adobe Creative Cloud	Available in the Waterloo Store
OneDrive	OneDrive is provided free of charge to UW students for Microsoft platforms and offers 1TB of cloud storage. Activate your Office 365 account using your WatIAM username and password
Azure for Education	Students receive developer tools from Microsoft at no cost. This includes software such as Project, Visio, and operating systems. Access Azure Dev Tools for Teaching

NOTE: We strongly encourage students NOT to purchase Rhino to starting Architecture in the Fall. The course instructor will advise when this software becomes a requirement.

5. Licensing

Most professional software packages used in the program offer a free or a discounted academic license option for students. However, it is important to note that software licensing agreements and pricing change frequently and without notice. Students will be expected to acquire licenses for their software during the length of the program

6. Data security

Students are responsible for their own data security. Back up often, and to different media; reduce data loss.

Flash memory (USB Keys) has a finite number of program-erase cycles; please do not use it as your only backup medium. USB drives are better for back up.

We also encourage students to take advantage of the secure network storage space provided by Engineering. Microsoft's OneDrive is also available for storage.

7. Technical Support

- **Cambridge**
  Architecture, Computing and Media (ACM) Staff make themselves available to consult with students and provide general support for Windows and Apple devices, as well as assistance with network connectivity issues.
  Support for specific software applications, including CAD modelling software, falls outside the scope of ACM's expertise. Students requiring assistance with course-related software should consult their instructor or the appropriate faculty member.
  Please note that while our team is happy to offer limited technical guidance and troubleshooting advice for personally owned devices, we do not perform physical repairs, maintenance, or servicing on non-school-issued equipment. We are, however, always happy to discuss issues and provide recommendations where possible.

8. Questions

Contact archhelp@uwaterloo.ca.

*Last reviewed and updated November 2026