DIGITAL PHOTOGRAPHY 10.0200.50
TECHNICAL STANDARDS

An Industry Technical Standards Validation Committee developed and validated these standards on February 12, 2019. The Arizona Career and Technical Education Quality Commission, the validating authority for the Arizona Skills Standards Assessment System, endorsed these standards on May 1, 2019.

Note: Arizona's Professional Skills are taught as an integral part of the Digital Photography program.

The Technical Skills Assessment for Digital Photography is available SY2020-2021.

Note: In this document i.e. explains or clarifies the content and e.g. provides examples of the content that must be taught.

STANDARD 1.0 ANALYZE THE COMMUNICATION MEDIA TECHNOLOGIES INDUSTRY, ITS BUSINESS PRACTICES, AND ITS ROLE IN THE ECONOMY

1.1 Investigate the history and evolution of the Communication Media Technologies industry (i.e., technology, processes, production, etc.)

1.2 Examine the impact of social media and emerging technologies on the Communication Media Technologies industry

1.3 Research the societal and economic impact of the Communication Media Technologies industry

1.4 Examine the impact of the Communication Media Technologies Industry on marketing practices

1.5 Explain how diversity and inclusion are managed in the workplace to create a supportive culture

1.6 Define cultural diversity and the need for awareness and sensitivity in the workplace

1.7 Explain the acceptance of multiculturalism in the workplace (i.e., treating impartially and fairly each ethnic group, etc.)

1.8 Analyze customer service practices appropriate to the Communication Media Technologies industry

1.9 Examine time management practices appropriate to the Communication Media Technologies industry

1.10 Identify professions that comprise the Communication Media Technologies industry (i.e., animation, broadcasting, filmmaking, graphic design, illustration, music and audio productions, photography, printing, publishing, etc.)

1.11 Comply with the safety standards and regulations specific to OSHA

STANDARD 2.0 ANALYZE ETHICAL AND LEGAL ISSUES RELATED TO THE COMMUNICATION MEDIA TECHNOLOGIES INDUSTRY

2.1 Distinguish among copyright, intellectual property, and proprietary rights

2.2 Investigate copyright, intellectual property, proprietary rights, plagiarism, and software licensure

2.3 Discuss consequences in violating copyright, privacy, and data security laws (i.e., monetary penalties, prison, injunctions, financial restitution, etc.)

2.4 Explain fair use (i.e., authorships, credit lines, parody, news reporting, criticism and commentary, etc.)

2.5 Differentiate between legal and ethical standards as they apply to decision-making in the Communication Media Technologies industry

2.6 Explain libel, privacy, censorship, and first amendment rights

2.7 Explain the difference and usage of release forms (e.g., model, minor, and property)

STANDARD 3.0 ANALYZE FACTORS THAT CONTRIBUTE TO PERSONAL SUCCESS IN THE COMMUNICATION MEDIA TECHNOLOGIES INDUSTRY

3.1 Employ written, verbal, and non-verbal communications that are appropriate to the target audience and situation

3.2 Apply formatting, editing, and proofreading skills to all forms of writing

3.3 Prepare and deliver a presentation using terminology standard to the Communication Media Technologies industry

3.4 Use interpersonal skills when communicating with colleagues, clients, and vendors (i.e., active listening, empathy, body language, openness, negotiation, problem-solving, conflict resolution, assertiveness, positive attitude, etc.)

3.5 Identify professional "dress for success" standards and practices for the Communication Media Technologies industry

Note: In this document i.e. explains or clarifies the content and e.g. provides examples of the content that must be taught.

3.6 Explain basic types of résumés and their use (e.g., chronological, functional, combination, targeted, and creative)

3.7 Identify the basic parts of a résumé (e.g., contact/address section, objective, profile, career summary, experience section, education section, and reference section)

3.8 Explain considerations for résumé format (i.e., simple font; plenty of white space; personalize and customize to reflect your skills and abilities, etc.)

3.9 Define a professional portfolio (e.g., organized collection of relevant writing, graphics, and projects; artifacts showcasing talents and relevant skills; and summary of professional growth)

3.10 Describe portfolio types serving different purposes (i.e., working portfolios, display portfolios, assessment portfolios, etc.)

3.11 Describe ways to build a professional portfolio [i.e., binder, digital (iPad), online portfolio, etc.]

STANDARD 4.0 ANALYZE THE DIGITAL PHOTOGRAPHY PROFESSION

4.1 Identify art movements that have impacted the photography profession

4.2 Research technologies that have impacted the Digital Photography profession (i.e., smart phone cameras, etc.)

4.3 Describe photography's influence on society

4.4 Differentiate among photographic genres and styles (i.e., portrait, landscape, macro, street, editorial, sports, journalistic, architectural, fine art, commercial, lifestyle, events, etc.)

4.5 Examine the role and cultural significance of photographers

4.6 Describe past and present graphic design styles and trends

4.7 Research how demographic and cultural awareness influence photographic decisions

4.8 Identify components required in establishing a freelance business (i.e., taxes, contracts, expenses, billing, licenses, etc.)

STANDARD 5.0 MANAGE PHOTOGRAPHIC EQUIPMENT AND SOFTWARE

5.1 Demonstrate proper maintenance and care of equipment (i.e., computers, storage devices, printers, peripherals, cameras, input devices, etc.)

5.2 Identify threats to technological devices and computer system networks (i.e., viruses, data breaches, phishing, pirating, etc.)

5.3 Utilize software to meet requirements of final product (i.e., page layout, photo manipulation, illustration, etc.)

5.4 Apply effective digital file management techniques (e.g., data capture, file transfer, file naming, organization, storage, and backup)

5.5 Differentiate among file formats based on compatibility, file size, resolution, color gamut, and medium (i.e., JPG, TIFF, RAW, PSD, PDF, INDD, AI, GIF, PNG, etc.)

5.6 Apply effective use of menus, buttons, and functions of digital cameras

5.7 Differentiate among types and uses of digital cameras, equipment, and accessories (i.e., point-and-shoot, mirrorless, DSLR, lenses, filters, tripods, lighting equipment, etc.)

5.8 Select appropriate resolution, compression, and format for data capture

5.9 Explain the importance of an industry standard color management system

STANDARD 6.0 APPLY THE ELEMENTS AND PRINCIPLES OF DESIGN AND COMPOSITION

6.1 Incorporate the elements of design (e.g., line, shape, form, texture, pattern, color, value, and space) when composing photographs

6.2 Incorporate principles of design (e.g., contrast, repetition, balance, movement, emphasis, harmony, proportion, and unity) when composing photographs

6.3 Incorporate guidelines for composition (e.g., simplicity, framing, rule of thirds, focal point, point of view, camera angle, and symmetry)

6.4 Communicate a specific idea through the subject matter and the composition of a photograph

6.5 Use critical thinking skills to **describe, interpret, analyze, and make judgments** about composition

6.6 Define basic color schemes (e.g., complementary, analogous, triadic, tetradic, split complementary, monochromatic, and grayscale)

6.7 Analyze the psychology and theory of color in images to increase visual literacy

6.8 Utilize posing techniques and product arrangement for visual impact (i.e., portraits, fashion, product, etc.)

Note: In this document i.e. explains or clarifies the content and e.g. provides examples of the content that must be taught.

STANDARD 7.0 DEMONSTRATE PROPER EXPOSURE SETTINGS TO ACHIEVE DESIRED OUTCOMES

7.1 Describe the basic elements of exposure (e.g., ISO, aperture, and shutter speed)

7.2 Utilize appropriate shutter speed to create panned, blurred, and stop action photos

7.3 Apply the appropriate aperture setting for deep or shallow depth of field

7.4 List the factors that affect depth of field (e.g., aperture, focal length, and distance to subject)

7.5 Apply the appropriate ISO settings for various lighting conditions

7.6 Calculate exposure equivalents

7.7 Utilize in-camera light meter to guide desired exposure

7.8 Discuss various in-camera metering modes (i.e., spot, partial, evaluative, center-weighted, matrix, etc.)

7.9 Evaluate a histogram

7.10 Discuss active focus points and focusing modes (i.e., AI Servo, single, continuous, 3-D, etc.)

7.11 Discuss exposure modes (e.g., aperture priority, shutter priority, manual, automatic, program, bulb, and preprogrammed automatic settings)

STANDARD 8.0 DEMONSTRATE PROPER LIGHTING TECHNIQUES TO ACHIEVE DESIRED OUTCOMES

8.1 Identify additive colors (RGB – red, green, and blue) and subtractive colors (CMYK – cyan, magenta, yellow, and black/key)

8.2 Explore color spaces (e.g., RGB, CMYK, grayscale, L*a*b, Adobe RGB, sRGB, and ProPhoto)

8.3 Explain the importance of "quality of light" (e.g., hard or soft light, fall-off, and color temperature)

8.4 Explain key/main, fill, back, hair, and rim light

8.5 Demonstrate traditional studio portrait lighting set-ups (e.g., split, loop, Rembrandt, butterfly/Paramount, short, and broad)

8.6 Utilize natural/ambient light (e.g., direct, indirect, reflective, and diffused)

8.7 Describe how environmental conditions affect the quality of light and its effects on the subject

8.8 Utilize artificial light sources (e.g., flash, strobes, LEDs, and fluorescent)

8.9 Utilize light modifiers (i.e., reflector, umbrellas, soft boxes, grids, honeycombs, gels, etc.) to adjust the quality of light

8.10 Balance natural/ambient light and artificial light sources

8.11 Use handheld light meter

8.12 Explain correct sync speed

STANDARD 9.0 IMPLEMENT DIGITAL WORKFLOW PROCESSES

9.1 Demonstrate digital image input (i.e., camera cards, wireless, tethered, direct download, etc.)

9.2 Evaluate metadata

9.3 Apply keywords to images

9.4 Demonstrate nondestructive editing techniques

9.5 Apply image adjustments (e.g., sizing, cropping, retouching, orientation, and resolution adjustment)

9.6 Apply color correction (i.e., white balance, saturation, hue, luminance, etc.)

9.7 Explain the benefits of batch processing

9.8 Export images for final output

9.9 Mount, matte, and frame a print

Note: In this document i.e. explains or clarifies the content and e.g. provides examples of the content that must be taught.