Student Laptops for Mechanical Engineering

The Mechanical Engineering program has a required laptop initiative beginning in ME 180: Freshman Design II. Course fees are used in this and some subsequent courses to provide software and other resources for student use in class; see TOPNET for specific course fees. The Mechanical Engineering Program recognizes most incoming students purchase laptops for use inside and outside of class. WKU has an easily accessible wireless environment that makes laptops an attractive choice over a desktop computer. **However, not all laptops are suitable for use with engineering software.**

Mac laptops WILL NOT WORK for Mechanical Engineering software such as SolidWorks and Mathcad, even with the ability to boot in Windows. A laptop running native Windows is required to run most engineering software such as AutoCAD, Solidworks, Mathcad, etc. Students are highly advised to purchase a repair and service plan to cover their computer systems. Due to the nature of their usage environment, laptops might need a damage protection plan as well.

Computer Specifications for Mechanical Engineering Laptops

Operating System:
 - **Microsoft Windows 10, with Windows 10 PRO preferred**
 - **Mac laptops will NOT work for ME software such as SolidWorks!!!**

RAM memory:
 - **At least 8 gigabytes of RAM required**
 - **For best performance with engineering software, use 16 gigabytes**

Graphics cards:
 - **Integrated graphics WILL NOT WORK WITH SOLIDWORKS!!!!**
 - **Discrete dedicated graphics card for maximum performance**
 - **NVIDIA graphics card preferred, 3 GB or more of video card memory (Quadro cards are superior but hard to find, GeForce cards are usually ok)**
 - **Avoid very high resolution displays such as UHD, these resolutions are not supported by SolidWorks and other software**

Hard Drive:
 - **500 gigabytes of storage minimum, solid state drives preferred**

Optical Media:
 - **DVD reader/burner required, external USB version is sufficient but still required**

Default Software:
 - **Microsoft Office: Word, Excel, Powerpoint. Available free to all WKU students**

Security Software:
 - **Integrated Windows Defender required.**
 - **Packages such as Norton, McAfee, or Webroot must be uninstalled to run SolidWorks**

Pointing device:
 - **External mouse is required, Logitech Trackball M570 is preferred and recommended**

Please contact joel.lenoir@wku.edu or the ME 180 instructor (see course listing in Topnet) if you have any questions. The WKU Bookstore stocks a Dell laptop for engineering students that is capable of running SolidWorks. Most of the lower priced machines that meet the requirements are around $1,000 to $1,300 and higher end machine are $1,800+.