

Dear incoming architecture and architectural engineering students,

Welcome to the College of Architecture and Environmental Design!

You are about to begin a new adventure in thinking and making. Over the coming year, you will expand your capacities for abstract thinking, creativity, and resilience- three qualities that will help you address real-world challenges. This letter will orient you to some of the principles, tools and logistics of your first year in the design studio.

ARCH 131 (and 132 and 133) 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. Whether we are working remotely or in-person, 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 is included in this packet.

This coming Fall, studio will be a little different from usual.

Through teaching remotely this past Spring, we have expanded our range of digital tools and are really excited to be teaching studio with this new knowledge. In the Fall, your course content will be given virtually through lectures, demonstrations and workshops. You will have opportunity to review projects and work with your peers in-person.

Supplies

Project-based learning requires gear. You will need a computer and software, tools, and assorted materials to execute the projects. A list of required tools & supplies is attached to this letter. Both our local art supply store, Art Central, and the University Store have assembled an ARCH 131 supply kit.

The kit is available from Art Central's website. (<https://artcentralartsupply.com/cal-poly-kits.php>) It is an excellent value, and includes materials and supplies selected by your instructors for their quality and durability. You may choose to have it shipped to you or pick up at Art Central upon your arrival in San Luis Obispo in September. Because supply chains are impacted by the ongoing coronavirus pandemic, ordering the supply kit is time-critical. Art Central is offering a reduced price incentive for kits purchased by August 7th.

The kit from the University Store is less expensive and contains fewer items. The items not contained in the University store kit are still required and you will need to buy them separately. It is available on the University Store's website. (<https://www.bkstr.com/calpolystore/product/arch131-kit-str-2020-87931-1>)

Alternatively, you may review the list and bring items you already own combined with items purchased separately. This allows for more freedom in deciding whether to purchase a higher quality item that may experience long-term use, such as a metal architectural scale, and save money on the more limited-use items, such as hot glue guns. It is important to note that regardless of where you purchase supplies, you need all the items on the list before studio starts in September. Please review the list carefully and note that a few required items are not included in either kit.

During the school year, consumables (eg. paper, pens, glue) are also available at the University Store on campus and at most art supply stores globally.

We have made an effort 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, especially 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. Whether or not you are familiar with any of this gear 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 professors very supportive in this endeavor. On behalf of the first year architecture faculty, welcome. We look forward to meeting you in September.

Your First Year Studio Coordinators
Emily White (ewhite14@calpoly.edu)
Angela Bracco (abracco@calpoly.edu)

Tools and Supplies

The following supplies are included in the ARCH 131 Class Kit, available online from Art Central (<http://artcentralartsupply.com/cal-poly-kits.php/>) All tools required unless noted.

12" Architectural Triangular Scale
30°/60° Drafting Triangle, 8", with ink edge
45°/90° Drafting Triangle, 8", with ink edge
Erasing Shield
Metal Pencil Sharpener (Staedtler 510 or equivalent)
Circle Compass w/ removable pencil and inking heads
White vinyl eraser
Kneaded eraser
Tracing Paper Roll (12" min, white)
Alvin parallel glider, 10"

9" x 12" spiral bound sketchbook
Pigma Micron Pens (black): 01 & 05 widths
ProMarker (black)
Sharpie (black)
Papermate Flair Pen Medium (black)
Prismacolor Pencils: White, Black, Warm Gray 50%, Sepia
Pentel sign pen (black + one color)
Drafting Pencils: 4H, 2H, H, HB, 3B, 6B hardnesses
3 Charcoal sticks, soft
12-color Portable Watercolor Set (Cotman or Winsor & Newton recommended)
Round watercolor brush #4

Metal Straight Edge, 24" with cork backing and cutting edge
Precision Knife #1 (Xacto or Excel)
Xacto or Excel #11 blades (15 pk minimum, 100 pk recommended)
Olfa L-2 snap-off knife
Olfa L-2 replacement blades
Scissors
Dual Temp Glue Gun
Hot Glue Sticks
Aileen's Quick-dry Tacky Glue
Elmer's Glue
UHU glue stick
Assorted sandpaper
10 yard roll Scotch aluminum foil tape
Masking tape
Clear push-pins

The following supplies are not in the kit and are required:

18" x 24" Self-Healing Cutting Mat
25' (minimum) Tape Measure
19"x24" Bristol Board Pad, 15+ sheet pad, vellum finish
Safety goggles

The following supplies are not required and not in the kit but you may wish to have them in future quarters (not Fall):

Cordless Drill and drill bit set
Long Nose Pliers
Phillips and Flat head screwdrivers
Razor Saw & Miter Box set
6" combination square
Waterbrush Pen (Kuretake or equivalent)
Tweezers
DSLR camera

Software & Hardware

Required Computer and peripherals

Laptop computer, Mac or PC (more detail in FAQ pages)
Mouse
USB flash drive, 4 GB (min)
External Hard Drive, 1 TB (4TB is a plus; wireless back-up capability is a plus)
All-In-One Color Inkjet Printer & Scanner (Note: printing is usually available on campus, but current circumstances will likely impact access to the various print centers)
Printer Paper, 24 lb (minimum) bright white premium inkjet paper

Software

Adobe Creative Cloud (Photoshop, Illustrator, InDesign and Acrobat)
Rhinoceros 6
Word Processing (Microsoft Office or equivalent)
Presentation (Keynote or Powerpoint)
Video Editing (iMovie or equivalent; Adobe Premier is included in Creative Cloud)
Anti-virus as required by university

Note: the CAED tech support team has links to free and student discounted software on their website <http://www.caed.calpoly.edu/techsupport>

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.

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 fall, please notify your instructor on day one.

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 generally do not get especially hot (Mediterranean climate), but 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: 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 it's companion Revit are also useful for precision construction documentation, and you may encounter them in future studios. We won't use Sketch Up in first year.

Q: Does it matter if I have a Mac or PC computer?

A: In first year studio, you will be able to complete all projects using any type of computer, as long as it can run Adobe Creative Suite and Rhinoceros 6.0. In upper years, you will likely begin to use more specialized software. Some software, such as Revit, must be run on Windows. Other software, such as Rhinoceros and its widely used parametric modeling plug-in Grasshopper, perform significantly better when run on Windows. It is possible to use Parallels or Bootcamp to run Windows operating system on a Mac. For computer specifications please consult the architecture website for further information. We recommend purchasing the most robust system you can afford.

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

A: We recommend a 15" at minimum. 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 first-year; 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: Supplies may be purchased used or borrowed from past students. However, EVERY student must have ALL of the required supplies by the first week of class. Check out the Cal Poly Architecture Class of 2023 and 2024 Facebook groups for used supplies for sale.

Q: What if I have other questions?

A: Contact Emily White (ewhite14@calpoly.edu) or the Architecture Department (architecture@calpoly.edu and 805-756-1316). We will be happy to answer any questions.

Studio Culture at Cal Poly

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, and an opportunity to grow as an individual creator and as a contributor to the studio collective. The three mutually dependent principles of studio culture at Cal Poly are the cultivation of community, the cultivation of respect and the cultivation of ideas.

Cultivation of Respect

Each individual is responsible for making unique contributions to the studio. We value and support diverse ideas and promote a culture of respect. The excellence of our school depends on our ability to appreciate the value of ideas and experiences that are divergent from our own.

Each of us is responsible for our own well-being, which means eating well, getting enough sleep, and managing time efficiently. Be patience with yourself and your peers. Learning often happens at an erratic pace.

Cultivation of Community

Studio is a communal and social form of learning. Students learn as much from each other as they do from faculty. The studio parallels professional practice, where each person is expected to be a thoughtful collaborator and aid in the development of ideas.

Learning how to make positive contributions to teams and build productive relationships is essential. These shared experiences also foster a sense of camaraderie amongst students that continues throughout your education.

Cultivation of Ideas

Ideas are cultivated through observation, experimentation, questioning, and dialogue. The design process hinges on your willingness to think both abstractly and concretely. Ideas may develop fitfully. Learning will come from success as well as mistakes, which are both productive aspects of the studio experience.

Reflection on your work is essential to developing your ideas. Equally important is critique, a process in which your projects will be reviewed publicly and you will discuss your work with peers, instructors or invited guests with expertise in design and professional practice. These conversations help you to see the work in relationship to ideas circulating within the studio and ideas in the world beyond the studio. Critique is always meant to be constructive.