

---

ARCH 21111  
**DESIGN I: SOPHOMORE STUDIO**  
UNIVERSITY OF NOTRE DAME SCHOOL OF ARCHITECTURE

---

**SUPPLY LIST**

---

The following is a list of supplies that will be used through the fall studio and throughout future studios in the School of Architecture as well, so while one needn't spend more than necessary, it is a good idea to invest in quality supplies when possible.

**WHERE TO PURCHASE SUPPLIES**

Items can be purchased at most drafting or art supply retailers; and don't forget to check if the store offers a student discount. The Notre Dame Bookstore carries some of the items, but it is advisable to purchase your supplies from other vendors as the Bookstore's stock can be unpredictable or lacking entirely. Some recommended sources include:

***Online***

<b>Dick Blick Art Materials</b>	<b><a href="http://www.dickblick.com">www.dickblick.com</a></b>
Utrecht Art Supplies	<a href="http://www.utrechtart.com">www.utrechtart.com</a>
Artist Craftman Supply	<a href="http://artistcraftsman.com">artistcraftsman.com</a>

***On/Near Campus***

<b>United Art &amp; Education</b>	<b>Mishawaka, IN</b>
Michael's	Mishawaka, IN
Hobby Lobby	Mishawaka, IN

Please note that these resources are recommended because not all drafting and art supplies are created equal. Amazon and other retailers certainly carry supplies, but one must be certain that each thing is precisely the same item being sold—a professional tool and not a knock-off. If there are any questions about the necessity of a specific item or about the quality of a particular choice, please don't hesitate to contact your instructor. Links to individual items have been included here to help students understand the items that are intended by this list.

Please be sure to inquire about a student discount where you shop. And remember to consider shipping time when scheduling your purchases.

**The faculty recognize that the purchase of supplies can be a significant expenditure. Many of the items listed here were used in the spring Graphics II course and can continue to be used here. The most essential items are listed here in bold type. Helpful, but less critical items are listed in standard font.**

## **GENERAL SUPPLIES**

### **SKETCHBOOK, 8 ½"x11". 11"x14"or -9"x12" recommended (minimum size- 8 ½"x11")**

Students will want one with *hard covers*, either spiral- or hard-bound, preferably with acid-free white paper, that is unlined and intended for dry media (pencil and pen). The book must lay open flat to allow drawing across two pages. Canson, Cachet, and Moleskine are some of the companies that make an excellent sketchbook for these purposes.

<https://www.dickblick.com/categories/drawing/paper/sketchbooks/>

<https://us.moleskine.com/sketchbook-black/p0437>

### **SKETCHING PENCILS**

A wide variety of brands are available. Be sure to purchase graphite and not charcoal. A small set of 5-6 pencils ranging from medium to soft lead weight is sufficient (2H, H or F, HB, 2B, and 4B). Faber-Castell, Derwent, Kimberley, and Staedtler are some excellent brands. Prismacolor Ebony Pencils (jet black, extra smooth) or Generals Draughting Pencils - which come in one hardness - are also very useful for sketching.

<https://www.dickblick.com/categories/drawing/pencils/sketching/>

### **PRISMACOLOR EBONY PENCILS (JET BLACK, EXTRA SMOOTH) OR GENERAL'S DRAUGHTING PENCILS (COME IN ONE HARDNESS)**

<https://www.dickblick.com/products/prismacolor-ebony-pencil-sets/>

<https://www.dickblick.com/products/generals-draughting-pencil/>

### **HANDHELD PENCIL SHARPENER**

#### **0.5MM MECHANICAL PENCIL WITH HB LEAD**

Helpful for outdoor sketching (because they don't require sharpening) as well as for more detailed design development.

#### **METAL STRAIGHTEDGE/RULER**

Look for one with cork backing; 18" or 24" are generally more useful sizes for trimming sheets or constructing perspectives <https://www.dickblick.com/products/blick-stainless-steel-ruler/>

#### **X-ACTO KNIFE w/ BLADES**

Recommended #1 or X2000 knife with #11 blades <https://www.dickblick.com/products/x-acto-1-knife/>

#### **STAPLE GUN (non-electric) with STAPLES**

A light- or medium-duty staple gun for stretching watercolor plates can be purchased at a variety of hardware and big box stores.

#### **NEEDLE NOSE PLIERS AND/OR PRYBAR STYLE STAPLE REMOVERS**

A must for removing staples.

#### **TAPE MEASURE, 25' minimum**

For site documentation as well as measuring references around the building and campus during design work. Stanley and other companies make a tape measure that conveniently has feet/Imperial measurement down one side of the tape and metric measurement down the other.

## CAMERA

*Cameras are a useful supplements to the architect's sketchbook. If you are interested in having a camera, please feel free to look into one, but many students today simply use their phones.*

## 3-RING BINDER

There will be several packets handed out during the course. They are offered in print form along with digital access in order to better facilitate studio use. A three ring binder (and three hole punch) is ***strongly encouraged*** to help in keeping track of them all.

## OTHER OPTIONAL ITEMS:

- Small portable stool for drawing outside (lightweight, foldable)
- Architectural dividers (see compass set)
- Folding wooden ruler
- Soft sewing tape measure
- Laser measure

## **DESK EQUIPMENT (SOS kit supplies indicated in italics)**

### ***PARALLEL RULE (SOS), 42" or 48"***

Mayline makes a quality parallel rule as does Alvin; look for one with a grip on the top and no rollers, if possible (these leave grooves or marks in your paper); cutting edge (Armoredge) not necessary. *For students who have a parallel rule with rollers, we will talk about how to prevent the grooves.*

### ***DRAFTING BOARD (SOS), 36"x48"***

A ¾" sheet of plywood, cut to fit the top of the drafting desk *If you elect to purchase your own, please do not use MDF as it is terribly heavy. Boards need not be without defect, but clean enough that any knots or other flaws are kept to one side that will be face down on the desk.*

### ***VINYL BOARD COVER (SOS), 36"x48"***

Self-healing board cover to cover plywood for drafting; Borco and Vyco are two brands

<https://www.dickblick.com/products/alvin-vyco-drawing-board-covers/>

### ***C CLAMPS (SOS)***

To secure the drafting board to the top of the desk *Two 3" clamps are supplied in the kit. Some students prefer four, but the additional pair are not required.*

### ***DRAFTING LAMPS (SOS)***

*One is included in the SOS kit, but 2 swing arm lamps are helpful for quality (and eye-saving) drafting; make sure they include the proper clamps/hardware to attach to your desktop. Those that simply sit on a desktop will not be useful for studio. Note that light bulbs are usually not included.*

<https://www.dickblick.com/products/studio-designs-swing-arm-lamp/>

### **SMALL TOOLKIT (recommended)**

A hammer, needle nose pliers, small Philips head screw driver, and standard size Philips head screwdriver will be needed to put one's desk together on orientation day. While not everyone needs their own set, having a few in studio will make setup day go much more smoothly. Also, as the semesters go on, mayline wires and screws may need to be retightened.

## **DRAFTING SUPPLIES**

### **2MM LEAD HOLDERS (one to three of them)**

There are numerous options and each person has their preference. The Alvin brand in the link below has been known to hold up to decades of use. While mechanical pencils are useful for many things, they are not a satisfactory substitute for lead holders.

<https://www.dickblick.com/products/alvin-b2-lead-holder>

+

### **DRAFTING LEADS – H, 2H, 4H, and 6H (F, B and HB optional)**

The 12 pack of lead is suggested for the four lead types highlighted here as they are the most regularly used.

<https://www.dickblick.com/products/staedtler-leads/>

### **ROTARY LEAD POINTER**

Hand-held or the version that clamps to the desktop will both work well.

<https://www.dickblick.com/products/staedtler-mars-lead-pointer/>

*Sandpaper pads can be very handy for pointing and for knocking rough edges off the lead tip as well. They are NOT a replacement for the lead pointer.*

<https://www.unitednow.com/art/drafting-architecture/richeson-sandpaper-sharpening-pad>

### **DRAFTING DOTS or DRAFTING TAPE**

Most students prefer the dots for ease of use, but the tape is fine (so long as it is *not* masking tape) United Art also carries a white artist's tape that has proven popular and effective.

<https://www.dickblick.com/products/alvin-drafting-dots/>

<https://www.dickblick.com/products/drafting-tape/>

### **METAL ERASING SHIELD**

<https://www.dickblick.com/products/alvin-erasing-shield/>

### **DRAFTING BRUSH**

<https://www.unitednow.com/art/drafting-architecture/alvin-mini-dusting-brush>

### **DRY CLEANING PAD**

<https://www.unitednow.com/art/drafting-architecture/alvin-dry-cleaning-pad>

### **ERASERS**

The white 'clicking' erasers by Pentel, etc. are very useful, but you should also have a kneaded eraser and a white plastic block eraser as well.

<https://www.dickblick.com/products/staedtler-mars-plastic-erasers/>

<https://www.unitednow.com/art/drafting-architecture/pentel-clic-eraser-pencil>

<https://www.dickblick.com/products/blick-kneaded-erasers/>

*The thinner Factis eraser can be a great addition as you work on fine details.*

<https://www.unitednow.com/art/drafting-architecture/general-039-s-factis-bm-2-mechanical-eraser>

### **ADJUSTABLE TRIANGLES (w/ inking edge)**

If you have one, an 8" or 10" size should work; alternatively, you may prefer two (a large 12" and a smaller 6") *Consider the Staedtler version here because it notes pitch and not just angle.*

<https://www.dickblick.com/products/staedtler-mars-adjustable-triangles/>

### **DRAFTING TRIANGLES (w/ inking edge)**

Four are strongly recommended: a 10" or 12" 30/60 triangle, a 10" or 12" 45 triangle, a 6" 30/60 triangle, and a 6" 45 triangle; larger and/or smaller triangles can also be purchased based on preference. **Students may choose to begin with only one of each (a 30/60 and a 45), and get a feel for what they will find useful after some time in studio.**

<https://www.dickblick.com/products/alvin-triangles/>

### **ARCHITECTURAL SCALE (12" triangular)**

<https://www.dickblick.com/products/staedtler-mars-triangular-scales/>

### **ENGINEERING SCALE (12" triangular)**

<https://www.dickblick.com/products/staedtler-mars-triangular-scales/>

### **BOW COMPASS**

It's a good idea to get a set that includes a beam bar extension as well as inking attachment(s); you may also find a set that includes a *divider* and *ruling pen*, which are not required, but *very* useful.

<https://www.dickblick.com/products/blick-geometry-compass-set/>

<https://www.unitednow.com/alvin-master-bow-6-inch-combination-compass-with-beam-bar>

### **CIRCLE TEMPLATES (w/ inking risers)**

A small circle template is useful (large circle template recommended) *This is very much an optional item. While useful for quick layouts and locating trees in site plans, precision drafting of arched openings and the like should always be done with a compass.*

ISOMETRIC ELLIPSE TEMPLATES (w/ inking risers) *Very much optional—see note above.*

FRENCH CURVES (w/ inking edge)

### **WATERPROOF BLACK INK PENS (Micron or similar and Sharpie or similar)**

Cheaper than a full set of technical pens, you should start by purchasing 4 pens at the finest size (005 in Micron), 4 pens at the second finest size (01 in Micron), and 2 pens at each of the other sizes (02, 03, 05, 08 in Micron). ***Regular and fine point black sharpies will also be very-helpful!***

ADJUSTABLE (OR FLEXIBLE) CURVE—not a daily necessity, but a handy addition as one grows their toolkit.

<https://www.dickblick.com/products/staedtler-mars-flexible-curves/>

*Another type of adjustable curve made of a series of plastic strips can also be a useful item. It holds a single continuous curve well, but is more expensive than the option listed above.*

[https://smile.amazon.com/gp/product/B004CYSVAG/ref=ppx\\_yo\\_dt\\_b\\_asin\\_image\\_o03\\_s00?ie=UTF8&psc=1](https://smile.amazon.com/gp/product/B004CYSVAG/ref=ppx_yo_dt_b_asin_image_o03_s00?ie=UTF8&psc=1)

## **PAPER SUPPLIES**

### **TRACING PAPER, 12" roll required (18" or 24" recommended)**

**White is strongly preferred, canary is acceptable, no bright yellow; 12" rolls of trace will be used nearly every day, but the larger sizes can be very useful for constructing larger drawings**

<https://www.dickblick.com/products/bienfang-tracing-paper-in-rolls/>

### **CLEARPRINT 1000H DRAFTING VELLUM, unprinted (no grid)**

The leftover vellum students may have from first year should be enough to get started.

### **WATERCOLOR PAPER (140lb COLD PRESS)**

This can easily be purchased locally from United Art & Education—they will do group orders—or online.

## WATERCOLOR RENDERING SUPPLIES

### **BRUSHES**

Watercolor brushes come in an incredible variety of shapes, sizes, and qualities, ranging from ones with inexpensive synthetic bristles to ones with extremely expensive sable hair. Genuine sable brushes such as the Kolinsky Sable Round are a good investment. First and foremost, one is looking for a brush that holds a good point. And there are a variety of synthetic brushes that work well also. Please note that size and size number vary by brand.

- #0 round-tip brush
- #4 round-tip brush
- #8 round-tip brush
- #12 round-tip brush
- Larger, mop-tip brush optional (inexpensive variety is just fine here)

<https://www.dickblick.com/products/blick-master-kolinsky-sable-brushes/>

<https://www.dickblick.com/products/blick-masterstroke-finest-red-sable-brushes/>

### **PIGMENTS**

As with brushes, there are a variety of manufacturers and qualities of watercolor pigments, though you are cautioned against using cheaper materials (you might struggle with inferior quality paints). Winsor & Newton's artist series paints are high-quality pigments, though their less expensive "Cotman" line will often work just fine. Recently, students have had success with paints from Daniel Smith in Seattle as well. **Please note that cakes of watercolor are not a satisfactory substitute for the pigments noted here. Such cakes will likely prove useful for site watercolors at some points during one's studies and career, but tubes of pigment are required for large scale wash renderings. Some students may wish to economize by sharing the cost of pigments with a classmate, particularly during these foundational studios. A variety of colors similar to those used in the first year courses will be a good start—further discussions of palette will be had in studio.**

### **PALETTES, JARS, ETC.**

Wash rendering typically uses more water than freehand painting, and palettes with larger wells (often configured like a flower or wheel) are usually preferable. Look also for stacking mixers like nesting dishes/bowls (porcelain is not necessary; plastic is just fine). For the large washes, a good set of small- to medium-sized jars are important. Smaller ones are sometime easier to find and collect – think baby food jars – but you should also have a handful of medium-sized jars as well. Ball sells pint-size (and smaller) mason canning jars by the dozen which are a great size to hold larger washes while also being easily held in the hand and these are readily available in stores locally such as Meijer or Martin's.

RULING PEN—not a must from the start, but an excellent tool to get acquainted and facile with. This tool aids in making fine lines in one's watercolor renderings. Dick Blick often does not have them on hand in the store, if one goes to the retail store, but a variety of online retailers do carry them.

<https://www.unitednow.com/alvin-oval-nib-ruling-pen>

BRUSH STORAGE—a variety of options are available. Brush storage tubes are not recommended, but bamboo or canvas rolls and various types of nylon cases can work well.

<https://www.dickblick.com/categories/brushes/holders/>

**WATERCOLOR PAD OR BLOCK**—for testing watercolor washes individually and in layers before applying them to finished drawings. Students are encouraged to keep remainders of watercolor sheets that have been cut down for this purpose as well. These pads and blocks can be found at any number of art supply stores and the paper selected for testing need not be the most expensive. Master’s Touch (Hobby Lobby), Strathmore, and Canson are all excellent for these purposes.

<https://www.dickblick.com/products/canson-xl-watercolor-pads/>

#### **LARGE BRUSH FOR WETTING PAPER**

This is an item easily shared between students, but is helpful in getting prepared to run washes. This need not be an expensive item and a variety of large soft brushes will work—the essential element is that they hold water. The Yasutomo Hake Brush linked here is particularly soft and holds a great deal of water.

[www.dickblick.com/products/yasutomo-hake-brush/](http://www.dickblick.com/products/yasutomo-hake-brush/)

#### **STORAGE**

Students may wish to purchase a portfolio to hold finished work, unused paper, etc. A 24”x36” paper wallet type can work well or a student may choose to invest in something more durable. Students will not need to turn in work in their portfolio, but it can be useful in studio and for transporting work.

<https://www.dickblick.com/products/star-products-red-wallet-portfolios/>

#### **BOOKS**

Students will be provided with a series of packets (hard copy and digital) for their use in this studio course and beyond. There will no doubt be numerous books that each will find interesting and useful during their time at Notre Dame and well beyond. The following are essential and are commonly required in studios throughout one’s curriculum and in the Building Technology courses.

Francis D.K. Ching, *Building Construction Illustrated*, Wiley

Edward Allen and Joseph Iano, *The Architect’s Studio Companion*, Wiley

William Ware, *The American Vignola*, Dover