

# LAPTOP MINIMUM HARDWARE REQUIREMENTS FOR **ACADEMIC YEAR 2023-24**

## Specifications for Department of Architecture Student Laptop Computers

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	6 GB VRAM minimum. More memory and performance capability are recommended. Support for the latest release of OpenGL, DirectX, and Vulkan.
Wireless Card	Built-in wireless that supports 2.4 GHz and 5 GHz.
Operating System	Microsoft Windows.
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 (plug-ins, rendering engines, etc.) will be specified by individual instructors. **It is ultimately up to the student to research the latest system requirements 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 required laptop meeting at least the above requirements must be ready by the first class requiring a computer. **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. The student 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 (plug-ins, rendering engines, etc.) may be specified by instructors during a semester.

## Note to those considering Apple laptops

**Windows-native laptops (Dell, etc.) are the highly-recommended platform for new laptop purchases. They will likely be a better value for students in the Architecture Program than Apple laptops.** Apple laptop users are responsible for setting up and maintaining a configuration for running Windows-only programs on their Apple laptop. Autodesk products (REVIT, etc.), among others like Rhino 7 for Windows, are Windows-native programs. To run them on an Apple laptop requires additional configuration/software. These options may demand a technically intensive setup that may be challenging to those unfamiliar with computers and software configuration. Students are advised to consider this point in the event that they elect to use Apple computers. **It is up to the student to research the latest system recommendations and specific software applications if they are considering an Apple laptop and do the necessary configuration on their own.**

Additional questions may be emailed to professors: James Kerestes [jfkerestes@bsu.edu](mailto:jfkerestes@bsu.edu)  
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