STUDIO SUPPLIES

TOOLS FOR ILLUSTRATING IDEAS

The following list of tools and materials is intended to be a guide to the basic tools you will use during your architectural education, and beyond. As you become more experienced in the design process, you will find that you will develop your own media preferences. Generally, everyone builds an extensive kit of tools for the various drawings and models that are part of the architectural design process.

Most of the tools listed below are inexpensive, and, with the exception of such items as pencils and paper, will last as long as your career in architecture, interior architecture, or landscape architecture. The computer, drawing board, and parallel rule (Mayline™) are the most expensive items. All the tools and supplies that you need are available at the University of Oregon Bookstore and other art supply stores in the Eugene area. Watch for the sale at the UO Bookstore at the beginning of winter term.

The following list has been coded to help you understand what you will need to have purchased for the first day of ARCH 283 versus what you may need to obtain eventually but can wait until you receive further instruction from your studio professor.

Symbols:
FIRST Have at the beginning of the first class.
LATER Not necessary to buy right away/Wait for advice from instructor

SKETCHBOOK and PAPER

FIRST Sketchbook—a bound notebook of blank drawing paper. The easiest ones to use are spiral bound. They can be hardcover or paperback. Buy one that is easy to carry and keep with you (no larger than 9" by 12").

FIRST Tracing paper—comes in different sized rolls (12", 18", 24") yellow or white. More than one size is useful. You will be using lots of this! Avoid purchasing the pads. They are a bit more limiting in their use.

LATER Vellum—Clearprint™ or 1000H. This semi-transparent paper is commonly used for drafting. It is easy to erase and takes ink and pencil well. It comes in pads or rolls.

LATER Mylar drafting film—This is another paper for drafting. It takes ink well and also plastic-lead pencil. It erases particularly well, but does not work as well for presentation on the wall as it is too transparent. It is much more expensive than vellum.

LATER Graph paper—for laying under tracing paper.

LATER Colored paper—construction and drawing papers come in a broad range of colors. These are very useful for collages and other design studies.

FIRST Black and white 9" by 12" construction paper.
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**DRAWING PENCILS, PENS** and **ERASERS**

**FIRST** Drawing pencils - for sketching, designing, and presentation. Pencils are graded according to the degree of hardness of the lead. Soft pencils make dark bold lines. Hard pencils make light lines and keep their point for a longer period of time. 4B and 2B are good for sketching. F and H are good for drafting. HB is good for lettering. Get several of various weights.

(softest) 6B 4B 2B B HB F H 2H 4H 6H (hardest)

**LATER** Lead holder – used for drafting primarily, though it can be used for sketching as well. They use interchangeable leads that come in the same weights described above.

**FIRST** Mechanical pencil - These come for different diameter leads, and range a lot in price. They are good for use in sketching, but are difficult to control for drafting.

**FIRST** Pencil sharpener – hand held or electric, for drawing pencils and colored pencils

**LATER** Lead pointer – hand held or table mounted. This is a special sharpener designed to work with lead holders. It contains the lead residue as the lead is being sharpened.

**FIRST** Eraser – white (most commonly used), pink pearl, or kneaded (grayish)

**LATER** Eraser bag – small porous bag filled with eraser crumbs. Used to keep drawings clean

**LATER** Erasing shield – Small metal rectangles with various different holes. This is particularly useful for drafting and other fine work.

**LATER** Felt tip pens – Medium and fine points are useful for sketching in your sketchbook and for refining your design ideas. Bold points are good for initial sketches. Black is the best color for all round use, though other colors may be useful later. Thick colored markers are best used with discretion. Be careful buying felt pens as some cause allergic reactions.

**FIRST** Technical pens – These come in different point widths from very fine to bold. The refillable pens last a long time (with care) and will accept different ink colors. There are also disposable technical pens and felt tip technical pens. The felt tip technical pens are relatively inexpensive. They come in various widths and with permanent or non-permanent ink. These are adequate for now.

**OTHER DRAWING MEDIA**

**FIRST** Colored pencils - great for designing and for rendering presentations. A good brand is Berol Prismacolor, which has a broad spectrum of colors and soft leads. Be careful of colored pencils that are too hard. These can be bought in sets or individually. Buying them individually gives you the chance to start with just a few, and to pick only the colors that you want. Be sure to start with several shades of gray, and the primaries (magenta, cyan and yellow).
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LATER Pastel (chalk) – good for quick, bold sketching and for adding color to presentation drawings.
LATER Charcoal and conte crayons - good for quick, bold sketching

DRAFTING EQUIPMENT

FIRST Triangles – There are many different triangles from which to choose. If you only want to buy one, then buy a 10” adjustable triangle. This allows you to make any angle that you want. Look for one that has beveled edges. Other useful triangles are 45 degree and 30/60 degree triangles. The big ones are great for borders; a small 3-4” one is good for lettering.

LATER Circle templates – The most widely used template.

LATER Drafting brush – This is used for removing graphite dust and eraser crumbs from your drawing and cleaning off your drafting surface.

FIRST Drafting tape – to hold paper to your board, and for temporarily holding together models and collages. Drafting tape is NOT masking tape. It has less adhesive and so will not tear your paper. It comes in rolls of various sizes and in dots.

DRAWING SURFACE (you will need to have this assembled for the first week of studio)

FIRST Drafting board – 3’ x 4’ is a good size. Use 3/4” plywood, part of a door, or a drafting board you purchase, whichever fits your budget. Make sure that it has a smooth surface, without knotholes. Cover it with Borco™ or illustration board.

FIRST Parallel rule - 42” or 48” recommended. This is used to make straight parallel lines. It is more expensive than a T-square, but well worth the investment. Be sure to buy one that has ball bearings on the bottom side. Mayline™ is a good brand.

TOOLS FOR MEASURING

FIRST Architect’s scale – The 12” triangular scale has most of the scales (i.e. 1/4” = 1”-0”) that you will need for architectural projects.
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LATER Engineer’s scale – This 12” triangular scale has scales such as 1” = 30” and is used for site drawings.

LATER Tape measure - A retractable metal tape measure (25’) is an essential part of the architect’s box of tools.

TOOLS FOR CUTTING AND GLUING

FIRST X-acto knife – for fine work and light materials.

FIRST X-acto knife blades: consider buying a bulk supply, it is a good investment!

FIRST Straight edge – a metal rule with cork backing used for cutting. These come in various lengths. 12” and 36” are good to have.

FIRST Mat knife – also known as a box knife. A heavy knife for long straight cuts and for heavy materials. (always have a supply of SHARP blades)

LATER Steel triangle - good for cutting at right angles

FIRST Scissors – good quality for general cutting

FIRST Glue – white glue is good for model building.

FIRST Glue stick – a great fast tool for gluing papers together.

BOARDS (for models)

LATER Chipboard – an inexpensive gray-brown cardboard. It comes in various sizes and thicknesses.

LATER Museum board – comes in various thicknesses. This is more expensive than chipboard. It is white and cuts more easily than chipboard.

LATER Foamcore – comes in various thicknesses. This is a foam board that is sandwiched between two layers of paper. It is very good for larger scale models.

LATER Corrugated cardboard – inexpensive and readily available. It is good for model bases and study models.

LATER Illustration board – comes in various thicknesses and colors. It takes pencil and pen well.

LATER Mat board – has a right side, which is a colored paper, with the remaining material being white or black. It is commonly used to frame pictures.

OTHER

FIRST Extension cord – UL rated and heavy duty.

FIRST Power strip/surge protector – essential when you get your computer, but also good to turn everything off when you leave studio.
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**FIRST**  Padlock – the studio desks are designed so you can lock up all your tools for safekeeping. Bring in the first day.

**LATER**  Swing-arm lamp – The lighting in the studios is not great, so it’s good to have your own task light.

**COMPUTER HARDWARE**

Students are expected to have computers & required software on the first day of class for ARCH 202 and ARCH 222.

**FIRST**  Students enrolled in the Department of Architecture (Architecture and Interior Architecture) are required to own a personal laptop computer, external monitor, and external mouse to assist with their studies. Laptops may be either a PC model from vendors such as Dell/Lenovo/Hewlett Packard or a MacBook Pro model from Apple. **If an Apple computer is purchased, it is also required to purchase a Windows license and install it via Bootcamp as required software such as Revit and Rhino require Windows.**

Computer purchasing recommendations are explained in detail at:  

https://blogs.uoregon.edu/designtech/home/computer-purchasing/

Please read this information carefully and ensure that you have or plan to purchase a machine that at least meets the minimum requirements. As a design student, your laptop will be one of the most important investments you will make.

**COMPUTER SOFTWARE**

Students are expected to have computers & required software on the first day of class for ARCH 202 & 222.

**FIRST**  Adobe Creative Suite- Creative Cloud Subscription
This software package by Adobe® bundles some of the most popular digital imaging software used by visual designers in the industry. It includes Photoshop, Illustrator, InDesign, Acrobat Pro, Bridge, and Media Encoder. This software is available for both Windows and the Mac.

**FIRST**  Autodesk AutoCAD 2014 or higher (for Mac OS X or Windows)
This software remains an industry standard for two-dimensional digital drafting. This software is available for both Windows and the Mac. This software is free for students and educators. Download here: http://students.autodesk.com.

**LATER**  Rhino is a popular Windows based rendering application that is currently provided to entering first year undergraduates and Track I Master of Architecture students. It is a required software for ARCH 222.