



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

Course Number
DMA 110

Course Title
Digital Imaging

Credits
3

Hours:
Lecture/Lab/Other
1 / 4 / 0

Co- or Pre-requisite
No Pre-requisites

Implementation
Spring 2022

Catalog description:

Designed to meet the needs of artists and designers in diverse fields, this course utilizes the leading professional imaging software to explore digital image manipulation, retouching and compositing. Digital Imaging address the practical and creative aspects of producing art and illustrations and manipulating photographs and other images through a series of hands-on assignments.

General Education Category:

Not GenEd

Course coordinator:

Mauro Zamora ext. 3340 zamoram@mccc.edu

Required texts & Other materials:

Portable memory storage between 128GB – 1TB in size
Readings provided by faculty

Optional Texts

Adobe Photoshop Classroom in a Book
(2021 release) 1st Edition
ISBN-13: 978-0136904731
Available in book and digital formats

Course Student Learning Outcomes (SLO):

Upon successful completion of this course the student will be able to:

1. Demonstrate the ability to effectively use the major tools and commands of Photoshop [Supports ILG # 4; PLO # 1, 3]
2. Choose the right tools and settings within Photoshop to create imagery and files for graphic design, web design, and photography [Supports ILG # 4, 10, 11; PLO # 1, 3]
3. Demonstrate the ability to apply the concepts of digital imaging such as resolution and digital color and be able to manipulate them effectively [Supports ILG # 4, 11; PLO # 1, 3]
4. Apply the skills of photo retouching, manipulation, compositing, and composition to achieve the desired results [Supports ILG # 4; PLO # 1, 2, 3]
5. Use Photoshop in conjunction with other programs and various file types both for getting elements into Photoshop as well as for use within other applications. [Supports ILG # 4, 10, 11; PLO # 3, 4]

6. Discuss their work during a critique and critically evaluate and justify their artistic choices for projects.
[Supports ILG # 1; PLO # 6]

Course-specific Institutional Learning Goals (ILG):

Institutional Learning Goal 1. Written and Oral Communication in English. Students will communicate effectively in both speech and writing.

Institutional Learning Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Institutional Learning Goal 6. Humanities. Students will analyze works in the fields of art, music, or theater; literature; philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.

Institutional Learning Goal 10. Information Literacy: Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Institutional Learning Goal 11. Critical Thinking: Students will use critical thinking skills understand, analyze, or apply information or solve problems.

Program Learning Outcomes for Digital Media Arts (PLO)

1. Understand the pre-production process, for applied design in the areas of animation, multi-media, web design, and digital asset distribution on the internet.
2. Understand and apply storytelling principles applicable in the areas of animation, multi-media, web design, and digital asset distribution on the internet.
3. Produce and manage digital assets for various production scenarios including animation, multi-media, web design.
4. Produce and manage two-dimensional and three-dimensional digital assets containing change over time and throughout pagination using professional software.
5. Use professional 3-D modeling, animation, prototyping, or text editor software applications.
6. Develop and present ideas in both written and oral formats.
7. Use professional software applications to design websites with accessible design and content.
8. Use design principles to develop websites that communicate effectively.
9. Create a professional portfolio to serve in the pursuit of further education or employment.

Units of study in detail – Unit Student Learning Outcomes:

Unit I **Vector and Brush Artwork** [Supports Course SLO # 1, 2]

Learning Objectives

The student will be able to:

- Demonstrate ability to use the brush and drawing tools effectively for creating images
- Demonstrate ability to use the vector shape and line tools effectively for creating images
- Demonstrate ability to use the Type tool and options effectively for editing and formatting text
- Demonstrate ability to use Layers to manage image elements and order in an effective manner
- Demonstrate ability to conceptualize and articulate visually ideas in a two-dimensional composition

Unit II **Photo Retouching and Restoration** [Supports Course SLO # 2, 3, 4, 6]

Learning Objectives

The student will be able to:

- Demonstrate ability to save files in Photoshop in different formats and understand the benefits and disadvantages of TIFF, JPEG, PSD, and RAW
- Demonstrate understanding of the benefits and disadvantages of Bitmap vs. Vector programs.
- Demonstrate ability to manage files properly (network, hard drive, and external storage).

- Demonstrate understanding of Image Size, File Size, Resolution, and the difference between PPI, LPI, and SPI.
- Demonstrate ability to scan at the required Target Size and Resolution.
- Demonstrate ability to retouch and restore photographs using the following tools: Rubber Stamp, History Brush, Healing Brush, and Content Aware Fill. Compare and contrast these tools and know methods for controlling their features.
- Demonstrate understanding of Megapixel calculation and Bit Depth.
- Discuss their work during a critique and critically evaluate the work of their peers.

Unit III Layer Masks and Digital Collage [Supports Course SLO # 1, 3, 4, 5, 6]

Learning Objectives

The student will be able to:

- Conceptualize and articulate visually their idea in a two-dimensional composition.
- Design effective use of Layers and Transformations.
- Combine various tools and techniques to insert, effects, and substitute image elements.
- Demonstrate ability to use basic Selection tools (Magic Wand, Lasso Tools, and Subtractions and Additions) and understanding of the benefits and disadvantages of each.
- Demonstrate ability to use Layer Effects, Styles, Layer Masks, and Clipping Masks.
- Demonstrate ability to use Filters and understand when to use them based on project goals.
- Demonstrate understanding of Copyright and when parody and farce can be considered Fair Use of Copyrighted material.
- Demonstrate ability to export images for use on the web.
- Discuss their work during a critique and critically evaluate the work of their peers.

Unit IV Color Correction [Supports Course SLO # 3, 4, 6]

Learning Objectives

The student will be able to:

- Demonstrate ability to use, compare, and contrast the following adjustment tools: Selective Color, Replace Color, Levels, Hue/Saturation, and Color Range.
- Demonstrate ability to use Curves as an adjustment tool for Color Correction and Tonal Values adjustment and understand the benefits of Curves vs. other adjustment tools.
- Demonstrate understanding of Color Theory (RGB-additive vs. CMYK-subtractive) and of the RGB-to-CMYK conversion.
- Demonstrate ability to use Adjustment Layers and how to limit their effects via Masks and Layer Grouping.
- Demonstrate ability to sharpen images with unsharp mask.
- Discuss their work during a critique and critically evaluate the work of their peers.

Unit V Advanced Composition [Supports Course SLO # 1, 2, 3, 4, 5, 6]

Learning Objectives

The student will be able to:

- Demonstrate ability to conceptualize and articulate visually the idea of the truth and constructed reality in a two-dimensional composition.
- Demonstrate an understanding of Surrealist ideas and why imaginary or combined imagery is or is not Surrealistic.
- Discover and experiment with devices to show depth.
- Demonstrate an understanding of Surrealist ideas and why imaginary or combined imagery is or is not Surrealistic.
- Discover and experiment with devices to show depth
- Demonstrate ability to use advanced selection techniques, Channels/Masks, and Quick Mask mode.
- Demonstrate ability to use Paths as an advanced selection method.
- Demonstrate ability to export images for use on social media platforms.
- Discuss their work during a critique and critically evaluate the work of their peers.

Evaluation of student learning:

Evaluation of progress and grades are determined by the instructor, based upon the following considerations: attendance, participation, estimate of quality of class work and homework assignments.

Grade Breakdown Percent Overall Grade

Class Attendance and Participation	10%
Quiz: File Types, Resolutions, Terminology	15%
Project 1: Vector and Brush Artwork	15%
Project 2: Photo Retouching and Restoration	15%
Project 3: Layer Masks and Digital Collage	15%
Project 4: Color Correction	15%
Project 5: Advanced Composition	15%
<hr/> Total	<hr/> 100%