

# Media Arts Alignments

This document contains information about FOUR (4) Career-Technical Articulation Numbers (CTANs) for the **Media Arts** Career-Technical Assurance Guide (CTAG).

## The CTANs are:

1. Introduction to Digital Media Arts and Media Design
2. Introduction to Audio Production (OAN OCM007)
3. Introduction to Single Camera Video Production (OAN OCM008)
4. Multi-Media Production for the Web

**1. Introduction to Digital Media Arts and Media Design.** CTAN alignment with the Arts and Communications Career Field Technical Content Standards of the Ohio Department of Education

**General Course Description:** An overview of the Aesthetics, History and Business Aspects of Media Arts as they are Created, Manipulated and Distributed. Examples of the Media Arts include, but are not exclusive to the production of: Animation, Digital Games, Digital Photography, Illustration and Traditional Print Design, Interactive Design, Music, Sound Design and Video/Film.

## Advising Notes:

- CETE exam recommended
- Must access credit within 2 years of program completion

**Semester Credit Hours:** 3

## Alignment:

### 1. Introduction to Digital Media Arts and Media Design

Learning Outcomes	Competencies are from the Ohio Department of Education's - Career Field Technical Content Standards
1. Analyze the creative and commercial decisions of production in the Media Arts, and evaluate the success/failure of those decisions.	2.1.2. Identify specific characteristics (i.e., positive and negative, organic, geometric, quality, weight, direction) of art elements that communicate and express ideas.

	<p>2.1.3. Determine how and when to apply the principles of design, including unity, variety, balance, movement, emphasis, visual hierarchy and proportion/scale, to communicate ideas.</p> <p>2.2.8. Compare and contrast choices using the psychology of color.</p> <p>2.2.9. Critique the use of color schemes (e.g., primary, secondary, tertiary, analogous, complementary, triads, monochromatic) in various media.</p> <p>2.4.12. Evaluate the product in terms of the message or meaning for the targeted audience.</p> <p>2.5.7. Assess typography's effects on message delivery and aesthetics (e.g., limit families, readability).</p> <p>3.1.1. Analyze the writing content and styles of fact-, entertainment- and marketing-based models.</p> <p>3.1.3. Assess or determine the platform for delivery (e.g., video, audio, print).</p> <p>3.1.10. Select visual imagery to support or enhance copy.</p>
<p>2. Compare and contrast media innovations to appraise production choices and distribution options.</p>	<p>2.4.5. Differentiate between raster- and vector-based layouts</p> <p>5.2.6. Compare image carrier generation methods, including computer-to-plate [CTP], film based, screen and flexography.</p> <p>5.3.6. Compare drying methods, including heat, oxidation, ultraviolet [UV], additives and infrared.</p> <p>5.4.1. Compare and contrast color density proofs and press sheets for offset, wide-format inkjet and laser formats using visual and equipment readings.</p> <p>5.4.3. Analyze the effects of single-color and multiple-color (e.g., Pantone®, spot color) output on various substrates (e.g., paper, plastic, recycled materials).</p> <p>5.5.1. Identify digital printing technologies and uses, including laser, toner-based xerography, ink-based digital and wide-format inkjet.</p> <p>5.5.5. Compare digital printing to offset printing.</p> <p>5.5.6. Compare and contrast proofing techniques used in digital and offset printing technologies.</p> <p>5.5.7. Compare the differences between colorants and substrates used in digital printing versus offset printing.</p> <p>5.5.9. Identify the basic subsystems and the functions of the components of digital output devices.</p> <p>5.6.1. Use database software and text/graphics to create a variable data printing job</p> <p>5.6.3. Determine the proper output device according to job specifications.</p> <p>5.6.5. Manage output product types for digital printing.</p>

<p>3. Consider the philosophical and ethical issues that arise in digital communication specific to the Media Arts.</p>	<p>5.6.7. Analyze the capabilities of 3D printing.</p> <p>1.2.9 Identify advantages and disadvantages involving digital and/or electronic communications (e.g., common content for large audience, control of tone, speed, cost, lack of non-verbal cues, potential for forwarding information, longevity).</p> <p>1.3.3. Use ethical character traits consistent with workplace standards (e.g., honesty, personal integrity, compassion, justice).</p> <p>1.3.8. Verify compliance with computer and intellectual property laws and regulations.</p> <p>1.3.9. Identify potential conflicts of interest (e.g., personal gain, project bidding) between personal, organizational and professional ethical standards.</p> <p>1.4.8. Use electronic media (e.g., social media) to communicate and follow network etiquette guidelines.</p> <p>1.5.1. Describe how cultural understanding, cultural intelligence skills and continual awareness are interdependent.</p> <p>1.5.3. Use cultural intelligence to interact with individuals from diverse cultural settings.</p> <p>1.5.5. Recognize the ways in which bias and discrimination may influence productivity and profitability.</p> <p>1.5.7. Use intercultural communication skills (e.g., code switching) to exchange ideas and create meaning.</p> <p>1.11.8. Identify the relationships between economy, society and environment that lead to sustainability (e.g., evolution and impact of the arts).</p> <p>3.3.3. Identify positions from research and resources while remaining objective.</p> <p>3.3.7. Follow protocol for off-the-record information.</p> <p>3.3.9. Create objective and subjective informational text for multiple purposes, including editorial, press releases, biographies, narratives, public service announcements and social media.</p>
<p>4. Develop an effective media presentation incorporating a variety of digital tools.</p>	<p>1.2.5. Communicate information (e.g., directions, ideas, vision, workplace expectations) for an intended audience and purpose.</p> <p>1.2.6. Use proper grammar and expression in all aspects of communication.</p> <p>1.3.3. Use ethical character traits consistent with workplace standards (e.g., honesty, personal integrity, compassion, justice).</p>

	<p>1.4.2. Select and use software applications to locate, record, analyze and present information (e.g., word processing, e-mail, spreadsheet, databases, presentation, Internet search engines).</p> <p>2.4.6. Apply the components of a comprehensive layout (e.g., color scheme, font, white space, text graphics, frames, headings) according to an overall theme for the product.</p> <p>2.4.2. Apply proper color profile for final output.</p> <p>2.4.8. Apply compositional techniques, including rule of thirds, use of a grid system, 180-degree rule, framing, fill frame, pyramid, strong center of interest and aspect ratio.</p> <p>5.2.1. Determine the resolution of the output device.</p>
<p>5. Develop an historical perspective of how Media Arts technologies evolved.</p>	<p>5.4.3. Analyze the effects of single-color and multiple-color (e.g., Pantone®, spot color) output on various substrates (e.g., paper, plastic, recycled materials).</p> <p>5.4.4. Analyze the effects of process color output on various substrates (e.g., paper, plastic, recycled materials).</p> <p>5.5.1. Identify digital printing technologies and uses, including laser, toner-based xerography, ink-based digital and wide-format inkjet.</p> <p>5.5.1. Identify digital printing technologies and uses, including laser, toner-based xerography, ink-based digital and wide-format inkjet.</p> <p>5.5.3. Analyze the raster image processor (RIP), including its functionality, purpose and significance in a digital printing workflow.</p> <p>5.5.5. Compare digital printing to offset printing.</p> <p>5.5.6. Compare and contrast proofing techniques used in digital and offset printing technologies.</p> <p>5.6.7. Analyze the capabilities of 3D printing.</p>
<p>6. Employ formative evaluation to the production process in Media Arts.</p>	<p>2.1.2. Identify specific characteristics (i.e., positive and negative, organic, geometric, quality, weight, direction) of art elements that communicate and express ideas.</p> <p>2.1.3. Determine how and when to apply the principles of design, including unity, variety, balance, movement, emphasis, visual hierarchy and proportion/scale, to communicate ideas.</p> <p>2.2.2. Analyze position in color theory models (e.g., color wheel, Munsell's design relationship among chroma/intensity, value/lightness and hue).</p> <p>2.2.9. Critique the use of color schemes (e.g., primary, secondary, tertiary, analogous, complementary, triads, monochromatic) in various media.</p> <p>2.4.10. Determine how the technical characteristics of the print medium affect content and style.</p>

	<p>3.4.1. Research and analyze trends and local markets for opportunities.</p> <p>3.4.9. Critique advertisements to ensure the achievement of goals and objectives.</p>
<p>7. List and describe the principle aesthetic fields in the Media Arts (e.g., Light and color, Two- dimensional space, Three-dimensional space, Time-motion, and sound, rule of thirds).</p>	<p>2.1.1. Describe art elements of line, value, color, shape, space, form and texture in various media that are used individually or in combination.</p> <p>2.1.2. Identify specific characteristics (i.e., positive and negative, organic, geometric, quality, weight, direction) of art elements that communicate and express ideas.</p> <p>2.1.3. Determine how and when to apply the principles of design, including unity, variety, balance, movement, emphasis, visual hierarchy and proportion/scale, to communicate ideas.</p> <p>2.1.6. Observe movement shown through repetition, pattern and rhythm.</p> <p>2.2.3. Describe how changes to tint, shade, hue, value, intensity and saturation relate to color theory.</p> <p>2.2.9. Critique the use of color schemes (e.g., primary, secondary, tertiary, analogous, complementary, triads, monochromatic) in various media.</p> <p>4.4.2. Employ the characteristics (e.g., hard light, diffused light, incident light) and properties of light.</p>
<p>8. Qualitatively evaluate mediated messages.</p>	<p>2.1.2. Identify specific characteristics (i.e., positive and negative, organic, geometric, quality, weight, direction) of art elements that communicate and express ideas.</p> <p>2.1.3. Determine how and when to apply the principles of design, including unity, variety, balance, movement, emphasis, visual hierarchy and proportion/scale, to communicate ideas.</p> <p>2.4.12. Evaluate the product in terms of the message or meaning for the targeted audience.</p> <p>2.5.7. Assess typography's effects on message delivery and aesthetics (e.g., limit families, readability).</p> <p>3.1.11. Apply review, re-writing and editing to prepare final copy for client and artistic approval.</p> <p>3.4.9. Critique advertisements to ensure the achievement of goals and objectives.</p>
<p>9. Understand the role of the Media Arts in a contemporary, political, and cultural context.</p>	<p>1.5.1. Describe how cultural understanding, cultural intelligence skills and continual awareness are interdependent.</p> <p>1.5.2. Describe how cultural intelligence skills influence the overall success and survival of an organization.</p> <p>1.5.3. Use cultural intelligence to interact with individuals from diverse cultural settings.</p>

	<p>1.5.4. Recognize barriers in cross-cultural relationships and implement behavioral adjustments.</p> <p>1.5.5. Recognize the ways in which bias and discrimination may influence productivity and profitability.</p> <p>1.5.7. Use intercultural communication skills (e.g., code switching) to exchange ideas and create meaning.</p> <p>1.5.8. Identify how multicultural teaming and globalization can foster development of new and improved products and services (e.g., digital) and recognition of new opportunities.</p> <p>1.6.10. Describe the impact of globalization on an enterprise or organization.</p>
--	--

## 2. Introduction to Audio Production

CTAN alignment with the Arts and Communications Career Field Technical Content Standards of the Ohio Department of Education

**General Course Description:** Introduction to Audio Production: This course covers how to record, edit, and design with audio through a combination of lecture, lab, and student projects. Upon completion of this course, the student will be able to design, capture, and create audio for a variety of media including TV, web, and CD.

This CTAN is already an approved OAN in the Telecommunications TAG. The number and title is: OAN# OCM 007 Introduction to Audio Production

**Advising Notes:**

- Passing CETE exam score
- The coursework identified in this TAG/CTAG is guaranteed to transfer and apply toward a Bachelor of Arts (BA) or Bachelor of Science (BS) in Media Arts degree. It is not guaranteed to count toward a Bachelor of Fine Arts (BFA) in Media Arts and would be evaluated on a course by course basis along with any audition, portfolio, or ensemble requirements that the receiving institution requires of its own students.

Semester Credit Hours: 3

Alignment:

**2. Introduction to Audio Production**

Learning Outcomes	Competencies are from the Ohio Department of Education's - Career Field Technical Content Standards
1. Acquire skills in mixing, microphone techniques, recording and editing.	4.1.1. Analyze sound by its properties, including amplitude, frequency, wavelength, velocity, diffraction, diffusion, phase and harmonics. 4.1.2. Classify elements in sound transduction (i.e., how sound energy is converted into electrical energy, resistance, balanced versus unbalanced lines). 4.1.3. Identify sound as measured or perceived. 4.1.4. Identify sound pressure level (SPL). 4.1.5. Analyze acoustics and their impact on sound. 4.1.6. Apply the principles of direct sound, early reflection and reverberation. 4.1.7. Deconstruct the four elements of a waveform signal. 4.1.8. Apply the principles of digital audio theory (e.g., sampling rate, Nyquist Theorem). 4.2.7. Distinguish among digital media formats (e.g., .mp3, .mp4, .wav, .aiff). 4.2.1. Determine sound recording requirements. 4.2.2. Compare and contrast microphone properties (e.g., polar patterns, type of transducer) with their intended use (e.g., handheld, wireless, boom). 4.2.3. Determine microphone and speaker placement, according to their directional characteristics. 4.2.4. Record on dual system devices. 4.2.5. Import audio using analog-to-digital interfaces (e.g., Musical Instrument Digital Interface [MIDI], breakout boxes). 4.3.1. Produce live sound, tracks and overdubbing (e.g., narrative, voiceover, music). 4.3.2. Apply the principles of compression and limiting. 4.3.3. Differentiate between linear and non-linear transfers. 4.3.4. Synchronize new audio tracks with previously recorded video and audio tracks. 4.3.5. Perform audio mixing, including relative level, spatial positioning, equalization, dynamics processing and effects processing).

	<p>4.3.8. Synchronize sound effects for film, television, radio or live performances.</p> <p>4.3.9. Adjust sound according to the needs of the environment.</p> <p>4.3.10. Select and place audio amplifiers, speakers and monitors for the planned effect.</p> <p>4.3.11. Eliminate feedback by applying principles of electronics equalization.</p> <p>4.7.2. Import and log media for editing.</p> <p>4.7.3. Manage files of digital clips.</p> <p>4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots and continuity.</p> <p>4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ) and matching levels.</p> <p>4.7.10. Export and upload media in the appropriate format (e.g., print to video, DVD, video file).</p>
<p>2. Demonstrate command of theory and skills by completing audio projects.</p>	<p>4.1.6. Apply the principles of direct sound, early reflection and reverberation.</p> <p>4.1.8. Apply the principles of digital audio theory (e.g., sampling rate, Nyquist Theorem).</p> <p>4.2.6. Organize a production from audio recording to distributing.</p> <p>4.2.4. Record on dual system devices.</p> <p>4.3.1. Produce live sound, tracks and overdubbing (e.g., narrative, voiceover, music).</p> <p>4.3.2. Apply the principles of compression and limiting.</p> <p>4.3.4. Synchronize new audio tracks with previously recorded video and audio tracks.</p> <p>4.3.5. Perform audio mixing, including relative level, spatial positioning, equalization, dynamics processing and effects processing).</p> <p>4.3.6. Apply virtual mixing techniques.</p> <p>4.3.7. Apply the principles of time-based effects.</p> <p>4.3.9. Adjust sound according to the needs of the environment.</p> <p>4.3.10. Select and place audio amplifiers, speakers and monitors for the planned effect.</p> <p>4.3.11. Eliminate feedback by applying principles of electronics equalization.</p> <p>4.7.2. Import and log media for editing.</p> <p>4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots and continuity.</p> <p>4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ) and matching levels.</p>

	4.7.10. Export and upload media in the appropriate format (e.g., print to video, DVD, video file).
3. Understand principles of audio production.	<p>4.1.5. Analyze acoustics and their impact on sound.</p> <p>4.1.1. Analyze sound by its properties, including amplitude, frequency, wavelength, velocity, diffraction, diffusion, phase and harmonics.</p> <p>4.1.2. Classify elements in sound transduction (i.e., how sound energy is converted into electrical energy, resistance, balanced versus unbalanced lines).</p> <p>4.1.3. Identify sound as measured or perceived.</p> <p>4.1.4. Identify sound pressure level (SPL).</p> <p>4.1.7. Deconstruct the four elements of a waveform signal.</p> <p>4.2.7. Distinguish among digital media formats (e.g., .mp3, .mp4, .wav, .aiff).</p> <p>4.2.1. Determine sound recording requirements.</p> <p>4.2.2. Compare and contrast microphone properties (e.g., polar patterns, type of transducer) with their intended use (e.g., handheld, wireless, boom).</p> <p>4.2.3. Determine microphone and speaker placement, according to their directional characteristics.</p> <p>4.7.1. Compare and contrast linear and nonlinear digital editing systems for audio/video.</p>
4. Understand the relationships among aesthetics, narrative and technologies of audio production.	<p>4.2.6. Organize a production from audio recording to distributing.</p> <p>4.2.1. Determine sound recording requirements</p> <p>4.7.4. Use storyboard techniques to place media on a timeline.</p> <p>4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots and continuity.</p> <p>4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ) and matching levels.</p>

**3. Introduction to Single Camera Video Production.** CTAN alignment with the Arts and Communications Career Field Technical Content Standards of the Ohio Department of Education

**General Course Description:** Introduction to Single Video Production: This course covers the production of digital video in its three stages; pre-production, production, and post-production. Studio practice will include screenwriting, storyboarding, single camera operation, lighting, and digital video editing. Working independently and in groups, students work on projects including commercials, short subject narratives, and documentaries. This CTAN is already an approved OAN in the Telecommunications TAG. The number and title is: OAN# OCM008 Introduction to Single Camera Production.

**Advising Notes:**

- Passing CETE exam score

- The coursework identified in this CTAG is guaranteed to transfer and apply toward a Bachelor of Arts (BA) or Bachelor of Science (BS) in Media Arts degree. It is not guaranteed to count toward a Bachelor of Fine Arts (BFA) in Media Arts and would be evaluated on a course by course basis along with any audition, portfolio, or ensemble requirements that the receiving institution requires of its own students.

**Semester Credit Hours:** 3

**Alignment:**

Introduction to Single Camera Video Production

Learning Outcomes	Competencies are from the Ohio Department of Education's - Career Field Technical Content Standards
<p>1. Acquire skills in single camera production styles, in lighting techniques, editing techniques, graphic design, creative collaboration and storytelling.</p>	<p>4.4.1. Measure light levels using a light exposure meter.            4.4.2. Employ the characteristics (e.g., hard light, diffused light, incident light) and properties of light.            4.4.3. Manipulate and direct light using ratios, gels, filters, diffusion and gobos.            4.4.4. Implement lighting techniques (e.g., four-point, bounce, high-key, low-key, cross-key, mixed) to produce specific effects.            4.5.3. Identify the effects of ISO settings on image quality.            4.5.4. Achieve proper exposure through light, shutter speed and aperture.            4.5.5. Affect apparent motion through shutter speed.            4.5.6. Manipulate aperture settings to alter depth of field.            4.5.8. Capture images through various lenses and camera angles.            4.5.9. Modify image through sizing, cropping and output resolution.            4.5.10. Modify an image through color-management and special effects.            4.5.11. Enhance an image with tone, contrast, filters, composites and sharpening techniques.            4.5.12. Retouch an image by cloning, healing, patching and rebuilding.            4.5.13. Integrate image capture with post-production processes.            4.5.1. Analyze the capabilities of different image capturing devices.            4.5.14. Capture multiple images and render them in high dynamic range.            4.6.1. Analyze the capabilities of different video devices.            4.6.2. Select, prepare, clean, and maintain equipment for a production.            4.6.3. Achieve proper exposure and depth of field using gain, white balance, focus, focal length, audio controls, bars and tone.            4.6.4. Select file format, frame speed and resolution.            4.6.6. Apply screen direction using vector (e.g., motion, index, graphic).</p>

	<p>4.6.7. Create steady shots and smooth camera movement using handheld techniques, tripods and other stabilizing equipment.</p> <p>4.6.8. Create slow/fast motion effect by adjusting shutter speed.</p> <p>4.6.9. Log video during shooting.</p>
<p>2. Demonstrate understanding and skill acquisition by completing projects.</p>	<p>3.2.3 Brainstorm the theme and plot through outlining or storyboarding.</p> <p>4.1.6. Apply the principles of direct sound, early reflection and reverberation.</p> <p>4.2.6. Organize a production from audio recording to distributing.</p> <p>4.2.8. Select a score for production and post-production needs.</p> <p>4.3.1. Produce live sound, tracks and overdubbing (e.g., narrative, voiceover, music).</p> <p>4.3.2. Apply the principles of compression and limiting.</p> <p>4.3.5. Perform audio mixing, including relative level, spatial positioning, equalization, dynamics processing and effects processing).</p> <p>4.3.6. Apply virtual mixing techniques.</p> <p>4.3.7. Apply the principles of time-based effects.</p> <p>4.3.8. Synchronize sound effects for film, television, radio or live performances.</p> <p>4.4.2. Employ the characteristics (e.g., hard light, diffused light, incident light) and properties of light.</p> <p>4.4.3. Manipulate and direct light using ratios, gels, filters, diffusion and gobos.</p> <p>4.5.4. Achieve proper exposure through light, shutter speed and aperture.</p> <p>4.5.7. Alter image through focus, white balance, exposure modes and polarization.</p> <p>4.5.8. Capture images through various lenses and camera angles.</p> <p>4.5.9. Modify image through sizing, cropping and output resolution.</p> <p>4.5.10. Modify an image through color-management and special effects.</p> <p>4.5.11. Enhance an image with tone, contrast, filters, composites and sharpening techniques.</p> <p>4.5.12. Retouch an image by cloning, healing, patching and rebuilding.</p> <p>4.5.13. Integrate image capture with post-production processes.</p> <p>4.5.14. Capture multiple images and render them in high dynamic range.</p> <p>4.7.2. Import and log media for editing.</p> <p>4.7.3. Manage files of digital clips.</p> <p>4.7.4. Use storyboard techniques to place media on a timeline.</p> <p>4.7.5. Correct color, condense and enhance a video production.</p> <p>4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots and continuity.</p>

	<p>4.7.7. Add special effects to a video through filters, keying and image control.</p> <p>4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ) and matching levels.</p> <p>4.7.9. Create graphics for video products (e.g., titles, still images).</p> <p>4.7.10. Export and upload media in the appropriate format (e.g., print to video, DVD, video file).</p>
<p>3. Understand principles of the production process.</p>	<p>4.1.1. Analyze sound by its properties, including amplitude, frequency, wavelength, velocity, diffraction, diffusion, phase and harmonics.</p> <p>4.1.2. Classify elements in sound transduction (i.e., how sound energy is converted into electrical energy, resistance, balanced versus unbalanced lines).</p> <p>4.1.5. Analyze acoustics and their impact on sound.</p> <p>4.2.1. Determine sound recording requirements.</p> <p>4.2.2. Compare and contrast microphone properties (e.g., polar patterns, type of transducer) with their intended use (e.g., handheld, wireless, boom).</p> <p>4.5.3. Identify the effects of ISO settings on image quality.</p> <p>4.5.1. Analyze the capabilities of different image capturing devices.</p> <p>4.6.1. Analyze the capabilities of different video devices.</p> <p>4.7.1. Compare and contrast linear and nonlinear digital editing systems for audio/video.</p>

#### 4. Multi-Media Production for the Web

CTAN alignment with the Arts and Communications Career Field Technical Content Standards of the Ohio Department of Education

**General Course Description:** Course is designed to integrate a variety of production techniques that include audio, video, and still image acquisition and manipulation, as well as the creation and use of animation, and graphic design to develop interactive websites. Course will present an overview of principles, techniques and tools for multimedia production and distribution. Aspects of visual aesthetics and theory, lighting, cinematography, audio acquisition, non-linear audio/video editing, simple animation design interactive interface should all be addressed. Students must be provided an opportunity for a variety of hands-on exercises and projects.

#### Advising Notes:

- Passing CETE exam score
- Students must access credit within two years

The coursework CTAG is guaranteed to transfer and apply toward a Bachelor of Arts (BA) or Bachelor of Science (BS) in Media Arts degree. It is not guaranteed to count toward a Bachelor of Fine Arts (BFA) in Media Arts and would be evaluated on a course by course basis along with any audition, portfolio, or ensemble requirements that the receiving institution requires of its own students.

**Semester Credit Hours:** 3.0

**Alignment:**

#### 4. Multi-Media Production for the Web

Learning Outcomes	Competencies are from the Ohio Department of Education's - Career Field Technical Content Standards
<p>1. Apply skills in audio/video acquisition and editing as it applies to the Web.</p>	<p>4.2.5. Import audio using analog-to-digital interfaces (e.g., Musical Instrument Digital Interface [MIDI], breakout boxes).            4.2.7. Distinguish among digital media formats (e.g., .mp3, .mp4, .wav, .aiff).            4.2.8. Select a score for production and post-production needs.            4.5.13. Integrate image capture with post-production processes.            4.7.2. Import and log media for editing.            4.7.3. Manage files of digital clips.            4.7.4. Use storyboard techniques to place media on a timeline.            4.7.5. Correct color, condense and enhance a video production.            4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots and continuity.            4.7.7. Add special effects to a video through filters, keying and image control.            4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ) and matching levels.            4.7.9. Create graphics for video products (e.g., titles, still images).            4.7.10. Export and upload media in the appropriate format (e.g., print to video, DVD, video file).</p>
<p>2. Apply skills in still image acquisition and manipulation as it applies to the Web.</p>	<p>4.5.9. Modify image through sizing, cropping and output resolution.            4.5.10. Modify an image through color-management and special effects.            4.5.11. Enhance an image with tone, contrast, filters, composites and sharpening techniques.            4.5.12. Retouch an image by cloning, healing, patching and rebuilding.            4.5.13. Integrate image capture with post-production processes.            4.5.14. Capture multiple images and render them in high dynamic range.            4.7.2. Import and log media for editing.</p>

	<p>4.7.3. Manage files of digital clips.</p> <p>4.7.10. Export and upload media in the appropriate format (e.g., print to video, DVD, video file).</p>
3. Choose appropriate media and design an interactive website.	<p>2.3.6. Select the material based on its characteristics (e.g., design, construction, maintenance, care of product) for the intended use.</p> <p>4.2.8. Select a score for production and post-production needs.</p>
4. Demonstrate basic skills in graphic design and animation as it applies to the Web.	<p>2.2.4. Identify gamut output issues and calibrate color.</p> <p>2.2.5. Select color profiles for different mediums (e.g., Red Green Blue [RGB], Cyan Magenta Yellow Key [CMYK], Pantone®, Reference Output Medium Metric [ROMM] RGB, CIE-L*a*B* color space).</p> <p>2.2.6. Replicate color across multiple mediums accommodating how color changes from the monitor to the final product (e.g., coated and uncoated papers, metallic, color-calibrated monitors).</p> <p>2.3.6. Select the material based on its characteristics (e.g., design, construction, maintenance, care of product) for the intended use.</p> <p>2.3.7. Create a 3D design according to specific measurements using drawing, cutting, scoring and bonding techniques.</p> <p>2.4.5. Differentiate between raster- and vector-based layouts.</p> <p>4.2.8. Select a score for production and post-production needs.</p> <p>6.1.1. Identify the characteristics that make media interactive.</p> <p>6.1.4. Import media into the selected application.</p> <p>6.1.5. Identify the hardware capabilities of various devices and how processor speed, Random Access Memory (RAM), monitor resolution and media storage affect the development and use of digital projects.</p> <p>6.2.5. Save images in various modes, resolutions and formats.</p> <p>6.2.6. Scale, size and adjust file resolution for multiple uses.</p> <p>6.3.1. Draw digital graphics.</p> <p>6.3.2. Manipulate the attributes of graphics (e.g., color, shape, size, texture).</p> <p>6.3.5. Optimize and export graphic files for intended use</p> <p>6.4.6. Render and export animations.</p>
5. Demonstrate creative collaboration and storytelling in a multimedia environment as it applies to the Web.	<p>1.2.3. Identify and use verbal, nonverbal and active listening skills to communicate effectively.</p> <p>1.2.5. Communicate information (e.g., directions, ideas, vision, workplace expectations) for an intended audience and purpose.</p> <p>4.7.4. Use storyboard techniques to place media on a timeline.</p> <p>6.5.5. Design a web page based on subject, devices, audience, layout, color, navigation, graphics and Americans with Disabilities Act (ADA) requirements.</p>

<p>6. Understand principles of the production process as it applies to the Web.</p>	<p>6.5.12. Incorporate audio, video, graphics and animations into a web page.</p> <p>4.2.6. Organize a production from audio recording to distributing.</p> <p>4.2.7. Distinguish among digital media formats (e.g., .mp3, .mp4, .wav, .aiff).</p> <p>4.5.9. Modify image through sizing, cropping and output resolution.</p> <p>4.6.4. Select file format, frame speed and resolution.</p> <p>4.7.10. Export and upload media in the appropriate format (e.g., print to video, DVD, video file).</p> <p>6.1.2. Compare how digital and interactive media are used in different environments (e.g., kiosks, electronic billboards, Digital Out of Home [DOoH] signage, games).</p> <p>6.1.5. Identify the hardware capabilities of various devices and how processor speed, Random Access Memory (RAM), monitor resolution and media storage affect the development and use of digital projects.</p> <p>6.1.7. Export media in the appropriate format for delivery.</p> <p>6.2.5. Save images in various modes, resolutions and formats.</p> <p>6.2.6. Scale, size and adjust file resolution for multiple uses.</p> <p>6.3.5. Optimize and export graphic files for intended use.</p> <p>6.4.6. Render and export animations.</p> <p>6.5.1. Identify how different devices, browsers and operating systems affect the look of a web page.</p> <p>6.5.6. Organize assets for a functional web page.</p> <p>6.5.12. Incorporate audio, video, graphics and animations into a web page.</p>
<p>7. Understand relationships among aesthetics, narrative and technologies in multimedia production as it applies to the Web.</p>	<p>6.1.2. Compare how digital and interactive media are used in different environments (e.g., kiosks, electronic billboards, Digital Out of Home [DOoH] signage, games).</p> <p>6.1.5. Identify the hardware capabilities of various devices and how processor speed, Random Access Memory (RAM), monitor resolution and media storage affect the development and use of digital projects.</p> <p>6.1.8. Manage digital assets through organizational techniques (e.g., metadata, keywords, file/folder structure, name conventions).</p> <p>6.2.1. Describe the relationship between lines per inch (LPI) and dots per inch (DPI).</p> <p>6.2.2. Describe the relationship between resolution and file size.</p> <p>6.2.5. Save images in various modes, resolutions and formats.</p> <p>6.2.6. Scale, size and adjust file resolution for multiple uses.</p> <p>6.3.4. Select a graphic file format based on compression, resolution and file size.</p> <p>6.3.5. Optimize and export graphic files for intended use.</p>

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"><li>6.5.1. Identify how different devices, browsers and operating systems affect the look of a web page.</li><li>6.5.2. Explain how bandwidths affect data transmission.</li><li>6.5.3. Describe the basic principles of Hypertext Markup Language (HTML) and its functional relationship with web browsers.</li><li>6.5.5. Design a web page based on subject, devices, audience, layout, color, navigation, graphics and Americans with Disabilities Act (ADA) requirements.</li><li>6.5.12. Incorporate audio, video, graphics and animations into a web page.</li></ul> |
|--|---|