Course Acronym:	DART
Course Number:	142
Descriptive Title:	Digital Imaging Fundamentals
Division:	Fine Arts
Department:	Digital Art and Design Technology
Course Disciplines:	Multimedia
Catalog Description:	This course is an introduction to the processes, principles, and tools of digital imaging. Topics include the development of technical and aesthetic skills, elements of design and composition, overview of digital camera technology, digital photography software, image manipulation, and contemporary trends in photography.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	Art 150 or Photography 150 AND Photography 101
Enrollment Limitation:	
Hours Lecture (per week):	2
Hours Laboratory (per week):	4
Outside Study Hours:	3
Total Course Hours:	108
Course Units:	3
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	Fall 1997
Transfer UC:	Yes
Effective Date:	Fall 1997
General Education: ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	
Student Learning Outcomes:	Upon completion of this course, students will be able to:

	1. use non-destructive editing techniques to correct, improve, alter, and combine original photographs. 2. apply 2D design concepts in the execution of original digital photographic artworks. 3. demonstrate correct digital camera operation in the planning and execution of a complex photographic composite requiring multiple images specifically composed for digital manipulation.
Course Objectives:	1. Operate a computer system and demonstrate the ability to name and save files, use file extensions, back up work, create folders for projects, and use keyboard shortcuts. 2. Demonstrate digital imaging and photography software workflow, including image editing and compositing. 3. Define image resolution and color modes for print and screen output. 4. Apply elements and principles of design as they relate to digital photographic images. 5. Analyze and assess the relationship of digital photographs to the history of photography and other art forms. 6. Assess the purpose, scope, and specifications of art and formulate solutions by applying the appropriate creative and technical strategies. 7. Establish work schedules and prioritize tasks in order to satisfy production timelines. 8. Mount, mat, and properly present digital photography printed output of digital projects. 9. Analyze, discuss, and critique digital photography.
Major Topics:	**I. Elements and principles of design applied to photographic images (2 hours, lecture)** A. Line, shape, value, texture, scale, color, positive/negative space, figure/ground relationships, symmetry, asymmetry, pattern, focal point, balance, unity. **II. Elements and principles of design applied to photographic images (4 hours, lab)** A. Line, shape, value, texture, scale, color, positive/negative space, figure/ground relationships, symmetry, asymmetry, pattern, focal point, balance, unity. **III. Hardware and software (2 hours, lecture)** A. Opening and closing software programs and files B. Saving, save as, copying and renaming files C. Project folders, naming and organizing files, file extensions D. Removable media, backing up work, saving to hard drive, saving to removable media, and copying files between the two, cloud back-up E. Keyboard shortcuts F. Working with different file formats G. Vector and raster applications: capabilities and limitations and usage of each **IV. Hardware and software (4 hours, lab)** A. Opening and closing software programs and files B. Saving, save as, copying and renaming files C. Project folders, naming and organizing files, file extensions D. Removable media, backing up work, saving to hard drive, saving to removable media, and copying files between the two, cloud back-up E. Keyboard shortcuts F. Working with different file formats G. Vector and raster applications: capabilities and limitations and usage of each **V. Digital camera technology and controls (8 hours, lecture)** A. Exposure controls B. Camera and composition C. Effects of different lens types

D. Depth of field and focus controls
E. Single lens reflex (slr) versus point and shoot cameras
F. Image quality settings
G. Managing files from a digital camera
1. methods for uploading images
2. viewing files and file data
3. organizing and storing files
4. the editing process

VI. Digital camera technology and controls (16 hours, lab)

A. Exposure controls
B. Camera and composition
C. Effects of different lens types
D. Depth of field and focus controls
E. Single lens reflex (slr) versus point and shoot cameras
F. Image quality settings
G. Managing files from a digital camera
1. methods for uploading images
2. viewing files and file data
3. organizing and storing files
4. the editing process

VII. Image editing with digital photography software (12 hours, lecture)

A. Non-destructive editing techniques
B. Using selection tools to select portions of images, transforming selections, copying and pasting selections, saving selections
C. Using layers, merging layers, flattening images
D. Using painting and editing tools to manipulate images
E. Vector tools
F. Cropping tools
G. Retouching tools
H. Working with masks
I. Compositing images
J. Color and tone
    1. color modes and their applications to different media
    2. color adjustments
    3. tonal adjustments and histograms

VIII. Image editing with digital photography software (24 hours, lab)

A. Non-destructive editing techniques
B. Using selection tools to select portions of images, transforming selections, copying and pasting selections, saving selections
C. Using layers, merging layers, flattening images
D. Using painting and editing tools to manipulate images
E. Vector tools
F. Cropping tools
G. Retouching tools
H. Working with masks
I. Compositing images
J. Color and tone
1. color modes and their applications to different media
2. color adjustments
3. tonal adjustments and histograms

IX. Preparation, Analysis, and Criticism of Student Projects (12 hours, lecture)

A. Discussing digital images in relation to the history of art and photography
B. Using color and value to enhance aesthetic and expressive content

	C. Originating concepts for art work based on intent, purpose, and use of assigned project D. Organizing formal elements in designs so as to support conceptual content E. Recognizing content, purpose and scope of design task F. Determining spatial and formal motifs G. Establishing work schedules H. Producing preliminary sketches I. Conceptualizing solutions to creative problems **X. Preparation, Analysis, and Criticism of Student Projects (24 hours, lab)** A. Discussing digital images in relation to the history of art and photography B. Using color and value to enhance aesthetic and expressive content C. Originating concepts for art work based on intent, purpose, and use of assigned project D. Organizing formal elements in designs so as to support conceptual content E. Recognizing content, purpose and scope of design task F. Determining spatial and formal motifs G. Establishing work schedules H. Producing preliminary sketches I. Conceptualizing solutions to creative problems
Total Lecture Hours:	36
Total Laboratory Hours:	72
Total Hours:	108
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Shoot multiple photographs with the intention of combining them into a single image through digital manipulation.
Critical Thinking Assignment 1:	Create a single image that suggests a passage of time.
Critical Thinking Assignment 2:	Research an artist or photographer and create an image inspired by their work.
Other Evaluation Methods:	Class Performance, Homework Problems, Journal kept throughout course, Multiple Choice, Quizzes
Instructional Methods:	Demonstration, Discussion, Group Activities, Lab, Lecture, Multimedia presentations
If other:	Internet Presentation/Resources
Work Outside of Class:	Journal (done on a continuing basis throughout the semester), Observation of or participation in an activity related to course content (such as theatre event, museum, concert, debate, meeting), Problem solving activity, Skill practice, Study, Written work (such as essay/composition/report/analysis/research)
If Other:	
Up-To-Date Representative Texts:	Weinman and Lorekas. Visual Quickstart Guide: Photoshop CS6. Peachpit Press, 2012.(Discipline Standard)
Alternative Texts:	
Required Supplementary Readings:	Online tutorials provided by software manufacturer, blogs, and websites.
Other Required Materials:	Computer data storage device, studio tools
Requisite:	

Category:	
Requisite course(s): List both prerequisites and corequisites in this box.	
Requisite and Matching skill(s):Bold the requisite skill. List the corresponding course objective under each skill(s).	
Requisite Skill:	
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	
Requisite course:	Art 150 or Photography 150 AND Photography 101
Requisite and Matching skill(s):Bold the requisite skill. List the corresponding course objective under each skill(s).	**Prior experience with photographic composition will help student to succeed.** ART 150/PHOTO 150 - Define terminology as it pertains to style, form, visual elements, principles of design, and technical processes. **Compose photographic images applying the design elements of line, shape, and form.** PHOT 101 - Compose photographic images applying the design elements of line, shape, and form.
Requisite Skill:	
Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). If applicable	
Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Joyce Dallal
Date:	10/04/1994
Original Board Approval Date:	03/20/1995
Last Reviewed and/or Revised by:	Arnold Martin
Date:	03/10/2024
Last Board Approval Date:	06/17/2024
Effective Term:	FALL 2025