

# VC-1431: VECTOR GRAPHICS

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## Cuyahoga Community College

**Viewing: VC-1431 : Vector Graphics**

**Board of Trustees:**

February 2019

**Academic Term:**

Fall 2020

**Subject Code**

VC - Visual Communication

**Course Number:**

1431

**Title:**

Vector Graphics

**Catalog Description:**

Technical and aesthetic fundamentals in the creation of vector graphics for print, interactive, broadcast and other media utilizing industry standard vector graphics and design applications.

**Credit Hour(s):**

3

**Lecture Hour(s):**

2

**Lab Hour(s):**

3

## Requisites

**Prerequisite and Corequisite**

VC-1000 Visual Communication Foundation or concurrent enrollment; or VCPH-1450 Digital Imaging I or concurrent enrollment.

Note: ART-1081 taken prior to Fall 2019 will also be accepted to meet prerequisite requirements for this course.

## Outcomes

**Course Outcome(s):**

Utilize industry-standard vector graphics software needed to create graphics for print, web, and mobile media.

**Essential Learning Outcome Mapping:**

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

**Objective(s):**

1. Utilize the various pen and selection tools in Adobe Illustrator to draw, edit, and modify vector paths.
  2. Create and edit various types of graphics using the Adobe Illustrator basic toolset, including but not limited to the Basic Shapes, Gradient, Mesh, Line, Type, and other vector editing tools.
  3. Utilize Adobe Illustrator Brush, Graphic Style, Swatch, and Symbol Libraries in the creating of various types of graphics.
  4. Explore the many features of Adobe Illustrator including but not limited to various effects, manipulation of objects, and use of layers and artboards.
  5. Use templates to create vector graphics from source files.
  6. Apply color tools and best practices in color management.
  7. Create a variety of file formats from the same source graphics.
  8. Create file for final output.
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**Course Outcome(s):**

Demonstrate the development of visual and conceptual skills required to design and create vector graphics which meet current industry standards in print, web, and other graphic design applications.

**Essential Learning Outcome Mapping:**

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

**Objective(s):**

1. Explain what defines a vector image, and identify the difference between vector and bitmapped images.
  2. Identify marketing applications, such as logos, symbols, or display type, that are appropriate for use of vector graphics.
  3. Utilize resources and references to identify current trends and styles.
  4. Identify a typical production workflow for a vector-based project, through developing ideas from thumbnail sketches to a finished piece, and final output.
  5. Identify the design problem and apply the best tools and techniques to find the best solution.
  6. Define the various possible output file formats (\*.ai, \*.svg, \*.png, \*.dwg, etc.) and describe appropriate applications of each type of output.
  7. Demonstrate the ability to create stylized imagery, logos, display type, and other vector graphics based on specifications.
  8. Demonstrate the ability to apply original vector art in layouts and other applications using sound principles of design and color theory.
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**Methods of Evaluation:**

1. Projects
2. Presentations
3. Written assignments
4. Laboratory exercises

**Course Content Outline:**

Design and create projects that apply the following tools and techniques:

1. Vector Graphics concept
  - a. The units of design: Points and picas
  - b. Ruler, Guide, Grid, Perspective Grid, Smart Guide
  - c. Navigating artboards and panels
  - d. Working with layers
2. Drawing tools
  - a. Pen tool, pencil, Eraser, smooth brush, blob brush
  - b. Drawing basic shapes
  - c. Transforming
  - d. Fill strokes
  - e. Scissors/Knife/Erasing
3. Creating Complex Shapes
  - a. Compound paths
  - b. Pathfinder panel and Shape Builder tool
  - c. Gradation and Mesh
  - d. Appearance panel
  - e. Applying multiple fills and strokes
  - f. Working with effects
  - g. Creating a tracing template
  - h. Creating pattern
    - i. Creating texture
    - j. Working with raster file
  - k. Free hand drawing
    - l. Create illustration with a drawing tablet
4. Color/Swatches
  - a. The color modes: RGB vs. CMYK
  - b. Process, spot, and global swatches

- c. Working with color groups
- d. Hue, saturation, and brightness
- 5. Creating and Formatting Type
  - a. Placing and flowing text
  - b. Point type vs area type
  - c. Creating type on a path
  - d. Text wrap
  - e. Creating a paragraph style
- 6. Converting data to images
  - a. Accessing data from spread sheets and databases
  - b. Creating graphs and charts
  - c. Adjusting chart attributes
- 7. Printing and Exporting Artwork
  - a. Printing your artwork
  - b. Packaging files for print production
  - c. Using the Asset Export
  - d. Exporting image files
- 8. Using Raster Graphics in Illustrator
  - a. Placing linked images into Illustrator
  - b. Embedding images into your Illustrator documents
  - c. Using clipping masks
  - d. Using the image trace panel
  - e. Converting pixels into paths

## Resources

Landa, Robin. *Graphic Design Solutions*. 4th ed. Cengage Learning, 2010.

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Wood, Brian. *Adobe Illustrator CC Classroom in a Book (2018 release)*. Adobe Press, 2018.

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Morgan, Edward . *Vector Art Fundamentals, Digital Media Arts (Book 2)*. Authorhouse, 2018. August 3, 2018.

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Glitschka, Von. *Vector Basic Training*. New Riders, 2015. October 8, 2015.

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## Resources Other

<https://helpx.adobe.com/support/illustrator.html>

<https://cssauthor.com/latest-adobe-illustrator-tutorials/>

<https://www.creativebloq.com/digital-art/illustrator-tutorials-1232697>

## Instructional Services

### CTAN Number:

Career Technical Assurance Guide CTGRPH002

Top of page

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