



Dear 2026 incoming Architecture and Architectural Engineering students,

We look forward to welcoming you to the College of Architecture and Environmental Design at Cal Poly!

In the coming year, you will begin a new adventure in thinking and making. You will expand your capacities for abstract thought, creativity, and practical application—talents you will carry for the rest of your lives. This letter will orient you to some of the principles, tools, and logistics of the design studio. ARCH 1101 (and 1102 for ARCH majors) will typically be referred to as “studio.”

Studio refers to both a place—a big, open room with tables for creative work—and a way of learning that is communal, exploratory, and experimental. The hours dedicated to studio are a time to develop ideas through thinking, making, and discussion. Studio provides an opportunity to grow as an individual creator and as a contributor to the studio collective. The studio experience is fundamental, and our studio culture will support each of you. The three mutually dependent principles of studio culture at Cal Poly are the cultivation of respect, the cultivation of community, and the cultivation of ideas. Our Studio Culture document will be included with the syllabus for ARCH 1101.

There are two main categories of things you will need to obtain before we start school this fall as outlined below.

COMPUTER HARDWARE AND SOFTWARE

The computer will be an invaluable tool for you for the entirety of your career at Cal Poly. Because software in later years is more demanding, a more powerful computer will likely last longer (or for the duration of your education). Below are the minimum computer requirements that will satisfy first year software demands and allow you to continue with the machine in subsequent years. In previous years, students have regretted the decision not to meet these requirements, as they have had to purchase another machine to match the needs of software down the line. [AutoDesk Revit](#), while we don't use it in first year, is a program that ARCH/ARCE students will be using. Revit has become the Industry Standard for BIM (Building Information Modeling).

Laptop

- ITS at Cal Poly recommends a Dell [<http://dell.com/calpoly>]
- 15" screen size recommended
- Operating System: 64-bit Windows 11
- CPU Type: Intel or AMD processor with 2 GHZ or higher base core clock speed.
 - Highest single core base clock speed (GHz) is recommended
- Memory: 32-GB RAM (64-GB preferred)
- ***Dedicated graphics card with 6GB of video memory.***
 - Accelerated Graphics (for complex Revit models and Graphic files): Graphics card with 8GB or more of video memory recommended.
 - OpenGL 4.5 or higher required.
- Disk Size: 1TB Solid State Drive



Please note: due to the intensive use of computer graphics in architecture and engineering, a dedicated graphics card is required. Students that have ignored this by purchasing a cheaper laptop with integrated graphics have had to purchase a new laptop.

Other Hardware

- 2-button (min.) mouse with scrolling wheel
- USB Flash Drive (8 GB min.)
- External Hard Drive or cloud storage (1 TB min.; 5 TB of storage on OneDrive is provided to all Cal Poly students)
- You may also need an adapter depending on laptop ports

Software

You do not need to have the software below installed before we start school—we can help you with that in the first week. However, you are welcome to get a head start and install the software, and even give it a try!

ITS has links to free and discounted software for students. Download required software here:

<https://calpoly.atlassian.net/wiki/spaces/CPKB/pages/1770291207/Software>

From the link above, you will need:

- Adobe Creative Cloud
- Word Processing and Presentation - Microsoft Office
- Anti-virus software

In addition, you will need to purchase

- [Rhinceros \(Rhino\) 8](#), available with a student discount (\$95) at the Cal Poly Store. Purchasing Rhino is required—the 30-day trial will only last...30 days.

SUPPLIES

There are two options for obtaining the set of supplies – the First Year Kit - required for studio this year. This kit will last for the entire first year (and longer). It includes some, but not all, of the materials for your projects. (For example, you'll be asked to purchase sheets of chipboard, or some basswood sticks, for projects.)

Option 1: Art Central, a local art supply store in San Luis Obispo, has assembled a supply kit for purchase at a discounted price. The kit is available from Art Central's website. You may choose to have it shipped to you, or pick it up at Art Central upon your arrival in San Luis Obispo. It is available here: <https://artcentralslo.com/product-category/cal-poly-college-kits/>

Option 2: Alternatively, you may review the list of supplies below and bring items you already own combined with items purchased separately. It is important to note that regardless of where you purchase supplies, you need all of the items on the list by the start of studio in August.



Items in ARCH 1101 Kit:

Mesh bag 12x16
Mesh bag 20x26
Bristol 300 VL, 18X24 pad
Cardboard mailing tube 3x25

Drafting / Drawing

Spiral-bound sketchbook, 9x12, 100 sheet
White trace roll, 12x20yd
T-square: stainless steel ruled 24"
Triangle set (45-45-90 and 30-60-90)
Architectural scale 12"
Pencil sharpener
Erasing shield
6" bow compass
Kneaded eraser
White eraser
Charcoal sticks 3pk

Pencils:

- Kimberly Graphite Pencil 4H, 2H, H, HB, 3B, 6B
- Prismacolor Pencil Black PC935
- Prismacolor Pencil White PC938
- Prismacolor Pencil Sepia PC948
- Prismacolor Pencil Warm Gray 50% PC1054

Pens:

- Pentel Sign Pens Color (red or orange)
- Pentel Sign Pens Black
- Pentel Sign Pens Grey
- Fine Black Sharpie
- Papermate Flair Black 2-pk
- MICRON PEN .25MM BLACK
- MICRON PEN .45MM BLACK
- Promarker black marker

Watercolor:

- Windsor&Newton Cotman Watercolor Kit
- Synthetic round paintbrush (#8 or #10)

Modeling

Cutting:

- Cutting mat 18x24
- Mitre Box and saw
- AlumiCutter ruler 24"



CAL POLY

- Excel K1 knife w/#11 blade
- #11 blades - 5pk
- Olfa knife utl w/grip
- Olfa blades heavy-duty snap-off 5 pack
- Scissors Precision 8"

Adhesives:

- Hot glue gun and sticks
- Masking tape roll ½" x 60 yards
- Aleene's Tacky Glu Quik Dry 8oz
- Elmer's Glue 4oz
- UHU Glue Stick Jumbo

Other:

- Long nose pliers
- 3M sandpaper 100/150/220
- Safety goggles
- Pushpins

Recommended

Tape measure

10" adjustable C-thru triangle

Tweezers

We have tried to pare down the supply list to minimize the initial expense, but we realize that the cost is sizable. As you assemble your gear, please remember you now have access to student discounts, including on computers and software. Students that have severe financial limitations should contact their Student Academic Services (SAS), Educational Opportunity Program (EOP), or Financial Aid Advisors.

We are looking forward to a challenging, exciting, and collaborative year in studio with you. Whether or not you are familiar with any of these supplies or these ways of working (and we are assuming you aren't), over the next year you will become capable of more than you ever thought possible. You will also find your peers and your instructors very supportive in this endeavor.

On behalf of the first-year architecture faculty, welcome. We look forward to meeting you in August!

Jennifer Shields (jeshield@calpoly.edu)

Professor of Architecture and First Year Coordinator

F.A.Q.

Q: I have heard studio is time intensive - is that true?

A: Yes! You will likely find you have less free time than your peers in other majors. Design involves new ways of thinking, something like learning a language or a musical instrument - time on task leads to proficiency and confidence. You will find the design projects are very open ended with multiple paths to discovery and success. This kind of lateral and creative thinking is critical for both architects and architectural engineers. However, intensive should not be taken to mean all-consuming. Studio is one component of a rich array of courses and activities that will be a part of your time at Cal Poly.

Q: Will I have time for sports or music?

A: Time management is a skill you must master to do well in studio. You have to be even more disciplined here due to all your freedom as a collegiate scholar vs. your high school days! If you are an athlete or musician and have meets or concerts in the fall, please notify your instructor as soon as possible.

Q: Do we need special clothes?

A: In studio you should dress comfortably and know that you may get dirty from pencil, pen, adhesives, etc. When working in the shop, closed toed shoes and safety glasses are required. Our studios may be hot in September, and can get chilly in our rainy winter. We can have 40+ degree temperature swings during any season. Think layers.

Q: I already have some triangles and scales that are metric - will they be satisfactory?

A: All drafting and modeling will be in Imperial Units (aka US Customary Units, aka feet and inches), so having an Imperial units based architectural scale is essential. As a side note: you don't have to have any drafting background for day one. We will cross that bridge (among many) later this fall.

Q: Will we use Sketch-Up? AutoCad?

A: Not in first year. Software tends to be used either for design or for development and production. We are concerned with design in first year and will use the digital modeling software Rhinoceros (aka Rhino), which is highly flexible. AutoCad and its companion Revit are also useful for precision construction documentation, and you may encounter them in future studios. We won't use them or Sketch-Up in first year.

Q: Is a 17" laptop preferable to a 15" model? How about 13"? Is a desktop model ok?

A: We recommend a laptop with a 15" screen. 17" can be heavy and doesn't always fit comfortably on lecture hall desks. Get something that you are able/willing to always carry. Desktop computers are not allowed in the first-year studio space; however, many students choose to have a desktop and/or additional monitors in later years, when each student has a dedicated desk.

Q: I'm an ARCE student, do I really need all of the tools?

A: Yes. Supplies may be purchased used, or borrowed from past students. However, every student must have all the required supplies.