DMA 110  Digital Imaging I  3 Credits

Hours:  1 Lecture/ 4 Lab
Pre-requisite: N/A
Implementation Fall 2013

Catalog description:
Designed to meet the needs of artists and designers in diverse fields, involves the leading professional paint and photo retouching software. Addresses the practical and creative aspects of producing art and illustrations and manipulating photographs and other images through a series of hands-on assignments.

Is course New, Revised, or Modified? Revised

Required texts/other materials:
1. Required Lynda.com subscription (instructor will assign during the first class)
2. Digital files from the instructor’s files.
3. Computer hardware and software.

Revision date: Fall 2013  Course coordinator: Sarah Sweeney, tel. x 3457, e-mail: sweeney@mccc.edu

Information resources:
Digital files from the instructor’s files, handouts, computer hardware and software.

Other learning resources: N/A
Course Goals:

The student will be able to:

1. Demonstrate the ability to effectively use the major tools and commands of Photoshop (GE Goal 4, MCCC CS Goal E)
2. Choose the right tools and settings within Photoshop to create imagery and files for graphic design, web design, and photography (GE Goal 4, MCCC CS Goal E)
3. Demonstrate the ability to apply the concepts of digital imaging such as resolution and digital color and be able to manipulate them effectively (GE Goal 4, MCCC CS Goal D, E)
4. Apply the skills of photo retouching, manipulation, and composition to achieve the desired results (GE Goal 4, MCCC CS Goal B, E)
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. (GE Goal 4, MCCC CS Goal B, E)
6. Discuss his/her work during a critique and critically evaluate and justify his/her own artistic and vocational practice (GE Goal 9, MCCC CS Goal B, C, D, E)

Course-specific General Education Knowledge Goals and Core Skills.

General Education Knowledge Goals
Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

MCCC Core Skills
Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.
Goal C. Ethical Decision-Making. Students will recognize, analyze and assess ethical issues and situations.
Goal D. 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.
Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.

Units of study in detail.

Unit I: Vector and Brush Artwork
The student will be able to:

• Demonstrate an understanding of the Photoshop User Interface. (CG 1,2)
• Demonstrate ability to use the brush and drawing tools effectively for creating images. (CG 1,2)
• Demonstrate ability to use the vector shape and line tools effectively for creating images. (CG 1,2)
• Demonstrate ability to use the Type tool and options effectively for editing and formatting text. (CG 1,2)
• Demonstrate ability to use Layers to manage image elements and order in an effective manner. (CG 1,2,3)
• Demonstrate ability to conceptualize and articulate visually his/her idea in a two-dimensional composition. (CG 3,4)
• Discuss his/her work during a critique and critically evaluate and justify his/her own artistic and vocational practice. (CG 6)

**Unit II: Photo Retouching and Restoration**

*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. (CG 2,3,5)
• Demonstrate understanding of the benefits and disadvantages of Bitmap vs. Vector programs. (CG 2,3)
• Demonstrate ability to manage files properly (network, hard drive, and external storage). (CG 5)
• Demonstrate understanding of Image Size, File Size, Resolution, and the difference between PPI, LPI, and SPI. (CG 1,2,3,5)
• Demonstrate ability to scan at the required Target Size and Resolution. (CG 1,2,3)
• Demonstrate ability to retouch and restore photographs using the following tools: Rubber Stamp, History Brush, and Healing Brush. Compare and contrast these tools and know methods for controlling their features. (CG 1,2,4)
• Demonstrate understanding of Megapixel calculation and Bit Depth. (CG 1,2,3,5)
• Demonstrate understanding of Copyright and when parody and farce can be considered Fair Use of Copyrighted material. (CG 3,6)
• Discuss his/her work during a critique and critically evaluate and justify his/her own artistic and vocational practice. (CG 6)

**Unit III: Layers, Masks and Collage**

*The student will be able to…*

• Demonstrate ability to conceptualize and articulate visually his/her idea in a two-dimensional composition. (CG 3,4)
• Design effectively using Layers and Transformations. (CG 1,2,3)
• Combine various tools and techniques to insert, efface, and substitute image elements. (CG 1,2,3,4)
• Demonstrate ability to use basic Selection tools (Magic Wand, Lasso Tools, and Subtractions and Additions) and understanding of the benefits and disadvantages of each. (CG 1,2,3,4)
• Demonstrate ability to use Layer Effects, Styles, Layer Masks, and Clipping Masks. (CG 1,2,3,4)
• Discover and experiment with Filters. (CG 1,2)
• Discuss his/her work during a critique and critically evaluate and justify his/her own artistic and vocational practice. (CG 6)

**Unit IV: Color Correction**

*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. (CG 1,2,3)
• 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. (CG 1,2,3,4)
• Demonstrate understanding of Color Theory (RGB-additive vs. CMYK-subtractive) and of the RGB-to-CMYK conversion. (CG 1,2,3)
• Demonstrate ability to use Adjustment Layers and how to limit their effects via Masks and Layer Grouping. (CG 1,2,3)
• Demonstrate ability to sharpen images with Unsharp mask. (CG 1,2,3)
• Discuss his/her work during a critique and critically evaluate and justify his/her own artistic and vocational practice. (CG 6)

**Unit V: Advanced Compositing**

*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. (CG 3,4)
• Demonstrate an understanding of Surrealist ideas and why imaginary or combined imagery is or is not Surrealistic. (CG 3,4)
• Discover and experiment with devices to show depth. (CG 1,2,3)
• Demonstrate ability to use advanced selection techniques, Channels/Masks, and Quick Mask mode. (CG 1,2)
• Demonstrate ability to use Paths as an advanced selection method. (CG 1,2)
• Discuss his/her work during a critique and critically evaluate and justify his/her own artistic and vocational practice. (CG 6)

Evaluation of student learning:

Instructional modes to be used are: Integrated lecture and laboratory, studio assignments with specifications and limitations set by the instructor, demonstrations by the instructor, and discussions and critiques of student work.

The student is responsible for his or her regular attendance, participation in classroom discussions and critiques of student work, and for including his or her work to be discussed and evaluated. Diligent work on assignments is essential.

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

Values of quality, aesthetics, etc., are based upon the instructor’s judgment of the work produced, the effort employed, and the total result achieved. To receive full credit, all assignments are due on time. A late assignment will be accepted one class period after due date with a reduced letter grade. After one missed class period, late assignments will receive the grade of “F”.

The grade of “A” will be earned by students who demonstrate mastery of the essential elements of the material presented, as well as demonstrating excellence in aesthetics and originality in completing course objectives with at least 90% accuracy.

The grade of “B” will be earned by students who demonstrate more than adequate mastery of the essential elements of the material presented and acceptable knowledge of the course content. Achievement will be demonstrated when all of the specific course objectives are fulfilled with at least 80% accuracy.

The grade of “C” will be earned by students who demonstrate adequate mastery of the essential elements of the material presented. Achievement will be demonstrated when all of the specific course objectives are fulfilled with at least 70% accuracy.

The grade of “D” is undesirable, but indicates a minimum passing of the course requirements. All of the course objectives must be fulfilled with at least 60% accuracy.

The grade of “F” will be earned by students who do not demonstrate achievement.

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<thead>
<tr>
<th>Grade Breakdown</th>
<th>Percent Overall Grade</th>
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</thead>
<tbody>
<tr>
<td>Class Attendance and Participation</td>
<td>10%</td>
</tr>
<tr>
<td>Quiz: File Types, Resolutions, Terminology</td>
<td>15%</td>
</tr>
<tr>
<td>Project 1: Vector and Brush Artwork</td>
<td>15%</td>
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</tbody>
</table>
Project 2: Photo Retouching and Restoration 15%
Project 3: Layers, Masks, Collage 15%
Project 4: Color Correction 15%
Project 5: Advanced Compositing 15%

**Academic Integrity Statement:**
As per the student handbook, "A student will be guilty of violating academic integrity if he/she (a) knowingly represents the work of others as his/her own, (b) uses or obtains unauthorized assistance in the execution of academic work, or (c) gives fraudulent assistance to another student." Students should read the Academic Integrity policy in the MCCC Rights and Responsibilities Student Handbook. Academic Dishonesty will result in failure of this course.

**Any student who has special needs because of a disability is entitled to receive accommodations.**
Eligible students at Mercer County Community College are assured services under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973.

If you believe you are eligible for services, please contact Arlene Stinson, the Director of Academic Support Services. Ms. Stinson’s office is LB221, and she can be reached at (609) 570-3525.

On the James Kerney Campus, contact Assistant Dean Donald Jones in KC216 or at (609) 570-3147.