

Digital Graphic Arts I

EXAM INFORMATION	DESCRIPTION																
<p>Exam Number 560</p> <p>Items 40</p> <p>Points 45</p> <p>Prerequisites NONE</p> <p>Recommended Course Length ONE SEMESTER</p> <p>National Career Cluster ARTS, A/V TECHNOLOGY, & COMMUNICATION</p> <p>Performance Standards INCLUDED (OPTIONAL)</p> <p>Certificate Available YES</p>	<p>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: design & layout, typography, color, related software, and computer and professional skills.</p> <p>EXAM BLUEPRINT</p> <table border="1"> <thead> <tr> <th>STANDARD</th> <th>PERCENTAGE OF EXAM</th> </tr> </thead> <tbody> <tr> <td>1- Safe Practices (Optional)</td> <td>0%</td> </tr> <tr> <td>2- Design Processes</td> <td>20%</td> </tr> <tr> <td>3- Typography</td> <td>18%</td> </tr> <tr> <td>4- Digital Illustrations</td> <td>20%</td> </tr> <tr> <td>5- Raster Images</td> <td>24%</td> </tr> <tr> <td>6- Computer Functions</td> <td>7%</td> </tr> <tr> <td>7- Careers & Employability</td> <td>11%</td> </tr> </tbody> </table>	STANDARD	PERCENTAGE OF EXAM	1- Safe Practices (Optional)	0%	2- Design Processes	20%	3- Typography	18%	4- Digital Illustrations	20%	5- Raster Images	24%	6- Computer Functions	7%	7- Careers & Employability	11%
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STANDARD 1

Students will be able to understand and demonstrate safe practices

Standard 1 Performance Evaluation included below (Optional)

STANDARD 2

Students will be able to understand the design process

Objective 1 Understand the process of planning a document

1. Understand the importance of preplanning a project including creating thumbnail sketches.
2. Understand the importance of preplanning a project in terms of audience, purpose, timeline, page arrangement, and production method.

Objective 2 Understand the principles and elements of design.

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

Objective 3 Understand the proper use of color in publications.

1. Understand the difference between two basic color modes CMYK and RGB.
2. Create variation of color using tint, patterns, gradients, and opacity.

Standard 2 Performance Evaluation included below (Optional)

STANDARD 3

Students will understand principles of typography

Objective 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>)

Objective 2 Know and apply the following concepts:

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

Standard 3 Performance Evaluation included below (Optional)

STANDARD 4

Students will be able to understand and demonstrate digital illustrations

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

Objective 2 Understand, create, and manipulate vector graphics.

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

Standard 4 Performance Evaluation included below (Optional)

STANDARD 5

Students will understand raster images (incl. digital photos)

- Objective 1** Know basic operations of tools, panels, and menus in a painting/photo editing application (i.e. Adobe Photoshop, GIMP).
- Objective 2** Define, create, manipulate, and appropriately use bitmap (pixel based) raster graphics.
1. Identify raster graphic formats and their appropriate use (e.g., JPG/JPEG, GIF, TIF, BMP, PSD, PNG, etc.).
 2. Acquire image assets (i.e. scan, digital camera, internet search, stock sources, etc.).
 3. Import/export images for project requirements (compressions, resolution – such as 72 points in an inch).
 4. Crop, resize, straighten, and transform an image.
 5. Use layers, mask, and selection tools.
 6. Apply filters and effects.;
 7. Adjust color, contrast, create gradient.
 8. Apply and maintain transparency or Alpha channels.
 9. Restore images.
 10. Utilize color selection techniques.
 11. Operate painting and drawing tools.
 12. Practice basic keystroke and shortcut keys.
- Objective 3** Color Theory
1. Recognize and apply color modes for web-based graphics and printed graphics (RGB & CMYK, grayscale).
 2. Recognize and apply the following color properties: hue, saturation, and value (tint and shade).
 3. Recognize and apply color schemes (complementary, analogous, monochromatic).
 4. Develop a basic understanding of the color wheel including complementary, analogous, and monochromatic colors.
 5. Understand that colors are used to communicate a mood or message using different colors that are associated with different meanings.
 6. Recognize and apply symbolism/emotions in color (i.e. warm and cool colors).

Standard 5 Performance Evaluation included below (Optional)

STANDARD 6

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

- Objective 1** Perform basic computer functions on all platforms.
1. Practice asset and file management using folders and naming conventions.
 2. Define hardware and hardware functions as they apply to the graphics industry (processor, RAM, graphics card, scanner, digital camera).
 3. Understand and user modifier keys.

- Objective 2** Develop an awareness of digital and collaborative technologies.
1. Explore and assess emerging share/collaborating technologies (i.e. Google Docs, Dropbox, Window Live, FTP servers).

STANDARD 7

Students will explore career opportunities and demonstrate understanding of employability competencies

- Objective 1** Develop career skills related to working in the digital arts industry, including social media.
1. 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.).
 2. Identify knowledge and skills necessary for specific digital arts occupations.
 3. Identify next levels of education for a given career.

- Objective 2** Demonstrate communication and media skills.
1. Collaborate within a team.
 2. Develop employable competencies/characteristics: responsibility, dependability, ethics, respect, and cooperation.
 3. Analyze how individuals interpret messages differently, how values and points of view are included or excluded, and how media can influence beliefs and behaviors.
 4. Understand construction and purposes of media messages.
 5. Evaluate information critically and competently.
 6. Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media.
 7. Understand the difference between royalty-free and copyrighted images and text.
 8. Understand the process of obtaining and citing permission for copyrighted works.

9. See Title 17 United States Code – Section 107 Limitation of exclusive rights:
Fair use.

Standard 7 Performance Evaluation included below (Optional)

Digital Graphic Arts I

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.

Student's Name: _____

Class: _____

PERFORMANCE STANDARDS RATING SCALE



STANDARD 1 – Safe Practices

Score:

- 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.

STANDARD 2 – Design Process

Score:

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

STANDARD 3 – Typography

Score:

- Create a project demonstrating knowledge of typography.

STANDARD 4 – Digital Illustrations

Score:

- Create a vector image. Modify a vector image by selecting and manipulating anchors and handles.

STANDARD 5 – Color Theory

Score:

- Use colors to communicate a mood or message.

STANDARD 7 – Employability

Score:

- Create and finalize a professional portfolio with projects completed during this course. Portfolio should demonstrate a progression of skill.

PERFORMANCE STANDARD AVERAGE SCORE:

Evaluator Name: _____

Evaluator Title: _____

Evaluator Signature: _____

Date: _____