Arts, Audio/Video Technology and Communications

Foundation

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC01.01	Academic Foundations	Language Arts Courses	Apply Language Arts knowledge and skills to this career pathway.	Apply the reading process and strategies to directions or tasks that are relatively short, with limited categories of information, directions, concepts, and vocabulary.	
				Demonstrate competence in using various information sources, including knowledge bases and technical texts to perform specific tasks.	
				Demonstrate competence in writing and editing documents, using correct grammar and punctuation.	
				Demonstrate competence in speaking to provide, distribute, or find information.	
				Demonstrate competence in making formal and informal oral presentations, including selecting and using media.	
				Adapt listening strategies to utilize verbal and nonverbal content of communication.	
ARC01.02	Academic Foundations	Mathematics Courses	Apply Mathematics knowledge and skills to this career pathway.	Add, subtract, multiply, and divide mixed numbers, fractions, and decimals.	
				Mentally add, subtract, multiply, and divide, whole numbers.	
				Apply basic methods of measurement.	
				Apply advanced methods of measurement.	

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Apply advanced concepts of data analysis and distributions.	
				Apply a variety of strategies within the problem solving-process.	
				Apply measurements for distance.	
				Apply precision measurements.	
ARC01.03	Academic Foundations	Science Courses	Apply Science knowledge and skills to this career pathway.	Demonstrate the use of common laboratory equipment and procedures.	
				Explain the environmental impact of materials (solid, liquid, gaseous).	
				Analyze the effect of chemicals on humans and plants.	
				Know the forms energy takes, its transformation from one form to another, and its relationship to matter.	
				Explain color.	
				Explain the human skeletal system.	
				Explain lenses.	
				Explain light.	
				Explain motion, vibrations and waves.	
				Explain sound.	
				Apply scientific methods for analysis, data gathering, observation, predictions, and problem identification.	
				Explain light and ultraviolet rays.	
				Apply knowledge of computers and information processing.	

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC02.01	Communications	Language Arts Courses	Comprehend and use reading strategies to learn meaning, technical concepts and vocabulary.	Determine and use reading strategy (skimming, reading for detail, reading for meaning and critical analysis) to determine purpose of text.	Use reading strategy to achieve intended purpose.
					Identify complexity of text.
					Evaluate and explain relevance, accuracy and appropriateness to purpose.
				Understand content, technical concepts and vocabulary to analyze information and follow directions.	Identify issues and questions.
					Analyze information presented in a variety of formats, such as tables, lists, figures, etc.
					Identify key technical concepts and vocabulary.
				Interpret, transcribe and communicate information, data, and observations to apply information learned from reading to actual practice.	Interpret technical materials used.
					Summarize overall meaning of text.
					Identify strategies for applying information to task or new situation.
ARC02.02	Communications	Language Arts Courses	Locate, organize and reference written information from various sources to communicate with co-workers and clients/participants.	Locate written information to communicate with co-workers and clients/participants.	Conduct search of information on topic using card catalog, keywords, and/or search engines.
					Locate variety of resources such as books, journals, and electronic forms including the Internet.
					Select the resources that best relate to the topic.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Organize information to use in written and oral communications.	Read and take notes from selected resources.
					Prepare outline that emphasizes major points with supporting data.
					Present information in organized, easy-to-follow manner.
				Document the source and proper reference for written information.	Prepare a bibliography according to MLA, APA, CBE, or Chicago, depending on the warranted language style.
					Use parenthetical citations, footnotes and endnotes accurately.
					Follow rules and regulations pertaining to plagiarism and copyrights.
ARC02.03	Communications	Language Arts Courses	Use correct grammar, punctuation and terminology to write and edit documents.	Compose multi-paragraph writing clearly, succinctly, and accurately to write documents.	Organize and arrange information for effective coherence.
					Report relevant information in order of occurrence.
					Interpret information, data, and observations correctly.
					Present main ideas and supporting facts.
				Use description of audience and purpose to prepare written documents.	Use technical terms and concepts.
					Incorporate and use references effectively and accurately.
					Report objective and/or subjective information to achieve the purpose and meet the needs of the audience.
				Use correct grammar, spelling, punctuation and capitalization to prepare written documents.	Use correct grammar and sentence structure.
					Use correct spelling.
					Use correct punctuation and capitalization.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC02.04	Communications	Language Arts Courses	Develop and deliver formal and informal presentations using appropriate media to engage and inform audiences.	Prepare oral presentation to provide information for intended purpose and audience.	Know subject matter well enough to be independent of written aids.
					Identify characteristics of the audience and adjust to their level of interest and understanding.
					Use technical terms and concepts correctly.
					Organize information in a logical sequence that makes the major points well understood by the audience.
				Identify and prepare support materials to accompany oral presentation.	Utilize media and visual aids appropriate to understanding of topic.
					Prepare easy-to-view visual aids and support materials that are without error.
					Efficiently and smoothly operate equipment used with support materials.
					Rehearse presentation.
				Deliver presentation to sustain listeners' attention and interest.	Deliver presentation without grammatical error.
					Speak clearly with appropriate volume, rate and gestures while making and maintaining appropriate eye contact with the audience.
					Use support materials in the presentation that enhance the understanding of the topic and the interest level of the audience.
					Stay within presentation time parameters.
					Use verbal and nonverbal feedback strategies to engage discussion and adjust message and delivery.
					Respond to questions and comments on presentation.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC02.05	Communications	Language Arts Courses	Interpret verbal and nonverbal cues/behaviors to enhance communication with co-workers and clients/participants.	Interpret verbal cues/behaviors to enhance communication.	Identify verbal cues/behaviors.
					Observe voice tempo, quality, tone and volume.
					Explain message conveyed by verbal cues/behaviors.
				Interpret nonverbal cues/behaviors to enhance communication.	Identify nonverbal cues/behaviors.
					Observe eye contact, facial expressions, posture, gestures and other body language.
					Explain message conveyed by nonverbal cues/behaviors.
				Interpret visual communication processes used to convey messages for various audiences through art forms, technology, films, news, print, and productions.	Interpret visual messages conveyed through various media.
					Apply knowledge of visual communications to given messages using different forms of media.
				Analyze how meanings are interpreted and influenced through various forms of art, audio-video technology productions, and the media.	Identify how meanings are interpreted through media, productions, and other art forms.
					Identify the concerns related to interpretations and how they influence various audiences.
				Interpret the influence elements of time and place on the visual characteristics, content, purposes, and message of works of art.	Evaluate a visual work of art to determine the time and place of the work, using content, characteristics, and the purpose as criteria.
					Analyze how visual characteristics, content, and a message convey the time and place of the work of art.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC02.06	Communications	Language Arts Courses	Apply active listening skills to obtain and clarify information.	Interpret message/information given to clarify information.	Indicate familiarity of topic being presented.
					Respond accordingly using appropriate verbal and nonverbal language.
					Answer questions correctly and be able to provide feedback in own words.
				Respond with restatement and clarification techniques to clarify information.	Ask questions to seek or confirm understanding.
					Paraphrase and/or repeat information.
					Record notes and summarize information from written notes.
ARC02.07	Communications	Language Arts Courses	Develop and interpret tables, charts, and figures to support written and oral communications.	Develop tables, charts and figures to support written and oral communication.	Compile facts and arrange in an organized manner for a table, chart or figure.
					Document sources of data.
					Determine most appropriate way to display data for effective coherence.
					Prepare table, chart, graph or figure for inclusion in publication or presentation.
				Interpret tables, charts and figures used to support written and oral communication.	Evaluate reference or source of data for authenticity and reliability.
					Explain information presented in tables, charts and figures.
					Prepare written summary of findings expressed in tables, charts and figures.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC03.01	Problem Solving and Critical Thinking	Academic Courses	Apply decision-making and problem-solving techniques to develop potential solutions to workplace problems.	Apply the problem-solving method to address workplace issues.	Define the scientific method of problem-solving.
					Describe key indicators and ways to first recognize that a problem exists.
					Identify obstacles, costs, and benefits to solving a given problem.
					Objectively evaluate the potential solutions for a given problem.
					Assess each alternative and obstacle to determine potential solutions.
					Recognize when a new potential solution or additional input is needed.
					Weigh criticality of the problem and balance with time and effort required to solve it.
					Recognize what can be independently resolved and what requires input and resources of others.
					Differentiate between symptoms and cause of a problem.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Demonstrate brainstorming as a skill to generate new and creative ideas when solving problems with challenging or recurring issues.	Define the parameters of brainstorming, including limitations like time, distance, and reasonableness.
					Explain group dynamics that enhance brainstorming results, such as listening to alternatives and external resources.
					Demonstrate methods to enhance brainstorming results such as including individuals with diverse work experiences and skills, various cultural groups, and icebreakers to motivate innovation.
				Apply critical thinking skills to examine information, analyze challenging issues, and provide creative ideas.	Analyze information and data from a variety of sources to bring together for use in potential new situations.
					Distinguish the irrelevant from the relevant when examining information and data for specific situations.
					Use decision tree and process mapping as problem-solving tools.
					Practice thinking beyond the usual to create new types of solutions.
				Demonstrate how to address issues of conflict and how to resolve them.	Define areas of conflict that may cause concern in the workplace.
					Practice addressing issues of conflict in various forms of communication.
					Demonstrate using problem-solving and critical thinking to resolve issues of conflict.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Analyze situations and behaviors that affect conflict management.	Describe a win/win situation.
					Demonstrate communication for buy-in.
					Compare results of competitive behavior versus cooperative/collaborative behavior.
					Practice acting as "devil's advocate" to challenge one's own solutions and identify pitfalls.
					Practice standing one's ground when the issue is significant.
					Describe elements of risk versus validation occurring within conflict issues.
					Demonstrate how to test theories beyond the conceptual.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC04.01	Information Technology Applications	#2: Information Technology Applications	Use Personal information Management (PIM)/ productivity applications.	Manage personal schedule and contact information.	Create and update a to-do list with due dates, status, category, and priorities.
					Add, delete, and edit schedules. Use features such as recurring events, multiple-day, and reminders.
					Group and categorize contact information correctly.
				Create memos and notes.	Create notes, informal memos, and reminders accurately.
ARC04.02	Information Technology Applications	#2: Information Technology Applications	Use electronic mail applications.	Use email to share files and documents.	Open (or detach) and save attachments to the intended location.
					Select appropriate strategy (attachment vs. link) for sharing information.
					Use appropriate email security measures (e.g., use virus scan to check virus, do not download attachments from unknown sources).
				Use email to communicate within and across organizations.	Create email messages in accordance with established business standards (e.g., grammar, word usage, spelling, sentence structure, clarity).
					Manage mailboxes by deleting and organizing messages.
					Use email features such as reply requested, return receipt, and out-of-office notices.
ARC04.03	Information Technology Applications	#2: Information Technology Applications	Use Internet applications.	Access and navigate Internet (e.g., use a web browser).	Navigate between and within web sites.
					Access and use multiple browser windows.
					Differentiate between secure and non-secure web sites.
					Download a file from a web site to the desired location.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Search for information and resources.	Select search engine(s) appropriate for desired information.
					Identify and articulate an information search.
					Use phrase search and simple Boolean logic (AND, OR, NOT, NEAR).
					Refine search by modifying search terms.
				Evaluate Internet resources.	Prioritize Internet resources against search criteria.
					Look for corroboration and independent validation of information (do different sites reference each other, is the information consistent).
					Take action to clarify ambiguous or incomplete information.
ARC04.04	Information Technology Applications	#2: Information Technology Applications	Use writing/publishing applications.	Prepare simple documents and other business communications.	Create documents (letters, memos, reports) both with and without templates.
					Format text using basic formatting functions (e.g., paragraph spacing, margins, bullets, numbering).
					Employ word processing utility tools (e.g., track changes or thesaurus).
				Prepare reports and other business communications, integrating graphics and other non-text elements.	Use advanced formatting features (headers, footers, page numbering, styles).
					Customize tables (add borders and shading, merge rows and columns, adjust row/column sizes).
					Use insert picture/object function to place graphics in document and adjusts text formatting accordingly.
					Employ document organization tools (e.g., outline, footnotes, and endnotes).

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Prepare complex publications.	Make changes to format or layout of an existing complex publication or template (e.g., 8-page, 2-color newsletter with columns, sidebars, photos and graphics, multi-color output).
					Organize content and standardize format from various sources.
					Create non-print output for publication (e.g., PDF, postscript).
ARC04.05	Information Technology Applications	#2: Information Technology Applications	Use presentation applications.	Prepare presentations for training, sales and information sharing.	Create a new presentation using both text and content layouts.
					Change color scheme for a slide design.
					Create/edit external graphic elements (e.g., a scanned photo) and insert into a slide.
					Edit existing animations and action buttons.
					Create new slide transitions.
				Deliver presentations with supporting materials.	Create and distribute presentation handouts or speaker notes.
					Print either key slides or an entire presentation in handout or notes format.
					Create an automated slide show.

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ARC04.06	Information Technology Applications	#2: Information Technology Applications	Use spreadsheet applications.	Create spreadsheet.	Create new spreadsheet, based on a set of data where you must identify the appropriate structure (e.g., rows and columns) for data display and analysis.
					Apply cell type formatting (e.g., date, dollar, text, decimal) appropriate to data type.
					Add document identification (e.g., page numbers, dates, and titles in headers and footers).
					Print only relevant data so that it is readable (e.g., uses set print area to fit into one or multiple pages).
				Perform calculations and analysis on data.	Write simple formulas.
					Use chart wizard to create a chart or graph from adjacent selections, with appropriate chart type and labels.
					Use filter and comparison criteria to find specific values in rows in a list.
					Build calculations using the formula wizard.
ARC04.07	Information Technology Applications	#2: Information Technology Applications	Use database applications.	Manipulate data elements.	Enter data using a form.
					Locate/replace data using search and replace functions.
					Process data using database functions (e.g., structure, format, attributes, relationships, keys).

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Manage, analyze and report on interrelated data elements.	Search a database table to locate records.
					Sort data using single- and multiple-field sorts.
					Perform single- and multiple-table queries (e.g., create, run, save).
					Print forms, reports, and results of queries.
					Verify accuracy of output.
ARC04.08	Information Technology Applications	#2: Information Technology Applications #4: Advanced Information Technology Applications	Use collaborative/groupware applications.	Facilitate group work through management of shared schedule and contact information.	Add, delete, and edit group schedule.
					Create a meeting request or task assignment.
					Add or delete contacts in a shared address book.
				Facilitate group work through management of shared files and online information.	Organize, store and share files in network directories (e.g., copy and delete files, create new folders, move documents between folders).
					Organize, store, and share files using a document library or database.
					Organize, store, and share files using web sites (e.g., post messages and upload/download files).
				Facilitate group work through instant messaging or virtual meetings.	Participate in virtual group discussions and meetings.
					Send or respond to an instant message from a group list.

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ARC04.09	Information Technology Applications	#2: Information Technology Applications #4: Advanced Information Technology Applications	Use computer operations applications.	Manage computer operations.	Install/uninstall an application.
					Connect ports of the computer to peripherals.
					Interrupt and restart applications or the computer when they freeze.
					Configure desktop environment and applications for efficient operation (e.g., create shortcuts, customize monitor size, customize menu bars).
					Apply basic commands of operating system software (e.g., create, rename and delete directories).
					Employ desktop operating skills (e.g., use mouse buttons and keyboard shortcuts).
				Manage file storage.	Differentiate between files and directories.
					Use folders or directories with meaningful names to store related files.
					Backup data periodically to a backup media (CD, disk, etc.) or server.
					Apply appropriate file and disk management techniques (e.g., defragment and rearrange files, reinstall backup data).
					Determine file organization (e.g., use appropriate directory structures and names).

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Compress or alter files.	Compress and uncompress files/folders using compression software.
					Convert file formats (e.g., convert MSExcel or MSWord format file to Adobe Acrobat (PDF) format).
					Convert existing files using utilities provided by the software (e.g., update files from older version of an application to be used in the newer version, convert file created by MSWorks to MSWord).
ARC04.10	Information Technology Applications	#4: Advanced Information Technology Applications	Use computer-based equipment (containing embedded computers [or processors] used to control electromechanical devices).	Operate computer-driven equipment and machines.	Operate equipment and machine with assistance.
					Secure needed supplies and resources.
					Follow power-up and log-on procedures.
					Interact with/respond to system messages using console device.
					Run applications/jobs in accordance with processing procedures.
					Follow log-off and power-down procedure(s).
				Use installation and operation manuals.	Access needed information using appropriate reference materials.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Troubleshoot computer-driven equipment and machines and access support as needed.	Test system using diagnostic tools/software.
					Repair/replace malfunctioning hardware.
					Reinstall software as needed.
					Recover data and/or files.
					Restore system to normal operating standards.
					Complete failure/trouble reports correctly.
					Access in-house or external support as needed.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC05.01	Systems	#1: Introduction to Arts, Audio/Video Technology and Communications	Analyze the history and evolution of the arts, audio-video technology, and communications to their current place in society and the economy.	Explore the history and impact of the arts and technologies on society.	Develop a timeline depicting the evolution of art, technology, media, and performance to the present time.
					Identify when the arts became a valued medium within society and how this influenced the arts.
					Identify positive and negative impacts of the arts on current society.
					Identify the beginnings of audio-video and communications technologies as valued media within society.
				Evaluate the influences on the evolution of art, technology, media, and performance.	Identify the known influences on the evolution of art, technology, media and performance.
					Identify key factors that have impacted the evolution of the arts, communications, and audio-video technologies.
				Distinguish the differing objectives of the general public and the industries in relation to arts and communications.	Analyze the objectives of the general public related to arts and communications.
					Examine the objectives of industries related to arts and communications operations.
					Interpret the similarities and differences between the objectives of the general public and the industries relating to arts and communications operations.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Analyze current issues related to the arts, audio-video technologies, telecommunications, printing, and the media.	Identify the current, key, local and national issues for arts and communications technologies.
					Compare the similarities and differences in the issues currently affecting arts and communications technologies.
					Determine how these issues impact each area and the entire career cluster.
ARC05.02	Systems	#1: Introduction to Arts, Audio/Video Technology and Communications	Examine the organizational structures within this career cluster for diversity and functions.	Exhibit knowledge of the fluid and diverse organizational structures within the arts, audio-video technology, printing, telecommunications, and media industries.	Explain the formal and informal organizational structures within each of these pathways.
					Illustrate the organizational structures in charts.
					Compare the organizational structures of the arts and other pathways for similarities and differences.
					Explain the meaning of diverse organizational structures and why these are important for the accomplishment of joint projects.
ARC05.03	Systems	#1: Introduction to Arts, Audio/Video Technology and Communications	Analyze the economic base and how this impacts its business practices and society.	Analyze the industry's economic base pertinent to the arts and related technologies.	Evaluate how the visual and performing arts economically impact current society.
					Evaluate how the technology industries economically impact current society.
					Describe how the arts have economically influenced the inception of the technology industry.
					Describe how the technologies industry has influenced the economic growth of the arts to the present time.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Analyze the industry's business practices pertinent to the arts and related technologies.	Identify the basic business principles relative to the pathways in this career cluster.
					Examine the business practices among the diverse pathways in this career cluster for similarities and differences.
				Evaluate the role of the arts in business, technology, and the community.	Define the roles of the arts in business, technology, and the community as identified by society.
					Present the role that business expects from the arts in relation to economic development.
					Describe the rationale for technical aspects working with the arts and how this provides a mutual benefit.
					Illustrate roles that the community expects from the arts in relation to quality of life issues.
ARC05.04	Systems	#1: Introduction to Arts, Audio/Video Technology and Communications	Explore evidence of interdependence of the technical and the artistic sides of this career cluster.	Exhibit knowledge of how technology and the arts are partners in the development of presentations and productions.	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.
				Analyze how the roles of creators, performers, technicians, and others involved in production, performance, and media are similar and different from one another.	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.

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ARC05.05	Systems	#1: Introduction to Arts, Audio/Video Technology and Communications	Analyze the formal and informal influences in the abstract and formal structures of business organizations within this career cluster.	Examine the influences of government, public opinion, and diverse local and cultural perspectives that may affect visual arts, media communications, or performance as a business.	Define influences of government and cultural perspectives as they relate to media communications, visual arts or performance as a business.
					Define the influence of government regulations on media, audio-video productions, telecommunications, printing, and artistic authorship.
					Analyze a variety of persistent cultural issues and dilemmas within society that commonly affect how cultures are portrayed within art forms and communication.
					Evaluate how cultural issues and dilemmas within society influence government and public opinion and its effects on developing a successful business.
				Examine labor management processes and agreements generally used in various areas within the arts, audio-video technologies, telecommunications, printing, and the media.	Define labor management processes and agreements used within each pathway.
					Identify common labor management processes and agreements used within this career cluster.
					Role play a labor management process as it relates to one area in each pathway in this career cluster.
					Identify issues that are handled in agreements between labor and management in one of the pathways for this cluster.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC06.01	Safety, Health, and Environmental	#1: Introduction to Arts, Audio/Video Technology and Communications	Analyze responsibility for developing and maintaining a safe and healthy work environment related to the arts, audio-video technology, and communications.	Examine how the responsibility for health is dependent upon the individual, as opposed to a supervisor or others.	Examine the situations in this career cluster where individuals work dependently and are responsible for their own heath.
					Identify the responsibilities an individual has for implementing health practices in relation to electrical and mechanical equipment.
					Identify the individual's responsibilities for safe and healthful practices when dealing with stage equipment, artist tools, and mechanical equipment.
					Design a plan for maintaining individual health for work in various pathways within the cluster.
				Illustrate compliance with OSHA safety regulations and practices related to this cluster.	Define the OSHA safety regulations related to this cluster.
					Classify critical safety issues and practices identified by OSHA in relation to pathways in this cluster.
					Demonstrate using safety procedures required in a specific pathway in this cluster.
				Apply MSDS and Hazardous Materials procedures related to handling and disposing of chemicals.	Analyze health problems that can result from unsafe exposure to chemicals.
					Demonstrate the use of knowledge and skills for safe and healthful use of chemicals in various processes in the arts, graphic arts, photography, and technical areas of this career cluster.
				Apply Hazardous Materials practices in relation to fire and water hazards, electrical coding, and right to know laws regarding hazards.	Exhibit knowledge of Hazardous Materials practices.
					Demonstrate the use of Hazardous Materials practices related to activities in the career cluster.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC06.02	Safety, Health, and Environmental	#1: Introduction to Arts, Audio/Video Technology and Communications	Analyze safety-related problems that may result from working with electrical current.	Demonstrate safe work habits and procedures for application of electricity and static discharge in relation to all technologies in the career cluster.	Exhibit proper grounding techniques.
					Identify potential electrical hazards on the work site or set.
					Demonstrate how to apply CPR and first aid in relation to electrical shock.
					Demonstrate basic procedures for safely working with electricity.
ARC06.03	Safety, Health, and Environmental	#1: Introduction to Arts, Audio/Video Technology and Communications	Apply safety procedures in operating equipment commonly used within the career pathways of this cluster.	Demonstrate the ability to set a ladder safely and use it, both with and without equipment.	Set a ladder safely, both with and without equipment.
				Examine safety procedures for operating aerial systems, both with and without individuals on the equipment.	Utilize safety procedures to operate an aerial system without individuals on the equipment.
				Demonstrate safety procedures when involved with heights.	Demonstrate how to safely climb poles using steps, gaffs, scaffolding, and ladders.
				Examine the safety practices related to printing and graphic arts, telecommunications, performing arts, visual arts, and broadcasting.	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 duplicators; and in telecommunications.
ARC06.04	Safety, Health, and Environmental	#1: Introduction to Arts, Audio/Video Technology and Communications	Analyze lifestyle choices and preparation for physically demanding work activities related to pathways in this career cluster.	Examine the physical preparation needed to maintain the work activities of pathways in this career cluster.	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.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Analyze lifestyle choices required to maintain the work activities of the pathways in this career cluster.	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.
ARC06.05	Safety, Health, and Environmental	#1: Introduction to Arts, Audio/Video Technology and Communications	Demonstrate personal safety while on work-related assignments in various locations beyond the business site.	Analyze personal safety practices required for various pathways within this career cluster.	Determine the personal safety practices required when gathering news where potential health and safety hazards exist.
					Practice responding to personal safety concerns "on-location," including dangerous wildlife, terrain, extreme weather, or violence.
					Apply safety rules related to motor vehicles and other equipment.
				Examine the safety practices required for working away, "on-location," or in an open environment.	Demonstrate safety practices for environmental elements specific to "on-location" settings, stage sets, graphic and visual arts development, and field work in journalism, telecommunications, or broadcasting.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC07.01	Leadership and Teamwork	#3: Introduction to Visual Arts and Related Careers #3: Introduction to the Performing Arts and Related Careers #3: Introduction to Printing Technology #3: Media Arts Fundamentals #3: Design and Production Technology	Apply leadership knowledge and skills to achieve group goals and consensus.	Analyze leadership in relation to these four character traits: trust, positive attitude, integrity, and willingness to accept key responsibilities in a work situation.	Analyze leaders in the arts for these four character traits to determine how they strengthen or weaken the leader's business position in this career cluster.
					Evaluate work situations within this career cluster to identify how these character traits strengthen the ability of individuals to perform the activities of the job.
					Describe the differences between leadership and management.
				Analyze how leaders contribute ideas; share in building an organization; act as role models to employees by adhering to company policies, procedures, and standards; promote the organization's vision; and mentor others.	Analyze these five leadership traits that many business leaders in this cluster exhibit and determine how each trait contributed to or hindered the leaders' success.
					Demonstrate each leadership trait as part of a role-playing situation related to business activities in this cluster.
					Compare several leaders using the same leadership traits differently, depending upon the situation, the staff, and the ability of the group to work as a team.
					Practice small acts that set the tone for an office or an organization, such as returning calls and following up on commitments.
					Recognize which traits/strengths are most appropriate personally at the time.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC07.02	Leadership and Teamwork	#3: Introduction to Visual Arts and Related Careers #3: Introduction to the Performing Arts and Related Careers #3: Introduction to Printing Technology #3: Media Arts Fundamentals #3: Design and Production Technology	Apply teamwork knowledge and skills to group situations to achieve collective goals.	Demonstrate teamwork skills though working cooperatively with co-workers, supervisory staff, and others, both in and out of the organization, to achieve particular tasks.	Define working together cooperatively as it relates to various careers in the cluster.
					Identify the traits, skills, and gaps among individuals on a team, and which are appropriate to the situation.
					Identify several ways to overcome the barriers to working in teams to complete various types of projects.
					Demonstrate good and bad examples of teamwork skills in a mock team meeting related to this cluster.
					Analyze teamwork skills applied in a mock meeting to determine how they contributed to the success of the team using the "half-full, not half-empty" analogy.
					Identify capabilities to consider in advance as helpful or as future obstacles.
					Determine the correct work to assign to a skill set, including some challenges for growth.
					Demonstrate ability to accept leadership.
					Demonstrate ability to accept feedback on personal behavior and use it constructively.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Demonstrate teamwork processes that provide team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution.	Define teamwork in the workplace within this career cluster.
					Prioritize a list of expectations that co-workers might have for their team, in order for it to achieve work roles to meet group goals.
					Research the methods that can be used to build teams, to bring consensus, to continuously improve methods and output, and that can work for the individual also.
					Demonstrate teamwork processes, including failure analysis, that contribute to team success in a mock situation.
					Analyze teamwork processes in a situation related to this cluster to determine how they were used successfully.
				Demonstrate teamwork processes that provide team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution.	Describe the differences between matrix and hierarchy environments and how to operate in both.
					Describe the differences between collaboration and cooperation and their relevance.
					Recognize different work styles such as top down or bottom up.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC08.01	Ethics and Legal Responsibilities	#7: Ethics and Legal Issues	Exhibit ethical conduct in writing, creating, printing, broadcasting, and performing.	Analyze ethical principles of decision-making related to clients, customers, fellow workers, and others.	Define professional code of ethics.
					Examine the professional code of ethics (e.g., Society of Professional Journalism).
					Identify consequences of non-ethical decision-making on short- and long-term reputation.
				Analyze ethical conduct that provides proper credit to those whose ideas and content have been used.	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.
					Identify current concerns about consumer ethics related to the music and the video industries.
					Identify ethical and unethical conduct in a given work situation.
				Analyze ethical standards that apply to the delivery of quality performance and products.	Define ethical standards.
					Examine the problems related to maintaining ethical standards in situations without a clear standard.
				Identify ethics involved in the degree of influence media, arts, and performance have upon individuals.	Identify the degree of influence of print, broadcast media, arts, and performance in a given situation.
					Evaluate historic political events and actions instigated through the use of media, print, art, and performance.
					Describe why responsibility for ethical influence is a key issue related to this cluster.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Identify the proper use of proprietary information.	Define proprietary information.
					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.
ARC08.02	Ethics and Legal Responsibilities	#7: Ethics and Legal Issues	Apply knowledge of laws affecting this career cluster.	Analyze the copyright laws in relation to seeking formal permission to use materials.	Identify steps for securing permission to use copyrighted materials.
					Exhibit how credit is given for use of copyrighted materials.
					Define what is original content and when credit does not need to be given.
					Identify the benefits of copyright laws.
					Identify consequences if formal permission is not secured.
				Analyze contracts for potential work in career pathways within this cluster.	Examine different types of contracts.
					Interpret various types of contracts.
					Identify essential elements a contract needs to contain for protection of both parties.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Analyze state, county, and city codes related to decisions affecting work in this cluster.	Identify processes required to obtain local, county, and state permits for building structures and sets, and installing communications mechanisms in various site locations.
					Describe relevant statutes for this cluster.
					Identify agencies and organizations that oversee and enforce these statutes.
					Identify assistance professional organizations offer for securing permits.
				Analyze the First Amendment, FCC, the Freedom of Information Act, liable laws, and other regulations for compliance issues relevant to this cluster.	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.
					Interpret how The Freedom of Information Act affects workers in this cluster.
					Illustrate instances when the intent of the First Amendment was preserved in recent times.
				Analyze the liabilities associated with productions and performances, media, and telecommunications installations.	Define the term liabilities.
					Identify examples of potential situations that could pose legal liabilities.
					Analyze the risk level for work situations related to this cluster.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC09.01	Employability and Career Development	Academic Courses #1: Introduction to Arts, Audio/Video Technology and Communications	Explain written organizational policies, rules and procedures to help employees perform their jobs.	Locate appropriate information on organizational policies in handbooks and manuals.	Identify the contents of various organizational publications.
					Select the appropriate document (s) as reference for the situation.
				Discuss how specific organizational policies and rules influence a specific work situation.	Locate and identify specific organizational policy, rule or procedure to assist with a given situation.
					Explain specific organizational policy, rule or procedure to improve a given situation.
ARC09.02	Employability and Career Development	Academic Courses #1: Introduction to Arts, Audio/Video Technology and Communications	Identify and demonstrate positive work behaviors and personal qualities.	Demonstrate self-discipline, self-worth, positive attitude, and integrity in a work situation.	Identify the value of maintaining regular attendance.
					Identify and follow company dress and appearance standards.
					Explain ways to exhibit pride in work.
				Demonstrate flexibility and willingness to learn new knowledge and skills.	Exhibit ability to handle stress in a given situation.
					Display initiative and open-mindedness in accomplishing a work challenge.
					Participate in company orientation and training programs with enthusiasm.
					Complete all tasks thoroughly and identify strategies for accomplishing job.
				Exhibit commitment to the organization.	Follow established rules, regulations and policies to handle situation.
					Compare the role of the employer or manager and the role of the employee in the flow of work.
					Describe examples of practicing cost effectiveness.
					Demonstrate time management by prioritizing work to meet deadlines.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Identify how work varies with regard to site, from indoor confined spaces to outdoor areas, including aerial space and a variety of climatic and physical conditions.	Identify how environments impact work related to this cluster.
					Identify the special knowledge and skills required to work in a variety of climatic and physical situations related to this cluster.
				Apply communication strategies to adapt to a culturally diverse environment.	Recognize and adapt to language barriers, ethnicity, and gender in a workplace context.
				Manage resources in relation to the position.	Apply time allocation methods to accomplish required tasks.
					Apply skills for allocating money, individuals, equipment, and other resources to complete tasks.
ARC09.03	Employability and Career Development	Academic Courses #1: Introduction to Arts, Audio/Video Technology and Communications	Identify and explore career opportunities in one or more career pathways.	Locate and identify career opportunities that appeal to personal career goals.	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.
				Match personal interests and aptitudes to selected careers.	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.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC09.04	Employability and Career Development	Academic Courses #1: Introduction to Arts, Audio/Video Technology and Communications	Develop a personal career plan to meet career goals and objectives.	Develop career goal and objectives to plan future career direction.	Identify career that matches individual interests and aptitudes.
					Develop realistic career goal with an appropriate time frame.
					Identify realistic objectives for reaching and advancing in career within the estimated timeline.
				Develop strategies to reach career objectives.	Develop a list of strategies for achieving educational requirements for selected career.
					Identify multiple strategies for obtaining employment experiences.
					Identify alternative career goals and objectives and make adjustments in plan to achieve alternate goal.
ARC09.05	Employability and Career Development	Academic Courses #1: Introduction to Arts, Audio/Video Technology and Communications	Demonstrate ability to seek and apply for employment.	Use multiple resources to locate job opportunities.	Identify resources for finding employment.
					Analyze resources to determine those that are most appropriate for desired career.
					Compare job requirements with personal qualifications, interests, and aptitudes.
					Select job that matches personal qualifications, interests, and aptitudes.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Prepare a resume and letter of application to apply.	Identify prospective employer's submission requirements.
					Gather information and prepare resume in correct format.
					Write letter of application for specific job opening in correct format without error.
				Complete an employment application to obtain employment.	Gather information for application.
					Complete all questions on application with appropriate and honest answers.
					Sign and date application.
					Attach any supporting material required or requested.
				Interview to obtain employment.	Dress appropriately for interview.
					Exhibit professional conduct before, during and after interview.
					Explain your qualifications and interests clearly and concisely.
					Answer all questions honestly and concisely.
					Write follow-up letter after the interview.
ARC09.06	Employability and Career Development	Academic Courses #1: Introduction to Arts, Audio/Video Technology and Communications	Demonstrate ability to evaluate and compare employment opportunities and accept employment.	Evaluate and compare employment opportunity to individual needs and career plan.	Identify job advantages and disadvantages.
					Compare job benefits to individual needs.
					Compare job opportunities and responsibilities to career plan.
				Accept or reject employment.	Make decision to accept or reject employment based on facts.
					Write acceptance or rejection letter without error.
					Complete employment forms upon acceptance without error.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ARC10.01	Technical Skills	#3: Introduction to Visual Arts and Related Careers #3: Introduction to the Performing Arts and Related Careers #3: Introduction to Printing Technology #3: Media Arts Fundamentals #3: Design and Production Technology	Demonstrate the use of technical knowledge and skills that relate to pathways in this cluster.	Identify how various pathways within this cluster work together to generate productions, media, and other activities.	Identify work activities associated with a variety of the cluster pathways required for a theater production, film, television broadcast, or arts event.
					Generate a production, media, or other event, and identify the interrelated activities and skill requirements associated with various pathways in this cluster.
				Identify pathways with common knowledge and skills that provide a worker with the potential for mobility.	Compare the pathways for common knowledge and skills, and produce a crosswalk of related career potential.
					Identify the pathways with the most discrete knowledge and skills, and compare the potential for career crosswalks.
ARC10.02	Technical Skills	#3: Introduction to Visual Arts and Related Careers #3: Introduction to the Performing Arts and Related Careers #3: Introduction to Printing Technology #3: Media Arts Fundamentals #3: Design and Production Technology	Demonstrate knowledge of the systems within various pathways in this cluster.	Analyze the technological systems that are apparent within the various pathways in this cluster.	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.

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
			(CONTINUED)	Research the impact of potential new technology advancements related to this cluster in the future.	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.