STRANDS AND STANDARDS
PRODUCTION GRAPHICS 1

Course Description

This course is designed to be a continuation of Digital Graphic Arts Info. The course prepares individuals to apply technical knowledge in the areas of design & layout, related computer and software, safety, printing processes, finishing & 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.

Intended Grade Level	10-12
Units of Credit	0.5
Core Code	40.10.00.00.042
Concurrent Enrollment Core Code	N/A
Prerequisite	Digital Graphic Arts Intro
Skill Certification Test Number	562
Test Weight	0.5
License Type	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	Graphics/Printing Technology
Endorsement 2	N/A
Endorsement 3	N/A

STRAND 1

Students will be able to understand the introduction to the graphics/printing industry.

Standard 1

Define the role of graphic communications.

Standard 2

Identify print markets and types of print businesses.

Standard 3

Describe major contributions in the history of printing.

Standard 4

Explore printing technologies.

STRAND 2

Students will be able to understand and demonstrate safe practices.

Standard 1

List safety rules involving chemicals and flammable liquids.

Standard 2

Read, comprehend and follow instructions on warning labels.

Standard 3

List the steps to be taken in case of injury in the lab.

Standard 4

Identify locations of first aid kit, eye wash station, SDS, and safety equipment.

Standard 5

Follow proper safety procedures and dress code when operating equipment.

Standard 6

Demonstrate common sense when working with others.

Standard 7

Pass general lab safety test.

STRAND 3

Students will be able to understand and demonstrate design processes.

Standard 1

Understand the design process.

Standard 2

Define the principles and elements of design.

Standard 3
Identify typeface classifications and their uses.

Standard 4
Describe the anatomy of type.

Standard 5
Understand point size, leading, and alignment.

Standard 6
Measure type size and line weight in points.

Standard 7
Create a design for printing, applying the design process.

STRAND 4
Students will be able to understand and demonstrate computer skills.

Standard 1
Select appropriate software types (i.e. word processing, page layout, paint, draw) and related applications.

Standard 2
Identify software interface features (i.e. panels, menus, dialog boxes).

Standard 3
Define hardware and hardware functions as they apply to the graphics industry.

Standard 4
Understand digital publishing technology.

Standard 5
Identify and determine appropriate file formats.

Standard 6
Install fonts.

Standard 7
Perform basic math skills.

Standard 8
Create an interactive PDF.

STRAND 5
Students will be able to understand and demonstrate page layout.

Standard 1

Demonstrate operation of tools, panels, and menus in a page layout application (i.e. InDesign).

Standard 2

Change page layout software defaults.

Standard 3

Define layout elements (body text, display text, illustration and white space).

Standard 4

Demonstrate proper use of guides, margins, columns, gutters, and rows.

Standard 5

Know basic paper sizes and orientations (i.e. letter and tabloid).

Standard 6

Import and modify an image in a page layout program.

Standard 7

Measure linear dimensions in inches and fractions of an inch to 1/16".

Standard 8

Comprehend crop and registration marks.

Standard 9

Define bleeds.

Standard 10

Output color separations.

Standard 11

Perform fraction to decimal conversions.

Standard 12

Create a multi-page layout.

STRAND 6

Students will be able to understand and demonstrate digital image editing.

Standard 1

Demonstrate operation of tools, panels, and menus in an image editing application (i.e. Photoshop).

Standard 2

Change image editing software defaults.

Standard 3
Understand the advantages and disadvantages of raster images.

Standard 4
Comprehend pixels, resolution, and interpolation.

Standard 5
Compare line art, continuous tone, and halftone image types.

Standard 6
Capture an image (i.e. digital camera or scanner).

Standard 7
Understand metric prefixes as they relate to file size.

Standard 8
Identify color modes and their uses (i.e. RGB and CMYK).

Standard 9
Utilize multiple selection methods, layers, and channels.

Standard 10
Solve mathematical equations as they relate to pixels.

Standard 11
Edit a color raster image.

STRAND 7
Students will be able to understand and demonstrate digital illustrations.

Standard 1
Demonstrate operation of tools, panels, and menus in an illustration application (i.e. Illustrator).

Standard 2
Change illustration software defaults.

Standard 3
Understand the advantages and disadvantages of vector images.

Standard 4
Comprehend bezier curves, handles, and anchor points.

Standard 5
Comprehend process and spot colors.

Standard 6
Define trapping.

Standard 7
Solve ratio and percent equations.

Standard 8
Create and modify a vector image.

STRAND 8
Students will be able to understand and demonstrate printing processes.

Standard 1
Classify the major printing process (relief, lithography, screen, gravure, and digital).

Standard 2
Identify products produced by each of the major printing processes.

Standard 3
Understand the concept of the image carrier for the major printing process.

Standard 4
Identify other graphics communication processes (i.e. vinyl, engraving, embroidery, etc.).

Standard 5
Know substrate and basic paper grades (i.e. bond and cover).

Standard 6
Produce a multi-color product.

STRAND 9
Students will be able to understand and demonstrate finishing and binding processes.

Standard 1
Define finishing.

Standard 2
Identify finishing processes.

Standard 3
Define binding.

Standard 4
Identify binding processes.

Standard 5
Finish or bind a product.

STRAND 10

Students will understand the importance of career readiness skills as it relates to the workplace and outlined in the SkillsUSA Framework – Level 2.

Standard 1

Understand and demonstrate reliability.
- Determine individual time management skills.
- Explore what's ethical in the workplace or school.
- Demonstrate awareness of government.
- Demonstrate awareness of professional organizations and trade unions.

Standard 2

Understand and demonstrate responsiveness.
- Define the customer.
- Recognize benefits of doing a community service project.
- Demonstrate social etiquette.
- Identify customer expectations.

Standard 3

Understand resiliency.
- Discover self-motivation techniques and establish short-term goals.
- Select characters of a positive image.
- Identify a mentor.

Standard 4

Understand and demonstrate workplace habits.
- Participate in a shadowing activity.
- Explore workplace ethics: codes of conduct.
- Recognize safety issues.
- Perform a skill demonstration.
- Exercise your right to know.

Standard 5

Understand and develop initiative.
- Develop personal financial skills.
- Develop a business plan.
- Investigate entrepreneurship opportunities.

Standard 6

Understand and demonstrate continuous improvement.
- Conduct a worker interview.
- Demonstrate evaluation skills.
- Examine ethics and values in the workplace.
- Develop a working relationship with a mentor.

- Construct a job search network.

Performance Skills

1. Understand and demonstrate safe practices.
   - Demonstrate common sense when working with others.
   - Pass general lab safety test.
2. Understand and demonstrate design processes.
   - Create a design for printing, applying the design process.
3. Understand and demonstrate computer skills.
   - Create an interactive PDF.
4. Understand and demonstrate page layout.
   - Output color separations.
   - Create a multi-page layout.
5. Understand and demonstrate digital image editing.
   - Edit a color raster image.
6. Understand and demonstrate digital illustrations.
   - Create and modify a vector image.
7. Understand and demonstrate printing processes.
   - Produce a multi-color product.
8. Understand and demonstrate finishing and binding processes.
   - Finish or bind a product.

Skill Certificate Test Points by Strand

Test Name	Test #	Number of Test Points by Strand									Total Points	Total Questions
		1	2	3	4	5	6	7	8	9		
Graphics 1	562	2	0	10	9	12	6	7	7	5	58	47