Heinz College Laptop Requirements

Policy Statement

All Heinz College students enrolled in a full-time degree program are required to have a laptop at the beginning of the semester through graduation.

It is highly recommended that part time students have a laptop at the beginning of the semester or when the degree program requires the use of a laptop. Some courses may require the use of a laptop. Please read the syllabus for each course for the requirements.

Minimum Hardware Specifications

In order to be successful at Heinz, your laptop must meet the minimum hardware specifications below. We **<u>strongly</u>** recommend you buy a laptop that meets the **recommended** specifications.

	Minimum	Recommended	NOT recommended and/or not supported
Processor	10th Generation Intel Core i5 1.8 GHz or better, dual-core	Latest Generation Intel Core i5 1.9 or better	Pentium ULV processor; Intel Atom
RAM	8 GB (Policy Track or PPIA)	16 GB or more(IS/IT Track)	
Hard Drive	256 GB(Policy or PPIA Track)	512 GB or more (MSIM/IT)	Any drive 128GB or less
Wireless	802.11n		
Operating System	Windows 11 Pro \Education: 64 bit (English Language) or greater.	Windows 11 Pro\Education, Enterprise 64 bit (English Language) or greater	Linux, OS in any non-English language, ANY Windows Home versions.
Warranty	None	Yes, for your entire enrollment period	

Unsupported Equipment: iPad, iPhone, smart phones or like devices; Kindles, Nook, netbooks, Chromebooks, and tablet PCs without keyboards (just to name a few). Any

questions about supported equipment can be emailed to heinz- computing@andrew.cmu.edu.

Laptop Older than 2 years?

If your laptop is two years old, it might meet the specifications listed above. It depends on whether you bought a gaming or a basic productivity laptop. If your computer is 3 or more years old, it likely will not meet the specifications. If your laptop is 4 years old, it is highly unlikely to meet the specifications.

Laptop Age	Recommendation	Actions
0-2 Year old	Likely meets the recommended specifications	Compare the computer specifications with the guidelines above.
3-4 Years old	Likely does not meet recommended specifications.	Compare the computer specifications with the guideline above. Consider buying a laptop that will meet the recommendations.
5 Years or older	Does not meet recommended specifications.	Consider buying a laptop that will meet the recommendations.

We do not have physical computer labs for public use in Hamburg Hall. Your laptop is your **primary** computing platform. This is why we recommend a good machine as it will be your primary form of computing during your enrollment.

There are physical computer labs in other buildings on campus. In order for you to be as successful as possible, please review the laptop requirements guideline **prior to your arrival**.

Operating System

Windows

We only support Windows 10 or 11 Professional\Education. We do not support **any** version of Windows Home or Windows 10S. Many core course applications will NOT run on Home Editions of Windows. If you are unable to buy a laptop with a supported operating system, we suggest one of the following:

You **can upgrade to a supported OS at no charge once you are on campus**.
- Dual boot your computer so you can choose to run Windows 10/11 at startup. (No longer an option on newer M* processors) This option is for advanced users only. Please be advised that data loss can occur while attempting to setup your computer for dual boot and that all precautions including backups should be taken.
- Virtualization: See virtualization section below.

Mac OS X

We provide limited support for Mac OS. While you can use an M series Mac for most courses without issue, the new ARM based M* series processors do not natively support or run any X86 or 64bit Windows programs and ArcGIS Desktop. You need to run ARM based Windows 11 on a M* based Mac which is not free or readily available to students. If you need assistance setting up a local virtual machine or Boot Camp on an **Intel based** Mac, please email heinz-computing@andrew.cmu.edu

You can download Windows 11 64 bit from Campus Azure Dev Tools

Virtualization

This section is optional.

If you have or will purchase an M series Apple laptop, you may need to do additional configuration to fully utilize all software packages used in some classes, particularly MISM/IT courses. Download VMware Fusion: (free for personal use) or your favorite virtual hypervisor, for Intel based Mac OS X or Windows. We currently recommend Desktop Parallels for the latest M* based Macs. Please note, this option is not free, however there is a reduced cost for customers using an edu email address. You can also use Virtual Box. Please note, you will still need to download an ARM based Windows installation ISO file.

The host laptop must have at least 6 GB of RAM (16+ GB RAM recommended) for this option to work properly. When you install Windows 10\11 Pro\Education in the virtual environment, you must designate at least 2.5 GB (3 GB recommended) of RAM. You can download VMWare Workstation **at no charge.**

Base OS language MUST be set to English and will fail to install or function correctly if other languages are set as the base language, particularly for some Java or Oracle based classes. We regret that Computing Services is unable to support laptops or programs that are not set to the English language as the default.

Ordering a Laptop from Carnegie Mellon

You can order a laptop from the Carnegie Mellon computer store. They offer a wide variety of manufacturers at educational discount pricing.
https://bookstore.web.cmu.edu/home

Consulting Services

Heinz Computing Services can try to help answer any question you have about your current computer or if you are buying a new computer. Send your questions to heinz-computing@andrew.cmu.edu.