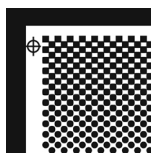# GRAPHIC COMMUNICATIONS

PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of graphic communications.

First, download and review the General Regulations at: http://updates.skillsusa.org.

CLOTHING REQUIREMENT
Class E: Contest specific — Business Casual

- Official SkillsUSA white polo shirt.
- Black dress slacks (accompanied by black dress socks or black or skin-tone seamless hose) or black dress skirt (knee-length, accompanied by black or skin-tone seamless hose).
- Black leather closed-toe dress shoes.

These regulations refer to clothing items that are pictured and described at: www.skillsusastore.org. If you have questions about clothing or other logo items, call 1-888-501-2183.

Note: Contestants must wear their official contest clothing to the contest orientation meeting.

ELIGIBILITY

Open to active SkillsUSA members enrolled in programs with graphic communications as the occupational objective.

EQUIPMENT AND MATERIALS

1. Supplied by the technical committee: All equipment and materials used in the hands-on component of the contest.
2. Supplied by the contestant: All competitors must create a one-page résumé and submit a hard copy to the technical committee chair at orientation. Failure to do so will result in a 10-point penalty.

Note: Your contest may also require a hard copy of your résumé as part of the actual contest. Check the Contest Guidelines and/or the updates page on the SkillsUSA website: http://updates.skillsusa.org.

SCOPE OF THE CONTEST

This contest is related to competencies defined by the Graphic Arts Education and Research Foundation in PrintED competencies.

Knowledge Performance

The contest will include a written knowledge test. The test will consist of 100 items.

Skills Performance

The contest includes a series of testing stations designed to assess ability to perform identified competencies. Each year, the Graphic Communications technical committee defines contest stations.

Contest Guidelines

1. In accordance with the graphic communications industry, the contest consists of six unique but contributing performance stations:
   a. Digital workflow — the handling and checking of files prior to preflight to an output device.
   b. Electronic prepress — the re-creating of a created design using appropriate page layout software.
   c. Finishing — the operation of a paper cutter and tabletop folders according to instructions provided.
   d. Offset press operations — the handling of a prepared plate, mounting on a press and making all of the necessary adjustments to all of the press systems to include feeder, register, printing, inking, dampening and delivery. Also make necessary adjustments on placement of copy, and balancing of ink and water. Follow registration requirements.
   e. Oral professional assessment — the handling of an interview scenario requiring communications and deliberations with a professional flair and the ability to think on your feet.

f. Production planning — the solving of production problems related to paper and ink to include the different types of paper, basic sizes and weight; also ink characteristics and the determination of amounts of paper and ink needed, and the cost given certain specifications.

2. For equipment specifications, please check: http://updates.skillsusa.org.

3. As soon as the contestants have completed an assigned job and have fulfilled all the requirements on the rating sheet satisfactorily, they should notify a judge. The judges will gather the completed layout and answers for evaluation and scoring.

Standards and Competencies

GC 1.0 — Demonstrate competencies related to the digital workflow process to related PrintED competencies

1.1 Follow instructions on job ticket
   1.1.1 Explain the nature and type of instruction relevant to this type of work
   1.1.2 Determine all implications of the instructions on the steps that follow
1.2 Use page layout software
   1.2.1 Use InDesign
   1.2.2 Use QuarkXPress
   1.2.3 Distinguish between the functionality of each page layout software
1.3 Check files in preparation for preflight
   1.3.1 Describe the steps to be followed prior to preflight
1.4 Complete preflight procedures
   1.4.1 Explain the process and concept of checking files to rip
1.5 Check and make necessary corrections to files prior to preflight
   1.5.1 Apply the use of a checklist prior to preflight
1.6 Apply instructions for ripping of completed files
   1.6.1 Explain terminology and directions prior to preflight
1.7 Demonstrate knowledge of the PMS color system

1.8 Demonstrate knowledge of type use in page layout design

   1.8.1 Explain how type can affect design
1.9 Make adjustments when sending a job to an output device
1.10 Use InDesign in opening and exporting files to an output device
   1.10.1 Describe the use of software in preflight and ripping
1.11 Use QuarkXPress in opening and exporting files to the output device
   1.11.1 Describe the use of software in preflight and ripping

GC 2.0 — Demonstrate competencies related to electronic prepress processes to related PrintED competencies

2.1 Use page layout software, InDesign or QuarkXPress
   2.1.1 Describe software functionality
   2.1.2 Explain software use in page layout design
2.2 Follow instructions in designing page layout document
   2.2.1 Define terms used in page layout
   2.2.2 Apply instructions to an assigned work project
2.3 Import provided picture files
   2.3.1 Explain considerations in the handling of pictures being imported to page layout
2.4 Import text files provided
   2.4.1 Explain considerations in the handling of text being imported to page layout
2.5 Create colors for rules and headlines
   2.5.1 Describe the procedures to add color to the page layout
2.6 Check for accuracy prior to saving a completed file
   2.6.1 Explain the procedures for checking files before preflight
2.7 Save a completed file

GC 3.0 — Demonstrate competencies related to finishing processes to related PrintED competencies

3.1 Read instructions for use of tabletop folding equipment
   3.1.1 Define terms used in folding procedures
   3.1.2 Describe various folding procedures
3.2 Make adjustments on tabletop folder

3.2.1 Explain the components and functionality of the tabletop folder

3.3 Make adjustments for a letterfold
3.3.1 Describe the characteristics of a letterfold fold

3.4 Make adjustments for an accordion fold
3.4.1 Describe the characteristics of an accordion fold

3.5 Demonstrate knowledge of paper characteristics

GC 4.0 — Demonstrate competencies related to offset press operations processes to related PrintED competencies

4.1 Read job ticket instruction for job to be run on a press
4.1.1 Define terms used
4.1.2 Describe presswork procedures

4.2 Make necessary adjustments to a job in a given situation
4.2.1 Translate instructions into appropriate adjustments

4.3 Make adjustments in the feeder system
4.3.1 Explain the components and functionality of the feeder systems

4.4 Make adjustments in the register system
4.4.1 Explain the components and functionality of the register system

4.5 Make adjustments in the delivery system
4.5.1 Explain the components and functionality of the delivery system

4.6 Make adjustments in the inking system
4.6.1 Describe the characteristics of ink
4.6.2 Explain the components and functionality of the inking system

4.7 Make adjustments in the dampening system
4.7.1 Explain the components and functionality of the dampening system

4.8 Make adjustments in the printing system
4.8.1 Explain the components and functions of the printing system

4.9 Demonstrate understanding of paper handling procedures

4.10 Demonstrate knowledge of ink and water balance

4.10.1 Explain the theory of offset — ink and water do not mix

4.11 Demonstrate safe operations when running the press
4.11.1 Describe the safety implications of operating a press

4.12 Make necessary adjustments to comply with the job being printed in terms of color, placement and registration
4.12.1 Explain the overall offset press operations function

GC 5.0 — Demonstrate competencies related to production planning to related PrintED Competencies

5.1 Demonstrate knowledge of the characteristic of various types of paper, i.e., basic sizes, basis weight, etc.

5.2 Perform paper cutting problem solving
5.2.1 Describe the process to determine number out in paper use

5.3 Demonstrate knowledge of grain and how it affects run ability on the press and paper cutting

5.4 Demonstrate knowledge of inks: kinds and characteristics
5.4.1 Explain ink and its characteristics
5.4.2 Describe the composition of ink and its use in different processes
5.4.3 Perform ink consumption problems
5.4.4 Complete formulas and procedures to determine ink use

5.5 Determine total quantities of paper needed
5.5.1 Explain paper purchasing: pricing and quantities

5.6 Determine total quantity of ink needed
5.6.1 Describe ink use and ink requirements

5.7 Determine cost of paper and ink
5.7.1 Describe the process to determine total cost of ink and paper on a job

5.8 Make dummies for production planning purposes

GC 6.0 — Complete an oral professional assessment in a simulated customer situation

6.1 Perform customer service related activities when relating to a customer
    6.1.1 Explain the function of the customer service representative
6.2 Communicate professionally with technical knowledge
    6.2.1 Describe the workings of a production environment
    6.2.2 Explain the nature of work performed and requirements of customers
6.3 Respond quickly, accurately and professionally in a customer situation

Committee Identified Academic Skills

The technical committee has identified that the following academic skills are embedded in this contest.

Math Skills

- Use fractions to solve practical problems.
- Simplify numerical expressions.
- Solve practical problems involving percents.
- Solve single variable algebraic expressions.

Science Skills

None Identified.

Language Arts Skills

- Provide information in conversations and in group discussions.
- Provide information in oral presentations.
- Demonstrate use of nonverbal communication skills: eye contact, posture and gestures using interviewing techniques to gain information.
- Demonstrate knowledge of appropriate reference materials.

Connections to National Standards

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

Math Standards

- Geometry.
- Measurement.
- Problem solving.
- Communication.
- Connections.
- Representation.

Source: NCTM Principles and Standards for School Mathematics. For more information, visit: http://www.nctm.org.

Science Standards

- Understands the structure and properties of matter.
- Understands the sources and properties of energy.
- Understands forces and motion.
- Understands the nature of scientific inquiry.

Source: McREL compendium of national science standards. To view and search the compendium, visit: http://www2.mcrel.org/compendium/browse.asp.

Language Arts Standards

- Students read a wide range of print and nonprint 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, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- 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 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.ncte.org/standards.