Heinz College Laptop Requirements

July 2019

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 strongly recommend you buy a laptop that meets the recommended specifications.

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Recommended</th>
<th>NOT recommended and/or not supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>6th Generation Intel Core i5 2.2 GHz or better, dual-core</td>
<td>7th Generation Intel Core i5 2.4 or better</td>
<td>Pentium ULV processor; Intel Atom, ARM or like processor</td>
</tr>
<tr>
<td>RAM</td>
<td>8 GB (Policy Track)</td>
<td>16 GB or more (IS/IT Track)</td>
<td></td>
</tr>
<tr>
<td>Hard Drive</td>
<td>256 GB</td>
<td>512 GB or more</td>
<td></td>
</tr>
<tr>
<td>Wireless</td>
<td>802.11n</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 10 Pro: 64 bit (English Language) or greater.</td>
<td>Windows 10 Pro, Enterprise 64 bit (English Language) or greater</td>
<td>Linux, OS in any non-English language, Windows 8 RT, Windows 8 Basic Mac OS (See Mac section below), 32 bit OS.</td>
</tr>
</tbody>
</table>

Warranty
None
Yes, for your entire enrollment period

Unsupported Equipment: iPad, iPhone, smart phones or like devices; Kindles, Nook, netbooks, 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.

<table>
<thead>
<tr>
<th>Laptop Age</th>
<th>Recommendation</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 Year old</td>
<td>Likely meets the recommended specifications</td>
<td>Compare the computer specifications with the guidelines above.</td>
</tr>
<tr>
<td>2-3 Years old</td>
<td>Likely does not meet recommended specifications.</td>
<td>Compare the computer specifications with the guideline above. Consider buying a laptop that will meet the recommendations.</td>
</tr>
<tr>
<td>4 Years or older</td>
<td>Does not meet recommended specifications.</td>
<td>Consider buying a laptop that will meet the recommendations.</td>
</tr>
</tbody>
</table>

We do not have physical computers for public use in Hamburg Hall. Your laptop is your primary computing platform. In order for you to be successful, please review the laptop requirements guideline prior to your arrival.

**Operating System**

**Windows**

We only support Windows 10 Professional\Enterprise. We do not support Windows Vista or any version of Windows Home. 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 at startup. 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 do not recommend Mac OSX. Many of our core courses require software only available on Windows OS. Many of our students with Macs have reported difficulty completing assignments with Mac OSX. Unless you are very comfortable with hardware virtualization and installing Windows on Mac OS and have a Mac computer with 8GB RAM or greater, we do not recommend you use a Mac for your primary computing platform.

If you do decide to use Mac OSX, do so at your own risk. We do provide support for Mac OS X 10.11 (El Capitan) or greater. You will however, need to install Windows. We recommend setting up Boot Camp (http://www.apple.com/support/bootcamp/) to dual boot with Windows Pro. You can download Windows from Microsoft Imagine.

https://www.cmu.edu/computing/software/all/msazure-dev-tools/index.html

Virtualization

This section is optional. You only need to install virtualization if you have an unsupported operating system or want to run Windows-only programs on Mac OS X.

Download VMWare Workstation (or your favorite virtual hypervisor) for Mac OS X or Windows. The host laptop must have at least 6 GB of RAM (8 GB RAM recommended) for this option to work properly. When you install Windows 10 Professional 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.

Operating System Language

Some of our course software expects to see English as the operating system language and will fail to install or function correctly if other languages are used. We regret that Computing Services is unable to support laptops that are not set to the English language.

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.

http://bookstore.web.cmu.edu/computerstore
Consulting Services

Heinz Computing Services can 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.