EQUIPMENT REQUIREMENTS FOR INCOMING ENGINEERING STUDENTS

Most engineering courses require the use and programming of calculators and/or modern computer tools that are used by professional engineers in the engineering industry. Therefore, all entering freshmen and transfer students who declare an engineering major are required to provide for themselves the following equipment.

Graphing Calculator
- The calculator must be capable of performing complex number and matrix operations.
- Recommended: TI-89 (any version)
- Other options:
  - TI 83 Plus and 84 Plus
  - Casio CFX-9850G Plus and above, fx-9750G and above, fx-CG10 and above
  - HP Prime
- **Unacceptable**: TI 84 Plus CE and Nspire
- **Please label your calculator with your name and contact information.**

Personal laptop computer
- The laptop must be able to connect to Baylor’s “Airbear” wireless internet service.
- The laptop must be capable of supporting Microsoft Windows 10 and the simultaneous operation of Microsoft Office, Matlab, and an internet browser (Firefox, Chrome, Edge, etc.). See Required Software below.
- Students using MacBook laptops will be required to use the above programs within a Windows environment (either dual boot or virtual machine). Resolution of compatibility problems is solely the responsibility of the student. Unless the student already has a MacBook laptop, it is strongly recommended that the student acquire a Windows-based laptop.
- **See Computer Recommendations below for suggested specifications.**
- **Please label your laptop with your name and contact information.**

Required Software
- Microsoft Windows 10
- Microsoft Office (Word, Excel, PowerPoint)
- Matlab
- All of these are available at no cost to Baylor students. Information can be found on the University Libraries [TechPoint website](#). Bear ID and password will be required.

Additional course-specific items
- Details will be provided in the syllabus of each course.
- EGR 1301 – Fall:
  - SolidWorks – student license provided by ECS
  - Arduino project kit – $30-$50 purchase
- EGR 1302 – Spring:
  - Matlab Student Edition – student license provided by Baylor
COMPUTER RECOMMENDATIONS

This list of recommendations is provided to assist students and parents in determining how to meet the requirements of the engineering programs at Baylor University. We will do our best to ensure that it is correct and up to date; however, we are not responsible for decisions made using this information.

Recommended laptop specifications:

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<thead>
<tr>
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<th>Minimum</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Operating System</td>
<td>Windows 10 (64-bit)</td>
<td>Windows 10 (64-bit)</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel Core i5</td>
<td>Intel Core i7</td>
</tr>
<tr>
<td>RAM</td>
<td>8 GB</td>
<td>16 GB</td>
</tr>
<tr>
<td>Hard Disk</td>
<td>250 GB, 7200 RPM</td>
<td>1 TB SSD (solid state drive)</td>
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<tr>
<td>Display</td>
<td>Resolution of 1366x768 or better</td>
<td>Resolution of 1080p or 1920x1080 (HD) or better</td>
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<tr>
<td>Wireless Network</td>
<td>802.11 g</td>
<td>802.11 a/g/n/ac</td>
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<tr>
<td>Optical Drive</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Ports</td>
<td>1 USB-A port (or USB-C port with adapter)</td>
<td>Multiple USB ports (at least 1 USB-A or adapter)</td>
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Note: All computers should have Windows 10 installed. Windows 7 support ended January 2020 ([https://support.microsoft.com/en-us/help/4057281/windows-7-support-ended-on-january-14-2020](https://support.microsoft.com/en-us/help/4057281/windows-7-support-ended-on-january-14-2020)). Visit the TechPoint link below for an educational license version.

The recommendations above are largely based on the ability to run the following programs:

- SolidWorks 3D CAD
- Matlab
- LabVIEW
  - [http://www.ni.com/labview/requirements/](http://www.ni.com/labview/requirements/)
- Xilinx Vivado
  - See also the latest version Release Notes

The Baylor TechPoint website ([http://www.baylor.edu/lib/techpoint/index.php?id=860070](http://www.baylor.edu/lib/techpoint/index.php?id=860070)) provides information on:

- Software available on campus computers
- Discounts & software available through Baylor (incl. Windows 10, Office365, & Matlab)
- Computer & hardware discounts
- Support & repair

The Baylor Bookstore online site can be accessed here: [http://www.baylor.edu/bookstore/](http://www.baylor.edu/bookstore/). Staff at the bookstore may be able to provide assistance with software selection and installation.