

# Beginner Class Outline

**Prerequisite:** Be sure to watch our [\*How Screen Printing Works Video\*](#) with Brandon.

Watch here: <http://www.youtube.com/watch?v=-nehi0xiXh8>

Hours: Thursday, 9:00am-5:00pm

9:00am

## Introduction to Artwork and Software 101 (Optional)

This section is optional because it is geared to the artwork and computer novice. In this two hour segment we will cover the basics of using a vector based artwork program like CorelDraw as well as a raster based artwork program like Photoshop. We will provide the students the basic understanding of how-to.

11:00am

## Section 1: Introduction to Screen Printing

What is screen printing—basic concepts and terminology

- Interactive video presentation and short quiz

## Section 2: Artwork and Films

1. We'll introduce the two art files we will be working on in CorelDraw and printing later

- Three color on white:
  - Start out as a low-resolution jpeg
  - Explain what raster is and the file types
- Two color on black:
  - Start out as vector clipart
  - Explain what vector is
- Use CorelDraw to vectorize and clean up three color on white:
  - Trace bitmap
  - Remove raster file
  - Cleanup vector
  - Pantone color
  - Show stroke and choke
  - Do stop color version and gradient overlay version:

- Discuss what spot color is
- Discuss what gradient is
- Pull in two color on black vector template file:
  - Modify name and text
  - Pantone color

## 2. Film output:

- Goals for film output
- Options for film output
- Advanced film output with RIP software and halftones

1:00pm **LUNCH (provided by Ryonet)**

1:30pm

## Section 3: Darkroom

### 1. How to Setup a Darkroom

### 2. About Screens:

- Introduction of screens and mesh sizes:
  - Frame types and mesh sizes

### 3. Screen prep:

- Degreasing
- Drying

### 4. Screen coating:

- Types of emulsions
- Demonstrate coating:
  - Show using coating stand only
  - Coat 1/1
  - Show students how to empty scoop coaters
- Coating practice:
  - Have multiple coating stations setup, in the darkroom if there is room, outside if there is not (you should be able to have all students coat within three rounds):
    - Distribute gloves
    - Empty coaters
    - Place emptied coaters into reclaiming bin with warm water
- Lining up art:

- Show measuring and template
- Use art from class
- Expose screen:
  - Show exposure unit and explain positive press
  - Dialing in exposure times:
    - Use Ryonet recommended times for emulsion and light exposure unit
    - Show exposure calculator, do not demo
- Washing screens out:
  - Let soak
  - Washout with soft pressure:
    - Show signs of under exposure
    - Caution over exposure to water
- Drying screens after washout:
  - Dab or blow out water residue
  - Dry in front of fan

3:00pm **BREAK**

3:15pm

#### **Section 4: On Press**

1. Taping your screen
2. On press registration:
  - Register one print to films
  - Register one print to print
3. Test printing on pellons for light garment:
  - Push light garment
4. Test printing on fabric for dark garment:
  - Pull dark garment
5. Discussion: pulling vs. pushing and squeegee angle and pressure
6. Flash dryer:
  - What a flash dryer does
  - How to set your flash dryer up for production
  - Print test on fabric, flash, cool
  - Print second under base coat, flash, cool

- Print over print
7. Final cure:
    - Show how ink cures through the entire film surface at 320 degrees
    - Show temperature gun and temp strips
    - Show curing using flash dryer:
      - Take shirt off pallet and place over pallet or separate drying station
      - Temperature ink while curing and time
      - Discussion: environment changes such as air movement
    - Show curing with convey dryer and temperature to ensure cure
    - Show stretch test to ensure cure for thicker inks
    - Discussion: wash testing
  8. Production time:
    - Every student prints both designs:
      - One more instructor needed at this time to help
      - Hands-on help (includes correcting technique if needed)

## **Section 5: Post Press**

1. Cleaning ink from screen:
  - Using ultimate cleanup card
  - Use metal spatula
2. Discussion: why to save a screen or reclaim and when
3. On press clean up
4. Tape removal
5. Darkroom clean up

## **Conclusion and Final Questions**