LAPTOP MINIMUM HARDWARE REQUIREMENTS FOR ACADEMIC YEAR 2021-22

Specifications for Department of Architecture Students Purchasing Computers This Year

Screen size	15-17 inch.
Screen resolution	1920x1080 or greater.
Processor	64-bit Intel i7 Multi-Core (or AMD® equivalent) processor minimum. 2.5GHz or faster.
RAM Memory	16 GB minimum (32 GB or more is highly recommended).
Internal Hard Drive	1 TB minimum. You should also have an external hard drive for backup.
Graphics Card	4 GB VRAM minimum. More memory and performance capability are recommended. Must support the latest release of OpenGL and DirectX.
Wireless Card	Built-in wireless that supports 2.4 GHz and 5 GHz.
Operating System	Latest version of Windows 10 Professional.
Webcam	Integrated and/or as external accessory.

External Storage

Unlimited online "cloud" storage on Microsoft OneDrive is available to all Ball State students, faculty, and staff as part of their Ball State Office 365 account; https://bsu.edu/onedrivehelp.

Additionally, a flash drive and an external hard drive for backup and transferring files will be needed.

Typical Software Used

Adobe Creative Cloud, Autodesk Revit, McNeel Rhino v.7 for Windows, Microsoft Office Suite. Other additional software (i.e. plug-ins, and rendering engines) may be specified accordingly by instructors. It is ultimately up to you to research the latest system recommendations for specific software applications.

* Note: you will typically get the best (education) prices for software through BSU resources such as the Bookstore and the Technology Store.

Student Responsibility for Computers, Software, and Maintenance

The first architecture course requiring a laptop with the above requirements is Arch 263, taken by architecture students in the fall of second year. It is the responsibility of the student to purchase, set up, and maintain their laptops and the software required for their coursework. There are technical resources available on campus to assist students with computer-related technical issues other than instructors. 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 syllabus. Other additional software (i.e. plug-ins, and rendering engines) may be specified by instructors during a semester.

Note to those considering Apple laptops

Windows-native laptops will likely be a better value for students in the Architecture program. Apple laptop users are responsible for setting up and maintaining a configuration for running Windows-only programs on their Macs. Rhino 7 software as well as all Autodesk products (REVIT, etc.), among others, are 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 an Apple computer's hard disk to host Windows operating system along with a separate file structure associated with it, or possibly (2) Parallels Desktop application. Rhino and its plugin developers require the use of Boot Camp. 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 Apple computers. It is up to you to research the latest system recommendations for specific software applications if you are considering an Apple laptop.

*Note that while Rhino for Mac is available, instructors will only use and support Rhino 7 for Windows for teaching/demonstrations.

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