

Digital Photography I

Level: 2

Career Cluster: Media Arts

Program: Design and Digital Arts

Pathway: Graphic Design

Course Catalog Description

Introduces students to digital camera operation, composition, lighting, and image editing as they develop technical skills, creative vision, and professional workflow practices for photography and visual media applications.

Summary

Introduces students to digital photography through the development of technical and creative skills in camera operation, composition, lighting, and digital image editing. Students learn to operate DSLR or mirrorless cameras using manual controls while applying principles of visual design, color theory, and photographic composition to create purposeful images for screen-based and digital media contexts. The course emphasizes professional digital workflows, including camera setup, file management, lighting techniques, non-destructive editing, image organization, and digital presentation, as students produce photography projects for design and media applications. Through critique, sequencing, and portfolio development, students build visual storytelling skills and prepare for continued study and careers in photography, graphic design, and related digital media fields.

Notes

The updated course reflects a shift from a traditional photography course to a more comprehensive, digitally integrated and industry-aligned program. The original course primarily emphasized foundational photography skills such as basic camera operation, composition, and image capturing in traditional or commercial contexts. In contrast, the revised course expands these foundations into clearly structured learning strands that integrate technical camera control, lighting, visual literacy, and professional digital workflows, including file management, non-destructive editing, and image presentation for screen-based media. Additionally, the new version places greater emphasis on conceptual development, storytelling, critique, and sequencing while incorporating portfolio development, leadership, work-based learning, and a final assessment project. These updates strengthen alignment with current CTE expectations by emphasizing real-world application, digital production practices, and preparation for advanced coursework and careers in photography, graphic design, and visual media.

Student Learning Outcomes

1. Career Exploration and Postsecondary Opportunities

Objective: *Students will explore and analyze career pathways related to production management in graphic design by examining professional roles, tools, work environments, ethical and legal expectations, certifications, professional organizations, and Colorado postsecondary education options to make informed academic and career decisions.*

- 1) Identify employment opportunities in various fields with a focus in the area of graphic design
 - a. Recognize the work typically performed, tools and technology used, and nature of work environments
 - b. Identify potential certifications within the careers
 - c. Find membership organizations associated with the careers
 - d. Understand the necessary education associated within the careers
- 2) Define professionalism within the context of graphic design
 - a. Criticism and evaluation
 - b. Presentation
 - c. Assessment
- 3) Recognize laws, regulations, and ethics significant to the fields of graphic design
- 4) Identify postsecondary opportunities offered in the state of Colorado
 - a. Technical college, community college, 4-year institutions
 - b. Certificates, associates, bachelor, and advanced degree opportunities

2. Visual and Compositional Training

Objective: *Students will analyze and apply foundational photographic composition principles by using visual design elements, lighting strategies, and color theory to create intentional, visually effective photographs that support communication and design goals.*

- 5) Describe elements of design and composition as they relate to photography.
- 6) Distinguish between compositional strategies such as rule of thirds, balance, geometric composition, and picture planes.
- 7) Explain how density, contrast, color, and visual hierarchy affect photographic impact.
- 8) Compare and contrast lighting techniques, including:
 - a. Qualities of light (hard vs. soft)
 - b. High-key vs. low-key lighting
 - c. Backlighting and directional lighting
- 9) Apply compositional techniques intentionally to reinforce subject, mood, and message.
- 10) Evaluate photographic compositions for clarity, balance, and audience effectiveness.

3. Conceptual Training and Visual Literacy

Objective: *Students will develop visual literacy and conceptual understanding by analyzing photographic history, genres, and theory to inform artistic intent and meaningful image creation.*

- 11) Reference and analyze historic and contemporary photographic processes and artists.
- 12) Classify major photographic practices, including fine art, commercial, scientific, and journalistic photography.
- 13) Identify and describe genres such as still life, portrait, and landscape photography.
- 14) Explain narrative photography and its role in storytelling.
- 15) Define conceptual and theoretical approaches to photography.
- 16) Analyze how images communicate ideas, values, and messages to audiences.

4. Digital Camera Operation and Exposure Control

Objective: *Students will apply manual camera controls and exposure techniques by operating DSLR or mirrorless cameras to achieve technically accurate and creatively intentional photographs.*

- 17) Navigate camera menus and configure settings appropriately.
- 18) Prepare cameras by loading, formatting, and maintaining media cards.
- 19) Identify and apply preliminary camera settings including diopter, file quality (RAW/JPEG), color spaces, and white balance.
- 20) Operate cameras using various focus modes and zones.
- 21) Demonstrate playback features including histograms, zoom, and image review.
- 22) Apply exposure controls (ISO, aperture, shutter speed, exposure modes, compensation).
- 23) Analyze metering results and adjust exposure for accuracy.
- 24) Implement bracketing and creative shutter techniques (freezing, blurring, panning).
- 25) Use depth of field creatively through aperture selection.
- 26) Evaluate exposure outcomes using histograms and image review.

5. Photography Equipment and Lighting Tools

Objective: *Students will demonstrate safe and effective use of photography equipment by selecting, operating, and maintaining cameras, lenses, lighting tools, and accessories in studio and on-location environments.*

- 27) Set up, use, and store tripods, lenses, and camera supports properly.
- 28) Differentiate between lens types (zoom, prime, telephoto, wide-angle).
- 29) Apply light modifiers such as reflectors, flash units, and diffusers.
- 30) Use filters, extension tubes, and accessories appropriately.
- 31) Demonstrate safe equipment handling and storage practices.

6. Digital Workflow and Image Management

Objective: *Students will apply a professional digital workflow by importing, organizing, editing, and exporting images using industry-standard software and file-management practices.*

- 32) Import, organize, and export digital image files using photo editing and asset management software.
- 33) Locate and interpret metadata for images.
- 34) Apply ranking, sorting, and organization techniques in a digital workflow.

- 35) Adjust images using:
 - a. Histograms, RGB channels, white balance, and color temperature
 - b. Global and local adjustments
 - c. Cropping, vignettes, lens corrections
 - d. Sharpening and noise reduction
- 36) Edit images using layers, gradients, dodge/burn, clone/heal tools.
- 37) Isolate image areas using selections and masks.
- 38) Apply special effects appropriately and with purpose.
- 39) Resize and reformat images for digital publishing, screen-based presentation, web galleries, and online portfolio use.
- 40) Evaluate image quality for clarity, consistency, and output requirements.

7. Editing, Sequencing and Presentation

Objective: *Students will edit and sequence photographic work to communicate ideas effectively through cohesive digital collections and professional screen-based presentation methods.*

- 41) Edit and sequence images to create visual flow and narrative cohesion.
- 42) Develop artist statements that articulate intent, process, and visual choices.
- 43) Produce digital prints or print-on-demand photo products.
- 43) Produce digital presentations, online galleries, slideshows, or portfolio-ready media for screen-based viewing.

8. Portfolio Development and Professional Practice

Objective: *Students will compile and present a foundational photography portfolio that reflects technical skill, creative growth, and career readiness within the graphic design pathway.*

- 45) Identify key components of a professional photography portfolio.
- 46) Select and refine photographic work that demonstrates growth and competency.
- 47) Compile a digital student portfolio aligned to personal interests and career goals.
- 48) Reflect on personal learning, strengths, and areas for advancement.
- 49) Demonstrate ethical image use, attribution, and responsible media practices.

9. Leadership

Objective: *Students will demonstrate leadership skills by participating in collaborative activities, applying professional behaviors, and contributing to classroom, school, and CTSO initiatives that support personal growth and career readiness.*

- 50) Demonstrate leadership skills through teamwork, initiative, accountability, and responsible decision-making.
- 51) Participate in CTSO, classroom, or school-based leadership activities that strengthen communication and collaboration.
- 52) Apply professional behaviors such as time management, goal setting, reflection, and ethical conduct in project-based learning environments.

10. Work-Based Learning

Objective: *Students will connect classroom learning to career experiences by exploring workplace expectations, engaging with industry-informed practices, and reflecting on how photography skills apply in real-world and postsecondary contexts.*

53) Identify workplace expectations related to communication, punctuality, problem-solving, and collaboration in photography and digital media settings.

54) Examine how classroom photography skills transfer to internships, client-based projects, entrepreneurship, or other work-based learning experiences.

55) Reflect on feedback from authentic audiences, industry partners, or workplace experiences to improve professional practice.

11. Final Project Assessment

Objective: *Students will synthesize technical, creative, and professional skills by completing a final photography project that demonstrates course learning, communicates a clear visual purpose, and includes reflection on process and outcomes.*

56) Plan and produce a final photography project that demonstrates technical control, composition, and creative intent.

57) Present the final project with supporting explanation of concept, process, tools, and design choices.

58) Evaluate the final project using reflection, critique, and rubric-based assessment to identify strengths and areas for growth.

12. Career and Technical Student Organizations

Objective: *Using the CTSO Resource Document, chapter activities will provide some of the best opportunities CTSO members will have to learn by doing. A successful program of work creates a positive learning atmosphere in the classroom. CTSO members learn how to accept responsibility, work as a team, manage a budget, and handle success and failure. Per the CTE Admin Handbook, CTSOs are embedded into curriculum.*

Professional Development

Prepare each member for entry into the workforce and provide a foundation for success in a career. Becoming a professional does not stop with acquiring a skill, but involves an increased awareness of the meaning of good citizenship and the importance of labor and management in the world of work.

Community Service

Promote and improve goodwill and understanding among all segments of the community through services donated by CTSO chapters, and to instill in its members a lifetime commitment to community service.

Business & Industry Connections

Increase awareness of quality job practices and attitudes, and increase the opportunities for employer engagement and eventual employment.

Financial Leadership

Plan and participate in activities to allow all members to carry out the chapter's projects. Educate members on their own personal finance for current and future success.

Public Relations

Make the general public aware of the good work that students in career and technical education are doing to better themselves and their community, state, nation, and world.

Social Activities

To increase cooperation in the school and community through activities that allow CTSO members to get to know each other in something other than a business or classroom setting.

Academic Standards Alignment

Colorado CTE courses are required to integrate academic and essential skills into course content. The following academic standards have been identified as aligned to this course and should be integrated throughout instruction.

[CO CTE Academic Standards Resources](#) (Rubrics, integration strategies, etc)

[CDE Colorado Academic Standards Online](#) (Online standards lookup tool)

Note: Mathematics and Science standards will be added in the future. Visit the [Colorado Academic Standards](#) page for the most current version.

Reading, Writing and Communicating Crosswalk

Course: Digital Photography I

Colorado Academic Standards – Reading, Writing, and Communicating

Standard	Prepared Graduate Competency	Description	Course Evidence / Alignment
Standard 1: Oral Expression and Listening	Prepared Graduate 1 – Collaboration	Collaborate effectively as group members or leaders who listen actively and respectfully; pose thoughtful questions, acknowledge the ideas of others; and contribute ideas to further the group's attainment of an objective.	Students collaborate during photo shoots, critiques, and group projects, listening actively and contributing ideas to meet creative and technical goals.
Standard 1: Oral Expression and Listening	Prepared Graduate 2 – Oral Presentations	Deliver effective oral presentations for varied audiences and varied purposes.	Students present photographic concepts, shoot plans, and final images during critiques and portfolio reviews.
Standard 2: Reading for All Purposes	Prepared Graduate 4 – Informational Texts	Read a wide range of informational texts to build knowledge and to better understand the human experience.	Students read and interpret client briefs, lighting diagrams, camera manuals, editing tutorials, and safety guidelines.
Standard 2: Reading for All Purposes	Prepared Graduate 5 – Language in Context	Understand how language functions in different contexts, command a variety of word-learning	Students use photography and visual media vocabulary

		strategies to assist comprehension, and make effective choices for meaning or style when writing and speaking.	appropriately for creative, technical, and client-focused communication.
Standard 3: Writing and Composition	Prepared Graduate 7 – Informational Writing	Craft informational/explanatory texts using techniques specific to the genre.	Students write shoot plans, image descriptions, reflections, and documentation explaining photographic choices and techniques.
Standard 3: Writing and Composition	Prepared Graduate 9 – Writing Process	Demonstrate mastery of their own writing process with clear, coherent, and error-free polished products.	Students revise written reflections and supporting materials to produce clear, coherent, and polished documentation.
Standard 4: Research Inquiry and Design	Prepared Graduate 10 – Research & Ethics	Gather information from a variety of sources; analyze and evaluate its quality and relevance; and use it ethically to answer complex questions.	Students research photographic styles, industry practices, and sources; evaluate reference images; and apply ethical practices including copyright, model releases, and image use permissions.

Free Resource Links

1. Career Exploration and Postsecondary Opportunities

- ONET Online (career profiles, photography skills, job outlook)
<https://www.onetonline.org/>
- My Next Move (career exploration, photography pathways)
<https://www.mynextmove.org/>
- College Board BigFuture (postsecondary programs, majors, careers)
<https://bigfuture.collegeboard.org/>

2. Visual and Compositional Training

- Digital Photography School (composition, framing, rule of thirds)
<https://digital-photography-school.com/>
- Photography Mad (composition techniques, visual balance)
<https://www.photographymad.com/>
- Canva Photography Basics (composition, visual design)
<https://www.canva.com/learn/photography/>
- Adobe Photo Tutorials (composition, visual hierarchy)
<https://creativecloud.adobe.com/learn>

3. Conceptual Training and Visual Literacy

- Magnum Photos (photo storytelling, visual narratives, history)
<https://www.magnumphotos.com/>
- The Met Collection (historical photography, analysis)
<https://www.metmuseum.org/art/collection>
- Getty Museum (visual literacy, photography resources)
<https://www.getty.edu/>
- Khan Academy Art & Design (visual analysis, storytelling)
<https://www.khanacademy.org/humanities/art-history>

4. Digital Camera Operation and Exposure Control

- Cambridge in Colour (camera settings, exposure fundamentals)
<https://www.cambridgeincolour.com/>
- Photography Life (camera operation, exposure techniques)
<https://photographylife.com/>
- Nikon Learn & Explore (camera basics, technical skills)
<https://www.nikonusa.com/en/learn-and-explore/index.page>
- Canon Learning Center (camera features, shooting techniques)
<https://www.usa.canon.com/learning-center>

5. Photography Equipment and Lighting Tools

- Adorama Learning Center (lighting setups, equipment usage)
<https://www.adorama.com/alcl/>

- B&H Explora (gear guides, lighting techniques)
<https://www.bhphotovideo.com/explora>
- Strobist (lighting techniques, flash photography)
<https://strobist.blogspot.com/>
- Pixpa Photography Blog (equipment, lighting, accessories)
<https://www.pixpa.com/blog>

6. Digital Workflow and Image Management

- Adobe Lightroom Tutorials (workflow, editing, organization)
<https://helpx.adobe.com/lightroom/tutorials.html>
- Adobe Photoshop Tutorials (editing tools, workflow)
<https://helpx.adobe.com/photoshop/tutorials.html>
- Capture One Learning Hub (image management, editing)
<https://learn.captureone.com/>
- Pixlr Editor (online photo editing, workflow basics)
<https://pixlr.com/>

7. Editing, Sequencing and Presentation

- Canva Photo Editor (editing, layout, presentation)
<https://www.canva.com/photo-editor/>
- Adobe Express (photo presentation, design layouts)
<https://www.adobe.com/express/>
- Flickr (photo sequencing, galleries, presentation ideas)
<https://www.flickr.com/>
- SmugMug (photo portfolios, presentation tools)
<https://www.smugmug.com/>

8. Portfolio Development and Professional Practice

- Adobe Portfolio (portfolio building, showcasing work)
<https://portfolio.adobe.com/>
- Behance (professional portfolios, photography showcase)
<https://www.behance.net/>
- Wix Portfolio Builder (portfolio websites, customization)
<https://www.wix.com/portfolio/website>
- Squarespace Portfolio (creative portfolio platforms)
<https://www.squarespace.com/>

9. Leadership

- MindTools – Leadership Skills (communication, teamwork, decision-making)
https://www.mindtools.com/pages/main/newMN_LDR.htm
- SkillsYouNeed – Leadership (collaboration, conflict resolution, professionalism)
<https://www.skillsyouneed.com/lead/>
- TED Talks – Leadership (communication, influence, teamwork)
<https://www.ted.com/topics/leadership>

- Indeed Career Guide – Leadership Skills (initiative, workplace readiness, teamwork)
<https://www.indeed.com/career-advice/career-development/leadership-skills>

10. Work-Based Learning

- CareerOneStop – Work-Based Learning (internships, apprenticeships, career exploration)
<https://www.careeronestop.org/ExploreCareers/learn/work-based-learning.aspx>
- Colorado Work-Based Learning (state guidance, employer connections)
<https://cdle.colorado.gov/work-based-learning>
- ACTE Work-Based Learning Resources (career readiness, employability skills)
<https://www.acteonline.org/professional-development/work-based-learning/>
- Photography Career Resources (photography careers, industry pathways, job expectations)
<https://www.photographycareer.org/>

11. Final Project Assessment

- PBS LearningMedia – Media Production Projects (project ideas, assessment, rubrics)
<https://www.pbslearningmedia.org/>
- National Geographic Photography (project inspiration, storytelling, portfolios)
<https://www.nationalgeographic.com/photography/>
- Canva Design School (photo projects, presentation, storytelling)
<https://www.canva.com/designschool/>
- Rubistar (project rubrics, assessment tools)
<https://www.rcampus.com/rubistar/>



Technology Student Association – National Competitive Events

Photographic Technology

Objective: *Students will capture, edit, document, and present a photographic portfolio that meets TSA Photographic Technology requirements for image quality, technical settings, editing process, copyright compliance, and presentation.*

- Research the annual TSA Photographic Technology theme and plan original images that respond to the required challenge criteria.
- Capture original photographs using appropriate camera settings, lighting, composition, focus, exposure, and visual storytelling techniques.
- Apply photographic principles such as rule of thirds, balance, contrast, depth of field, shutter speed, aperture, ISO, and color.
- Edit images using appropriate digital workflow techniques such as cropping, white balance, local adjustments, healing, sharpening, noise reduction, and color correction.
- Document camera settings, image interpretation, metadata, editing decisions, and software tools used in the final portfolio.
- Prepare required references, resources, copyright checklist, and consent/release forms when needed.
- Present and explain the photographic portfolio using TSA criteria for technical quality, creativity, composition, documentation, and theme connection.

Resources

- Technology Student Association – Photographic Technology competition guidelines
<https://tsaweb.org/competitions-programs/tsa/themes-problems>
- Adobe Lightroom – Photo editing and image organization
<https://www.adobe.com/products/photoshop-lightroom.html>
- Adobe Photoshop – Photo editing and digital image tools
<https://www.adobe.com/products/photoshop.html>
- Purdue OWL – Copyright and fair use resources
<https://owl.purdue.edu/>



Technology Student Association – National Competitive Events

Digital Video Production

Objective: Students will plan, produce, document, and present an original digital video that meets TSA Digital Video Production requirements for storytelling, technical production, copyright compliance, and interview presentation.

- Research the annual TSA Digital Video Production theme and develop an original video concept.
- Analyze the story, audience, purpose, visual style, and production needs before filming.
- Create a storyboard and digital video script that guide the production process.
- Capture and edit original video using appropriate camera operation, lighting, composition, sound, pacing, and visual storytelling techniques.
- Document the production through a portfolio that includes purpose, storyboard, script, hardware/software list, references, permissions, consent forms, and work log.
- Submit the video and documentation portfolio according to TSA competition procedures.
- Participate in an interview explaining the video concept, production process, technical decisions, and creative choices.

Resources

- Technology Student Association – Digital Video Production competition guidelines
<https://tsaweb.org/competitions-programs/tsa/themes-problems>
- Adobe Premiere Pro – Video editing and production tools
<https://www.adobe.com/products/premiere.html>
- DaVinci Resolve – Video editing, color, audio, and post-production tools
<https://www.blackmagicdesign.com/products/davinciresolve>
- YouTube Creator Academy – Video production and storytelling resources
<https://www.youtube.com/creators/>