

Enrollment Management  
10/15

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE  
ACADEMIC AFFAIRS

Course Number: GAT-162 Class/Lect. Hours: 2 Lab Hours: 3 Credits: 3 Dept.: Graphic Com. & Photography  
Course Title: Digital Imaging/Photoshop Semester: Fall Year: 2017

**Course Description, Prerequisite, Corequisite:**

Using Macintosh computers, students will learn to use current versions of the industry-standard digital image manipulation programs, Adobe Photoshop and Adobe Lightroom. Students will learn how to properly prepare digital images for a wide variety of output considerations and to improve the aesthetic quality of digital images. In addition, students will learn how to realistically create and modify digital images using sound graphic design principles for both print and screen applications. Students will develop professional digital retouching and restoration, compositing, and a wide variety of advanced digital imaging techniques. Students will also learn the basic principles of image capture and color management.

Prerequisite: None  
Corequisite(s): GAT-162L

**OBJECTIVES/COMPETENCIES**

Course Objectives	Competencies
1. Students will demonstrate a working knowledge of the Adobe Photoshop and Lightroom programs.	<ol style="list-style-type: none"><li>1. Use appropriately the basic terminology of digital imaging.</li><li>2. Demonstrate color theory and color correction methodology on digital images.</li><li>3. Demonstrate the many methods of making selections including the Quick Mask, layer mask, various selection tools, and the use of vector-based drawing tools.</li><li>4. Demonstrate how multiple layer compositing affects an image, and how to apply the different layer and brush blending modes.</li><li>5. Combine multiple images to create realistic photographic effects.</li><li>6. Demonstrate the process of retouching and restoring original images using appropriate retouching and painting tools, including the Vanishing Point filter, Content Aware, and other methods of image manipulation.</li><li>7. Simulate photo-realistic depth-of-field in bitmapped images.</li></ol>

2. Students will properly process digital images to meet the requirements of specific viewing or printing applications.

3. Students will be able to produce realistic-looking images through the proper use of perspective, design, and image processing tools.

4. Students will use Adobe Photoshop to process images for internet usage.

5. Students will demonstrate a working knowledge of the basic principles of color management.

8. Create photo-realistic shadows in bitmapped images.
9. Utilize perspective-altering tools to modify bitmapped images.
10. Demonstrate Photoshop's typographical tools and effects.
11. Work with vector-based paths and objects in Photoshop.
12. Apply Photoshop filters and plug-ins to bitmapped images.
13. Process raster images in Photoshop for use with the World Wide Web.
14. Process Raw images using Adobe's raw converter using both Photoshop and Lightroom.

1. Determine how the image will be printed or displayed.
2. Determine the proper line screen, image resolution, and file format required.
3. Determine proper color correction and tonal targeting ranges of the digital image.

1. Create photo-realistic effects by altering perspective by the use of various transformation and image distortion and correction techniques.

1. State how each of the Photoshop file format options work with the World Wide Web for type-based images, simple graphic images, and larger, complicated graphic images.
2. Demonstrate how the Indexed Color command reduces the number of colors to be displayed to the web browser.
3. Choose the proper resolution for an image for the WWW.

1. Relate how color theory is applied in a digital imaging workflow.
2. Explain the color management workflow from image capture, processing, and output to different devices, including different printers and displays.
3. Explain how out of gamut colors are handled through the use of different rendering intents.
4. Explain how color management profiles are created, and how the different profiling methods are used.
5. Choose the appropriate rendering intent for a digital image.
6. Explain why color management is needed in the graphic design and photography industry.

1. Discuss how libel applies to digital imaging.

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6. Students will have a basic understanding of professional ethics in digital imaging.

7. Students will produce potential portfolio images using Adobe Photoshop.

2. Explain what level of image manipulation is acceptable depending on the image's intended use.

3. Explain the implications of both lawful and unlawful digital image manipulation.

1. Using techniques learned throughout the course, the student will produce a series of projects that may be suitable for a portfolio showcasing their Photoshop and digital imaging skills.