Laptop requirements for incoming students

All incoming Engineering students are required to have a laptop computer for use in their academic studies. The College of Engineering does not require students to have a specific model, but we strongly recommend that any laptop you pick meets, or exceeds, our minimum recommended specifications. To make this task easier, we have worked with vendors to pre-configure several different models that meet these specifications.

Vendor Portals
Dell:  https://www.dell.com/ukyengineering
Microsoft:  https://www.liftforward.com/microsoft/store/universityofkentucky

Note concerning Apple computers: We do not recommend Apple computers for students majoring in Mechanical, Civil, Mining, or Biosystems Engineering because of the preponderance of Windows based software in these programs.

<table>
<thead>
<tr>
<th>Component</th>
<th>Windows Laptop</th>
<th>Apple Laptop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MINIMUM</td>
<td>PREFERRED</td>
</tr>
<tr>
<td><strong>Model</strong></td>
<td>Any model meeting specifications</td>
<td>Macbook Pro only</td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td>Intel Core i5, 1.9 GHz or faster (2)</td>
<td>Intel Core i7, 1.9 GHz or faster (1)(2)</td>
</tr>
<tr>
<td><strong>Memory (RAM)</strong></td>
<td>8 GB</td>
<td>16 GB</td>
</tr>
<tr>
<td><strong>Hard Disk</strong></td>
<td>250 GB</td>
<td>500 GB</td>
</tr>
<tr>
<td><strong>USB Ports</strong> (3)</td>
<td>(2) Type A 2.x</td>
<td>(2) Type A 2.x</td>
</tr>
<tr>
<td><strong>Operating Systems</strong></td>
<td>Windows 10 Professional or Education</td>
<td>Windows 10 Professional or Education Apple's Boot Camp (see OS note below)</td>
</tr>
</tbody>
</table>

(1) Intel Core i9 based laptops are available in systems from Dell and Apple, but these powerful processors are not required for your studies. If you prefer a system with a Core i9 processor, there is no issue in using one.

(2) Processors having four or more processing cores (i.e. quad-core, six-core, etc.) are preferred for both minimum and preferred standards.

(3) If your system only has USB-C ports, or less than two USB-A ports, you may need to purchase an inexpensive USB hub.

Windows Laptop vs MacBook Pro vs Chromebooks

A Windows laptop would be a better choice in the following academic programs: Biosystems, Biomedical, Chemical, Civil, Mechanical, and Mining Engineering. Either Windows or Mac would be appropriate for: Computer Science, Electrical Engineering, or Computer Engineering. Chromebooks and tablets - iPads, Android tablets, Windows RT-based, or Microsoft Surface Pro X and similar ARM processor equipped laptops - cannot serve as your primary device, as they do not provide the functionality you will need.

Graphics Card
If the laptop model you are purchasing supports an enhanced or discreet graphics chip set (e.g. nVidia Quadro or GeForce, or AMD Fire Pro, Radeon Pro, Vega, or RX), we recommend you add that to your system.

Memory
It is recommended that you choose a laptop that has, or can be upgraded to, 16GB RAM. The Precision workstations on Engineering’s Dell portal above can be upgraded, while the systems listed...
Laptop requirements for incoming students

under the Microsoft and Apple portals cannot be upgraded after purchase.

**Hard Drives**
If you choose an Apple laptop, you will need to purchase a hard drive large enough to host a native MacOS X partition, and at least a 100 GB Boot Camp partition for running Windows. Apple users should plan on purchasing a 500 GB or larger hard drive.

All students entering the University of Kentucky receive a Microsoft Office 365 account, which provides them with Microsoft Office applications for their laptops and mobile devices, plus access to Microsoft's OneDrive cloud storage solution. This allows you to store files you are not currently working with, or files from previous semester, in the cloud and reducing the local hard drive usage.

**Warranty**
Laptops can lead harsh lives and can be expensive to repair, so we recommend that you purchase at least a three-year warranty with your system. You may also want to consider adding accidental damage coverage, which usually covers damage to the laptop’s display, damage due to drops and spills, and the laptop’s occasional use as a seat cushion. When considering how much warranty to purchase, just balance the cost of whatever warranty you pick versus the cost of potential repairs or replacement.

**Operating System Notes:**
We recommend you purchase Windows 10 Professional or Education pre-installed on your laptop, since one of these versions is needed to run some of the software packages used in some of the Engineering undergraduate classes.

If one of these versions is not an option on the laptop you purchase, you can obtain a copy of the Windows 10 Education version through the College’s AzureDev subscription or the Campus’ OnTheHub site after you begin attending classes at UK. Microsoft Windows obtained from these two sites is for upgrade purposes only, so you must already own a copy of Windows to use this software.

**NOTE FOR APPLE USERS:** At some point, all Engineering students will need to run Windows for a course or an assignment. To run Windows on your Mac, you will need to use Boot Camp or one of the virtual machine environments available for the Mac (Parallels, VirtualBox (free), or VMWare Fusion). Since the Mac doesn’t come with Windows, you should purchase a copy for use on your Mac; however, you can purchase the cheaper HOME edition, then upgrade using the software available from the two web sites mentioned in the previous paragraph. Again, you will need to wait until after classes start to download the software.

If you have additional questions concerning laptops, please contact Mr. Lynn Tilley at lynn.tilley@uky.edu or (859) 257-3452. Additional information is also available at: https://www.engr.uky.edu/ecs/recommendations.