

### Course Outline

**COURSE:** CSIS 80                      **DIVISION:** 50                      **ALSO LISTED AS:** DM 80

**TERM EFFECTIVE:** Fall 2021                      **CURRICULUM APPROVAL DATE:** 12/14/2021

**SHORT TITLE:** DIGITAL PHOTOGRAPHY

**LONG TITLE:** Digital Photography

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
3	18	Lecture:	2	36
		Lab:	4	72
		Other:	0	0
		Total:	6	108

#### **COURSE DESCRIPTION:**

The study of digital photography from digital camera to the computer-based printer or digital media. Artistic, theoretical, and technical aspects will be considered. Topics include information about types and purchasing of digital cameras; theory, mechanics, and art of digital imagery; digital darkroom; eccentricities of digital photo taking; stitching photos for virtual reality; and preparing digital images for print, World Wide Web and other digital media. This course has the option of a letter grade or pass/no pass. This course is also listed as DM 80. **ADVISORY:** CSIS 1 or CSIS 2/2L or ART 8A or equivalent computer experience.

**PREREQUISITES:**

**COREQUISITES:**

**CREDIT STATUS:** D - Credit - Degree Applicable

#### **GRADING MODES**

L - Standard Letter Grade

P - Pass/No Pass

**REPEATABILITY:** N - Course may not be repeated

## **SCHEDULE TYPES:**

- 02 - Lecture and/or discussion
- 03 - Lecture/Laboratory
- 04 - Laboratory/Studio/Activity
- 047 - Laboratory - LEH 0.7
- 05 - Hybrid
- 71 - Dist. Ed Internet Simultaneous
- 72 - Dist. Ed Internet Delayed
- 73 - Dist. Ed Internet Delayed LAB
- 737 - Dist. Ed Internet LAB-LEH 0.7

## **STUDENT LEARNING OUTCOMES:**

By the end of this course, a student should:

1. Create photographic artworks utilizing compositional considerations, and design elements and principles such as: line, shape, volume, balance, emphasis economy, variety, repetition, rhythm, space, texture, value, and color.
2. Critique, analyze, and discuss digital photographic theories, ideas, and concepts.
3. Use digital photographic cameras, computer equipment and digital programs utilizing digital techniques to create dynamic digital photographic images.
4. Create a digital photographic portfolio in a variety of styles.

## **COURSE OBJECTIVES:**

By the end of this course, a student should:

1. Define what digital photography is.
2. Describe and demonstrate the basic functions and features of a digital camera.
3. Explain and utilize the usage of light in taking pictures.
4. Describe exposure and shutter speeds and demonstrate how they affect photography.
5. Discuss image quality and demonstrate what to do to enhance it.
6. Create portrait and product photographs.

## **CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS**

Curriculum Approval Date: 12/14/2021

### **LECTURE CONTENT:**

4 Hours

Lecture:

Introduction to the class. Define outcomes, grading, assignments, and lab hours. Why Use a Digital Camera: affordability and image quality, storage and duplication, availability and flexibility, speed and convenience, color and focus modifications. Types of Digital Cameras: entry-level digital cameras, who is using entry-level digital cameras' deluxe point-and-shoot digital cameras, professional digital cameras, who uses professional digital cameras' Chronological history of the invention of digital photography. History of digital photographic tools and media. History of digital photographic artists from 1970 to present. Digital photographic aesthetics, composition and design elements. Digital photographic terminology. Talking and writing about digital photography. Digital photographic topics - may include but not limited to: Nature, Photojournalism, Self-Portraiture, Studio, etc.

4 Hours

Lecture:

How Digital Cameras Work: from lens to image sensor, diaphragm and shutter (or lack thereof), focal lengths, how the image sensor works, photosites, pixels and resolution, CCD versus CMOS, storing the image, image size and compression. The Mechanics of Digital Imagery: pixels and bits, converting between color modes, images for the web, print resolution, image file formats, compression. Digital camera controls may include but not limited to: apertures, shutter speeds, compensation dial, white balance, contrast, saturation, special effects, shutter release, lens, lens release, depth of field dial, depth of field preview, pc cord socket, sync flash, hot shoe, motor drive socket, lens release, meter, view finder, focus, etc.

4 Hours

Lecture:

The Digital Camera Interface: viewfinder and LCD, rangefinder versus SLR, media and connectivity, USB. Shopping for a Digital Camera: what will you be using the camera for, minimum image-quality standards, what features do you really want, lens performance. Basic zone system. Photographic lighting equipment. Photographic lighting techniques. Available light versus studio lighting. The Desktop Studio: the set, light, flash equipment, light meters.

4 Hours

Lecture:

The Digital Darkroom: the computer, Mac versus Windows: which OS is better, software, memory, monitor and video card, gamma adjustment, and printer types. Equipment setup. Digitally processed images evaluation. Midterm review.

4 Hours

Lecture:

Essentials of Digital Photography: Creating with Light, The Digital Zone System, Exposure Partners: ISO, Aperture, and Shutter Speed, Creative Exposure Techniques, Aperture and Depth of Field, Lenses, White Balance, Saturation, Contrast. Midterm exam - multiple choice, compare and contrast, and short essay.

4 Hours

Lecture:

Correcting Your Photographs: straightening and cropping, brightness and contrast, correcting the levels, correcting color, restoring saturation, using unsharp mask, suppressing noise and artifacts. Dodging and burning. Dust and scratch removal techniques. Printing formats and methods. Demonstrate what makes a good photograph to print and the steps needed to make it so.

4 Hours

Lecture:

Preparing Images for Print: RGB and converting to CMYK, color matching, using a personal printer, preparing for professional output. Preparing Images for the Web: putting the squeeze on file size, choice of file formats (i.e., JPEG, GIF, PNG), indexing colors for GIF. Archiving Digital Images: burning CD-ROMs for Macintosh and Windows, compression utilities, cataloging your archives, creating thumbnails, creating a web catalog, creating a print catalog, creating a DVD slide show. Alternative and experimental digital photographic methods. Handcoloring, filters, and collage.

6 Hours

Lecture:

Art and Design using Composite Images: creating the design, shooting images that work together, modifying and compositing the images. Immersive Imaging and QuickTime VR: making panoramic movies, setting up the camera on a tripod, stitching the panos, adding interactivity and hotspots, putting the movie together, stitching, embedding immersive images in a web page. Studio lighting equipment, tools, and setup for Still life and Portrait photography. Photographic studio safety. Presentation of more digital image art. Discussion of VR, using digital images in movies/video, and the possibilities for the future. Preparation for the final exam. Final Exam review.

2 Hours

Final exam - written.

## **LAB CONTENT:**

8 Hours

Lab assignments:

Group critique and discussion of various digital artworks. Go to lab, log in, and get acquainted. Go through the online tutorials. Search the net for digital pictures. Get a description of three digital cameras with at least one being a professional model.

8 Hours

Lab:

Digital camera controls assignments which incorporate the following as hands on exercises- may include but not limited to:

apertures, shutter speeds, white balance, saturation adjust, contrast adjustment, special effects, compensation dial, shutter release, lens, lens release, depth of field dial, depth of field preview, pc cord socket, sync flash, hot shoe, motor drive socket, lens release, meter, view finder, focus dial, etc. Group critique and discussion of various digital photographic artworks. Download the images in the computer. Arrange them by shortest to longest focal length used to take the pictures. Print the set. Save the images in different file types. Compress two of the images using different quality settings. Compare the file size before and after compression.

8 Hours

Lab assignment:

Research on the web for cameras that would fill your needs. Print out the information. Exercises using the basic zone system. Exercises using photographic lighting equipment. Exercises using photographic lighting techniques. Exercises using available light and studio light.

8 Hours

Lab assignment:

List the equipment in the Digital Media Center and research the items on the web. Write down the costs and determine from the specification if the equipment meets the needs of the digital photography class. Work on designs for Digital Darkrooms.

8 Hours

Lab assignment:

Print your pictures in the lab in both black and white and color. Do not retouch the images using the software. Save all your files. Practice digital photographic shooting and processing. Practice camera controls.

8 Hours

Lab assignments:

Digital processing corrections to photographs. Make a composite of all the images, adjusting each image so that they work together in one layout.

8 Hours

Lab assignment:

Using the computer, prepare and print images from the previous assignment. Archive all photos on a CD. Create a web catalog and a DVD slide show of selected images. Practice alternative and experimental digital photographic printing. Practice Handcoloring, filters, and collage.

14 Hours

Lab assignment:

Shoot pictures for the composite art project. Using the computer, construct the composite artwork. Shoot pictures for the VR project. Prepare the images and stitch them together to make the movie. Add interactivity. Make a web version. Practice studio still life photography techniques. Practice studio portrait photography techniques. Work with studio equipment and tools. Practice setting up and breaking down studio equipment. Practice safe studio management.

2 Hours

Final. Portfolio critique and discussion.

**METHODS OF INSTRUCTION:**

Lecture, Demonstration, Discussion, Guided Practice, Presentations

**OUT OF CLASS ASSIGNMENTS:**

Required Outside Hours 8

**Assignment Description**

Exercises / Reading / Homework: Gallery or Exhibition review of photographic artwork. OR Write an essay about one of the 49 most influential photographers of all time. You will be randomly assigned one of the photographers. You will research the photographer and note their contributions to photography. Reading assignments from text and/or handouts on photographic history, aesthetics, composition, design elements, terminology and writing and discussion for critiquing. Research magazine or web for digital images. Read chapters on why to use a digital camera and the types of digital cameras.

Required Outside Hours 8

**Assignment Description**

Exercises / Reading / Homework: Reading assignments from text and/or handouts on digital camera controls. OR Reading Assignment: Chapter 1 from Understanding Photography (UPB). Photo Assignment: Patterns from Compelling Photograph Book (CPB). Practice using digital camera controls. Complete digital camera controls assignment. Written analysis of various digital photographic artworks. Go into the field and shoot 3 images: each at 2 different focal lengths. Read chapters on How Digital Cameras Work and The Mechanics of Digital Imagery.

Required Outside Hours 8

**Assignment Description**

Exercises / Reading / Homework: Reading assignments from text and/or handouts on lighting. OR Reading Assignment: Chapter 3 UPB. Photo Assignment: Leading Lines CPB. Practice using various lighting techniques. Read chapters on the digital camera interface and shopping for a camera. Analyze your photographic interests and determine what camera and accessories would fit those needs. Analyze the web pictures of the camera to get a thorough understanding of the user interface. Written work addressing these issues.

Required Outside Hours 8

**Assignment Description**

Exercises / Reading / Homework: Read chapters on the digital darkroom and studio. Research on the web and design your own desktop studio. Reading assignments from text and/ or handouts on digital image processing. Practice digital processing procedures. OR Reading Assignment: Chapter 2 UPB. Photo Assignment: Symmetry CPB.

Required Outside Hours 8

**Assignment Description**

Exercises / Reading / Homework: Read chapter on the essentials of photography. In the field, shoot pictures in at least 3 different light conditions. Note and log the settings of the camera. Shoot one picture that has an eerie or very emotional lighting to it. Write a short statement as to your emotion at the time of taking the picture. Reading assignments from text and/ or handouts on digital photographic printing. Practice digital photographic shooting and processing procedures. OR Reading Assignment: Chapter 5 UTB. Photo Assignment: Shapes CPB.

Required Outside Hours 8

Assignment Description

Exercises / Reading / Homework: Read chapter on correcting your photographs. Study of pictures from the previous assignment and identification of artifacts, color correction, and/or sharpening. Reading assignments from text and/ or handouts on photographic printing techniques. Practice dodging and burning digital photographic images. OR Reading Assignment: Chapter 7 UPB. Photo Assignment: Open the book Street Photo Assignment and complete Assignments 1, 2, 8 and 12.

Required Outside Hours 8

Assignment Description

Exercises / Reading / Homework: Read chapter about Preparing Images for Print and the Web. Analyze your pictures and determine what steps to take to improve them for print and what steps to take to improve them for the web (screen). Reading assignments from text and/ or handouts on alternative and experimental digital photographic techniques. Practice using alternative and experimental techniques. OR Reading Assignment: The Enthusiasts Guide to Photoshop, Chapters 1 and 2. Photo Assignment: Take any image and perform a before and after in Photoshop or other post processing application.

Required Outside Hours 6

Assignment Description

Exercises / Reading / Homework: Read handouts on compositing images for art. Sketch a composite art project. Read chapter about immersive imaging and QuickTime VR. Plan a VR project. Write down the steps and photos needed to create it. Reading assignments from text and/ or handouts on studio techniques, still life photography techniques, and portrait photography techniques. Practice studio photography. Read the handouts on digital photo art. Reading assignments from text and/ or handouts on digital photographic selection, digital photographic matting techniques, and digital photographic portfolios. OR Reading Assignment: Art of Photography Book, Chapters 1, 2, 3, 4, and 5. Photo Assignment: TBD.

Required Outside Hours 10

Assignment Description

Exercises/ Reading/ Homework: Camera Types and Tripods - Reading Assignment: Chapter 4 UPB. Photo Assignment: Curves CPB. Using Flash to Enhance Subject Illumination - Reading Assignment: Chapter 6. Photo Assignment: Depth of Field CPB. Introduction to Portrait Lighting - Reading Assignment: Chapter 8 UPB. Photo Assignment: Long Exposure CPB. Other Shooting Techniques - Reading Assignment: Chapter 9 UPB and The Minimalist Photographer Book, Chapter's 1 and 2. Photo Assignment: Monimalism CPB. Street Photography - Reading Assignment: Street Photography (Read the whole book.) Photo Assignment: Juxtaposition. Product Photography - Reading Assignment: Read A Simple Guide to Product Photography. Photo Assignment: Any Product of your choice. Study for final exam.

**METHODS OF EVALUATION:**

Writing assignments

Evaluation Percent 10

Evaluation Description

Writing assignments: 10% - 20%

Written Homework, Short Essay

Problem-solving assignments

Evaluation Percent 30

Evaluation Description

Problem-solving demonstrations: 20% - 40%

Homework photo assignments

Skill demonstrations

Evaluation Percent 40

Evaluation Description

Skill demonstrations: 30% - 50%

Other: Lab Projects

Objective examinations

Evaluation Percent 20

Evaluation Description

Objective examinations: 10% - 30%

Multiple Choice,

True/False,

Completion

**REPRESENTATIVE TEXTBOOKS:**

Understanding Photography: Master Your Digital Camera and Capture That Perfect Photo, Sean T. McHugh, No Starch Press, 2018.

ISBN: 1593278942

12th Grade Verified by: MS Word

DSLR Camera (smart phones cannot be used). If you do not have a DSLR, one can be located for your use.

**ARTICULATION and CERTIFICATE INFORMATION**

Associate Degree:

GAV C1, effective 200530

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 200530

UC TRANSFER:

Transferable UC, effective 200530

**SUPPLEMENTAL DATA:**

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department:

CSU Crosswalk Course Number:

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: D

Maximum Hours:

Minimum Hours:

Course Control Number: CCC000137891

Sports/Physical Education Course: N

Taxonomy of Program: 061460