

# REQUIRED / RECOMMENDED

ARCH 1500 / 6600

## COMPUTER HARDWARE

It is required that you have a functioning computer while attending the College of Architecture and Design (CoAD). The specs provided are minimum and recommended specs when you decide to purchase a new laptop. This does not mean that an incoming student with a laptop that has lower specs must purchase a new laptop. Students may try to use their current laptop if it is able to run the design software used in the studio. Ideally when you buy a new computer it will last for your whole program. If you purchase a laptop with the recommended specifications, this is more likely to be possible. Each new version of software requires higher performing hardware.

For more information on these specifications in relation to some of the software used at the College, please see these links:

[Autodesk Revit Recommendations](#)

[Lumion Recommendations](#)

[Rhino Computer Recommendations](#)

[Solidworks Computer Recommendations](#)

Students in the CoAD get a discount through the UH Dell Store: <http://dell.com/uhouston> If you are planning to purchase a new laptop, you may want to compare the prices and specs being offered at the link above with other brands available online.

	<b>Minimum System Specifications</b> Estimated Cost = \$1600	<b>Recommended System Specifications</b> Estimated Cost = \$2000 - \$3000	<b>Notes</b>
<b>Operating System</b>	Windows 10 64-bit	Windows 10 64-bit	Apple computers are not recommended as many of the primary applications used in the field do not run on MacOS.
<b>Screen Size</b>	15"	15" with touchscreen	If you have or purchase a tablet in addition to the laptop, there is no need for the touchscreen on the laptop.
<b>Processor</b>	i7 Intel Processor	i9 Intel Processor	9th or 10th Generation Intel processors or AMD equivalent are recommended. More cores are generally better.
<b>Memory</b>	16 GB	32 GB or more	
<b>Hard Drive</b>	500 GB SSD (Solid State Drive)	1 TB SSD (Solid State Drive)	
<b>Graphics Card</b>	NVIDIA or AMD with 6 GB RAM	NVIDIA or AMD with 6 GB RAM or more	Look up the graphics card on Passmark. A score of 6000 is the minimum needed to run Lumion while 10,000 - 16,000 is recommended. See <a href="#">here</a> for more info.
<b>Warranty and Insurance</b>	3-year warranty Theft and Damage insurance	3-year warranty Theft and Damage insurance	
<b>Accessories</b>	Mouse, Data backup to cloud service and/or external SSD, Camera, External monitor, Security cable, Padded Sleeve	Mouse, Data backup to cloud service and/or external SSD, Camera, External monitor, Security cable, Padded Sleeve	

# REQUIRED

## ARCH 1500 / 6600 COMPUTER SOFTWARE

Estimated Prices:

Rhino 6 (Good for entire time as student)	\$140.00
Adobe Creative Cloud - 1 yr (\$19.99/mo)	\$240.00

### **RHINO 7 for Windows**

Student license can be purchased here:

<https://www.rhino3d.com/store?audience=Educational>

Estimated price = \$195

Or from a reseller like Novedge (\$140):

<https://novedge.com/collections/mcneel/products/rhino-6-0-for-mac-and-windows-educational-student-license>

\*\*\*Do not purchase other software packages - Flamingo, Bongo, etc.



**Rhino**ceros® 6  
modeling tools for designers

### **ADOBE CREATIVE CLOUD**

Student subscription can be purchased here:

[https://www.adobe.com/creativecloud/buy/students.html?sdid=1XGJD51M&mv=search&ef\\_id=EA1aIQobChMII\\_H\\_1\\_3Z6QIVSr3ACh1\\_BwSqEAAAYASAAEgJHefD\\_BwE](https://www.adobe.com/creativecloud/buy/students.html?sdid=1XGJD51M&mv=search&ef_id=EA1aIQobChMII_H_1_3Z6QIVSr3ACh1_BwSqEAAAYASAAEgJHefD_BwE)

Estimated price = \$19.99/mo

Students should download the following applications: Illustrator, InDesign, Photoshop



# 1st YR SPRING & BEYOND

## COMPUTER SOFTWARE

After you choose your major within the College of Architecture and Design, you may use other applications that are specific to your program (Architecture, Interior Architecture, Industrial Design, or Environmental Design). These include, but are not limited to, the applications listed to the right. Many of these applications are free or greatly discounted for students.

## Architecture, Interior Architecture and Environmental Design

### Autodesk Apps (3DS Max, Revit, etc.)

Student license is free. Apply here with uh.edu email:

<https://education.autodesk.com/login-student>

### Lumion 11 / Unreal Engine / Unity for interactive VR and realtime rendering

Student license is free. Apply here with uh.edu email for Lumion:

<https://lumion.com/educational-licenses.html>

<https://unity.com/releases/2019-3>

<https://www.unrealengine.com/en-US/get-now/agnostic>

### VRay Education Collection

Student license is \$149/yr Apply here with uh.edu email:

<https://vray.us/v-ray-education-collection-students-teachers.html>



## Industrial Design

### Solidworks

Student license is \$99/yr. Apply here with uh.edu email:

<https://www.solidworks.com/product/students>

### Keyshot

Student license is \$95/yr. Apply here with uh.edu email:

<https://buy.keyshot.com/collections/keyshot-education>



# REQUIRED

## ARCH 1500 / 6600 TOOLS


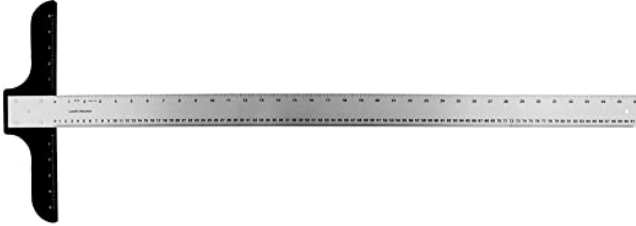


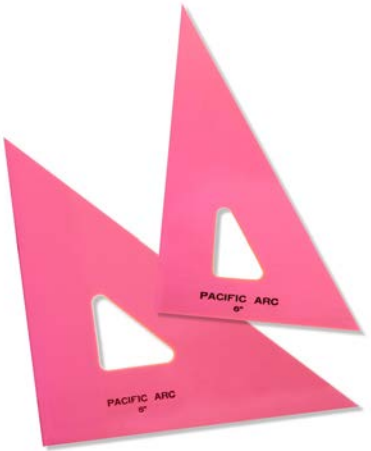

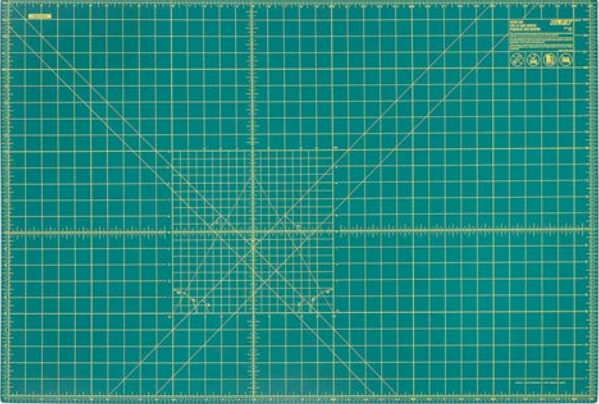





Recommended Stores:

Texas Art Supply <https://www.texasart.com>  
Jerry's Artarama <https://www.jerrysartarama.com>  
G & G Model Shop (modeling tools)  
<http://www.gandgmodelshop.com/index2.html>  
Or online retailers: Amazon, etc.

Estimated Prices:

X-acto #11 Knife Base	\$4.00
36" Metal T-Square	\$35.00
18" or 24" Metal Straight Edge	\$15.00
Architect Scale Ruler	\$5.00
45/90 & 30/60 Triangles	\$20.00
Adjustable Triangle	\$20.00
24 x 36 Self-Healing Cutting Mat	\$45.00
Safety Glasses	\$5.00
Modeling Tweezers	\$6.00
Needle Tip Applicator Bottle	\$5.00
Utility Knife	\$10.00
Art Supply Box	\$25.00

**Total \$195**

<p><b>X-ACTO KNIFE</b> #11 Knife base</p> 	<p><b>36" METAL T-SQUARE</b></p> <p>We highly recommend purchasing a parallel bar, rather than a metal T-square. It is far easier to maintain parallel lines and cuts when drawing and making models with a parallel bar (see Recommended Tools list). At a minimum, students should have a metal T-square.</p> 	<p><b>18" or 24" STRAIGHT EDGE</b> Stainless Steel w/Cork Backing</p> 	<p><b>ARCHITECT SCALE RULER</b></p> 
<p><b>45/90 &amp; 30/60 TRIANGLES</b> 12" Inking Edge</p> 	<p><b>ADJUSTABLE TRIANGLE</b></p> 	<p><b>SELF-HEALING CUTTING MAT</b> 24" x 36"</p> 	<p><b>SAFETY GLASSES</b></p> 
<p><b>MODELING TWEEZERS</b> Fine Point (Straight or Curved)</p> 	<p><b>NEEDLE TIP APPLICATOR BOTTLE</b> Precision Gluing</p> 	<p><b>UTILITY KNIFE</b> Useful for rough/deep cuts. X-acto is better for precision cutting.</p> 	<p><b>ART SUPPLY BOX / TACKLE BOX</b> Recommend 3 tray</p> 

# RECOMMENDED

ARCH 1500 / 6600  
**TOOLS**

**These tools are not required.** However, students may find these tools helpful to their design process. In some cases the recommended tools can serve as substitutes for items on the required list.

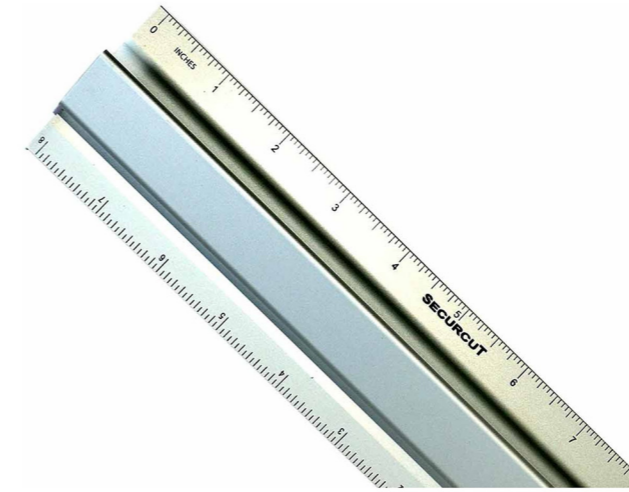
### 36" PARALLEL BAR

Alvin or Mayline - Substitute for T-square. Useful for model making and hand drawing. Can be easier to use than T-square.



### SAFETY RULER/CUTTING EDGE

Substitute for straight edge. Protects hands when cutting. Securcut (or equal)



### 1-2-3 STEEL BLOCKS & MODELING CLAMPS

Useful for modeling. Can be used with modeling clamps.



### DRAWING COMPASS & DRAWING TEMPLATES

While most drawing will be done in the computer, students may find these tools helpful for quick hand drawings during the design process.



### LED HOLDER / MECHANICAL PENCIL (with assorted leads)

Substitute for drawing pencil set. Rotring, Staedtler (or equal)



### MODELING CLAMPS (metal or plastic)

Useful for modeling. Can be used with 1-2-3 steel blocks.



# REQUIRED

## ARCH 1500 / 6600 CONSUMABLES

Recommended Stores:


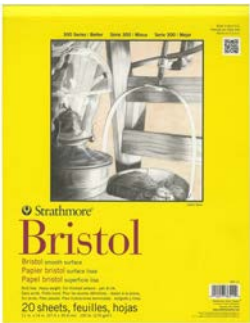

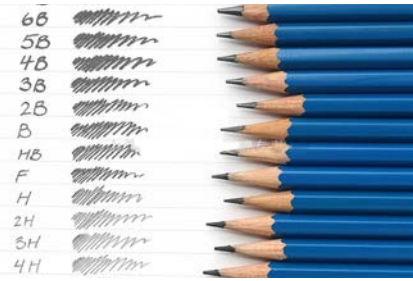





Texas Art Supply <https://www.texasart.com>  
Jerry's Artarama <https://www.jerrysartarama.com>  
G & G Model Shop (modeling supplies)  
<http://www.gandgmodelshop.com/index2.html>  
Or online retailers: Amazon, etc.

Estimated Prices:

#11 Blades - 100 pack	\$35.00
White Glue	\$5.00
Strathmore - Bristol 300 Series 14x17	\$15.00
2 Sheets - Chipboard & Museum Board	\$30.00
Drawing Pencil Set	\$27.00
Eraser	\$2.00
White Trace Paper Roll - 12"	\$10.00
Low Tack Tape	\$6.00
Black Drawing Pen Set	\$15.00
Color Pencil Set	\$20.00
Color Brush Pen Set	\$20.00
Sketch Book	\$20.00
Clear Push Pins	\$2.00
Combination Lock	\$7.00
Dust Mask	\$5.00
First Aid Kit (recommended)	\$20.00

**Total \$239.00**

Additional supplies, especially materials for model making, will be required on a per-project basis throughout the semester.

<p><b>X-ACTO BLADES</b> Box of 100 #11 blades</p> 	<p><b>WHITE GLUE</b> Elmer's or Weldbond</p> 	<p><b>STRATHMORE PAPER</b> Bristol, Smooth, 300 Series 14 x 17 (1 pack)</p> 	<p><b>CHIPBOARD &amp; MUSEUM BOARD</b> 32 x 40 - 2 ply, 2 sheets each (purchase additional as needed)</p> 
<p><b>DRAWING PENCIL SET</b> Stadler, Faber Castell, Berol Assorted - 6B, 4B, 2B, B, HB, H, 2H</p> 	<p><b>ERASER</b> All Purpose, White Plastic/Vinyl</p> 	<p><b>WHITE TRACE PAPER ROLL</b> 12"</p> 	<p><b>LOW TACK TAPE</b> White Artist Tape / Drafting Tape.</p> 
<p><b>BLACK DRAWING PEN SET</b> Pigma Micron - .2 - .5 mm</p> 	<p><b>COLOR PENCIL SET</b> Prismacolor Premier set (or equal).</p> 	<p><b>COLOR BRUSH PEN SET</b> Windsor &amp; Newton, Tombow (or equal).</p> 	<p><b>SKETCH BOOK</b> Moleskin unruled, 5" x 8 1/4"</p> 
<p><b>CLEAR PUSH PINS</b> 100 Count</p> 	<p><b>COMBINATION LOCK</b> For locker</p> 	<p><b>DUST MASK W/RESPIRATOR</b> For sanding/painting</p> 	<p><b>FIRST AID KIT</b> We recommend a first-aid kit or having some medical supplies - bandages, disinfectant wipes, etc. - available in the event of minor injuries that sometimes occur as a result of the tools used in the design studio.</p> 