

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.*