

## Graphic Design Blueprint

The PrintED/SkillsUSA Graphic Design competencies encompass the knowledge and skill sets a student should master to exhibit proficiency in graphic design. The PrintED/SkillsUSA Graphic Design Career Essentials Assessment test questions align with the PrintED/SkillsUSA Graphic Design competencies.

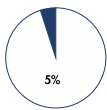
This Blueprint contains the subject matter content for the Career Essentials - Assessment.

**Note:** To fully prepare for the [Internetworking](#) SkillsUSA Championships contest, refer to the current year's SkillsUSA Championships Technical Standard, now included with your SkillsUSA Professional Membership. If you need help in accessing this benefit, contact the SkillsUSA Customer Care Team at 844-875-4557 or [customercare@skillsusa.org](mailto:customercare@skillsusa.org)

### Standards and Competencies

Competencies are weighted throughout the assessment. The percent shown is the weight of the competency. There are 50 questions per assessment.

#### Introduction



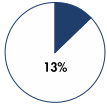
- Identify occupations that are related to graphic design
- Discuss the typical roles and responsibilities of graphic designers
- Interview an experienced graphic designer to determine a. Why they chose their profession b. Education and professional training required c. Types of communications used on the job, e.g. print, digital, large format, point of sale d. additional career information e. tools and software used

#### Principles and Elements of Design



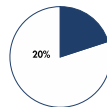
- Describe the basic principles of design a) Unity b) Contrast c) Proportions d) Balance e) Emphasis f) Rhythm.
- Discuss the basic principles of design from an instructor specified graphic design a) Unity b) Contrast c) Proportions d) Balance e) Emphasis f) Rhythm.
- Describe the basic elements of design a) Line b) Shape c) Direction d) Size e) Texture f) Value g) Color.
- Discuss the basic elements of design from an instructor specified graphic design example a) Line b) Shape c) Direction d) Size e) Texture f) Value g) Color.
- Discuss the basic elements of design of an instructor specified graphic design concept example a) Message b) Color c) Typography d) Images e) Layout.
- Explain the "Design Thinking" six-step process 1. Understand 2. Observe 3. Define 4. Ideate 5. Prototype and 6. Test.
- Use brainstorming techniques to develop ideas for a design concept based on a specified client need and target audience.
- Explain design rationale for the creative choice implemented during the design process e.g. thumbnails, roughs, mock-up, comprehensive layout (comp)
- Discuss the relationship between message, color, typography, images and layout.
- Describe primary, secondary, and tertiary colors including hue tint, value and shade
- Describe the effect of light and distance on color.
- Discuss additive (Red, Green, Blue) and subtractive (Cyan, Magenta, Yellow, Black) color.
- Discuss how a monitor and other visual technologies (printing, billboard, smartphone) affect color representations and perceptions.
- Explain spot color/Pantone Color System (PMS)
- Demonstrate color balance by adjusting intensity of color to render specific colors, the method often referred to as gray balance, neutral balance, or white balance.
- Describe color relationships a. Complementary b. Split-Complementary c. Double-Complementary d. Analogous, e. Monochromatic.
- Explain the concept of corporate branding
- Discuss a corporate style guide example
- Discuss how corporate branding affects consumer recognition and behavior
- Discuss a time-based concept

## Type



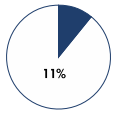
- Identify the five classic typefaces, their classifications and uses to include: Garamond, Baskerville, Bodoni, Century, and Helvetica
- Define Points and Picas
- Identify a. x-height b. meanline c. Baseline d. Ascenders e. Descenders f. Serifs g. Leading
- Discuss the roles of x-height, meanline, baseline, ascenders, Descenders, serifs and leading or spacing in measuring and designing with type
- Illustrate sample paragraph(s) using x-height, meanline, baseline, ascenders, descenders, serifs, leading
- Identify a. Caps b. Lowercase c. Uppercase d. Small Caps e. Ligatures
- Illustrate sample paragraph(s) using a. caps, b. lowercase, c. uppercase, d. small caps, e. Ligatures
- Identify a. Dingbats b Bullets c. Rules d. Glyphs e. Symbols
- Distinguish between display (headline) type and body (text) type by their point sizes, styles, and uses
- Identify type styles with a type or font family
- Identify letter a. Spacing b. Tracking c. Kerning d. Baseline shift e. Horizontal scale
- Identify a. Flush right – ragged right b. Flush right – ragged left c. Centered d. Justified e. Force Justified f. Windows g. Orphans

## Page Layout



- Produce a print-ready Portable Document Format (PDF) using page layout software
- Discuss United States Postal Services (USPS) design requirements
- Create a design concept that can be used in various media a. web b. Digital distribution c. Print
- Identify within an instructor specified project examples of a. Text Blocks b. Graphics c. Frames d. Headings e. Drop caps f. Text wraps
- Design a document using specified text blocks, graphics, frames, heading, drop caps and text wraps
- Identify within an instructor specified project examples of a. Margins b. Formatting c. Gutters d. Register marks e. Trim marks f. Fold lines
- Describe trim size; bleed size; and safety area of a page
- Set page of text with specified margins, formatting, gutters and leading
- Prepare multi page layout incorporating specified register marks, trim marks and fold lines
- Proofread and edit an instructor supplied document using graphic design industry accepted methods. Make corrections /adjustments as specified by instructor
- Describe a. Grids b. Templates c. Master pages d. Paragraph style sheets e. Character style sheets
- Create a multi-page document using specified grids, templates, master pages, paragraph style sheets and character style sheets
- List the advantages/disadvantages of hard proofing versus soft proofing
- Define a native (source) file
- Preflight and package a native file
- Produce a print-ready Portable Document Format (PDF) using page layout software
- Review United States Postal Services (USPS) design requirements
- Collect examples of standard ad sizes (full=page, half-page, and quarter-page ads) form publications
- Demonstrate the use of appropriate page layout software for an instructor specified print or digital project
- Create a design concept that can be used in various media a. web b. Digital distribution c. Print

### Image Capture



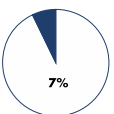
- Describe types of graphics a. Raster (bitmap) b. Vector c Line art
- Compare examples of various graphic file formats and their extensions a. Tiff (Tagged Image File Format) b. EPS (Encapsulated PostScript) c. BMP (Bitmap) d. PSD (Native Adobe PhotoShop) e. PNF (Portable Network Graphic) f. INDD (Native InDesign file) g. JPG (Joint Photographic Experts Guild) h. AI (Native Adobe Illustrator)
- Capture instructor specified digital images using a scanner and/or digital camera
- Demonstrate using an image editing software program a. Scaling b. Resolution c. Tone control d. Cropping e. Color correction
- Describe the minimum resolution requirements for different reproduction devices a. Screen Display b. Digital Press c. Offset Press d. Wide Format Inkjet Press
- Scale a raster image using the proper settings in order to maintain the appropriate resolution for print or digital media
- Evaluate a high and low resolution page on an instructor specified printed page
- Select and download a digital image from a stock photography website or other media that has appropriate resolution for the intended output.
- Demonstrate the use of Optical Character Recognition (OCR) software to make text editable
- Discuss Digital asset management
- Describe file naming conventions

### Digital Illustration



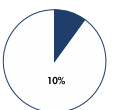
- Examine, using a magnifying glass, the differences between printed raster and vector graphics
- Discuss the uses of a. Rotated b. Circled c. Extended d. Tints and Fills
- Use an appropriate graphics program to manipulate type (rotated, circled, extended, tints and fills)
- Trace a raster drawing/photograph using a vector illustration program.
- Create or edit images in a raster based program using layers
- Create a spot color illustrations or logo using pantone Matching System (PMS) or other color matching system
- Demonstrate how to view in a graphics software program or print separations of a logo created with spot colors

### Business Skills



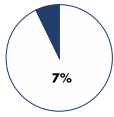
- Collect needed information and complete necessary steps to complete a project from design to delivery by active interacting with a client or instructor to include: a. Project initiation (Determine client needs) b. Research (explore information provided a the initial client meeting) c. Strategy (analyze the research gathered and decide on design and functionality criteria) d. Development ( mind mapping, storyboarding, free writing, layout creation) e. Presentation (review with client; make changes) e. Production/launch (implement finished piece across all deliverables) g. Completion (turn over completed project to client)
- Explain time-based, fixed fee and value based pricing of a graphic design project
- Create a written quote for a design project
- Produce an invoice for an advertising design project, identifying terms of payment
- Identify potential high-risk client who might constitute a higher financial risk for nonpayment of an invoice (new businesses, political campaigns, family/friends)
- Formulate a course s of action when faced with an issue of non-payment of invoices
- Determine the positives/negatives of accepting/declining prospective high risk clients who may have trouble paying for work provided

### Portfolio



- Create a digital portfolio to showcase your work

### Math and Measurement



- Demonstrate the measurement of type in points and picas
- Converts points and pica measurements to inches
- Solve various problems that required dividing a given dimension in half
- Solve percent to decimal conversion problems
- Solve basic linear measurement problems
- Solve addition of decimal problems – two and three digits
- Solve for the cost of an estimated job

*SkillsUSA is of the understanding that students who take the PrintED/SkillsUSA Graphic Career Essential Assessment have been enrolled in a graphic design training program with the following competencies embedded within the curriculum.*

### Identified Academic Skills

#### Math Skills

- Use fractions to solve practical problems.
- Use proportions and ratios to solve practical problems.
- Simplify numerical expressions.
- Solve practical problems involving percentages.
- Solve single variable algebraic expressions.
- Solve multiple variable algebraic expressions.
- Measure angles.
- Find surface area and perimeter of two-dimensional objects.
- Find volume and surface area of three-dimensional objects.
- Apply transformations (rotate or turn, reflect or flip, translate or slide, and dilate or scale) to geometric figures.
- Construct three-dimensional models.
- Solve problems using proportions, formulas and functions.
- Take measurements with a ruler.

#### Science Skills

None identified.

#### Language Arts Skills

- Analyze mass media messages.
- Demonstrate comprehension of a variety of informational texts.
- Use print, electronic databases and online resources to access information in books and articles.
- Demonstrate narrative writing.
- Demonstrate expository writing.
- Demonstrate persuasive writing.
- Demonstrate informational writing.
- Edit writing for correct grammar, capitalization, punctuation, spelling, sentence structure and paragraphing.

### Connections to National Standards

State-level academic curriculum specialists identified the following connections to national academic standards.

#### Math Standards

- Numbers and operations
- Algebra
- Geometry
- Measurement
- Data analysis and probability
- Problem solving



- Communication
- Connections
- Representation

Source: NCTM Principles and Standards for School Mathematics. To view high school standards, visit: <http://www.nctm.org/standards/content.aspx?id=16909>.

### **Science Standards**

None Identified

Source: McREL compendium of national science standards. To view and search the compendium, visit: [www.mcrel.org/standards-benchmarks/](http://www.mcrel.org/standards-benchmarks/).

### **Language Arts Standards**

- Students read a wide range of print and nonprinted texts to build an understanding of texts, of themselves and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, and graphics).
- Students adjust their use of spoken, written and visual language (e.g., conventions, style, and vocabulary) to communicate effectively with a variety of audiences and for different purposes
- Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss print and nonprint texts.
- Students conduct research on issues and interests by generating ideas and questions and by posing problems. They gather, evaluate and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks and video) to gather and synthesize information and to create and communicate knowledge.
- Students participate as knowledgeable, reflective, creative and critical members of a variety of literacy communities.
- Students use spoken, written and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion and the exchange of information).

Source: IRA/NCTE Standards for the English Language Arts. To view the standards, visit: [www.readwritethink.org/standards/index.html](http://www.readwritethink.org/standards/index.html).