



## EXAM INFORMATION

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**Items**

52

**Points**

55

**Prerequisites**

INTRODUCTION TO GRAPHIC COMMUNICATIONS

**Grade Level**

10-12

**Course Length**

ONE SEMESTER

**Career Cluster**

ARTS, A/V TECHNOLOGY, AND COMMUNICATION

**Performance Standards**

INCLUDED

**Certificate Available**

YES

## DESCRIPTION

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This course is designed to be a continuation of Introduction to Graphic Communications. The course prepares individuals to apply technical knowledge in the areas of design and layout, related computer software, safety, printing processes, finishing and binding, and professional skills. The course includes instruction in printing, printing equipment and operation, computer hardware, and software, digital imaging, print preparation, and electronic prepress.

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## EXAM BLUEPRINT

**STANDARD**

**PERCENTAGE OF EXAM**

|   |     |
|---|-----|
| 1- Intro to Graphics/Printing Industry              | 9%  |
| 2- Safe Practices                                   | 9%  |
| 3- Design Processes                                 | 13% |
| 4- Computer Skills                                  | 18% |
| 5- Page Layout                                      | 9%  |
| 6- Digital Image Editing                            | 9%  |
| 7- Digital Illustrations                            | 7%  |
| 8- Printing Processes                               | 16% |
| 9- Finishing and Binding Processes                  | 10% |
| 10- Professional Skills in the Workplace (Optional) |     |



## **STANDARD 1**

STUDENTS WILL BE ABLE TO UNDERSTAND THE INTRODUCTION TO THE GRAPHICS/PRINTING INDUSTRY

- Objective 1 Define the role of graphic communications.
- Objective 2 Identify print markets and types of print businesses.
- Objective 3 Describe major contributions in the history of printing.
- Objective 4 Explore printing technologies.
- Objective 5 Demonstrate the technical production flow from idea to finished product.

Standard 1 Performance Evaluation included below (Optional)

## **STANDARD 2**

STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE SAFE PRACTICES

- Objective 1 List safety rules involving chemicals and flammable liquids.
- Objective 2 Read, comprehend, and follow instructions on warning labels.
- Objective 3 List the steps to be taken in case of injury in the lab.
- Objective 4 Identify locations of first aid kit, eyewash station, MSDS, and safety equipment.
- Objective 5 Follow proper safety procedures and dress code when operating equipment.
- Objective 6 Demonstrate common sense when working with others.
- Objective 7 Pass general lab safety test.

Standard 2 Performance Evaluation included below (Optional)

## **STANDARD 3**

STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE DESIGN PROCESSES

- Objective 1 Understand the design process.
- Objective 2 Define the principles and elements of design.
- Objective 3 Identify typeface classifications.
- Objective 4 Describe the anatomy of type.
- Objective 5 Understand point size, leading, and alignment.
- Objective 6 Measure type size and line weight in points.
- Objective 7 Create a design for printing, applying the design process.

Standard 3 Performance Evaluation included below (Optional)

## **STANDARD 4**

STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE COMPUTER SKILLS



- Objective 1 Understand software types (i.e. word processing, page layout, paint, and draw) and related applications.
- Objective 2 Identify software interface features (i.e. panels, menus, dialog boxes).
- Objective 3 Define hardware and hardware functions as they apply to industry.
- Objective 4 Understand digital publishing technology.
- Objective 5 Identify and determine appropriate file formats.
- Objective 6 Install fonts.
- Objective 7 Perform basic math skills.
- Objective 8 Create an interactive PDF.

Standard 4 Performance Evaluation included below (Optional)

### STANDARD 5

STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE PAGE LAYOUT

- Objective 1 Know basic operations of tools, panels, and menus in a page layout application (i.e. InDesign).
- Objective 2 Change page layout software defaults.
- Objective 3 Define page layout elements (body text, display text, illustration, and white space).
- Objective 4 Demonstrate proper use of guides, margins, columns, gutters, and rows.
- Objective 5 Know basic paper sizes and orientations (i.e. letter and tabloid).
- Objective 6 Import and modify an image in a page layout program.
- Objective 7 Measure linear dimensions in inches and fractions of an inch to 1/16".
- Objective 8 Comprehend crop and registration marks.
- Objective 9 Define bleeds.
- Objective 10 Output color separations.
- Objective 11 Perform fraction to decimal conversions.
- Objective 12 Create multi-page layouts.

Standard 5 Performance Evaluation included below (Optional)

### STANDARD 6

STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE DIGITAL IMAGE EDITING

- Objective 1 Demonstrate operation of tools, panels, and menus in an image editing application (i.e. Photoshop).
- Objective 2 Change image editing software defaults.
- Objective 3 Understand the advantages and disadvantages of raster images.
- Objective 4 Comprehend pixels, resolution, and interpolation.
- Objective 5 Compare line art, continuous tone, and halftone image types.
- Objective 6 Capture and image (e.g., digital camera or scanner).
- Objective 7 Understand metric prefixes as they relate to file size.



- Objective 8 Identify color modes and their uses (i.e. RGB and CMYK).
- Objective 9 Utilize multiple selection methods, layers, and channels.
- Objective 10 Solve mathematical equations as they relate to pixels.
- Objective 11 Edit a color raster image.

Standard 6 Performance Evaluation included below (Optional)

## **STANDARD 7**

### STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE DIGITAL ILLUSTRATIONS

- Objective 1 Demonstrate operation of tools, panels, and menus in an illustration application (i.e. Illustrator).
- Objective 2 Change illustration software and defaults.
- Objective 3 Understand the advantages and disadvantages of vector images.
- Objective 4 Comprehend process and spot colors.
- Objective 5 Define trapping.
- Objective 6 Solve ratio and percent equations.
- Objective 7 Create and modify a vector image.

Standard 7 Performance Evaluation included below (Optional)

## **STANDARD 8**

### STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE PRINTING PROCESSES

- Objective 1 Classify the major printing process (flexography, lithography, screen, gravure, and digital).
- Objective 2 Determine products produced by each of the major printing process.
- Objective 3 Understand the concept of the image carrier for the major printing process.
- Objective 4 Identify other graphics communication processes (i.e. vinyl, engraving, embroidery, etc.).
- Objective 5 Know substrate and basic paper grades (i.e. bond and cover).
- Objective 6 Produce a multicolor product.

Standard 8 Performance Evaluation included below (Optional)

## **STANDARD 9**

### STUDENTS WILL BE ABLE TO UNDERSTAND AND DEMONSTRATE FINISHING AND BINDING PROCESSES

- Objective 1 Define finishing.
- Objective 2 Identify finishing processes.
- Objective 3 Define binding.
- Objective 4 Identify binding processes.
- Objective 5 Finish or bind a product.



Standard 9 Performance Evaluation included below (Optional)

### **STANDARD 10 (Optional)**

STUDENTS WILL GAIN AN UNDERSTANDING OF GRAPHIC COMMUNICATIONS AS A PROFESSION AND WILL DEVELOP PROFESSIONAL SKILLS FOR THE WORKPLACE

**Objective 1** As a participating member of the SkillsUSA<sup>1</sup> student organization, complete the SkillsUSA Level I Professional Development Program.

1. Complete a self-assessment inventory and identify individual learning styles.
2. Discover self-motivation techniques and establish short-term goals.
3. Determine individual time-management skills.
4. Define future occupations.
5. Define awareness of cultural diversity and equity issues.
6. Recognize the benefits of conducting a community service project.
7. Demonstrate effective communication skills with others.
8. Participate in a shadowing activity.
9. Identify components of an employment portfolio.
10. Explore what is ethical in the workplace or school.
11. Demonstrate proficiency in program competencies.
12. Explore what is ethical in the workplace or school.
  1. State the SkillsUSA motto.
  2. State the SkillsUSA creed.
  3. Learn the SkillsUSA colors.
  4. Describe the official SkillsUSA dress.
  5. Describe the procedure for becoming a SkillsUSA officer.

**Objective 2** Understand the role graphic communications and relate career opportunities.

**Objective 3** Display a professional attitude toward the instructor and peers.

Standard 10 Performance Evaluation included below (Optional)



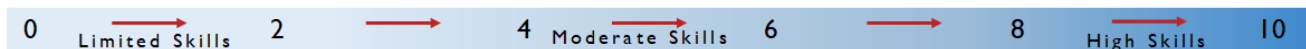
## Graphic Communications, Intermediate Performance Standards (Optional)

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 standards and 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**.

Students Name \_\_\_\_\_

Class \_\_\_\_\_

### PERFORMANCE RATING SCALE



#### STANDARD 1 Graphics/Printing Industry

Score:

- Define the role graphic communications
- Explain printing technologies
- Identify print markets/business types
- Identify major contributions in the history of printing
- Demonstrate the technical production flow from idea to finished product

#### STANDARD 2 Safe Practices

Score:

- List safety rules involving chemicals and flammable liquids
- Read, comprehend and follow instructions on warning labels
- List the steps to be taken in case of injury in the lab
- Identify locations of first aid kit, eye wash stations, MSDS, and safety Equipment
- Follow proper safety procedure and dress code when operating equipment
- Demonstrate common sense when working with others
- Pass general lab safety test

#### STANDARD 3 Design Processes

Score:

- Understand the design process
- Define the principles/elements of design
- Identify typeface classifications
- Create a design for printing, applying the design process
- Understand point size, leading and alignment
- Describe the anatomy of type
- Measure type size and line weight in points

#### STANDARD 4 Computer Skills

Score:

- Understand software types and related applications
  - Word processing
  - Paint
  - Page layout
  - Draw



- Identify software interface features
  - Panel
  - Menus
  - Dialog boxes

## **STANDARD 5 Page Layout**

**Score:**

- Know basic operations of tools, panels, and menus, in a page layout application (e.g., InDesign)
- Define layout elements:
  - Body type
  - Display type
  - Illustrations
  - White space
- Demonstrate proper use of guides, margins, columns, gutter, and rows
- Know basic paper sizes and orientations, (e.g., letter and tabloid)
- Import and modify an image in a page layout program
- Measure linear dimensions in inches and fractions of an inch to 1/16"
- Perform fraction to decimal conversions
- Create a multi-page layout
- Change page layout software defaults
- Comprehend crop and registration marks
- Define bleeds
- Output color separations

## **STANDARD 6 Digital Image Editing**

**Score:**

- Demonstrate operation of tools, panels, and menus in an image editing application (e.g., photoshop)
- Change image editing software defaults
- Understand the advantages and disadvantages of raster images
- Comprehend pixels, resolution, and interpolation
- Compare line art, continuous tone, and halftone image types
- Capture an image, use a digital camera or scanner
- Understand metric prefixes as they relate to file size
- Identify color modes and their uses (e.g., RGB and CMYK)
- Utilize multiple selection methods, layers, and channels
- Solve mathematical equations as they relate to pixels
- Edit a color raster image

## **STANDARD 7 Digital Illustrations**

**Score:**

- Demonstrate operations of tools, panels, and menus in an illustration application, (e.g., Illustrator)
- Change illustration software defaults
- Comprehend process and spot colors
- Define trapping
- Advantages/disadvantages of vector images
- Solve ration and percent equations
- Create and modify a vector image



**STANDARD 8 Printing Processes**

**Score:**

- Classify the major printing processes
  - Flexography
  - Lithography
  - Screen
  - Gravure
  - Digital
- Identify products produced by each of the major printing processes
- Understand the concept of the image carrier for the major printing process
- Identify other graphics communication processes:
  - Vinyl
  - Engraving
  - Embroidery
- Know substrate and basic paper grades (e.g., bond and cover)
- Produce multi-color product

**STANDARD 9 Finishing and Binding Processes**

**Score:**

- Define binding
- Identify binding processes
- Finish or bind a product
- Define finishing
- Identify finishing processes

**STANDARD 10 Professional Skills in the Workplace**

**Score:**

- As a participating member of the SkillsUSA student organization complete the SkillsUSA level I Professional Development Program
- Serve in the school's SkillsUSA chapter as a committee member
- Display a professional attitude toward the instructor and peers

**PERFORMANCE STANDARD AVERAGE SCORE:**