# Graphic Communication Skills Compencies
# Training and Competency Profile
# Student Information

Program: _____          Instructor: _____

Name:_____

Address: _____ Phone: _____

Grade: _____          School: _____

 Allergies/Disabilities that might require special accommodation for training (please specify)

_____

In case of emergency, contact: _____ Phone: _____

## Record of Enrollment

Date of Enrollment ____- ____- ____ Hours Absent_____

Date of Withdrawal ____- ____- ____ Total Hours Tardy_____

Date of Completion ____- ____-

## Student Evaluation

<u>Directions:</u> Evaluate the student using one of the rating scales below. Write the appropriate number to indicate the degree of competency achieved.  The descriptions associated with each of the numbers focuses on a level of student performance for each of the tasks listed. The written test scorelines are provided for optional teacher use. They may not be applicable in all cases.

**Sample**
3 – Skilled—Can perform job with no additional training.
2 – Moderately Skilled—Has performed job during training program;
     limited additional training may be required.
1 – Unskilled—Is familiar with process, but is unable to perform job.
0 – No Exposure—No information or practice provided during training program.

# SCREEN PRINTING

## *PrintEd - Screen Printing

### A. Technology

___SP A. 1) Describe the screen printing process
___SP A. 2) List advantages of screen printing process versus offset lithography or digital printing
       a. Size of image
       b. Type of substrate
       c. Ink density (Four Color Process vs. Spot PMS colors
       d. Special inks
       e. Cost of equipment
___SP A. 3) Describe the components of a screen printing press
       a. Frame
       b. Mesh
       c. Squeegee blade
___SP A. 4) Define direct-to-screen
___SP A. 5) Compare features and specifications of 3 different types of automated screen printing presses
___SP A. 6) Describe the workflow steps of screen printing process (Single color/Inline or Rotary press)
       a. File creation
       b. Film output
       c. Screen creation
       d. Mounting screen on press
       e. Print production
       f. Clean up
___SP A. 7) List common products produced by screen printing
___SP A. 8) Collect samples of projects printed by screen printing
       a. T-shirt
       b. Signage
       c. Glassware
___SP A. 9) Assess the purpose and quality of each sample collected

### B. Design and Prepress

___SP B. 10) Review features and capabilities of professional Page Layout software applications
       a. Adobe Illustrator
___SP B. 11) Demonstrate use of computer menus, shortcut keys, and panels in illustration software
___SP B. 12) Describe different types of graphics used in screen printing
       a. Line art
       b. Continuous tone
       c. Raster
       d. Vector
___SP B. 13) Define Pixels Per Inch Resolution (Screen Display)
___SP B. 14) Define Dots Per Inch
___SP B. 15) Define Lines Per Inch Resolution (Printing Press)
___SP B. 16) Describe an Encapsulated PostScript (EPS) file
___SP B. 17) Explain the use of a EPS file
___SP B. 18) Demonstrate the proper setup of a document using an instructor specified page size
___SP B. 19) Describe the use of paths in an illustration software program
___SP B. 20) Define trapping
___SP B. 21) Define knockout
___SP B. 22) Define overprint
___SP B. 23) Discuss the use of layers in an illustration software program
___SP B. 24) Define registration
___SP B. 25) Describe a frame, stencil and mesh
___SP B. 26) Demonstrate the proper setup of a document using instructor specified frame, stencil, mesh and ink
___SP B. 27) Demonstrate applying trapping in an illustration software program
___SP B. 28) Describe a job ticket/docket
___SP B. 29) Determine job specifications from a job ticket/docket
___SP B. 30) Produce instructor specified art with all design elements, registration targets, color identification, and screen position on
         press
___SP B. 31) Produce a final proof to match job ticket specifications
___SP B. 32) Produce a positive film for stencil exposure
___SP B. 33) Define direct to screen
___SP B. 34) Produce a file for direct-to-screen

### C. Frame and Mesh Preparation

___SP C. 35) List different mesh counts and thread diameters and mesh type (Calendared, Steel, Fabric)
___SP C. 36) Determine the appropriate choice of mesh count and thread diameter for an instructor specified substrate/image
___SP C. 37) List different frame types/construction
___SP C. 38) Choose an appropriate frame for an instructor specified job
___SP C. 39) Describe the process of attaching mesh onto a fixed and/or retensionable frame system

# SCREEN PRINTING

___SP C. 40) Demonstrate the proper attachment of mesh to frame (Stretch and Glue or Roller Frame)
___SP C. 41) Determine how to properly tension mesh
___SP C. 42) Describe the use of a tension meter
___SP C. 43) Demonstrate proper use of a tension meter
___SP C. 44) Inspect the quality of a frame and mesh preparation

## D. Stencil and Screen Preparation

___SP D. 45) Specify the workflow steps used to make a screen
___SP D. 46) Describe emulsion used to make a screen (capillary, liquid and film)
___SP D. 47) Explain the use of emulsion when making a screen
___SP D. 48) Choose appropriate type of emulsion for an instructor specified job
___SP D. 49) Describe requirements to prepare the screen for a stencil application
___SP D. 50) Demonstrate the proper application of emulsion to the screen
___SP D. 51) Demonstrate the proper drying requirements of the screen
___SP D. 52) Demonstrate the proper steps of exposing the screen while maintaining screen to screen registration
___SP D. 53) Demonstrate the proper steps of washing image area of a screen and allowing to dry
___SP D. 54) Specify the possible defects that will affect the quality of print
___SP D. 55) Evaluate a stencil for quality defects
___SP D. 56) Demonstrate the proper step of masking a stencil for production use

## E. Print Production

___SP E. 57) List workflow steps used during printing
___SP E. 58) Demonstrate proper loading of screen onto press
___SP E. 59) Describe characteristics of squeegees used
       a. Durometer
       b. Shape
       c. Width
___SP E. 60) Demonstrate the proper choice of squeegee for a specific job
___SP E. 61) List the types of ink used in screen printing
___SP E. 62) Choose the proper choice of ink for a specific job
___SP E. 63) Demonstrate confirmation of correct ink specifications from a job ticket
___SP E. 64) Describe the alignment of screens for proper registration
___SP E. 65) Demonstrate the proper alignment of screens for a specific job
___SP E. 66) Define flood stroke
___SP E. 67) Define print stroke
___SP E. 68) Define off contact and peel
___SP E. 69) Demonstrate the proper setting of off contact to control image quality
___SP E. 70) Demonstrate the proper application of ink to screen
___SP E. 71) Demonstrate the proper loading and alignment of substrate on press
___SP E. 72) Demonstrate the proper adjustment of squeegee pressure for an instructor specified job
___SP E. 73) Demonstrate the proper operation of press
___SP E. 74) Determine quality control procedures to ensure print quality
___SP E. 75) Determine corrective actions required to maintain quality
___SP E. 76) Describe drying systems
       a. Flash
       b. Conveyor
___SP E. 77) Evaluate an instructor specified finished product
___SP E. 78) Demonstrate organization or packaging of a finished product according to job ticket
___SP E. 79) Organize or package a finished product according to job specs

## F. Clean-up Process

___SP F. 80) Describe a Safety Data Sheet
___SP F. 81) Explain the use of a Safety Data Sheet
___SP F. 82) Demonstrate proper procedures when handling cleaning chemicals
___SP F. 83) List workflow steps used during cleaning
___SP F. 84) Demonstrate the proper removal, cleaning and storing of squeegee(s)
___SP F. 85) Demonstrate the proper removal of remaining ink from screen
___SP F. 86) Demonstrate the proper cleansing of screen
___SP F. 87) Demonstrate the proper storage or disposal of ink as specified by local regulations
___SP F. 88) Demonstrate the proper removal of frame from a press
___SP F. 89) Demonstrate the proper preparation of screen for reuse or reclamation
___SP F. 90) Demonstrate the proper selection and use of appropriate chemistry and washout equipment to remove stencil
___SP F. 91) List possible defects in a screen
___SP F. 92) Describe strategies for reuse of screen
___SP F. 93) Demonstrate the proper chemical or mechanical adjustments to screen for reuse
___SP F. 94) Demonstrate the proper storage of screen
___SP F. 95) Demonstrate proper cleaning of additional auxiliary equipment
___SP F. 96) Assess the cleanup activities completed within shop

# SCREEN PRINTING

**G. Math and Measurement**

___SP G. 97) Solve subtraction of fraction problems
- Calculate amount of ink reminaing if 1.75 pounds are used from a 3 pound can

___SP G. 98) Solve addition of fraction problems
- Calculate total length of three 11 x 17 sheets of paper