

## Recommendations for Laptop Hardware + Software **ACADEMIC YEAR 2020-2021**

### Specifications – **PC Laptop** (Note: Lenovo and Dell are supported by Ball State Technology Store)

Screen	15" - 17"
Processor	Intel i7 4.1GHz 64-bit Multi-Core processor minimum.
RAM Memory	16 GB minimum.
Internal Hard Drive	1 TB minimum. An added external hard drive is recommended for backup.
Graphics Card	2 GB VRAM minimum. More memory and performance capability are recommended. <b>MUST support the latest release of OpenGL.</b> NVIDIA graphics cards are recommended.
Wireless Card	Built-in wireless that supports 2.4Ghz and 5Ghz.
Operating System	Latest version of Windows 10 Professional.
Monitor Output	HDMI (VGA adapter helpful).
Webcam	Integrated and/or as external accessory.

### Specifications – **MAC Laptop** (Note: Macs are supported by BSU Technology store)

Screen	16" MacBook Pro Retina (15" is okay, if still available).
Processor	Intel i7 2.6GHz 64-bit Multi-Core processor minimum.
RAM Memory	16 GB minimum.
Internal Hard Drive	1 TB (an added external hard drive is recommended for backup).
Graphics Card	AMD Radeon Pro 5xxxM 4GB. <b>MUST support the latest release of OpenGL.</b>
Wireless Card	Built-in wireless that supports 2.4Ghz and 5Ghz.
Operating System	Latest Mac OS version + latest version of Windows 10 Professional. You can use the Bootcamp utility ( <a href="https://support.apple.com/boot-camp">https://support.apple.com/boot-camp</a> ) or the Parallels Desktop application. ( <a href="http://www.parallels.com/landingpage/pd/general/?utm_nooverride=1&amp;src=r&amp;gclid=CPLZiOiY7b4CFVQjMgoddg0AfQ">http://www.parallels.com/landingpage/pd/general/?utm_nooverride=1&amp;src=r&amp;gclid=CPLZiOiY7b4CFVQjMgoddg0AfQ</a> )
	*** See Note to Mac Users below ***
Adapters	USB-C to HDMI, USB-C to VGA, and USB-C to USB-A — recommend ordering adapter dongles and cables from Monoprice.com.
Webcam	Integrated and/or as external accessory.

### Software

Microsoft.-	Office: Word, Excel, Power Point. Free download available through webmail; or purchase through BSU Technology Store ( <a href="https://www.bsu.edu/about/administrativeoffices/technologystore/software">https://www.bsu.edu/about/administrativeoffices/technologystore/software</a> ).
Adobe.-	Adobe Creative Cloud: Photoshop, Illustrator, InDesign, Dreamweaver and Acrobat Pro. Available in the Technology Store through code for Adobe Creative Cloud.
McNeel.-	Rhino 6.0, Educational Version; best price is likely at the Ball State University Bookstore. <b>Wait until first day of Arch 263 before purchasing.</b>
VLC Media Player.-	<a href="http://www.videolan.org/vlc/index.html">http://www.videolan.org/vlc/index.html</a> (or similar for avi and .mov playback)
VPN.-	VPN (Off Site Secure Access): <a href="https://bsu.service-now.com/helpdesk?id=kb_article&amp;sys_id=f4daba96db1a7e401e8c3c8f9d961941">https://bsu.service-now.com/helpdesk?id=kb_article&amp;sys_id=f4daba96db1a7e401e8c3c8f9d961941</a>
Antivirus Software	Microsoft Defender (included with Windows 10 installation)

Other additional software (i.e. plug-ins, and rendering engines) may be specified accordingly by instructors during the fall semester.

## Storage

Students have access to 50 GB storage through Ball State University. Visit the following link to get started with BOX;  
<https://ballstate.box.com>

Additionally, a flash drive and an external hard drive are recommended for backup and transferring files.

## Regarding Use of Computers in CAP and Architecture Curricula and When to Buy a Laptop

PCs will likely be a better value for students **buying a new machine** (see 'Note to Mac users' below).

The first course **requiring** a laptop with the above software is Arch 263, taken by architecture students in the fall of their second year. Prior to this, during the extent of the CAP first year, personal computers are not mandatory. During first year, students may use older laptops with basic functionality or use the computer labs in the university libraries for computer work. However, many students and parents may wish to purchase computers during first year. Those doing so should consider that these computer recommendations may change prior to the student's second year, but historically these revisions have been minor. Current retail trends for laptops indicate as well that computer capabilities will change very little from year to year while prices will continue to fall slightly for the same products. You may take this into consideration if you decide to make an early purchase.

## Student Responsibility for Computers, Software, and Maintenance

**It is the responsibility of the student to purchase, set up, and maintain their laptops and software required for their coursework.** There are resources available on campus to assist students with computer-related technical issues. Students must make provisions to back up their work and seek out alternatives in the event that their computer fails, must be shipped for repair, is lost, or stolen. Specific computing policies are addressed individually by faculty in their respective syllabi.

### \*\*\*Note to Mac users\*\*\*

**Mac users are responsible for setting up and maintaining a configuration for running PC-only programs on their Macs. Rhino 3D modeling software as well as all Autodesk products (AutoCAD, REVIT, etc.), among others, are PC/Windows native programs\*.** You may run them on a Mac using a special set up referred to as (1) Boot Camp that assigns part of a Mac computer's hard disk to host Windows operating system along with a separate file structure associated with it, or (2) Parallels Desktop application. Any of these options may demand a technically intensive setup that may be challenging to those unfamiliar with computers and software configuration —although on-campus resources are available to assist students with this procedure, students are advised to consider this point in the event that they elect to use Macs. Also note that Rhino and its plugins developers strongly suggest the use of Bootcamp over Parallels operating system. It is suggested that you research on the latest system recommendations for specific software applications.

\*Note that while Rhino for Mac is available, instructors may only use and support Rhino for Windows for teaching/demonstrations.

Questions may be sent to Arch 263 instructors: James Kerestes    jfkerestes@bsu.edu  
Richard Tursky    retursky@bsu.edu