



## 2020-2021 Computer Software and Hardware Requirements

The Architecture Program incorporates state of the art digital technologies in the architecture and interior design curriculum. As part of our comprehensive design pedagogy, we address the use and implementation of digital technologies as a critical framework for the exploration of multiple systems of design inquiry. This implies a strong emphasis on conceptual thinking as a primary way to establish the appropriateness of certain tools or representational techniques.

Thus, all students in the Architecture Program are required to lease, purchase, or have ready access to a desktop computer (or a laptop) that either meets or exceeds the specifications listed below. Students can choose between PC or Mac with Windows platform. A 1080P webcam and an external mouse with 3-button with scroll wheel are absolutely required for all the configurations listed below.

When computer shopping, many major electronics retailers might be unfamiliar with the graphics requirements associated with applications such as Autodesk, Adobe Creative Suite, or Rhinoceros. The Architecture Program recommends that you consider systems similar to those that will support 3D animated gaming and VR capabilities. These systems often have comparable video cards and sufficient memory necessary to support the 3D modeling and animation software required. The School of Design and the Architecture Program do not recommend any vendor or manufacturer of computer equipment.

### Optional Equipment: the following equipment and accessories are recommended, but not required:

- Desktop Printer & Scanner
- General Computer Utility and Maintenance Software such as Anti-Virus, Malware blocker, etc.
- USB Flash Drive: 128GB or bigger
- External Hard Drive of 2TB or bigger

**NOTE:** Software acquisition and installation are the student's responsibility. The Program's staff is NOT responsible for this aspect of computer ownership and use. Note also: The Program and its staff are NOT responsible for INDIVIDUAL STUDENT COMPUTER maintenance. **Note:** It is recommended that you obtain a warranty service package (3-year period) for next-day manufacturer service no matter what vendor you use.

Apple computers are required to have either a dual boot operating system or an operating system emulator (such as Parallels) for Windows 10, which will enable access to the School's software and peripheral equipment. The expected useful life of a computer is three years. Architecture is a compute and graphics intensive program; recommended configurations are at the higher end with faster processors, more memory, and a discreet graphics card.

The Architecture Program recommends that any student intending to purchase an Apple verify "equal to or better than" performance to the specifications listed below.

| Hardware        | Windows                                     | Mac (MacBook Pro Retina or iMac 3.6 GHz)*       |
|-----------------|---|---|
| CPU:            | Intel i7-8700K 6-Core processor or better   | Intel i7 quad core 3.6 GHz. processor or faster |
| OS:             | Windows 10 – x64                            | OSX Catalina with Parallels Desktop 14          |
| Display:        | 15" Full-HD (1080p minimum) or better       | 15" Full-HD (1080p minimum) or better           |
| RAM:            | 16 GB or more                               | 16 GB   |
| Disk Storage:   | 512GB 2.5" (SATA) Solid State Drive minimum | 1 TB Fusion Drive or better                     |
| Optical Drive:  | DVD +/- R/RW                                | External DVD +/- R/RW                           |
| External Mouse: | 3-button with scroll wheel                  | 3-button with scroll wheel                      |
| Video Card:     | Nvidia GeForce GTX 1070 or better           | AMD Radeon Pro 580x with 8 GB Memory or better  |

**\*Note:** The Architecture Program ONLY recommend the highest end model of MacBook Pro 2.3Ghz 8-Core, the 16" version with AMD Radeon Pro 5550M video card, or the iMac 3.6 GHz with the Radeon Pro 555x. The other models come equipped with an onboard chip that is considerably less powerful and will not work well enough with the various 3D and VR softwares.

## Software Requirements

\* Prices are as of 06/01/2020

### 2nd Year

#### 01: Fall Quarter

To run the PC version of AutoCAD and Rhino, Mac Users have to install Parallels and have Windows 10.

- Parallels 15 (for Mac users only): \$39.99 (Student license) Includes support for latest OS X and Windows.
- Adobe Creative Suite CC (\$19.99/month)
- AutoCAD (Free with a LA Tech student email address)

Visit: <http://students.autodesk.com/>

For the 2020-2021 academic year the Architecture program will continue using the Autodesk Student Software Program. AutoCAD, Revit Architecture, and other titles may be downloaded directly from the Autodesk Education Community website. All titles are 13-month licenses timed from the date of software activation. To obtain software students are required to register with Autodesk using their student email address. This email can be created as soon as the student has been registered for classes. Once registered with Autodesk students will be able to download software installers directly from Autodesk. These installers vary in size from 1gb to 6.5gb in size. **Students should plan to download and install the software before arriving for fall quarter.** Along with the installer Autodesk issues a user-specific license and product key to register and authenticate the software. Software may be downloaded from Autodesk Education Community: <http://students.autodesk.com/>

Please refer to the **Autodesk Student Download Instructions** if more information is needed.

#### 02: Winter Quarter

- Rhinoceros 6 for Windows: Student License \$195
- Rhinoceros 6 for Mac: Student License \$195

The Architecture program requires Rhino for solid modeling. Student licenses for Rhino 6 are available from the publisher via their website. The license is a normal commercial license sold at a discounted price. The license costs approximately \$195 (\$195 for Mac OSX). For more information contact Rhino 3D at (206) 545-7000 or order from the following web page: [https://www.rhino3d.com/sales/north-america/United\\_States](https://www.rhino3d.com/sales/north-america/United_States)

### 3rd Year

#### 01: Fall Quarter

- Adobe InDesign (This is included with Adobe Creative Suite CC)

Rendering Packages:

- Lumion: Free (Required and provided by instructors)

Other options might include:

- Flamingo: \$195 (\*Proof of student, faculty, or school status required with educational orders)
- KeyShot: \$95/year (Educational license)
- V-Ray 2.0: \$960
- Maxwell for Rhino (Learning Edition): \$99
- 3ds Max: Visit <http://students.autodesk.com/> (free license for students with a valid LATech email address)

### 4th Year and Beyond

#### 01: Winter Quarter

- Revit Building Design: Visit: <http://students.autodesk.com/> (free license for students with a valid LATech email address)

#### Other Utility Apps

- Windows 10 – Free (Windows 10 Upgrade Offer is valid for qualified Windows 7 and Windows 8.1 devices)
- Microsoft Office 365: Free; this includes Word, Excel, PowerPoint, & Outlook.