SCREEN PRINTING, INTRODUCTION (566)

DESCRIPTION

Introduction to Screen Printing is designed to provide students with the basic knowledge and skills related to the graphic design and printing industries. Topics include history, design and layout, digital image prep, image assembly/platemaking, press operations, finishing and binding, screen-printing, job application, and interpersonal skills.

<table>
<thead>
<tr>
<th>Total Test Questions: 80</th>
<th>Levels: Grades 10-12</th>
<th>Units of Credit: .50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisites: None</td>
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STANDARDS, OBJECTIVES, AND INDICATORS

STANDARD 1  
5% of Exam Blueprint

◊ INTRODUCTION TO THE SCREEN PRINTING INDUSTRY

Objective 1: Define graphic communications.
Objective 2: Define screen-printing and identify products produced by screen-printing.
Objective 3: List in order the technical production flow from idea to finished product.
Objective 4: Identify major contributions in the history of screen-printing.
Objective 5: Comprehend basic screen printing technology.

STANDARD 2  
5% of Exam Blueprint

◊ UNDERSTAND AND DEMONSTRATE SAFE PRACTICES.

Objective 1: List safety rules involving flammable liquids.
Objective 2: List the steps to be taken in case of injury in the lab.
Objective 3: Identify location(s) of first aid kit(s).
Objective 4: Identify location(s) of eyewash station(s).
Objective 5: Identify where protective safety equipment is needed.
Objective 6: Follow proper safety procedures when operating equipment.
Objective 7: Follow the approved shop dress code for safe operation.
Objective 8: Pass the general lab safety test.
Objective 9: Read, comprehend, and follow instructions on warning labels.
Objective 10: Demonstrate common sense when working with others.

STANDARD 3  
19% of Exam Blueprint

◊ UNDERSTAND AND DEMONSTRATE MEASUREMENT SYSTEMS.

Objective 1: Measure linear dimensions in inches.
SCREEn PRINTING, INTRODUCTION (566)

Objective 2: Measure linear dimensions in fractions of an inch.
Objective 3: Measure linear dimensions in millimeters.
Objective 4: Identify point sizes for type.
Objective 5: Demonstrate the use of rulers in a page layout program.

STANDARD 4 14% of Exam Blueprint

† UNDERSTAND AND DEMONSTRATE BASIC MATH SKILLS.

Objective 1: Solve addition of whole number problems.
Objective 2: Solve addition of fraction problems.
Objective 3: Solve addition of decimal problems.
Objective 4: Solve subtraction of whole number problems.
Objective 5: Solve subtraction of fraction problems.
Objective 6: Solve subtraction of decimal problems.
Objective 7: Solve multiplication of whole number problems.
Objective 8: Solve multiplication of fraction problems.
Objective 9: Solve multiplication of decimal problems.
Objective 10: Solve division of whole number problems.
Objective 11: Solve division of fraction problems.
Objective 12: Solve division of decimal problems.
Objective 13: Solve fraction-to-decimal conversion problems.
Objective 14: Solve decimal-to-fraction conversion problems.
Objective 15: Solve decimal-to-percent conversion problems.

STANDARD 5 11% of Exam Blueprint

† UNDERSTAND AND DEMONSTRATE DESIGN AND LAYOUT.

Objective 1: Identify the fundamentals of type.
Objective 2: Identify appropriate uses of type.
Objective 3: Identify the basic elements of design.
Objective 4: Identify appropriate uses of the basic elements of design.
Objective 5: Identify the basic principles of design.
Objective 6: Identify appropriate uses of the basic principles of design.
Objective 7: Identify the basic layout elements.
Objective 8: Identify appropriate uses of the basic layout elements.
Objective 9: Produce thumbnails and rough and final layouts.
Objective 10: Correctly use the fundamentals of type in a final layout.
**STANDARD 6**

**UNDERSTAND AND DEMONSTRATE DIGITAL IMAGE PREPARATION.**

Objective 1: Compare the difference between raster and vector.
Objective 2: Define computer hardware.
Objective 3: Define computer software/programs.
Objective 4: Identify various types of digital storage devices.
Objective 5: Define file formats and their uses.
Objective 6: Create a document with appropriate margins in a page layout program.
Objective 7: Create a document with appropriate formatting in a page layout program.
Objective 8: Create a vector graphic in a draw program.
Objective 9: Edit a raster(bitmap) graphic in a paint program.
Objective 10: Import text and images into a page layout document.

**STANDARD 7**

**UNDERSTAND AND DEMONSTRATE IMAGE CAPTURE AND FILING.**

Objective 1: Identify the difference between line art and continuous tone originals.
Objective 2: Identify basic scanning hardware.
Objective 3: Identify image and non-image areas on an offset printing plate.
Objective 4: Capture a digital image with the use of a scanner.
Objective 5: Produce positive film.

**STANDARD 8**

**UNDERSTAND AND DEMONSTRATE THE USE OF THE BASIC OFFSET PRESS.**

Objective 1: Identify basic screen printing equipment and operations.
Objective 2: Identify the parts of the screen.
Objective 3: Identify basic safety and operation procedures for screen-printing.
Objective 4: Perform basic setup for printing a single-color job.
Objective 5: Produce a printed single-color screen print.

**STANDARD 9**

**UNDERSTAND AND DEMONSTRATE SCREEN PREPARATION TECHNIQUES.**

Objective 1: Define screen tension parameters.
Objective 2: Identify screen fabric classifications.
Objective 3: Identify mesh count.
Objective 4: Identify screen frame types.
Objective 5: Properly degrease and abrade a screen.
Objective 6: Identify hand cut screen stencils.
Objective 7: Identify indirect screen stencils.
Objective 8: Identify direct screen stencils.
Objective 9: Properly reclaim a screen.

STANDARD 10

**UNDERSTAND AND DEMONSTRATE SCREEN PRINTING TOOLS AND EQUIPMENT.**

Objective 1: Identify squeegee durometer.
Objective 2: Identify squeegee blades.
Objective 3: Identify squeegee handles.
Objective 4: Set up for a single color screen print.
Objective 5: Produce a single color screen print.

STANDARD 11

**UNDERSTAND AND DEMONSTRATE SKILLS RELATED TO JOB APPLICATION AND INTERPERSONAL SKILLS.**

Objective 1: Demonstrate proper work ethics.
Objective 2: Demonstrate proper work habits.
Objective 3: Identify personal interests.
Objective 4: Work effectively as a team member.
Objective 5: Communicate effectively.
Performance Standard Evaluation Checklist

Student Name ____________________________________________________________

Instructor’s Name _______________________________________________________

School ___________________________ District ______________________________

Performance Rating Scale:

Limited Skills……………………. Moderate Skills……………………… High Skills

Performance assessments may be completed and evaluated at any time during the course. The following performance skills are to be used in connection with the associated written exam. To pass the performance standard the student must attain a performance standard average of **8 or higher** on the rating scale. Students may be encouraged to repeat the objectives until they average **8 or higher** for the following elements:

**PERFORMANCE SKILLS STANDARDS**

**STANDARD 1 – Understand the introduction to screen printing.**

- Define graphic communications
- Define screen printing and identify products produced by screen printing
- List in order the technical production flow from idea to finished product
- Identify major contributions in the history of screen printing
- Comprehend basic screen printing technology

Score: ___________________________

**STANDARD 2 – Understand and demonstrate safe practices.**

- List safety rules involving flammable liquids
- Identify location(s) of first aid kit(s)
- Identify where protective safety equipment is needed
- Follow proper safety procedures when operating equipment
- Follow approved shop dress code for safe operation
- Pass general lab safety test
- Read, comprehend and follow instructions on warning labels
- Demonstrate common sense when working with others

Score: ___________________________
# PERFORMANCE SKILLS STANDARDS

## STANDARD 3 – Understand and demonstrate measurement systems.
- Measure linear dimensions in:
  - Inches
  - Fractions of inches
  - Millimeters
- Demonstrate the use of rulers in a page layout program
- Identify point sizes for type

## STANDARD 4 – Understand and demonstrate basic math skills.
- Solve addition, subtraction, multiplication and division problems:
  - Whole numbers
  - Fractions
  - Decimals
- Solve conversion problems:
  - Fractional–decimal
  - Decimal–fractional
  - Decimal–percent

## STANDARD 5 – Understand and demonstrate design and layout.
- Identify and demonstrate the appropriate uses for the basic:
  - Elements of design
  - Fundamentals of type
  - Layout elements
  - Principles of design
- Produce thumbnails, rough, and final layouts
- Correctly use the basic fundamentals of type in a final layout

## STANDARD 6 – Understand and demonstrate Digital Image Preparation.
- Create a document with appropriate margins and formatting in a page layout program
- Import text and images into a page layout document
- Define computer:
  - Hardware
  - Software/programs
  - File formats and uses
- Compare between raster and vector
- Edit raster/bitmap graphic in paint program
- Identify various digital storage devices
- Create vector graphics in draw program

## STANDARD 7 – Understand and demonstrate image capture and filing.
- Identify the difference between line art and continuous tone originals
- Identify basic scanning hardware
- Identify image and non-image areas on a screen printing stencil
- Capture a digital image with the use of a scanner
- Produce a plate for offset printing
<table>
<thead>
<tr>
<th>PERFORMANCE SKILLS STANDARDS</th>
<th>Score:</th>
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<tbody>
<tr>
<td><strong>STANDARD 8</strong> – Understand and demonstrate screen preparation.</td>
<td></td>
</tr>
<tr>
<td>□ Define screen tension parameters and identify:</td>
<td></td>
</tr>
<tr>
<td>• Frame types</td>
<td>• Mesh count</td>
</tr>
<tr>
<td>□ Identify screen stencil types:</td>
<td></td>
</tr>
<tr>
<td>• Hand-cut</td>
<td>• Indirect</td>
</tr>
<tr>
<td>□ Properly degrease and abrade, and reclaim a screen</td>
<td></td>
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<tr>
<td><strong>STANDARD 9</strong> – Understand and demonstrate screen printing tools and equipment.</td>
<td>Score:</td>
</tr>
<tr>
<td>□ Identify squeegee:</td>
<td></td>
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<tr>
<td>• Durometer</td>
<td>• Blades</td>
</tr>
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<td>□ Set up and produce a single color screen print</td>
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<tr>
<td><strong>STANDARD 10</strong> – Understand and demonstrate skills related to job application and interpersonal skills.</td>
<td>Score:</td>
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<tr>
<td>□ Demonstrate proper work ethic and habits</td>
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<td>□ Work effectively as a team member</td>
<td>□ Communicate effectively</td>
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<tr>
<td><strong>PERFORMANCE STANDARD AVERAGE</strong></td>
<td><strong>Average:</strong></td>
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