# SAN DIEGO COMMUNITY COLLEGE DISTRICT CONTINUING EDUCATION COURSE OUTLINE

# SECTION I

# SUBJECT AREA AND COURSE NUMBER

**OFSY 606** 

COURSE TITLE

**VECTOR GRAPHICS** 

TYPE COURSE

NON-FEE

VOCATIONAL

## CATALOG COURSE DESCRIPTION

This course provides instruction in vector drawing. Vector drawing programs are used to create computer-generated diagrams, engineering and architectural plans and blueprints, original artwork, logos, maps and posters. Vector drawing artwork can be imported into page layout, 3D modeling, video editing and imaging applications. (FT)

## LECTURE/LABORATORY HOURS

75

**ADVISORY** 

NONE

#### RECOMMENDED SKILL LEVEL

Eighth grade reading level, communicate effectively in the English language, have an understanding of basic design principles, and possess basic computer skills.

## INSTITUTIONAL STUDENT LEARNING OUTCOMES

- 1. Social Responsibility SDCE students demonstrate interpersonal skills by learning and working cooperatively in a diverse environment.
- 2. Effective Communication SDCE students demonstrate effective communication skills.

# **INSTITUTIONAL STUDENT LEARNING OUTCOMES (CONTINUED)**

- 3. Critical Thinking SDCE students critically process information, make decisions, and solve problems independently or cooperatively.
- 4. Personal and Professional Development SDCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self advocacy skills to cope with changing situations in their lives.

# COURSE GOALS

This course provides instruction in vector drawing; provides the opportunity for students to demonstrate competence through hands-on projects and portfolio pieces, enhances communication skills through group or team projects, improves design skills through assigned projects, affords technical skill in applying proper file formats to projects, develops software and hardware troubleshooting skills, and provides "real world" experiences to increase awareness of necessary job skills and career opportunities.

## COURSE OBJECTIVES

Upon successful completion of the course, students will show orally, in writing, or through demonstration that they are able to:

- 1. Describe the minimum system requirements.
- 2. Define and describe the terminology, basic tools, and techniques necessary to create vector illustrations.
- 3. Create illustrations.
- 4. Work with vectors, including paths and Bezier curves.
- 5. Use fill patterns.
- 6. Apply spot and process color.
- 7. Use the alignment tools.
- 8. Identify and apply the best mode, file format, resolution, color depth and compression scheme for a project.
- 9. Place raster images.
- 10. Apply special effects
- 11. Apply typographic features, including creating outlines and character and paragraph specification.
- 12. Work with plug-ins and filters.
- 13. Apply blends and gradients.
- 14. Convert raster images to vector images with auto tracing tool.
- 15. Convert vector images to raster images.
- 16. Work with color schemes RGB and CMYK.
- 17. Apply color trapping.
- 18. Edit images.
- 19. Work with different file formats.
- 20. Repurpose images.
- 21. Work with a vector file in other applications
- 22. Port a file cross platform.

# COURSE OBJECTIVES (CONTINUED)

- 23. Troubleshoot hardware and software problems.
- 24. Evaluate an illustration for appropriateness to a project.
- 25. Work on a team to bring a project to completion.
- 26. Analyze the illustration needs of a project.

## SECTION II

#### COURSE CONTENT AND SCOPE

- 1. Introduction Basic Concepts
  - 1.1. Hardware requirements
  - 1.2. Using the toolbox
  - 1.3. Scanning images
  - 1.4. Placing Illustrator EPS files into other applications
  - 1.5. Placing files in Illustrator
- 2. Drawing Paths
  - 2.1. Straight lines
  - 2.2. Bezier curves
  - 2.3. Open paths
  - 2.4. Closed paths
  - 2.5. Using the freehand tool
  - 2.6. Creating rectangles and ovals
  - 2.7. Using the auto trace tool
- 3. Selecting and Editing Objects and Paths
  - 3.1. Selecting objects
  - 3.2. Moving objects
  - 3.3. Copying objects
  - 3.4. Deleting objects
  - 3.5. Editing paths
  - 3.6. Aligning and distributing objects
  - 3.7. Grouping and locking objects
  - 3.8. Special tool considerations:
- 4. Using the Painting Tools
  - 4.1. Sampling color with the eyedropper
  - 4.2. Painting objects
  - 4.3. Create gradient fills and patterns
  - 4.4. Filling with the bucket
  - 4.5. Stroke and Fill
- 5. Layering and Arranging Objects
  - 5.1. Aligning objects
  - 5.2. Grouping
  - 5.3. Using layers
  - 5.4. Using the measure tool
  - 5.5. Masks

# COURSE CONTENT AND SCOPE (CONTINUED)

- 6. Creating Type
  - 6.1. Creating text objects
  - 6.2. Formatting text
  - 6.3. Transforming text
- 7. Using the Transformation Tools
  - 7.1. Scaling
  - 7.2. Rotating
  - 7.3. Reflecting
  - 7.4. Shearing
  - 7.5. Using the blend tool
- 8. Creating Patterns and Stroking Paths
  - 8.1. Creating patterns
  - 8.2. Modifying patterns
  - 8.3. Stoking paths
- 9. Filters
  - 9.1. Installing filters
  - 9.2. Using filters to edit artwork
- 10. Raster, Other Applications and File Formats
  - 10.1. Understanding vector and raster files
  - 10.2. Working with Photoshop and other applications
  - 10.3. Transforming vector to raster
  - 10.4. Applying filters
- 11. Creating Graphs
  - 11.1. Entering and editing graph data
  - 11.2. Adjusting graphs
  - 11.3. Customizing a graph
- 12. Printing Documents
  - 12.1. Setting print options
  - 12.2. Printing gradient fills
  - 12.3. Splitting paths
  - 12.4. Setting output resolution
- 13. Producing Color Separations
  - 13.1. Calibrating the monitor
  - 13.2. Assigning color to artwork
  - 13.3. Trapping
  - 13.4. Placing crop marks
  - 13.5. Saving file for separation
- 14. Blends, Masks, and Gradient Fills
  - 14.1. Using the Blend Tool
  - 14.2. Creating a mask
  - 14.3. Blends vs. gradient fills
- 15. Resolve Common Hardware and Software Problems on Macintosh and IBM Computers
  - 15.1. Organizing files
  - 15.2. Managing memory
  - 15.3. Selecting the best hardware and software for the project within budgetary constraints
  - 15.4. Storage

### COURSE CONTENT AND SCOPE (CONTINUED)

- 15.5. Networking
- 15.6. Cross-platform issues
- 15.7. Special tool considerations

#### APPROPRIATE READINGS

Appropriate readings may include, but are not limited to, periodicals, magazines, instructorwritten materials, manuals and other publications related to design and vector drawing.

#### WRITING ASSIGNMENTS

Appropriate writing assignments may include, but are not limited to, preparing text for an assigned project, identifying and listing industry standards, preparing a list of current software and hardware used in the field of multimedia, maintaining a portfolio of class assignments and providing written answers to specific questions related to vector drawings and design.

#### **OUTSIDE ASSIGNMENTS**

Outside assignments may include, but are not limited to, reading texts, reference resources or handouts; research as needed to complete projects; and organizing and preparing written answers to assigned questions.

#### APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING

Assignments which demonstrate critical thinking may include, but are not limited to, written and oral analysis and evaluation of readings and/or classroom materials; design and selection of appropriate features or application software to complete a project, understanding limitations of desktop publishing features, the incorporation of appropriate design elements, and prioritization of multi-task projects.

#### **EVALUATION**

Evaluation will be based on performance in a variety of activities and assignments such as:

- 1. Written and practical tests.
- 2. Completion of assigned projects.
- 3. Attendance and punctuality.
- 4. Completion of performance objectives.
- 5. Participation in class activities.
- 6. Working on projects with classmates.
- 7. Creation of a portfolio.

Upon successful completion of each individual course a Certificate of Course Completion will be issued. Upon successful completion of all courses included in the program a Certificate of Program Completion will be issued.

#### METHOD OF INSTRUCTION

Methods of instruction will include, but not be limited to, lecture, self-paced lab, demonstration, individualized study, use of audio-visual aids, tutorials, group/team work and other unique instructional strategies such as, field trips, job shadowing, volunteering and guided student job assignments may be utilized. This course, or sections of this course, may be offered through distance education.

#### TEXTS AND SUPPLIES

Texts:

Adobe Illustrator Classroom In A Book, Adobe Press The Illustrator Book, Deke McClelland, Peachpit Press Adobe Illustrator Masterworks, Sharyn Venit, MIS: Press Illustrator Wow Book, Sharon Steuer, Peachpit Press

Professional Studio Techniques Design Essentials, Luanne Seymour Cohen, Adobe Press Professional Studio Techniques Production Essentials, Diane Tapscott, Adobe Press Professional Studio Techniques Imaging Essentials, Luanne Seymour Cohen, Adobe Press The Whole Mac Solutions for the Creative Professional, Daniel Giordan, Hayden Books Adobe Illustrator: A Visual Guide for the Mac, Janet Ashford, Addison-Wesley Illustrator: A Visual Quick Start Guide, Peachpit Press Real World Freehand, Olav Kvern, Peachpit Press Freehand Graphics Studio 7 Interactive, Macromedia Inc. Freehand for Macintosh: Visual Quickstart Guide, Sandee Cohen

Online Video Training: Lynda.com VTC.com

Magazines:

*Adobe Magazine*, Adobe Press - Every month there are tips and tricks for Illustrators *Desktop Publishers*, Desktop Publishing Institute

Web Sites:

http://www.adobe.com http://www.apple.com http://www.hypermedia.com http://www.killersites.com http://www.web-master.com

Tools: Computer that exceeds the Adobe recommended system requirements

Software suggested: Adobe Illustrator & Freehand

#### TEXTS AND SUPPLIES (CONTINUED)

Digital imaging devices and software Flatbed scanner Digital camera

Storage media: CDs, DVDs, USB Drives, etc.

Optional tool considerations: Plug-Ins Drawing Tablets Color printer

PREPARED BY	Karen Owen	DATE <u>Oct. 5, 1997</u>
REVISED BY	Paul Richard	DATEFebruary 22, 2007
REVISED BY Ins	tructional Services/SLO's Added	DATE December 18, 2013

Instructors must meet all requirements stated in Policy 3100 (Student Rights, Responsibilities and Administrative Due Process), and the Attendance Policy set forth in the Continuing Education Catalog.

#### **REFERENCES**:

San Diego Community College District Policy 3100 California Community Colleges, Title 5, Section 55002 Continuing Education Catalog