

## Photographic Color Theory

**Level:** 2

**Career Cluster:** Media Arts

**Program:** Design and Digital Arts

**Pathway:** Graphic Design

### Course Catalog Description

Teaches students to apply digital color theory, light analysis, camera controls, and non-destructive editing techniques to create visually intentional photographic images for screen-based and print-ready output.

### Summary

Focuses on the application of color theory within digital photography and contemporary image-making workflows. Students develop an understanding of how light, color temperature, white balance, and digital capture settings influence image creation while exploring color properties, harmonies, and visual hierarchy to support effective communication and storytelling. The course emphasizes technical control, digital editing, and creative expression as students analyze and apply color strategies to convey mood, atmosphere, and intent. Through hands-on experimentation, non-destructive editing, digital critique, and portfolio development, students refine their ability to control color in photographic work and apply professional digital workflows to produce visually cohesive images that prepare them for advanced study and careers in photography, media arts, and design.

### Notes

The updated course reflects a shift from a traditional color theory course to a more specialized, photography-focused and digitally integrated program. The original course primarily emphasized basic color theory principles and their general application in visual design. In contrast, the revised course expands these foundations into clearly structured learning strands that focus specifically on photographic color application, including color temperature, white balance, lighting conditions, and digital color workflows using industry tools. Additionally, the new version places greater emphasis on visual storytelling, mood and atmosphere, and the relationship between color and audience perception, while incorporating professional practices such as non-destructive editing, portfolio development, leadership, work-based learning, and a final assessment project. These updates strengthen alignment with current CTE expectations by emphasizing real-world application, technical precision, and preparation for advanced study and careers in photography and media arts.

## Student Learning Outcomes

### 1. Career Exploration and Postsecondary Opportunities

**Objective:** *Students will explore and analyze career pathways related to digital photography, photo editing, and media production by examining professional roles, digital 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 digital photography, photo editing, media production, and related creative technology fields. These opportunities should emphasize digital imaging, editing workflows, portfolio development, and screen-based media production.
  - 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 digital photography and media arts.
  - a. Criticism and evaluation
  - b. Presentation
  - c. Assessment
- 3) Recognize laws, regulations, and ethics significant to digital photography, image editing, copyright, and media production.
- 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. Color of Light and Image Capture Fundamentals

**Objective:** *Students will analyze how color temperature and light sources affect digital image capture by applying white balance and camera control techniques to produce accurate and intentional color results.*

- 5) Identify how digital photography renders color based on the color temperature of light.
- 6) Explain white balance and its relationship to Kelvin temperature.
- 7) Differentiate between common light sources (daylight, tungsten, fluorescent, LED) and their color characteristics.
- 8) Apply camera techniques to control the color of light at the point of capture.
- 9) Analyze how color temperature shifts influence realism, mood, and visual clarity.

### 3. Color Theory, Properties and Harmonies

**Objective:** *Students will apply foundational color theory concepts to photographic imagery by using color properties, harmonies, and hierarchy to support visual communication and storytelling.*

- 10) Define color properties including hue, value, saturation, and temperature.

- 11) Interpret the color wheel and color relationships.
- 12) Apply color harmonies (analogous, complementary, split-complementary, triadic) in photographic compositions.
- 13) Develop color hierarchies that guide viewer attention and emphasis.
- 14) Evaluate how color interactions affect balance, contrast, and readability.

#### 4. Color Accuracy, Bias and Visual Intent

**Objective:** Students will evaluate and refine color accuracy by distinguishing between objective color fidelity and subjective color expression to align images with technical and creative intent.

- 15) Differentiate between objective and subjective color accuracy.
- 16) Analyze color bias introduced through lighting, capture, or digital processing.
- 17) Use tools and references to achieve accurate color reproduction.
- 18) Apply intentional color bias to communicate mood or atmosphere.
- 19) Evaluate when stylized color choices strengthen or weaken visual intent.

#### 5. Mood, Atmosphere and Color Storytelling

**Objective:** Students will analyze how color communicates emotion and narrative meaning by examining photographic works across historical, contemporary, and peer contexts.

- 20) Explain how mood and atmosphere are created through color choices.
- 21) Analyze contemporary and historical photographic works for color strategy.
- 22) Compare different uses of color across genres and artistic styles.
- 23) Critique peer work using appropriate color and design vocabulary.
- 24) Justify color decisions based on emotional and conceptual goals.

#### 6. Digital Color Creation and Visual Experiments

**Objective:** Students will create and refine color-based photographic studies by experimenting with capture settings and digital adjustments to explore intentional color strategies.

- 25) Create visual examples demonstrating specific color strategies.
- 26) Apply digital tools to adjust color temperature, tint, contrast, and saturation.
- 27) Develop multiple variations of an image using different color treatments.
- 28) Analyze how color adjustments influence viewer perception and focus.

#### 7. Color Workflow, Tools and Professional Practices

**Objective:** Students will apply professional color-management workflows by using digital tools and processes that support consistency and accuracy in photographic output.

- 29) Apply non-destructive editing workflows when adjusting color.
- 30) Use histograms and color channels to evaluate exposure and color balance.
- 31) Adjust images using global and local color correction techniques.
- 32) Prepare images for print and digital display with appropriate color settings.

## 8. Visual Literacy, Critique and Reflection

**Objective:** *Students will develop visual literacy and reflective practice by analyzing, critiquing, and documenting color decisions in photographic work.*

- 33) Critically analyze photographic color use in personal, peer, and professional work.
- 34) Use discipline-specific vocabulary to discuss color theory and application.
- 35) Document color studies, settings, and processes in a visual journal or digital portfolio.
- 36) Reflect on personal growth and evolving understanding of color.

## 9. Portfolio Development

**Objective:** *Students will curate and present a portfolio of photographic work that demonstrates technical skill, intentional color use, visual communication, reflection, and readiness for continued study or career pathways in photography and media arts.*

- 37) Curate a selection of photographic work that demonstrates growth, technical skill, and intentional color decisions.
- 38) Organize portfolio pieces to communicate a cohesive visual identity, purpose, and audience awareness.
- 39) Write artist statements, captions, or process reflections that explain creative intent, technique, and color choices.
- 40) Present portfolio work in digital and/or print formats using professional conventions for layout, sequencing, and image quality.

## 10. Leadership

**Objective:** *Students will demonstrate leadership skills by contributing responsibly to collaborative work, critique, project management, and classroom or CTSO activities that support shared goals in photography and media arts.*

- 41) Demonstrate responsibility, initiative, and accountability in individual and collaborative photography projects.
- 42) Apply communication, collaboration, and problem-solving skills during critiques, production tasks, and team-based activities.
- 43) Model professionalism, ethical behavior, and constructive feedback practices in classroom and CTSO settings.
- 44) Participate in leadership opportunities that build confidence, service, and engagement within the program, school, or community.

## 11. Work-Based Learning

**Objective:** *Students will connect classroom learning to professional practice by exploring work-based learning experiences, industry expectations, and authentic applications of photographic color theory in creative and media-related settings.*

- 45) Explore work-based learning opportunities related to photography, digital media, design, and content creation.
- 46) Identify workplace expectations for communication, timeliness, quality, ethics, and collaboration in creative industries.

- 47) Apply course skills to authentic client-based tasks, project briefs, or production scenarios.
- 48) Reflect on how classroom experiences support employability skills and future career readiness.

## 12. Final Project Assessment

**Objective:** *Students will synthesize course learning in a final photographic project that demonstrates intentional use of color theory, technical control, creative problem solving, and reflective evaluation of process and outcomes.*

- 49) Plan and develop a final project proposal that identifies concept, audience, visual intent, and intended color strategy.
- 50) Produce a final photographic work or series that demonstrates technical skill, intentional color application, and strong visual communication.
- 51) Evaluate final work against established criteria for concept, craftsmanship, color use, and effectiveness.
- 52) Present and reflect on the final project process, decisions, challenges, and outcomes using appropriate photography and design vocabulary.

## 13. 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: Photographic Color Theory

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 critiques and production activities, listen to peer and instructor feedback, and contribute ideas focused on color use and visual impact. |
| Standard 1: Oral Expression and Listening | Prepared Graduate 2 – Oral Presentations  | Deliver effective oral presentations for varied audiences and varied purposes.                                                                                                                                                | Students explain color choices, compositional decisions, and visual intent during critiques and presentations of photographic work.                                   |
| 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 apply informational texts related to color theory, visual perception, photographic                                                                  |

|                                         |                                             |                                                                                                                                                                                                            |                                                                                                                                                                             |
|-----------------------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         |                                             |                                                                                                                                                                                                            | techniques, and editing workflows.                                                                                                                                          |
| 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 strategies to assist comprehension, and make effective choices for meaning or style when writing and speaking. | Students apply appropriate visual arts and photography vocabulary when discussing color relationships, mood, symbolism, and technical processes.                            |
| Standard 3: Writing and Composition     | Prepared Graduate 7 – Informational Writing | Craft informational/explanatory texts using techniques specific to the genre.                                                                                                                              | Students write reflections, analyses, and explanations describing color theory principles and how they are applied in photographic work.                                    |
| 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 documentation to produce clear, coherent, and polished written products.                                                 |
| 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 color theory concepts, photographic styles, and reference work; evaluate sources; and apply ethical practices including proper attribution and image use. |

## 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 and design pathways)  
<https://www.mynextmove.org/>
- College Board BigFuture (postsecondary programs, photography and design majors)  
<https://bigfuture.collegeboard.org/>

### 2. Color of Light and Image Capture Fundamentals

- Cambridge in Colour (color temperature, white balance, lighting fundamentals)  
<https://www.cambridgeincolour.com/>
- Photography Life (white balance, exposure, color temperature)  
<https://photographylife.com/>
- Canon Learning Center (light sources, color balance, camera settings)  
<https://www.usa.canon.com/learning-center>
- Nikon Learn & Explore (color temperature, lighting techniques)  
<https://www.nikonusa.com/en/learn-and-explore/index.page>

### 3. Color Theory, Properties and Harmonies

- Adobe Color (color wheel, harmony, palette creation)  
<https://color.adobe.com/>
- Canva Color Wheel (color relationships, harmony, schemes)  
<https://www.canva.com/colors/color-wheel/>
- Sessions College Color Calculator (color harmonies, relationships)  
<https://www.sessions.edu/color-calculator/>
- Color Matters (color theory, symbolism, relationships)  
<https://www.colormatters.com/>

### 4. Color Accuracy, Bias and Visual Intent

- Adobe Lightroom Tutorials (color correction, accuracy, white balance)  
<https://helpx.adobe.com/lightroom/tutorials.html>
- Adobe Photoshop Tutorials (color adjustment, correction tools)  
<https://helpx.adobe.com/photoshop/tutorials.html>
- Capture One Learning Hub (color grading, color accuracy)  
<https://learn.captureone.com/>
- Pixlr Editor (color editing, correction tools)  
<https://pixlr.com/>

### 5. Mood, Atmosphere and Color Storytelling

- Magnum Photos (color storytelling, mood, narrative photography)  
<https://www.magnumphotos.com/>

- National Geographic Photography (color storytelling, visual impact)  
<https://www.nationalgeographic.com/photography/>
- LensCulture (color use in photography, storytelling) <https://www.lensculture.com/>
- TED Photography Talks (visual storytelling, emotional impact)  
<https://www.ted.com/topics/photography>

## 6. Digital Color Creation and Visual Experiments

- Adobe Creative Cloud Learn (color effects, experimentation)  
<https://creativecloud.adobe.com/learn>
- Canva Photo Editor (color adjustments, filters, visual experimentation)  
<https://www.canva.com/photo-editor/>
- Fotor (color editing, filters, creative adjustments)  
<https://www.fotor.com/>
- Pixlr (photo editing, color experimentation tools)  
<https://pixlr.com/>

## 7. Color Workflow, Tools and Professional Practices

- Adobe Lightroom (workflow, color management, editing)  
<https://www.adobe.com/products/photoshop-lightroom.html>
- Capture One (professional color workflow, image processing)  
<https://www.captureone.com/>
- Adobe Photoshop (color channels, correction, editing workflows)  
<https://www.adobe.com/products/photoshop.html>
- Photography Life Workflow Guide (editing workflow, color consistency)  
<https://photographylife.com/workflow>

## 8. Visual Literacy, Critique and Reflection

- Getty Museum (visual literacy, color analysis)  
<https://www.getty.edu/>
- Khan Academy Art History (visual analysis, interpretation)  
<https://www.khanacademy.org/humanities/art-history>
- AIGA Resources (design critique, visual analysis, professional practice)  
<https://www.aiga.org/resources>
- Behance (portfolio review, critique, color use examples)  
<https://www.behance.net/>

## 9. Portfolio Development

- Adobe Portfolio (professional portfolios, showcasing photographic work)  
<https://portfolio.adobe.com/>
- Behance (photography portfolios, project presentation, industry examples)  
<https://www.behance.net/>
- SmugMug (photo portfolios, galleries, professional display)  
<https://www.smugmug.com/>
- Canva Presentation Templates (portfolio presentation, sequencing and layout)  
<https://www.canva.com/presentations/templates/>

## 10. Leadership

- MindTools – Leadership Skills (communication, teamwork, decision-making)  
[https://www.mindtools.com/pages/main/newMN\\_LDR.htm](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, teamwork, workplace readiness)  
<https://www.indeed.com/career-advice/career-development/leadership-skills>

## 11. 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 Review (photography careers, pathways, industry expectations)  
<https://www.animationcareerreview.com/careers/photography/>

## 12. Final Project Assessment

- PBS LearningMedia – Media Production Projects (project ideas, assessment, rubrics)  
<https://www.pbslearningmedia.org/>
- National Geographic Photography (project inspiration, storytelling, visual examples)  
<https://www.nationalgeographic.com/photography/>
- Canva Design School (photo projects, storytelling and presentation)  
<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 intentional color, lighting, composition, exposure, and visual storytelling techniques.
- Apply photographic color strategies such as color harmony, contrast, hierarchy, mood, atmosphere, and color accuracy.
- Adjust white balance, color temperature, tint, saturation, contrast, and other editing settings to support the intended visual effect.
- Document camera settings, color choices, image interpretation, 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 color adjustment tools  
<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

### Promotional Design

**Objective:** *Students will design, produce, document, and present promotional materials that meet TSA Promotional Design requirements for branding, visual communication, production quality, and portfolio documentation.*

- Research the annual TSA Promotional Design theme, target audience, required products, and branding expectations.
- Develop a consistent visual identity using color theory, typography, layout, imagery, hierarchy, and design principles.
- Create required promotional items that communicate a clear theme, message, and purpose.
- Use color harmony, contrast, mood, and visual hierarchy to guide audience attention and strengthen the promotional message.
- Use digital design and image editing tools to prepare clean, professional, and usable final products for print or digital presentation.
- Document the design process through sketches, drafts, revisions, production notes, references, and required portfolio materials.
- Evaluate the final entry using TSA criteria for creativity, consistency, production quality, communication, and theme alignment.

### Resources

- Technology Student Association – Promotional Design competition guidelines  
<https://tsaweb.org/competitions-programs/tsa/themes-problems>
- Adobe Photoshop – Image editing and promotional design tools  
<https://www.adobe.com/products/photoshop.html>
- Adobe Express – Promotional graphics and design tools  
<https://www.adobe.com/express/>
- Canva – Branding, layouts, and promotional design templates  
<https://www.canva.com/>