

Minimum Recommended Computer System Specification

For Architectural Technology Students

(*) HIGHLY RECOMMENDED

These recommendations are designed to provide students with the basis for purchasing a computer that will be powerful enough to run the latest CAD, imaging, and 3D modeling software, and to be upgradable in order to last for the duration of the academic program.

Operating System:

Windows 10 (64 bit) * or **Mac OS X (10.13+)**

(Please note that newer versions of some of the software used in our courses will run only on 64-bit Window)

Processor(CPU): 8th Generation Intel® Core™ i7-8550U Processor (8M Cache, up to 4.0 GHz) recommended *. CELERON PROCESSORS ARE NOT RECOMMENDED. A faster CPU and one with more cores means quicker 3D rendering time and faster video encoding.

Memory (RAM): Think of RAM as the working surface of a desk. The more of it you have, the more things can be put into easy reach. Once this work is full, old things must be taken from the work surface in order to put new things on the work surface. Once things cannot fit on the work surface at one time, things start to slow down. 16 GB of DDR4 RAM minimum, **32+ GB recommended*** (for rendering and 3D applications, more RAM is preferred).

Solid State Hard Drives (SSD): Minimum size 256 GB. **256 GB + recommended*** Less is acceptable if the computer will not be used to store media files such as music, movies, animations from rendering and pictures or if external storage (such as a portable hard drive) is available. Highly recommended SSD as the hard drive of choice over the spinning HDD.

Internal/External Drives: DVD-+RW drives are very common they allow for the quick backup of files to larger DVD media once the student has begun graphic intensive studios. A combo CD-RW/DVD is recommended as a minimum to read DVD disk and write CD's. If more media is to be stored a **Blu-ray drive*** would be recommended, Blu-ray drives can store more media and can read and write CD's and DVD's faster.

Video: DirectX 11 + Compliant Video Card.

We recommend a discrete graphics solution from Nvidia or ATI at least 1GB of RAM (an additional graphics card which is not directly integrated into the motherboards, with very few exceptions, many integrated cards will not be ideal for heavy 3D graphics work. We do not recommend solutions which use "shared video memory" as this indicates that the video card is sharing system RAM. If the student does not intend to work with 3D graphics to a great extent, a lesser graphics solution may be selected. Unless, it is using Nvidia's New CUDA technology. **4GB + of RAM is highly recommended***

Mouse: 3-button mouse is preferred.

Display: resolution refers to the number of pixels which make up the screen. Screens with different sizes may actually have the same resolution, meaning that images appear larger on the larger screen, but the screen is not capable of displaying more information than the smaller screen. Widescreen monitors will have different pixel and real dimensions than standard formats. Wide vs Standard format is a matter of personal preference. A minimum suggested resolution is 1024x768 for a small sized standard format laptop (under 15"). A greater resolution is usually desirable. For a standard format 20" LCD 1600x1200 is ideal.

Network Connection: Wired Ethernet/ or Wireless N*

Purchasing a personal computer for use as an architectural tool is an excellent way to facilitate learning new software programs that are quickly being taken up for use in practice and design. While we do not discourage students from choosing Mac, the architectural technology program currently supports several software packages designed specifically for the Windows. **ONLY AutoCAD, MAYA, and Rhino 5 can run natively on a Mac! (Rhino 6 is not available for Mac yet.)** For other software such as 3DS MAX and Revit, We recommend students to purchase a copy of windows 10 and use boot-camp to install windows. Please see your CLT if you have any questions.