

# Computer Recommendations Engineering Design

## Computer at home - Capable of:

- Using a 2<sup>nd</sup> monitor
  - Uploading large programs
  - Capable of installing and running large programs
  - Accessing internet
  - Supporting or having a Web Cam. (Students will need to have a web cam of some sorts prior to the start of the Fall Semester.
- **NO MAC BOOKS or Apple Computers: only WINDOWS BASED COMPUTERS**

Think carefully and research what type of computer(Desktop or Laptop) you want to purchase to use the next two years in your Engineering Design program.

Laptops are convenient and just as capable as Desktops but are very limited for any type of upgrading as far as memory, processors or graphics card. Most laptops can be outfitted with or come with Web Cams built in and are Bluetooth ready.

Desktops are much easier to upgrade but typically do not come with Web Cams or Bluetooth ready.

## MINIMUM Requirements for your computer:

1. **Processor:** Intel i7 or above
2. **Hard Drive(s):** 250GB to 1TB - SSD Drive (if purchased separately) Look at [www.newegg.com](http://www.newegg.com) or [www.tigerdirect.com](http://www.tigerdirect.com)

Most computers are capable of 2 Hard Drives. SSD Drives are used for loading programs on for quicker loading and functioning of the software. (Laptop or Desktop )

The Second Drive typically is a standard SATA drive for Mass Storage of files (\$60 - \$250/desktop for up to 2TB) (Laptop - \$125 - \$250)

3. **Memory:** **Minimum** 16 Gigabytes RAM and expandable to 16 - 32GB of RAM  
8 Gigs of RAM **may** get you by for the 1<sup>st</sup>/2<sup>nd</sup> Semester but 16 – 32 or RAM will be needed for 2<sup>nd</sup> year.
4. **Graphics/Video Card:** ASUS / MSI / PNY / etc... are brands that utilize an Nvidia or AMD GPU(Graphics Processor Unit) This card should have at least 2GB of memory and should not be an integrated or shared memory on the card as part of the motherboard. "Completely Separate"

My recommendation is to order your system from a reputable 1st Party company. DELL, HP/Compaq, Lenovo, Fujitsu (Seimens) etc... Do not walk into BestBuy or another “big box” store and expect to find a good CAD capable system. The store salesman may say... “oh yeah it will handle AutoCAD” AutoCAD is 2D NOT 3D based parametric modeling software.

Other things to consider:

5. Primary Monitor size for Desktop and secondary monitor for laptop: 22” – 24” (A 17” wide screen for laptops / with additional monitor for dual screen capability. This will mimic the labs setup and allow for better work flow)
6. I/O Ports: USB, DVI, Ethernet, HDMI, Mem. Card reader, Blue Tooth etc... (your choice for what you need, but get a system that has **at least 4 easily accessible USB ports and is capable of a second monitor.**
7. Media Player: CD/DVD not necessary but might be a convenient accessory.
8. Wireless Access: YES
9. Operating System: Windows 10

# IMPORTANT

**INTERNET ACCESS IS CRITICAL!** This may play into what type of computer you get(laptop or desktop). All of your software will be downloaded to your computer system. There are NO DVD/CD installs available for the software.

If you do not have access available where you live, both campuses have “decent” speeds for internet that you will have access to. Libraries and other locations typically have free and open internet.

**Internet will also be necessary for Video Tutorials and Zoom meetings.**

For Downloading Class Software: <https://www.autodesk.com/education/free-software/featured>

- AutoCAD
- REVIT
- Inventor
- Fusion 360

At the top you will see a “SIGN IN” link. Click on that to “SIGN UP”. Use your NRCC College Email to register. AutoDesk will need to verify that you are a student and that will be the only way to obtain Free Software for your 4 semesters.

This document is and will be apart of your Course Plan for the class and therefore you can use it as “required materials” document for the course so that financial aide can be used for purchasing.