

## Arts, A/V Technology & Communications Career Cluster

### 1. Analyze the interdependence of the technical and artistic elements of various careers within the Arts, A/V Technology & Communications Career Cluster.

AR 1.1: Summarize the features of the partnership that technology and the arts have in developing presentations and productions.

*Sample Indicators:*

- Describe the impact that audio-video technology, printing, broadcasting, and journalism have on the development of presentations and productions.
- Analyze how technical areas and the arts partner to produce high-quality presentations and productions.

AR 1.2: Analyze how the roles of creators, performers, technicians, and others are similar and different from one another.

*Sample Indicators:*

- Analyze the roles of creators, performers, technicians, and others involved in production, performance, and media to identify similarities and differences.
- Analyze the skills required by both technical and artistic partners to provide audiences with quality works and productions.
- Design a presentation that illustrates the similarities and differences of the various roles.

AR 1.3: Discuss how specific organizational policies, procedures, and rules help employees perform their jobs.

*Sample Indicators:*

- Identify the contents of various organizational publications.
- Locate and identify a specific organizational policy, rule, or procedure to assist with a given situation.

AR 1.4: State how various Career Pathways within the cluster work together to generate productions, media, and other activities.

*Sample Indicators:*

- Generate a production, media, or other event, and identify the interrelated activities and skill requirements associated with various Career Pathways in this cluster.

### 2. Analyze the importance of health, safety and environmental management systems, policies and procedures common in arts, audio/video technology and communications activities and facilities.

AR 2.1: Assess workplace conditions with regard to safety and health.

*Sample Indicators:*

- Identify the types of risk of injury/illness at work.

- *Identify those who are susceptible to risk of injury/illness at work.*
- *Describe ways to positively impact occupational safety and health.*
- *Demonstrate safety practices for working "on-location"; i.e., stage sets, field work in journalism, extreme weather.*

AR 2.2: State the implications and rationale for various rules and laws designed to promote safety and health may have on a work environment.

*Sample Indicators:*

- *Identify key rights of employees related to occupational safety and health.*
- *Identify the responsibilities of employers related to occupational safety and health.*
- *Explain the role of government agencies in providing a safe workplace.*

AR 2.3: Demonstrate personal and group health and safety practices.

*Sample Indicators:*

- *Identify and describe common hazards in the workplaces.*
- *Interpret safety signs, symbols, and sources of information about hazards in the workplace.*
- *Identify methods to correctly dispose of hazardous materials.*
- *Demonstrate principles of safe physical movement to avoid slips, trips, and spills.*
- *Inspect and use protective equipment.*
- *Design a plan for maintaining individual health for work in various Career Pathways within the cluster.*

AR 2.4: Illustrate situations that demonstrate compliance with OSHA safety regulations and practices as it relates to this cluster.

*Sample Indicators:*

- *Define the OSHA safety regulations related to this cluster.*
- *Classify critical safety issues and practices identified by OSHA in relation to Career Pathways in this cluster.*

AR 2.5: Demonstrate safe work habits and procedures in working with electricity in this career cluster.

*Sample Indicators:*

- *Exhibit proper grounding techniques.*
- *Identify potential electrical hazards on the work site or set.*

AR 2.6: Demonstrate safety procedures in operating equipment commonly used in the career pathways.

*Sample Indicators:*

- *Operate an aerial system without individuals on the equipment according to established safety procedures.*
- *Climb poles, using steps, gaffs, scaffolding, and ladders according to safety procedures.*
- *Illustrate the safety practices required in the control room for broadcasting; in a theater with props, sets, costumes, make-up, and lighting; in graphic arts with presses, and in other specific pathway locations.*

### 3. Analyze the lifestyle implications and physical demands required in the arts, audio/visual technology and communications workplace.

AR 3.1: Summarize the physical preparation needed to maintain the work activities of pathways in this career cluster.

*Sample Indicators:*

- *Demonstrate a warm-up process to prepare the body for various performing arts.*
- *Demonstrate body mechanics that prevent strain on various parts of the body and voice.*
- *Illustrate how to recognize stress as a potential safety factor to the body in various movements.*
- *Demonstrate ergonomic movements related to artistic performance and technical equipment use.*

AR 3.2: Summarize lifestyle choices required to maintain the work activities of the pathways in this career cluster.

*Sample Indicators:*

- *Apply knowledge of nutrition to meet the body's needs to supply the physical activity required by careers in this cluster.*
- *Interpret the impact of choices regarding nutrition, stress, exercise, and alternative decisions on an individual's ability to sustain a career in performance.*

AR 3.3: Analyze ethical conduct that provides proper credit to those whose ideas and content have been used.

*Sample Indicators:*

- *Illustrate how credit is given for use of copyright materials.*
- *Identify the consequences in historical examples of both ethical and unethical conduct related to the use of intellectual property.*

AR 3.4: Identify the proper use of proprietary information.

*Sample Indicators:*

- *Describe how proprietary information is a concern related to careers in this cluster.*
- *Evaluate situations to judge the extent to which information is proprietary and whether or not it can be used.*

AR 3.5: Analyze contracts for potential work in career pathways within this cluster.

*Sample Indicators:*

- *Interpret various types of contracts.*
- *Identify the essential elements a contract needs to contain for protection of both parties.*

AR 3.6: Analyze state, county, and city codes related to decisions affecting work in this cluster.

*Sample Indicators:*

- *Identify processes required to obtain local, county, and state permits for building structures and sets and installing communications mechanisms in various site locations.*

- *Identify agencies and organizations that oversee and enforce these statutes.*

AR 3.7: Analyze the First Amendment, FCC, the Freedom of Information Act, liability laws, and other regulations for compliance issues relevant to this cluster.

*Sample Indicators:*

- *Describe the intent and relationship of the First Amendment to this cluster.*
- *Identify FCC Regulations, the Freedom of Information Act, and state statutes and liability laws pertaining to work in this cluster.*
- *Identify court cases related to this cluster that preserve business and individual rights.*
- *Discuss how The Freedom of Information Act affects workers in this cluster.*

AR 3.8: Analyze the liabilities associated with productions and performances, media, and telecommunications installations.

*Sample Indicators:*

- *Identify examples of potential situations that could pose legal liabilities.*
- *Analyze the risk level for work situations related to this cluster.*

AR 3.9: Examine labor management processes and agreements generally used in the arts, audio-video technologies, telecommunications, printing and media fields.

*Sample Indicators:*

- *Identify issues that are handled in agreements between labor and management in one of the pathways for this cluster.*

#### **4. Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.**

AR 4.1: Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.

*Sample Indicators:*

- *No Sample Indicators.*

#### **5. Describe the career opportunities and means to achieve those opportunities in each of the Arts, A/V Technology & Communications Career Pathways.**

AR 5.1: Locate career opportunities that appeal to personal career goals.

*Sample Indicators:*

- *Locate and interpret career information for at least one career cluster.*
- *Identify job requirements for career pathways.*
- *Identify educational and credentialing requirements for career cluster and pathways.*

AR 5.2: Match personal interests and aptitudes to selected careers.

*Sample Indicators:*

- *Identify personal interests and aptitudes.*
- *Identify job requirements and characteristics of selected careers.*
- *Compare personal interests and aptitudes with job requirements and characteristics of career selected.*
- *Modify career goals based on results of personal interests and aptitudes with career requirements and characteristics.*

AR 5.3: Identify pathways with common knowledge and skills that provide a worker with the potential for mobility.

*Sample Indicators:*

- *Compare the pathways for common knowledge and skills, and produce a crosswalk of related career potential.*
- *Identify work activities associated with a variety of the cluster pathways required for a theater production, film, television broadcast, or arts event.*

AR 5.4: Examine the numerous career paths in this cluster to discover personal preference.

*Sample Indicators:*

- *Review detailed job description, qualifications, and requirements for several careers of interest.*
- *Compare the advantages and disadvantages of working independently and of working for others.*
- *Match interests and abilities to career preferences.*

## **6. Evaluate technological advancements and tools that are essential to occupations within the Arts, A/V Technology & Communications Career Cluster.**

AR 6.1: Research the impact of potential new technological advancements related to this cluster in the future.

*Sample Indicators:*

- *Develop a research paper, media production, or other event to demonstrate the impact of technology on careers in this cluster for the future.*
- *Evaluate the business opportunities in this cluster and identify how these will be impacted by technological advancements and systems.*
- *Identify the technological changes in the past five years that have affected the skill requirements for workers in this cluster.*

AR 6.2: Analyze the technological systems that are apparent within the various pathways in this cluster.

*Sample Indicators:*

- *Compare the organizational structures of businesses in each of the pathways in this cluster.*
- *Identify the technological systems and their effects on the pathways in this cluster.*
- *Predict and highlight technological advancements for several pathways to illustrate the effect on work in careers in this cluster.*

## AV Technology & Film Career Pathway (AR-AV)

### 1. Describe the history, terminology, occupations, and value of audio, video and film technology.

AR-AV 1.1: Explain the history of film.

*Sample Indicators:*

- *Discuss the beginnings and evolution of audio/video production and film.*
- *Describe how changing technology is impacting the audio/video and film industries.*
- *Summarize how the history of film is related to the industry today.*

AR-AV 1.2: Analyze various careers and their job descriptions in audio/video technology and film.

*Sample Indicators:*

- *Discuss the responsibilities of producers, including budgets, schedules, personnel, and tracking progress.*
- *Describe the responsibilities of directors, including knowledge of story structure, script analysis, the relationship to the production team, and the responsibilities of crewmembers.*
- *Describe the duties of editors for audio, video, and film productions.*
- *Discuss the duties of editors related to audio and visual effects.*
- *Describe various jobs associated with animation including communications, video and feature-length productions, and Internet streaming.*
- *Discuss the responsibilities of others in this field including lighting directors, cinematographers, videographers, sound engineers, stunt coordinators, special effects coordinators, productions specialists, and other crewmembers.*

AR-AV 1.3: Explain the value of having a broad general knowledge of fine arts and cultural and regional diversity.

*Sample Indicators:*

- *Identify various types of audio and visual approaches that convey information or create an emotional impact.*
- *Explain how knowledge is useful in dealing with projects covering a broad spectrum of events, regions, or cultures when research may not be possible.*
- *Define the terminology associated with audio/video technology and film production.*

### 2. Demonstrate the use of basic tools and equipment used in audio, video and film production.

AR-AV 2.1: Describe the types of microphones, pick-up patterns, and techniques required for a variety of audio presentations.

*Sample Indicators:*

- *Identify microphones used for audio/video productions, music, and theater.*
- *Explain why audio pick-up differs in various types of microphones.*
- *Describe the techniques to maximize sound performance using various audio formats.*

AR-AV 2.2: Employ knowledge regarding audio equipment used for productions including basic recording equipment, equalizers, mixing consoles, and quality-monitoring equipment.

*Sample Indicators:*

- *Identify basic recording session equipment.*
- *Select equipment required for specific types of audio productions.*
- *Describe how an audio-mixing console, quality-monitoring equipment, and basic recording session equipment are utilized.*
- *Demonstrate techniques used for equalization.*
- *Demonstrate how to record and mix audio.*
- *Explain the features and uses of digital audio formats.*

AR-AV 2.3: Illustrate the techniques required for synchronization of audio with video and multiple sound tracks.

*Sample Indicators:*

- *Describe synchronization processes.*
- *Demonstrate how audio is synchronized with other audio or video.*

AR-AV 2.4: Write audio scripts for various types of programs.

*Sample Indicators:*

- *Identify the key elements required in audio scripts.*
- *Explain how various styles of music can create a specific emotional impact.*
- *Apply writing skills to the development of a short audio script.*

AR-AV 2.5: Apply knowledge of lighting requirements to a planned production.

*Sample Indicators:*

- *Identify types and placement of lighting fixtures for various lighting effects.*
- *Demonstrate lighting techniques used for portable and studio productions.*
- *Demonstrate operation of a master lighting panel and dimmer panel board.*

AR-AV 2.6: Demonstrate operation of video systems.

*Sample Indicators:*

- *Describe Mini DV, non-linear memory devices, and HDTV.*
- *Demonstrate operation of video cameras and switchers.*
- *Demonstrate how to clean, tune, and align video equipment.*
- *Demonstrate video-system maintenance procedures.*
- *Describe data signals and equipment for digital technology.*

AR-AV 2.7: Demonstrate camera operations and video signals.

*Sample Indicators:*

- *Describe how to frame and maintain picture composition.*
- *Demonstrate focusing and adjusting images and performing pans and zooms.*
- *Interpret video signals and production formats.*

### 3. Demonstrate technical support skills for audio, video and film productions.

AR-AV 3.1: Demonstrate how to repair and service transmitting and receiving systems.

*Sample Indicators:*

- *Describe the need for temperature stability.*
- *Describe the connection between receiver sensitivity and measurement of image rejection.*
- *Demonstrate how to align the receivers and transceivers for operation.*
- *Demonstrate basic preventative maintenance.*

AR-AV 3.2: Employ knowledge of wireless and wired transmission systems.

*Sample Indicators:*

- *Define wireless system components.*
- *Define wired system components.*
- *Describe how to repair transmitting, receiving, and multi-channel systems.*

AR-AV 3.3: Demonstrate installation of cabling for audio/video productions.

*Sample Indicators:*

- *Demonstrate reading a signal flow diagram to determine cabling route.*
- *Demonstrate pulling and securing cable.*
- *Demonstrate how to document the routing.*

AR-AV 3.4: Demonstrate the installation of a wireless audio/video system.

*Sample Indicators:*

- *Identify how to determine if the power supply is adequate.*
- *Demonstrate placement of a wireless audio system for efficient operation.*
- *Describe a scenario that requires building support structures and tie-downs.*

AR-AV 3.5: Demonstrate how to troubleshoot audio/video system operations.

*Sample Indicators:*

- *Identify the sequence required for troubleshooting.*
- *Conduct a troubleshooting sequence.*
- *Identify problems and potential solutions.*

### 4. Demonstrate technical support skills for audio, video and film productions.

AR-AV 4.1: Apply knowledge of the critical elements in designing a production to activities in the pre-production stage.

*Sample Indicators:*

- *Create a short script and identify the resources needed to begin the production.*
- *Identify the activities associated with pre-production, production, and postproduction.*
- *Analyze the script and storyboard development processes for a successful production.*
- *Identify equipment, crew, and cast requirements for a short, scripted audio/video.*
- *Identify several means to work within budget restraints.*



- *Conduct a casting day for the script.*
- *Execute production of the script.*
- *Critique a production to determine how the various elements resulted in a successful or unsuccessful presentation.*
- *Identify the linkage from each stage to the next in processes and activities.*
- *Identify the team roles required for completion of a production.*

AR-AV 4.2: Identify the basic functions and resources for editing an audio/video production.

*Sample Indicators:*

- *Define editing related to audio/video productions.*
- *Describe the differences between offline and online editing related to low- and high-resolution input, respectively.*
- *Identify editing skills related to various delivery requirements including commercial broadcast and other forms of distribution.*
- *Describe the significance of digital technology and high-definition production, and the required editing equipment.*
- *Describe skills required for editing using nonlinear systems.*
- *Describe various digital platforms such as H.264, Apple ProRes 422, Red, 3D, and DVC Pro.*

AR-AV 4.3: Apply computer-based development in video production and editing, with an emphasis on digital technology.

*Sample Indicators:*

- *Define terms associated with computer-based production including motion video: AVI, QuickTime and MPEG; and stills: JPEG and TIFF.*
- *Demonstrate how to use software for a simple video.*
- *Demonstrate using software to edit a video.*

## **Journalism & Broadcasting Career Pathway (AR-JB)**

### **1. Describe the diversity and variety of functions within the Journalism & Broadcasting Career Pathway.**

AR-JB 1.1: Summarize the roles of journalism and broadcasting in society today using knowledge and history of journalism and broadcasting.

*Sample Indicators:*

- *Discuss the beginnings and evolution of broadcasting, print, and electronic journalism.*
- *Describe how increasingly available information is changing society.*

AR-JB 1.2: Distinguish between different forms of media and their specific applications.

*Sample Indicators:*

- *Describe the differences among media, including newspaper, magazine, electronic news, television, radio, web, and mobile devices.*

- *Describe the objectives, distribution, and timeliness of various media.*
- *Identify the responsibilities and duties of each of the jobs within the journalism and broadcasting pathway (i.e., producers, editors, photojournalists, graphic artists, television and radio reporters, etc.)*

AR-JB 1.3: Explain the value of having a broad general knowledge base and how awareness of cultural, regional, and diversity issues adds to a journalism and broadcasting career.

*Sample Indicators:*

- *Identify useful knowledge for a reporter writing stories about the economy, a current ethnic art exhibit, and a new piece of military equipment.*
- *Explain how knowledge is useful in the broad coverage of events when research may not be possible.*

AR-JB 1.4: Analyze the business and economic factors that influence programming, content, and distribution.

*Sample Indicators:*

- *Identify similarities and differences among public and commercial radio and television station operations.*
- *Identify several types of advertising, marketing, and public relations activities used by public and commercial radio or television stations.*
- *Describe how the web, cable, and mobile devices have changed journalism and broadcasting.*

AR-JB 1.5: Demonstrate professional conduct that follows a professional code of ethics.

*Sample Indicators:*

- *Identify groups that define a code of ethics for journalism and broadcasting.*
- *Describe issues related to libel and slander.*
- *Discuss why it is important to pursue truth in ambiguous situations.*
- *Explain what constitutes plagiarism and invasion of privacy.*
- *Describe the role of federal agencies that have jurisdiction over public airways.*

## **2. Demonstrate writing processes used in journalism and broadcasting media.**

AR-JB 2.1: Demonstrate how to cultivate sources for stories.

*Sample Indicators:*

- *Develop a story based on information found on an assigned beat or in other media.*
- *Explain how to find/locate an investigative lead.*
- *Evaluate how a community calendar of events, police and fire communications, wire services, and verifiable Internet sources are useful for news writing.*

AR-JB 2.2: Demonstrate how to obtain information to use in writing a story.

*Sample Indicators:*

- *Define off-the-record information.*

- *Identify uses of the newspaper morgue and public records.*
- *Demonstrate methods for verification of information.*
- *Evaluate the use of crowd sourcing, digital record searches, and statistical journalism.*

AR-JB 2.3: Develop written stories for print and broadcast.

*Sample Indicators:*

- *Identify commonly used style guides.*
- *Write a print news story to meet a deadline using organized research and note-taking skills to capture precise language of sources for direct quotations, transitions, and proofreading and copy-editing skills.*
- *Discuss content editing.*
- *Rewrite a print news story to be used for broadcasting on web, radio, or television.*

AR-JB 2.4: Demonstrate how photographs support the development of stories.

*Sample Indicators:*

- *Write two stories about the same event: one with a photograph and one without a photograph.*

AR-JB 2.5: Employ knowledge of the similarities and differences among editorial, feature, and news writing styles.

*Sample Indicators:*

- *Write a feature article for a magazine.*
- *Identify how editorials and columns differ from news reports.*

AR-JB 2.6: Define the terminology associated with journalism and broadcasting.

*Sample Indicators:*

- *Define commonly used journalism terms.*
- *Define commonly used broadcasting terminology.*

AR-JB 2.7: Develop a complete radio project.

*Sample Indicators:*

- *Write a script for a radio broadcast.*
- *Write to a sound bite.*
- *Develop lead ins and teasers for radio.*
- *Edit stories and audio.*

AR-JB 2.8: Develop a complete television project.

*Sample Indicators:*

- *Write several stories in an appropriate broadcast style, then choose one to become a lead story and prioritize others.*
- *Create or select graphics for stories.*
- *Write lead ins and teasers for television.*
- *Shoot and edit the story.*

### 3. Plan and deliver a media production (e.g., broadcast, video, web, mobile).

AR-JB 3.1: Analyze the elements of a newscast production.

*Sample Indicators:*

- *Identify location, number of cameras needed, and time restrictions for a newscast production.*
- *Describe the purposes of rundown sheets.*
- *Develop a rundown sheet for use with a broadcast.*

AR-JB 3.2: Analyze individual announcing competence.

*Sample Indicators:*

- *Identify announcing techniques required for a specific format.*
- *Read aloud a news story.*
- *Practice clear delivery of news and other information using cueing devices, written scripts, and a TelePrompter.*
- *Practice script delivery skills for on- and off-camera, including emphasis, professional language, clarity, intonation, enunciation, poise, eye contact, projection, and extemporaneous speaking skills.*

AR-JB 3.3: Identify wardrobe suitable for on-camera appearances.

*Sample Indicators:*

- *Select potential wardrobe for on-camera appearances from magazines.*
- *Analyze use of makeup for on-camera appearances.*

AR-JB 3.4: Analyze production functions.

*Sample Indicators:*

- *Discuss demographics and audience rating standards.*
- *Describe targeting content for audiences.*
- *Discuss sweeps, ratings, demographics, and survey research methods.*
- *Describe the roles that web, mobile devices, and social media play in audience involvement.*

AR-JB 3.5: Demonstrate promoting productions.

*Sample Indicators:*

- *Discuss various promotions activities, including image, cross promoting with other programs and features, contests, broadcasts from remote locations, public appearances, involvement in community activities, and Internet activities.*
- *Develop a production promotion involving several activities discussed.*
- *Identify use of personal branding and audience connections via social media.*

AR-JB 3.6: Analyze how image capturing and graphics design support the development of electronic presentations.

*Sample Indicators:*

- *Develop two productions on the same topic: one including captured images and graphic design and one excluding captured images and graphic design.*

AR-JB 3.7: Distinguish amongst various musical radio formats.

*Sample Indicators:*

- *Identify various music styles, such as rock, classical, etc., and their music genres.*
- *Identify trade magazines associated with radio.*
- *Utilize specific software programs for the best effect of music.*

AR-JB 3.7: Explain the use of promotional materials, standard public service announcements, commercial/ads, press kits, and advertising tags.

*Sample Indicators:*

- *Develop a package of promotional materials.*
- *Identify standard public service announcements.*
- *Discuss commercials and advertising tags.*
- *Discuss what would be included in a press kit.*
- *Discuss ways to market via social media.*

#### **4. Demonstrate technical support related to media production (e.g., broadcast, video, web, mobile).**

AR-JB 4.1: Examine equipment and its function.

*Sample Indicators:*

- *Operate audio recording and editing equipment.*
- *Operate image recording and editing equipment.*

AR-JB 4.2: Examine production activities.

*Sample Indicators:*

- *Demonstrate set-up and striking equipment, as specified by a production design.*
- *Coordinate video and audio equipment, as specified by a production design.*
- *Implement a schedule, as specified by a production design.*

AR-JB 4.3: Explain how to run a board shift.

*Sample Indicators:*

- *Demonstrate the use of a crosscheck cue sheet, daily log, and program.*
- *Locate and load programs and commercials, control on-air sound quality, and check audio quality.*
- *Perform time checks and meet broadcast deadlines.*
- *Record network feeds.*
- *Discuss the importance of operating a control board with no interruption in audio.*
- *Operate a light board.*
- *Discuss the Emergency Alert System.*

AR-JB 4.4: Examine set design principles and practices.

*Sample Indicators:*

- *Develop a set plan, including lighting, props, and atmosphere.*

## Performing Arts Career Pathway (AR-PRF)

### 1. Describe the scope of the Performing Arts Career Pathway and the roles of various individuals and business principles.

AR-PRF 1.1: Articulate the characteristics of various performing arts from past and/or present cultures.

*Sample Indicators:*

- *Explain the arts from past and present cultures and historical periods including the medieval period and the 20th century.*
- *Illustrate how the arts originated and evolved.*

AR-PRF 1.2: Analyze similar themes and their various cultural interpretations.

*Sample Indicators:*

- *Compare the theme of revenge through various cultural interpretations.*
- *Compare a love theme from various cultural perspectives and interpretations.*

AR-PRF 1.3: Define the roles of creators, performers, and others involved in the production and presentation of the arts.

*Sample Indicators:*

- *Compare the role of a creator with that of a performer.*
- *Compare the role of a performer with that of the technical design crew.*
- *Identify the roles of creators, performers, fashion designers and others involved in the production and presentation of the arts.*

AR-PRF 1.4: Define factors that could affect the roles of creators, performers, and others in the production and presentation of the arts.

*Sample Indicators:*

- *Analyze how financial support could affect the roles of creators, performers, and others.*
- *Analyze how community involvement could affect the roles of creators, performers, and others involved.*
- *Analyze examples of how current and future local, national, and international events affect the roles of creators, performers, and others.*

AR-PRF 1.5: Explain how the commercial aspects of the arts have evolved.

*Sample Indicators:*

- *Demonstrate the commercial aspects involved in creating a modern production.*
- *Compare the commercial aspects of the arts industry historically.*

- *Illustrate the commercial aspects available in the various performing arts such as music, dance, live stage, etc.*

AR-PRF 1.6: Compare how artistic processes, organizational structure, and business principles are used in the performing arts.

*Sample Indicators:*

- *Analyze organizational and business principles.*
- *Analyze the dissimilar areas of performing arts relative to artistic processes, venues, and organizational structures.*
- *Design an organizational chart outlining the technical design and production crew for a play versus an opera.*

## **2. Demonstrate the fundamental elements, techniques, principles and processes for various dance styles and traditions in the pathway.**

AR-PRF 2.1: Demonstrate appropriate skeletal alignment, body-part articulation, strength, flexibility, agility, and coordination in locomotor and non-locomotor/axial movements.

*Sample Indicators:*

- *Demonstrate specific dance movements showing the importance of using appropriate skeletal alignment in dance.*
- *Demonstrate various examples differentiating body-art articulation.*
- *Illustrate exercises that build strength, flexibility, agility, and coordination in locomotor axial movements.*
- *Illustrate exercises that build strength, flexibility, agility, and coordination in non-locomotor axial movements.*
- *Demonstrate body projection while performing dance skills.*

AR-PRF 2.2: Demonstrate rhythm.

*Sample Indicators:*

- *Apply an ability to listen and distinguish rhythm patterns in music.*
- *Apply various rhythm patterns to basic dance movements.*
- *Practice basic dance movements using proper tempo and pace.*
- *Demonstrate the ability to keep rhythm, tempo, and pace in a dance movement.*

AR-PRF 2.3: Perform combinations and variations in a broad dynamic range.

*Sample Indicators:*

- *Apply an understanding of basic dance combinations using appropriate movements.*
- *Apply variations of rondo, round, and contemporary forms.*
- *Demonstrate an understanding of basic dance combinations and variations using appropriate movements.*
- *Refine techniques through self-evaluation and correction.*

AR-PRF 2.4: Demonstrate use of space through movement and interaction in space.

*Sample Indicators:*

- *Demonstrate use of personal, interactional, and environmental space.*
- *Illustrate uses of space in terms of solo, duet, and group performance.*

AR-PRF 2.5: Demonstrate choreographic principles, processes, and structures.

*Sample Indicators:*

- *Apply principles of contrast and transition.*
- *Apply processes of reordering and chance.*
- *Demonstrate process of improvisation.*
- *Demonstrate structures or forms of AB, ABA, canon, call and response, and narrative.*
- *Demonstrate a high level of consistency and reliability in performing technical skills.*
- *Perform technical skills with artistic expression, demonstrating clarity, rhythm, and stylistic nuance.*

AR-PRF 2.6: Apply techniques required for partner and ensemble performances.

*Sample Indicators:*

- *Demonstrate partner/ensemble copying, leading, and following.*
- *Demonstrate partner/ensemble taking and supporting weight.*
- *Demonstrate artistic discipline to achieve an ensemble in rehearsal and performance.*

### **3. Demonstrate vocal and/or instrumental performances that include a varied repertoire of music representing diverse styles, cultures and historical periods.**

AR-PRF 3.1: Recognize melodies, variations, and accompaniments.

*Sample Indicators:*

- *Identify harmonizing parts.*
- *Identify rhythmic and melodic variations on given pentatonic melodies and those in major and minor keys.*
- *Identify original melodies over given chord progressions, each in a consistent style, meter, and tonality.*

AR-PRF 3.2: Demonstrate the ability to recognize and/or read musical symbols.

*Sample Indicators:*

- *Demonstrate the ability to perform both alone and with others' music notational symbols.*
- *Demonstrate the ability to perform music vocabulary in a varied repertoire of music.*
- *Demonstrate the ability to perform musical compositions, sing, or perform on instruments in a varied repertoire of music.*

AR-PRF 3.3: Demonstrate the ability to realize instrumental or vocal music.

*Sample Indicators:*

- *Perform vocal or instrumental music with creative expression.*



AR-PRF 3.4: Employ the elements of music in a given work.

*Sample Indicators:*

- *Identify the theme, key, tempo, and mood in a given work.*
- *Listen to a given work distinguishing the elements of music.*
- *Play or vocalize a given work utilizing an understanding of the elements of music it encompasses.*

AR-PRF 3.5: Compare ways in which the same musical elements are used in different styles of music.

*Sample Indicators:*

- *Identify musical styles from different cultures.*
- *Compare and contrast the stylistic elements of music from different cultures.*
- *Identify commonalities and differences between different pieces of music from diverse cultures.*

AR-PRF 3.6: Recognize music from historical periods.

*Sample Indicators:*

- *Describe unique characteristics of music used for different purposes in cultures throughout history.*
- *Listen to known composers and their repertoire, which represents specific historical periods and their emotional messages.*

#### **4. Demonstrate knowledge of music theory by including fundamental themes and patterns in the art form.**

AR-PRF 4.1: Demonstrate knowledge of the timbre in arranging and composing music.

*Sample Indicators:*

- *Identify compositions with a wide range of sound sources.*
- *Identify the sound sources in a music arrangement.*
- *Identify the usage of sound sources when arranging music.*

AR-PRF 4.2: Explain the concept of musical expression.

*Sample Indicators:*

- *Identify the elements of music that produce an expressive effect.*
- *Perform the range of expressive effects and artistic expressions through vocal and instrumental music.*
- *Practice using intuitive reactions experienced in vocal and instrumental music for expressive effect.*

AR-PRF 4.3: Demonstrate technical skills in arranging and composing music.

*Sample Indicators:*

- *Compose a simple musical composition that applies the technical skills.*
- *Analyze more complex compositions using the technical skills achieved.*

AR-PRF 4.4: Explain the concept of improvisational music.

*Sample Indicators:*

- *Compare theory-based and performance-based music.*

## **5. Explain key issues affecting the creation of characters, acting skills, and individual roles for the presentation of a performing arts production.**

AR-PRF 5.1: Describe the social context of characters found in dramatic texts from various styles and media.

*Sample Indicators:*

- *Identify different social context of character relationships, class, and societal situations found in dramatic texts from various styles and media.*
- *Identify different social context in terms of place, period of set, and time of writing, found in dramatic texts from various styles and media.*

AR-PRF 5.2: Create characters consistent with a variety of styles, including classical, contemporary, and realistic/non-realistic dramatic texts in informal/formal theatre, film, television, or electronic media productions.

*Sample Indicators:*

- *Describe characters consistent with a variety of styles.*
- *Perform characters demonstrating a variety of styles.*

AR-PRF 5.3: Recognize the physical and emotional dimensions of characters from various styles and media.

*Sample Indicators:*

- *Perform different physical attributes that a character may possess.*
- *Perform different vocal attributes that a character may possess.*
- *Explore a variety of physical characteristics associated with different theatrical styles.*
- *Demonstrate examples of the emotional dimensions of characters found in dramatic texts from various styles and media.*
- *Analyze the differences in playing various characters and their emotional dimensions.*

AR-PRF 5.4: Recognize various classical and contemporary acting techniques.

*Sample Indicators:*

- *Identify classical or contemporary acting techniques.*
- *Perform both classical and contemporary acting techniques.*

AR-PRF 5.5: Create and sustain characters using appropriate styles and techniques.

*Sample Indicators:*

- *Perform a scene in which the actor creates and sustains a character.*
- *Demonstrate the professional characteristics needed as an actor to achieve an ensemble in rehearsal and performance.*

AR-PRF 5.6: Compare and contrast the role of playwrights, actors, and others involved in the production.

*Sample Indicators:*

- *Illustrate visual examples of theater properties from a musical performance.*
- *Identify the technical aspects of theater properties from the perspective of the playwright and actor.*

## **6. Create stage, film, television or electronic media scripts in a variety of traditional and current formats.**

AR-PRF 6.1: Write stage scripts in a variety of traditional and current formats.

*Sample Indicators:*

- *Identify structural elements for a stage script in a traditional or current format.*
- *Create a stage script in a traditional or current format.*
- *Describe the differences between traditional and current script formats.*

AR-PRF 6.2: Write film scripts in a variety of traditional and current formats.

*Sample Indicators:*

- *Identify structural elements for a film script in a traditional or current format.*
- *Create a film script in a traditional or current format.*

AR-PRF 6.3: Write television scripts in a variety of traditional and current formats.

*Sample Indicators:*

- *Identify structural elements for a television script in a traditional or current format.*
- *Create a television script in a traditional or current format.*

AR-PRF 6.4: Write electronic media scripts in a variety of traditional and current formats.

*Sample Indicators:*

- *Identify structural elements for an electronic media script in a traditional or current format.*
- *Create an electronic media script in a traditional or current format.*
- *Research the social, psychological, technical, and legal issues pertinent to developing a program for an electronic media script in a traditional or current format.*

## **7. Describe how technology and technical support enhances productions.**

AR-PRF 7.1: Demonstrate how costuming may be used to convey a character's mood, character, historical context, and social status.

*Sample Indicators:*

- *Explain how costume color, fabric, and design convey mood, character, historical context and social status of characters.*
- *Create costuming that conveys character.*
- *Create costuming that conveys the mood and historical context.*

- *Create costuming that conveys the social status of characters.*

AR-PRF 7.2: Demonstrate how stage lighting may be used to influence mood, historical context and character.

*Sample Indicators:*

- *Identify how lighting affects mood, historical context, and character in a scene.*
- *Create lighting techniques to affect mood, historical context, and character.*

AR-PRF 7.3: Interpret cultural and historical eras in theater.

*Sample Indicators:*

- *Compare how stage sets, costumes, lighting and other effects support cultural interpretations.*
- *Analyze the similarities and differences between cultural and historical periods through theatrical design.*
- *Analyze similar themes and how they have been interpreted in different cultures.*

AR-PRF 7.4: Analyze productions to determine how technology reinforces, enhances or alters performances.

*Sample Indicators:*

- *Compare and contrast productions to show how technology alters or enhances performances.*

## **8. Analyze all facets of stage and production management.**

AR-PRF 8.1: Apply knowledge of stage management and organization.

*Sample Indicators:*

- *Identify the organizational chart for a stage management team.*
- *Identify the technical crew in an organizational chart for a professional versus a community theater production.*
- *Apply knowledge of stage management and organization for a play.*
- *Apply knowledge of stage management and organization in selecting stage set designs for a musical performance.*

AR-PRF 8.2: Apply theatrical terms relative to technical design and production.

*Sample Indicators:*

- *Identify industry terminology for theatrical lighting, costuming, scenery, hair, make-up and properties.*
- *Demonstrate knowledge of technical design and production terminology.*
- *Apply theatrical terminology in developing technical design and production aspects for a play.*
- *Evaluate how theater productions have benefited from stage crews knowledgeable of technical design and production.*

AR-PRF 8.3: Demonstrate the ability to work within a theatrical production.

*Sample Indicators:*

- *Demonstrate understanding of the role of the technical crew prior to and during production.*
- *Identify responsibilities of the technical crew in various styles of production.*
- *Demonstrate working successfully with performers before final dress rehearsal.*

AR-PRF 8.4: Demonstrate artistic discipline to achieve an ensemble in rehearsal and performance.

*Sample Indicators:*

- *Describe personal characteristics that promote success from an ensemble in rehearsal and performance.*
- *Describe the steps needed to achieve optimal artistic discipline from an ensemble rehearsal and performance.*
- *Demonstrate the responsibility and professionalism needed as a member of an ensemble in rehearsal and performance.*

## **Printing Technology Career Pathway (AR-PRT)**

### **1. Manage the printing process including customer service and sales, scheduling, production and quality control to deliver products that meet customer needs and expectations.**

AR-PRT 1.1: Employ knowledge of customer needs and expectations when promoting printing services.

*Sample Indicators:*

- *Identify customer requirements, timelines and budget in a given situation.*
- *Verify final costs and ability to produce materials for time specified to customer.*
- *Apply online estimating and order entry (including reorders).*
- *Explain the diversity of the printing process including paper, non-paper substrates and specialty products.*

AR-PRT 1.2: Apply knowledge of services, equipment, capabilities, workflow process, data acquisition and technology to deliver customer service.

*Sample Indicators:*

- *Analyze cluster data files to determine compatibility with printing processes.*
- *Determine if graphics, images, film fonts, inserts, etc. are required for a print job.*
- *Disseminate customer information to the production department.*
- *Communicate with customer to provide updates in schedule and product status.*

AR-PRT 1.3: Analyze scheduling processes to ensure timely completion of projects.

*Sample Indicators:*

- *Plan project schedule related to job specifications.*
- *Schedule resources to complete job.*
- *Monitor project status.*

AR-PRT 1.4: Identify quality control measures.

*Sample Indicators:*

- *Communicate quality standards and expectations for a job to technical production staff.*
- *Monitor project quality to meet required standards.*
- *Specify points in process for client approval.*
- *Demonstrate copying and backup processes for client files.*

AR-PRT 1.5: Preview materials for imaging (preflightings).

*Sample Indicators:*

- *Analyze client electronic files to ensure software and hardware compatibility.*
- *Identify required job components including graphics, fonts, and images; transparencies; hard mechanicals, etc.*
- *Resolve file errors.*

AR-PRT 1.6: Preview materials for imaging (preflightings).

*Sample Indicators:*

- *Analyze client electronic files to ensure software and hardware compatibility.*

## **2. Demonstrate the production of various print, multimedia or digital media products.**

AR-PRT 2.1: Examine the page assembly process.

*Sample Indicators:*

- *Identify the processes involved in building the document.*
- *Identify the steps in preparing files for imaging.*
- *Identify problems that can occur in the page assembly process.*
- *Identify the type of paper and process for best results.*

AR-PRT 2.2: Examine trapping processes.

*Sample Indicators:*

- *Define trapping.*
- *Identify trapping requirements and processes.*

AR-PRT 2.3: Identify processes used to create and modify images to conform to layout design specifications.

*Sample Indicators:*

- *Comprehend the process of color separation.*
- *Identify processes used to manipulate the images to meet specifications.*
- *Analyze original to determine required reproduction techniques.*
- *Demonstrate how to adjust the scanning equipment for various processes.*
- *Demonstrate how to retrieve digital images and adjust them.*
- *Demonstrate how to capture a photograph of a building, scenery, or a personality.*

AR-PRT 2.4: Summarize various output processes for delivery of printed products.

*Sample Indicators:*

- Describe digital output software.
- Describe the processes that take output directly to the press.
- Describe platemaking and cylinder-making.
- Explain the product application of offset, digital, large-format, web, etc., printing processes.

AR-PRT 2.5: Apply appropriate software programs in design and production.

*Sample Indicators:*

- Examine the processes for which CTP, PDF, PS and DSC would be used.
- Describe the technologies used for digital proofing.

AR-PRT 2.6: Examine ink and ink processes used for various types of printing.

*Sample Indicators:*

- Identify how to select an ink for a given printing process.
- Describe how the properties of ink affect coverage, color and color separation.
- Explain the application of ink for printing processes, including ink optimization techniques.
- Perform basic set-up for printing a single color job.

### **3. Perform finishing and distribution operations related to the printing process.**

AR-PRT 3.1: Apply knowledge and skills related to binding processes used to finish printed materials.

*Sample Indicators:*

- Define binding processes, including cutting, folding and trimming.
- Calculate basic paper counts from a stock sheet.
- Demonstrate folding a single and tri-fold brochure, adapting equipment as needed.
- Identify saddle stitch, perfect bind, and flat stitching in various printed materials.
- Demonstrate basic saddle stitch and simple padding press operations.

AR-PRT 3.2: Examine the specialty operations related to finishing.

*Sample Indicators:*

- Define specialty processes.
- Identify embossing, foil stamping, die cutting and laminating samples in printed materials.

AR-PRT 3.3: Apply packaging knowledge and skills to provide the customer with delivery of the product as specified.

*Sample Indicators:*

- Identify how paper labels, ink jet labels and bulk forms are used and printed for packages.
- State the postal regulations related to packages, contents, size and destinations.
- Describe each of the following mail processes and when each is used: sorting, barcodes, bundling and sacking.

- *Demonstrate how to meet customer needs in labeling, packaging, and shipping while meeting expected standards.*

AR-PRT 3.4: Manage the completion of a printing project.

*Sample Indicators:*

- *Perform basic cleanup and maintenance.*
- *Update customer files to include file submission, proof approvals, and production processes.*

### **Telecommunications Career Pathway (AR-TEL)**

#### **1. Demonstrate the use of industry specific terminology, tools, and test equipment related to telecommunications.**

AR-TEL 1.1: Define terms utilized in direct, alternating current, and digital technology.

*Sample Indicators:*

- *Identify terms as utilized in telecommunications.*
- *Construct AC and DC circuits.*
- *Use AC and DC terminology.*
- *Apply a logical and systematic approach to troubleshooting network devices.*

AR-TEL 1.2: Demonstrate use and care of hand and power tools.

*Sample Indicators:*

- *Identify hand and power tools.*
- *Explain use and care of hand and power tools.*
- *Practice industry established procedures for use of hand and power tools.*

AR-TEL 1.3: Demonstrate use and care of test equipment.

*Sample Indicators:*

- *Examine varieties of test equipment for specific uses.*
- *Apply use and care principles to testing equipment.*
- *Select specific test equipment.*
- *Use test equipment.*

AR-TEL 1.4: Apply digital applications to deliver telecommunication services.

*Sample Indicators:*

- *Apply a logical and systematic approach to troubleshooting digital devices.*
- *Analyze varieties of digital signal technology.*



## 2. Demonstrate installation techniques and processes using appropriate telecommunication tools, materials, schematics diagrams, blueprints, and industry specific codes and regulations.

AR-TEL 2.1: Interpret industry-specific codes and regulations.

*Sample Indicators:*

- *Analyze codes and regulations.*
- *Interpret codes and regulations.*
- *Identify occupationally specific required licenses.*
- *Demonstrate familiarity with coding and certifying agencies.*

AR-TEL 2.2: Analyze basic network architecture.

*Sample Indicators:*

- *Exhibit knowledge of characteristics of network components.*
- *Analyze frame types and formats for networks.*
- *Analyze protocols for basic network architecture.*
- *Exhibit knowledge of packet-switching techniques.*

AR-TEL 2.3: Interpret schematics, diagrams, blueprints, and network topology maps.

*Sample Indicators:*

- *Identify and use common notations and symbols.*
- *Explain the meanings of symbols, color codes, acronyms, references, and maps.*
- *Explain use of schematics, diagrams, and blueprints to construct/assemble equipment.*
- *Interpret point-to-point network topologies.*

AR-TEL 2.4: Demonstrate generating technical documentation.

*Sample Indicators:*

- *Prepare customer documents used for removal, repair, and reinstallation of a telecommunications system or its components.*
- *Maintain a service documentation library/internal file.*
- *Demonstrate the ability to document engineering changes.*
- *Perform complete documentation of maintenance and repair actions.*

AR-TEL 2.5: Apply knowledge of soldering for fasteners and terminals.

*Sample Indicators:*

- *Identify types of soldering for fasteners and terminals.*
- *Demonstrate use of fasteners and terminals.*
- *Demonstrate wire-wrapping techniques.*

AR-TEL 2.6: Explain strengths and weaknesses associated with using fiber, coaxial wireless, copper, and other mediums to complete installations.

*Sample Indicators:*

- *Define methods for tagging wires and cables of various types.*

- *Explain testing procedures and terminate as necessary.*
- *Identify installation strengths and weaknesses utilizing a physical layout.*

AR-TEL 2.6: Explain strengths and weaknesses associated with using fiber, coaxial wireless, copper, and other mediums to complete installations.

*Sample Indicators:*

- *Define methods for tagging wires and cables of various types.*

### **3. Demonstrate decision making, problem-solving techniques and communication skills when providing services for customers.**

AR-TEL 3.1: Solve customer problems using information related to customer needs.

*Sample Indicators:*

- *Identify information related to customer needs.*
- *Define the problem-solving method to be utilized.*
- *Identify the obstacles to solving a problem and meeting the customer's needs.*
- *Assess each alternative to determine potential solution.*
- *Select service or product related to customer needs.*

AR-TEL 3.2: Demonstrate customer service that meets the intent of state and national guidelines for consumer rights.

*Sample Indicators:*

- *Identify state and national guidelines for consumer rights of customers.*
- *Apply procedures to provide for consumer rights of customers.*

AR-TEL 3.3: Explain root cause of problem, time required for repairs, and extent of the service required to solve problem(s).

*Sample Indicators:*

- *Explain technical information in terms that the customer understands.*
- *Apply communication skills with customers involving written, oral, listening, and body language.*
- *Explain information in a timely and accurate manner.*
- *Explain the product and/or services that best meet the needs of the customer.*

AR-TEL 3.4: Analyze replacement procedures considering standard maintenance processes.

*Sample Indicators:*

- *Interpret standard replacement procedures.*
- *Interpret industry-specific procedures for maintenance processes.*

### **4. Demonstrate the installation, repair, and delivery of network systems.**

AR-TEL 4.1: Employ knowledge of transmission lines and network connectivity.

*Sample Indicators:*

- *Exhibit knowledge of the principles and operation of wire and wireless systems.*
- *Comprehend the procedures and techniques used with wire and wireless technology.*
- *Apply principles of operations for wire and wireless systems.*

AR-TEL 4.2: Analyze specific specifications for a facility.

*Sample Indicators:*

- *Identify the structure and systems requirements.*
- *Develop specifications required for a system.*
- *Analyze installation requirements to identify conflicts.*
- *Verify specifications and installations requirements.*

AR-TEL 4.3: Explain the standards for communication networks.

*Sample Indicators:*

- *Exhibit knowledge of high-speed networks and open system interconnection standards.*
- *Exhibit knowledge of protocols.*

AR-TEL 4.4: Explain the Local Area Network (LAN) and the Wide Area Network (WAN) systems.

*Sample Indicators:*

- *Exhibit knowledge of how Local Area Networks are installed and how they perform.*
- *Exhibit knowledge of how voice, data, and video interface in Wide Area Networks.*

AR-TEL 4.5: Demonstrate installation of a network system.

*Sample Indicators:*

- *Identify the components required for network installation.*
- *Develop an installation plan.*
- *Apply knowledge of operating systems and telecommunication hardware and software to install a system.*
- *Apply installation verification processes to ensure network is functioning and operating.*

AR-TEL 4.6: Employ troubleshooting knowledge to solve problems.

*Sample Indicators:*

- *Exhibit knowledge of potential problem areas and alternative solutions.*
- *Describe diagnostic tools for use in maintenance and identification of system problems.*
- *Implement a plan to resolve the problem area while identifying the problem, potential solutions, and documenting the resolution.*

AR-TEL 4.7: Demonstrate procedures for network equipment repair.

*Sample Indicators:*

- *Identify procedures needed for network equipment repair.*
- *Select industry-specific procedure for equipment repair.*

AR-TEL 4.8: Apply knowledge of telecommunications security to maintain consumer safety.

*Sample Indicators:*

- *Demonstrate understanding of recognized security policies and procedures.*
- *Identify potential areas of concern.*
- *Describe potential risks to data security.*
- *Investigate a potential problem and provide alternatives for greater security in a telecommunications situation.*

## Visual Arts Career Pathway (AR-VIS)

### 1. Describe the history and evolution of the visual arts and its role in and impact on society.

AR-VIS 1.1: Compare the changing purposes served by visual arts throughout history.

*Sample Indicators:*

- *Identify the purposes of visual arts historically, by examining works from various time periods.*
- *Compare examples of artwork from various periods that serve communal, social, religious, or political functions.*
- *Compare examples of artwork that document events and communicate information or ideas with those that arouse emotion by expressing feelings, experiences, or values.*
- *Describe how the fashion, textiles and interior design has changed throughout history.*

AR-VIS 1.2: Analyze the opportunities for communication through the visual arts.

*Sample Indicators:*

- *Describe contemporary and historical social issues and how they are communicated through content, form, and function in the visual arts.*
- *Describe contemporary and historical arts issues and how they are communicated through the visual arts.*
- *Identify how works of visual artists communicate the ideas of their culture and religion.*
- *Analyze the use of symbols in the visual arts of diverse cultures.*
- *Apply design knowledge, skills, processes, theories and presentation skills to communicate ideas.*

AR-VIS 1.3: Evaluate works of art using critical thinking skills.

*Sample Indicators:*

- *Describe various approaches for evaluating visual arts from historical, cultural, and content viewpoints.*
- *Examine the evaluative process in terms of ethics, aesthetics, and social context.*
- *Describe ways to build aesthetic awareness and appreciation of art in a specific audience.*
- *Define interpretation and how to develop and support ideas.*
- *Develop analysis of art works derived from the descriptive elements, including form, medium, style, and subject matter.*
- *Relate the descriptive elements and analysis to current, historical, social, and cultural contexts.*

AR-VIS 1.4: Present written and oral evaluations of visual art works.

*Sample Indicators:*

- *Apply a critical method of evaluation to a work of art, resulting in a written report.*
- *Form interpretations through analysis of the structural elements, subject matter, and contextual data regarding a work of art.*
- *Communicate an oral or written defense for judgment of an artwork.*
- *Assess the value and purpose of criticism in terms of author and audience, including aesthetic, social, cultural, and historical contexts.*
- *Defend written and oral evaluations of visual art works.*

AR-VIS 1.5: Analyze the development of tools and technologies employed in the visual arts.

*Sample Indicators:*

- *Compare current visual arts tools and technologies with those of 50 years ago.*
- *Explain how interactive and virtual media have changed with the development of the web.*
- *Describe the impact of working with four dimensional applications for interior spaces and textiles.*

AR-VIS 1.5: Analyze the development of tools and technologies employed in the visual arts.

*Sample Indicators:*

- *Compare current visual arts tools and technologies with those of 50 years ago.*

## **2. Analyze how the application of visual arts elements and principles of design communicate and express ideas.**

AR-VIS 2.1: Analyze the elements and principles of art applied to visual art forms.

*Sample Indicators:*

- *Identify art elements, including line, color, shape, and texture in various media.*
- *Identify use of primary, secondary, and complementary colors in various media.*
- *Define tint, shade, hue, and value in relation to color theory.*
- *Identify standard geometric shapes used in construction and design layout.*
- *Compare samples of work that use contrast, unity, and emphasis.*

AR-VIS 2.2: Analyze the communicative effects of art elements.

*Sample Indicators:*

- *Identify the effects communicated by various types of line, including straight, curved, horizontal, vertical, and diagonal.*
- *Identify messages or meanings that colors communicate in various cultures.*
- *Compare asymmetrical and symmetrical images communicating balance.*
- *Compare repetition and pattern in fabric and other applications that communicate rhythm.*
- *Examine use of contrasting or unusual proportion to communicate ideas in various artworks.*

AR-VIS 2.3: Communicate the purpose of artwork, artists' intentions, and the process and materials that were used to achieve it.

*Sample Indicators:*

- *Articulate the purposes of several pieces of artwork in different media.*
- *Compare how commercial art is similar/different from "fine" art.*
- *Describe how the choice of materials and medium affect communication of a message.*
- *Compare artworks that communicate a variety of artists' intentions including aesthetic appeal, functional design, self-expression, etc.*
- *Evaluate the processes and materials for fashion and interior design projects.*

### **3. Analyze and create two- and three-dimensional art forms using various media.**

AR-VIS 3.1: Analyze art elements and principles of two-dimensional works of visual art in various media, including drawing, printmaking, and computer software.

*Sample Indicators:*

- *Apply elements of art, including line, color, shape, and texture to create art forms in various two-dimensional media.*
- *Demonstrate anatomical figure drawing.*
- *Demonstrate drawing in one-point, two-point, and multi-point perspective.*
- *Create a work of art by applying color using pencils, markers, airbrush, dry media, water-based media, oil-based media, or computer software.*
- *Create work that demonstrates shape, volume, depth, and dimension.*
- *Demonstrate techniques that create actual and implied texture.*
- *Practice printmaking in various media.*
- *Prepare print surface and print medium.*
- *Demonstrate design principles in developing a project such as a brochure, logo, label, textile design, or other branding project.*

AR-VIS 3.2: Apply art elements and principles to photographic works of visual art in both traditional and digital photographic media.

*Sample Indicators:*

- *Compare photographic media from traditional and digital processes.*
- *Produce a photograph using a camera with film, such as a 35mm SLR.*
- *Comprehend the processes used to develop photographic film, both color and black and white.*
- *Demonstrate the use of all darkroom equipment and processes.*
- *Identify paper characteristics in finished prints, and procedures for mounting, matting, and framing.*
- *Exhibit knowledge of photo imaging using a digital camera.*
- *Produce a variety of digital images using computer software.*

AR-VIS 3.3: Analyze multimedia applications of software/hardware for the purposes of visual communications.

*Sample Indicators:*

- *Examine digital animation tools, capabilities, and interface elements, such as those in Adobe After Effects.*
- *Create and import artwork and place on timeline to produce two-dimensional animations.*
- *Export animations as animated GIF files and include in a web page.*
- *Exhibit knowledge of graphic design and related software.*
- *Apply elements and principles of art to use of computer software.*
- *Create examples of computer graphics in commercial applications.*

AR-VIS 3.4: Analyze art elements and principles of three-dimensional forms of visual art in various media.

*Sample Indicators:*

- *Apply elements of art, including line, color, shape, and texture to create three-dimensional art forms in various media.*
- *Discuss the use of symmetry or asymmetry and geometric shape in the construction of sculpture.*
- *Demonstrate techniques that produce various textures in clay, wax, wood, and metal.*
- *Assess the characteristics of textiles as a medium, including design, construction, use, maintenance, and care of textile products.*
- *Analyze the use of art elements and principles in architecture, interior design, and environmental art.*
- *Assess the purposes of public art and what it communicates.*

AR-VIS 3.5: Apply art elements and principles to virtual and interactive platforms.

*Sample Indicators:*

- *Create art work for a web page.*
- *Install interactive art for response from viewers.*
- *Respond to a virtual or interactive work of art.*
- *Utilize social media to demonstrate personal branding.*