The information provided below should be sufficient to purchase a laptop. If the laptop meets or exceeds the specifications below, there should be no issues. Please note the recommendation against using Macs for engineering work, excluding computer science. Many programs required for engineering classes only run on Windows. Mac users will be required to install Windows on their Macs if they need to run these programs.

Microsoft Windows Laptops

Minimum Hardware and OS Specifications

- **Processor**: Intel Core i5 or AMD equivalent (i7 recommended)
- **Memory**: 8 Gb RAM (16 Gb recommended)
- **Storage**: 250 Gb hard drive (Solid-state drive is recommended)
- **Video**: 1600 x 900 resolution minimum (1920 x 1080, recommended) 4K displays may have to be operated at a lower resolution to be compatible with some software. Minimum screen size is 13 inches. However, a larger external monitor may be desirable for home use especially for students coding or working with CAD software.
- **Operating System**: Microsoft Windows 10

MacBooks

Minimum Hardware and OS Specifications

- **Processor**: Intel Core i5 or AMD equivalent (i7 recommended)
- **Memory**: 16 Gb RAM
- **Storage**: 250 Gb hard drive (Solid-state drive is recommended)
- **Video**: 1600 x 900 resolution minimum (1920 x 1080, recommended) 4K displays may have to be operated at a lower resolution to be compatible with some software. Minimum screen size is 13 inches. However, a larger external monitor may be desirable for home use especially for students coding or working with CAD software.
- **Operating System**: macOS Catalina (10.15) or later is recommended
Software

All UA College of Engineering students are able to download the following software and use it free of charge as long as they are enrolled:

<table>
<thead>
<tr>
<th>Software</th>
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<tbody>
<tr>
<td>Abaqus (teaching ed.) *</td>
<td>Lumion *</td>
<td>Minitab</td>
</tr>
<tr>
<td>Adobe Creative Cloud</td>
<td>Mathematica</td>
<td>Origin *</td>
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<tr>
<td>AGI STK *</td>
<td>Matlab</td>
<td>Polymath *</td>
</tr>
<tr>
<td>Ansys *</td>
<td>Microsoft Office 365</td>
<td>Quartus Prime *</td>
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<tr>
<td>ArcGIS *</td>
<td>Microsoft Project *</td>
<td>SAS *</td>
</tr>
<tr>
<td>Autodesk Suite *</td>
<td>Microsoft Visio *</td>
<td>Solidworks *</td>
</tr>
<tr>
<td>ChemCAD *</td>
<td>Microsoft Visual Studio</td>
<td>VMware</td>
</tr>
<tr>
<td>Labview *</td>
<td>Microsoft Windows</td>
<td>Tecplot *</td>
</tr>
</tbody>
</table>

* indicates software that will not run natively on Mac operating systems

Using Engineering Software on your Mac

In order to run Windows on your Mac, you can run virtualization software or install Windows via BootCamp. UA provides VMware Fusion and MS Windows 10 to engineering students so there is no need to purchase either.

Recommended Accessories for all laptops

- **Ethernet adapter**: Wireless connections can be slow in classrooms with dozens of students using laptops, phones and other devices. A USB/USB-C/Lightning to Ethernet adapter will allow a wired connection for laptops that do not have a built-in Ethernet jack.

- **UA Box**: UA Box is a cloud storage service provided to University of Alabama students, faculty, and staff via Box.com. UA Box is accessible on desktop, laptop, and mobile devices, and data is encrypted both in transit and storage. If your laptop is lost or damaged, you will still have access to all documents saved on Box.

- **External monitor**: An external monitor is recommended when using your laptop at home. This is especially helpful if you have a 13” laptop or if you using any of the CAD software packages.

Questions and Contacts

For more information, please visit our wiki at techwiki.eng.ua.edu or e-mail eng-it@ua.edu.