Course Description
This course is designed to provide students with the basic knowledge and skills related to the graphic design industry. It is intended to serve as a starting point for several pathways including Digital Media, Graphics and Printing, 3D Animation and Game Development. This includes instruction and hands-on assignments in the following areas: creative design & layout, typography, color, related software, and computer and professional skills.

<table>
<thead>
<tr>
<th>Intended Grade Level</th>
<th>9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units of Credit</td>
<td>0.5 – 1.0</td>
</tr>
<tr>
<td>Core Code</td>
<td>40.10.00.00.040</td>
</tr>
<tr>
<td>Concurrent Enrollment Core Code</td>
<td>40.10.00.13.040</td>
</tr>
<tr>
<td>Prerequisite</td>
<td>None</td>
</tr>
<tr>
<td>Skill Certification Test Number</td>
<td>560</td>
</tr>
<tr>
<td>Test Weight</td>
<td>0.5</td>
</tr>
<tr>
<td>License Type</td>
<td>CTE and/or Secondary Education 6-12</td>
</tr>
<tr>
<td>Required Endorsement(s)</td>
<td></td>
</tr>
<tr>
<td>Endorsement 1</td>
<td>Graphics/Printing</td>
</tr>
<tr>
<td>Endorsement 2</td>
<td>Bus Mktg (CTE/General) and/or Bus Mktg IT</td>
</tr>
<tr>
<td>Endorsement 3</td>
<td>Multimedia</td>
</tr>
</tbody>
</table>
**STRAND 1**

*Students will be able to understand and demonstrate safe practices.*

**Performance Skill**

Understand and demonstrate safe practices.
- 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 station, MSDS, and safety equipment.
- Follow proper safety procedures and dress code when operating equipment.
- Demonstrate common sense when working with others.
- Pass general lab safety test.

**STRAND 2**

*Students will understand the design process.*

**Standard 1**

Understand the process of planning a document.
- Understand the importance of preplanning a project including creating thumbnail sketches.
- Understand the importance of preplanning a project in terms of audience, purpose, timeline, page arrangement and production method.

**Standard 2**

Understand the principles and elements of design.
- Identify and utilize the following principles of design: balance (formal/symmetrical, informal/asymmetrical), contrast, emphasis, movement, unity.
- Identify and utilize the following elements of design: line, shape, value, texture, color, space (incl. positive and negative), form.

**Standard 3**

Understand the proper use of color in publications.
- Understand the difference between the two basic color modes CMYK and RGB.
- Create variations of color using tint, patterns, gradients, and opacity.

**Performance Skill**

Use planning, principles and elements of design, and color to compose a project.
STRAND 3

Students will understand principles of typography.

Standard 1
Identify typeface classifications and their uses. (Serif, Sans-serif, Script, Decorative — see https://www.fonts.com/content/learning/fontology/level-1/type-anatomy/type-classifications)

Standard 2
Know and apply the following concepts:

- Understand that fonts are grouped together in families and given a family name (i.e. Arial, Garamond).
- Utilize the three basic categories of type styles (normal, bold, italic).
- Apply typeface design (serif, sans-serif, script, decorative).
- Apply copyfitting techniques (leading, kerning, tracking, alignment, point size).
- Apply basic text alignment (left, right, centered, and justified).

Performance Skill
Create a project demonstrating knowledge of typography.

STRAND 4

Students will be able to understand and demonstrate digital illustrations.

Standard 1
Know basic operations of tools, panels, and menus in a drawing/illustration application (i.e. Adobe Illustrator, Inkscape).

Standard 2
Understand, create, and manipulate vector graphics.

- Identify vector graphic formats and their appropriate use (e.g., PDF, AI, EPS, etc.).
- Import/export images for project requirements (compression, resolution).
- Operate drawing tools to create and manipulate paths (lines and bezier curves) using anchor points, direction handles.
- Define and apply stroke, fill (solid and gradient), and opacity.
- Utilize appropriate selection tools.
- Perform grouping and ungrouping of objects.
- Transform objects while constraining proportions.
- Create and manage layers.
- Use text tools.
- Understand final output formats.
- Practice basic keystroke and shortcut keys.

Performance Skill
Create a vector image. Modify a vector image by selecting and manipulating anchors and handles.
DIGITAL GRAPHIC ARTS INTRO

STRAND 5
Students will understand raster images (incl. digital photos).

Standard 1
Know basic operations of tools, panels, and menus in a painting/photo editing application (i.e. Adobe Photoshop, GIMP).

Standard 2
Define, create, manipulate, and appropriately use bitmap (pixel based) raster graphics.
- Identify raster graphic formats and their appropriate use (e.g., JPG/JPEG, GIF, TIF, BMP, PSD, PNG, etc.).
- Acquire image assets (i.e. scan, digital camera, internet search, stock sources, etc.).
- Import/export images for project requirements (compression, resolution-such as 72 points in an inch).
- Crop, resize, straighten, and transform an image.
- Use layers, mask, and selection tools.
- Apply filters and effects.
- Adjust color, contrast, create gradient.
- Apply and maintain transparency or Alpha channels.
- Restore images.
- Utilize color selection techniques.
- Operate painting and drawing tools.
- Practice basic keystroke and shortcut keys.

Standard 3
Color theory
- Recognize and apply color modes for web-based graphics and printed graphics (RGB & CMYK, grayscale).
- Recognize and apply the following color properties: hue, saturation, and value (tint and shade).
- Recognize and apply color schemes (complementary, analogous, monochromatic).
- Develop a basic understanding of the color wheel including complementary, analogous and monochromatic colors.
- Understand that colors are used to communicate a mood or message using different colors that are associated with different meanings.
- Recognize and apply symbolism/emotions in color (i.e. warm and cool colors).

Performance Skill
Use colors to communicate a mood or message.
**STRAND 6**

Students will be able to perform relevant computer functions on any standard platform (Windows, Mac, Linux).

**Standard 1**

Perform basic computer functions on all platforms.
- Practice asset and file management using folders and naming conventions.
- Define hardware and hardware functions as they apply to the graphics industry (processor, RAM, graphics card, scanner, digital camera).
- Understand and use modifier keys.

**Standard 2**

Develop an awareness of digital and collaborative technologies.
- Explore and assess emerging share/collaborating technologies (i.e. Google Docs, Dropbox, Windows Live, FTP servers).

**STRAND 7**

Students will explore career opportunities and demonstrate understanding of employability competencies.

**Standard 1**

Develop career skills related to working in the digital arts industry, including social media.
- Identify occupations related to digital media careers (i.e., graphic/commercial artist, project manager, programmer, subject matter expert, technical writer, application programmer, A/V specialist, instructions designers, art director, copy-writer, 3D animator, etc.).
- Identify knowledge and skills necessary for specific digital arts occupations.
- Identify next levels of education for a given career.

**Standard 2**

Demonstrate communication and media skills.
- Collaborate within a team.
- Develop employable competencies/characteristics: responsibility, dependability, ethics, respect, and cooperation.
- Analyze how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors.
- Understand construction and purposes of media messages.
- Evaluate information critically and competently.
- Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media.
- Understand the difference between royalty-free and copyrighted images and text.
- Understand the process of obtaining and citing permission for copyrighted works.
- See Title 17 United States Code -Section 107 Limitation of exclusive rights: Fair use.
Performance Skill
Create and finalize a professional portfolio with projects completed during this course. Portfolio should demonstrate a progression of skill.

Skill Certificate Test Points by Strand

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test #</th>
<th>Number of Test Points by Strand</th>
<th>Total Points</th>
<th>Total Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Graphic Arts Intro</td>
<td>560</td>
<td>0 3 8 7 9 3 5</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>