Computer Hardware

COMPUTATIONAL POWER

Architecture requires specific software and computers with strong graphics capability. While Rice Architecture has a computer lab to support instruction, every student will need a computer of her/his own. Rice University’s general “Purchase Guidelines for Students” provided by the IT department are insufficient for architecture students. You should instead follow the guidelines provided by Rice Architecture meeting the minimum specifications outlined below. You will use the computer extensively to complete complex graphic work—a more powerful computer and larger screen facilitate such tasks. Computer costs can often be added into loans as part of financial aid packages, amortizing the cost over many years. Check with financial aid for details.

FAQ ON COMPUTER HARDWARE

— Where will the computer be?
Students will be expected to have a computer for use in the studio. Rice Architecture has a computer lab for instruction and student use but it is important that students are able to work during class at their dedicated space in the design studio and with their colleagues outside of regular studio hours.

— When to buy a computer and how often?
Graduate students are expected to have an appropriate computer on the first day of class for studio at Rice Architecture. You may find it desirable or necessary to upgrade or purchase a new computer after three years.

— Desktop or Laptop?
Either is possible. A desktop is recommended as it will give you more power at a lower cost, but you may prefer to use a high–powered laptop with an external monitor for the added flexibility in use (also for other classes, or during the semester breaks). You decide.

— Apple Macintosh or PC?
You can use either an Apple or Windows PC. Choose whichever platform you prefer. Note that if you choose an Apple, you will need to install Windows on a bootable partition using Apple’s Bootcamp utility (www.apple.com/support/bootcamp/) in order to run particular software that performs better or exclusively works on a Windows platform. In general, you will likely get more computing power for your money if you buy a Windows-based machine.

— Are there student discounts?
College students typically are eligible for a significant discounts from manufacturers. Inquire when you buy your computer. Factory refurbished computers can be a great way to save money as well. Make sure there is some warranty included.

RECOMMENDED COMPUTER SPECIFICATIONS

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<tr>
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<th>Minimum</th>
<th>Recommended</th>
<th>Notes</th>
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<tbody>
<tr>
<td>CPU</td>
<td>Intel i5</td>
<td>Intel i7- i9</td>
<td></td>
</tr>
<tr>
<td>RAM</td>
<td>16GB</td>
<td>32GB</td>
<td></td>
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<tr>
<td>Graphics</td>
<td>4GB dedicated</td>
<td>8GB dedicated</td>
<td>ADM or Nvidia Discreet graphics card (not integrated Intel)</td>
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<tr>
<td>Hard Drive</td>
<td>512 GB SSD</td>
<td>1 TB SSD</td>
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OTHER REQUIRED HARDWARE

— External Hard Drive
It is absolutely necessary for students to have an external hard drive to back up their work. It is highly recommended that you have 512GB of backup space. Backups should be regular (at least daily) and automatically scheduled. You should ALSO back up to a web-based service such as Google Drive, Dropbox, etc.

— Display and Graphics:
Laptops: 15” minimum display, ideally with an external monitor of 21–27”
External Displays: 21” minimum, 24–27” recommended.
Displays should be of reasonable quality with high resolution. It is recommended that you purchase a graphics card that allows you to use two monitors (or purchase a second graphics card to plug in alongside one that you might already own). Most Rice Architecture students find a second monitor to be invaluable in conducting research and design work. A graphics card with a minimum of 2GB RAM is required but 4GB is highly recommended.

— Mouse: 2-button with scroll (track pads are inadequate). Logitech MX, Marathon or M500 models are good examples.

— Lock: every student should have a cable lock or other means of securing their laptop or desktop and should use it. Theft is rare at the Rice but you always want to use precaution.

CLOUD-BASED STORAGE

Cloud-based backup of your work will be critical. Rice Architecture provides you with online storage with Box and Google Drive.
Rice Architecture requires you to work with licensed software. Any software that you need can generally be purchased as academic versions that are either free or far less expensive than commercial versions. Thanks to a generous endowment, Rice Architectures provides you with licenses for Adobe Creative Suite and Rhinoceros. You will have to purchase any other software. Your professors will specify such requirements for the semester. Therefore, you should wait to purchase/obtain software until you arrive.

Please note: All software used for coursework must run in English.

**REQUIRED SOFTWARE**

- **Operating System**: Microsoft Windows (10 or 11), an Apple Macintosh running Virtual Windows works as well

- **3D Modeling**: Rhino3D for Windows is required (Rhino3D for Mac has limited functionality, so you will need to use the Windows Version)

- **Drafting**: Autodesk Autocad, Revit

- **Graphics**: Adobe Cloud (Illustrator, InDesign, Photoshop, Acrobat, etc)