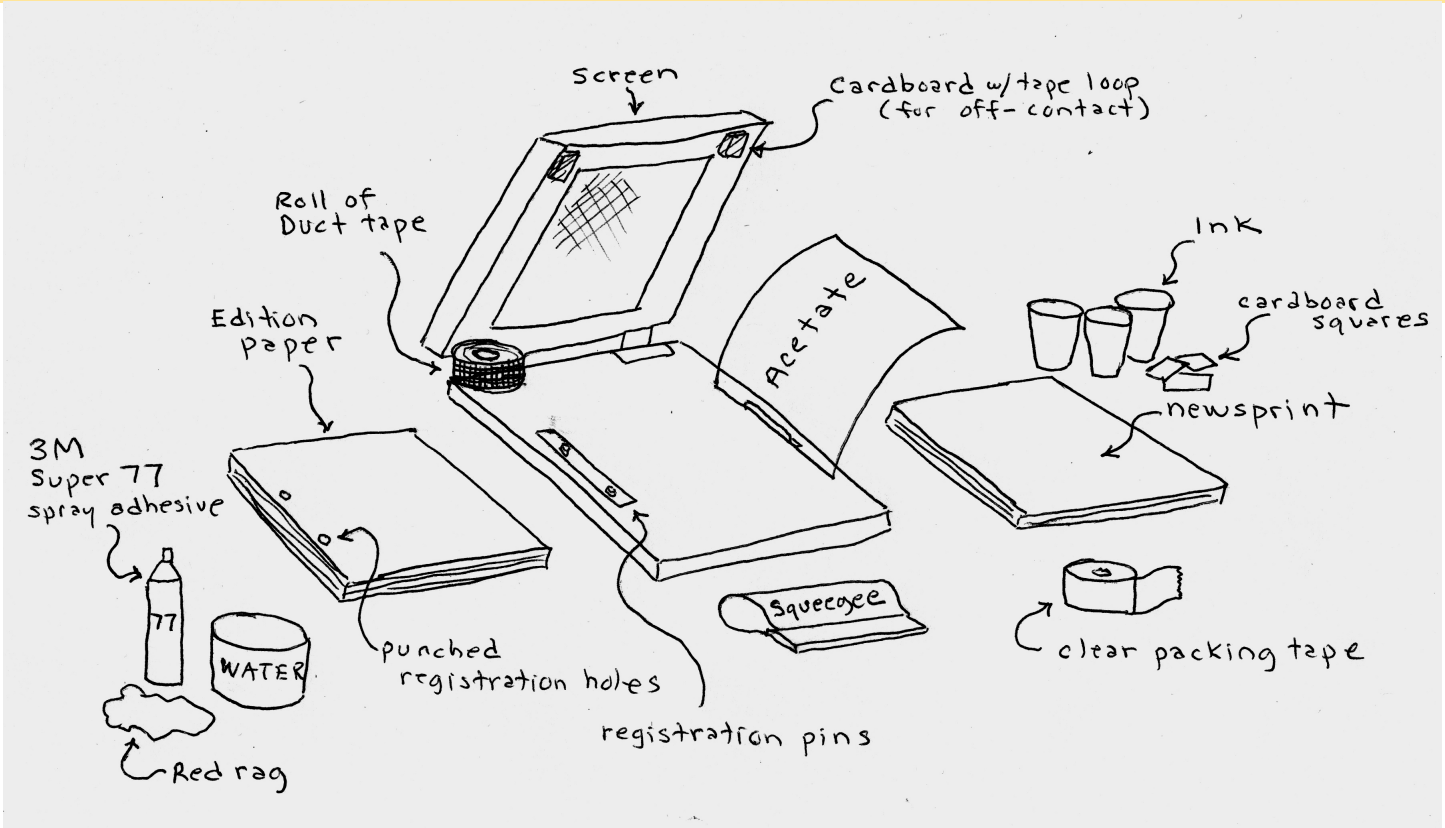
# SCREENPRINTING BASICS/Printing Professor JAMES BAILEY

## PRINTING SET-UP




Prepare a workspace with the following materials: Either work at the back counter with fixed hinges or if using a portable screen unit, position it on a table that allows you to exert downward pressure from beginning to end of the print stroke. (A little too low is better than too high).

- Hinged screenprinting board or counter area.
- Squeegee
- Newsprint (torn down in advance for proofing)
- Edition paper (torn down in advance)
- Blue painters tape
- Roll of Duct tape (for kick stand)
- Clear packing tape
- Clear mylar sheet for registration
- 3M Super 77 spray adhesive
- Spoons and cups for mixing inks
- Mat board squares taped to front edge of screen for “OFF Contact” printing (AND extra ones on hand for ink).
- Clear space on drying rack ahead of time to lay your prints when they are made.

## SELECTING INK

Begin by looking at the leftover ink supplies and consider combining two different inks to make a new color.

Transparent colors: **If you are wanting a transparent color, begin with transparent base and then add pigment to it slowly.**

Light Colors: If you are wanting a light but opaque color, begin with white ink and then add pigment to it slowly.
**DO NOT START WITH A COLOR AND THEN ADD WHITE TO IT-YOU WILL WASTE A TREMENDOUS AMOUNT OF INK!!!!!**

Opaque Colors:
Medium Red, Dark Red, Fire Red, Violet
Primrose Yellow, Medium Yellow
Peacock Blue, Dark Blue, Ultra Blue, Medium Blue
Brown, Black, White

Semi Transparent Colors:
Process white, Process Yellow, Process Magenta, Process Cyan, Process Black

## MIXING INK

Ink should run off your mixing spoon like a thick milkshake; thinner than the viscosity of yogurt or honey.
If the ink is too thick, it won't easier fill the screen.
If the ink is too runny, it will flow below the screen and smear.

You can add water slowly to thin it out, but too much water can creat visible bubbles within your ink once it dries.

Consider how much ink you need: a ½ cup is fine for line work and small halftones, but will probably only do 2 large flat shapes before you'll need more. Mixing more ink while printing is difficult, since the ink in your screen will be drying while you are mixing. Mix enough at the start, storing excess for a future project or the shop inventory.

Ink Addatives:
Transparent base: Add this to a color to make it more transparent.
Screen Retarder Base: Add this to ink to prevent screen clogging under high heat or low humidity conditions.

## PRINTING

TAPE SCREEN
Use clear packing tape for this, and make sure you've taped the inside edges of the screen all the way around, and that you checked for any pin holes. DO NOT USE DUCT TAPE, it will clog the screen.

HINGE CLAMPS
Slide the top of your screen into the hinge clamps and tighten.

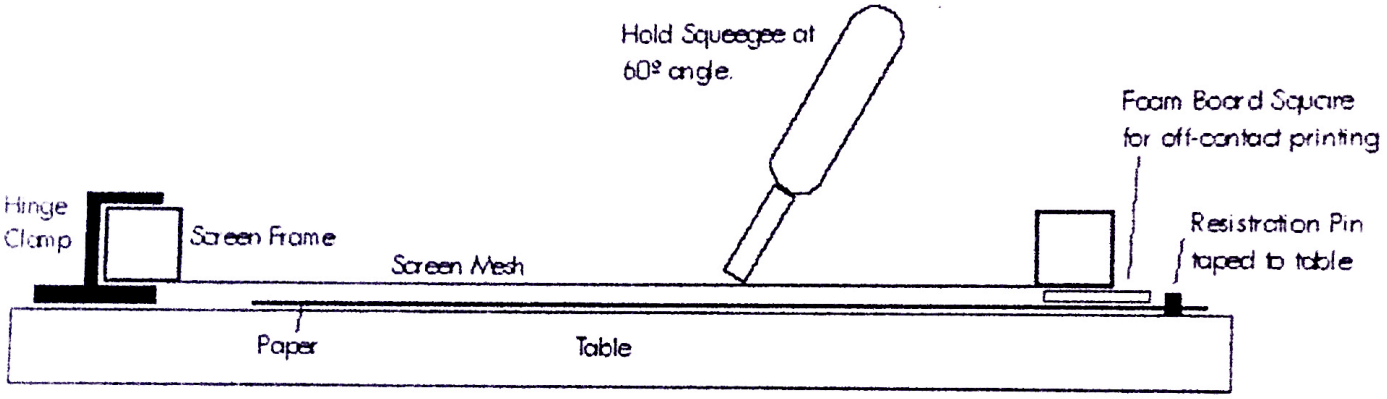
OFF-CONTACT
Tape two mat board squares to each to the underside front corners of the screen for "OFF Contact" printing. These elevate the screen off the table to allow for the screen to snap back up and off your printed paper, creating a crisper image.

REGISTRATION
See Registration handout

SUPER 77
Spray one squirt on the table top in the center of the printing area. You can also take a sheet of newsprint and tap it on the area you just sprayed to make it a little less sticky. This will hold your paper down to the table when you lift your screen after doing your print stroke, so it won't smear or create an orange peel effect in your ink layer.

SQUEEGEE
Most of the squeegees are of a medium hardness (durometer). 40 durometer is soft, 70 medium, 95 is hard. Select the proper squeegee for the type of project your printing.. More detailed images (fine lines or halftones required a higher (harder) durometer squeegee, and less detailed or flats need a lower (softer) durometer squeegee. Make sure the squeegee is at least ½" wider than your image on each side.

PRINT STROKE




The print stroke is the SECOND most important part of screenprinting. The print stroke will, in time, become second nature. But at first you'll have to consciously practice it.

Work at a table height that allows you to exert downward pressure from beginning to end of the print stroke. (A little too low is better than too high).

Printing towards yourself-meaning pulling towards your body-is usually easiest. (Although some printers prefer to push away from their bodies).

APPLYING INK
Using a mat board square, spat or spoon, apply a bead of ink across the top of the screen above your image area.

Starting at the top of the screen place your squeegee into the bead of ink, positioning your hands on either side of the squeegee. Angle the squeegee between 45-60 degrees so the front edge of the squeegee blade is in contact with the ink and screen, rather than the wider bottom part of the blade. It is this crisp leading edge that will push ink cleanly through the screen mesh.

Pull forward at this 45-60 degree angle, pressing downward throughout the stroke. Put some weight and pressure into it. Pull ink from just before your image area right through the bottom of the image area-DO NOT STOP MID-WAY THROUGH!!

At the bottom, try a little "jog" of the squeegee, a slight little snappy motion upward. This motion causes the ink to loosen from the squeegee and makes less mess.

**FLOOD STROKE**

This is the MOST important part of screenprinting. The flood stroke returns ink back up to the top of your screen and in so doing it also adds an extra layer of ink into your image. This is important because having wet ink in your screen mesh prevents the ink from drying out too fast, and ink drying in your mesh is the thing we try to avoid the most. It ruins your screen.

After the print stroke, and snappy motion to dislodge ink, with your squeegee, gently, push the ink back up to the top of the screen, again holding your squeegee at a 90 degree angle. Try to move most, if not all the ink back up. DO NOT APPLY ANY PRESSURE ON THE SQUEEGEE BLADE AS YOU DO THIS!!!! Try doing it with one hand to discourage applying pressure.

****A consistent error for beginning printmakers is the flood stroke, they angle the squeegee way too low, and they apply pressure to the flood stroke. A bad flood stroke will lead to loss of detail, ink will squeeze out from the edges of your design and cause blurring, or no detail or smudges under the screen. So practice your flood stroke.

CLEANING UP

(See Screenprinting / Clean up handout).