



# Arts, A/V Technology and Communications Career Cluster Cluster Knowledge and Skill Statements

The following Cluster (Foundation) Knowledge and Skill Chart provides statements that apply to all careers in the Arts, A/V Technology and Communications Cluster. Persons preparing for careers in the Arts, A/V Technology and Communications Cluster should be able to demonstrate these skills in addition to those found on the Essential Knowledge and Skills Chart. The Pathway Knowledge and Skill Charts are available in separate documents.

## Cluster Topic ARC01

**ACADEMIC FOUNDATIONS:** *Achieve additional academic knowledge and skills required to pursue the full range of career and postsecondary education opportunities within a career cluster.*

*No additional statements in this topic beyond those found in the Essential Knowledge and Skills Chart.*

## Cluster Topic ARC02

**COMMUNICATIONS:** *Use oral and written communication skills in creating, expressing and interpreting information and ideas including technical terminology and information.*

*No additional statements in this topic beyond those found in the Essential Knowledge and Skills Chart.*

## Cluster Topic ARC03

**PROBLEM-SOLVING AND CRITICAL THINKING:** *Solve problems using critical thinking skills (analyze, synthesize, and evaluate) independently and in teams. Solve problems using creativity and innovation.*

*No additional statements in this topic beyond those found in the Essential Knowledge and Skills Chart.*

## Cluster Topic ARC04

**INFORMATION TECHNOLOGY APPLICATIONS:** *Use information technology tools specific to the career cluster to access, manage, integrate, and create information.*

*No additional statements in this topic beyond those found in the Essential Knowledge and Skills Chart.*

## Cluster Topic ARC05

**SYSTEMS:** *Understand roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. Identify how key organizational systems affect organizational performance and the quality of products and services. Understand global context of industries and careers.*

### ARC05.01

**Analyze and summarize the history and evolution of the arts, audio-video technology, and communications field to understand the current place the field holds within society and the economy.**

#### ARC05.01.01

Summarize the history and impact of the arts and technologies on society.

#### Sample Indicators

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.



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Identify the beginnings of audio-video and communications technologies as valued media within society.

ARC05.01.02 Evaluate the influences on the evolution of art, technology, media, and performance.

*Sample Indicators*

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.

ARC05.01.03 Compare and contrast the different objectives for arts and communications held by the general public and the industry at large.

*Sample Indicators*

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.

ARC05.01.04 Analyze current issues related to the arts, audio-video technologies, telecommunications, printing, and the media.

*Sample Indicators*

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 Examine the various organizational structures adopted by groups within the arts, audio-video, technology, and communications field to understand the diversity and variety of functions within the industry.**

ARC05.02.01 Summarize characteristics of the fluid and diverse nature of organizational structures within the arts, audio-video technology, printing, telecommunications, and media industries.

*Sample Indicators*

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 Analyze the arts, audio-visual technology and communication industry's economic base in order to demonstrate an understanding of the economic factors influencing the industry as a whole.**

ARC05.03.01 Analyze the industry's economic base pertinent to the arts and related technologies.

*Sample Indicators*

Evaluate how the visual and performing arts economically impacts current society.

Evaluate how the technology industries economically impact current society.

Describe how the arts have economically influenced the inception of the technology industry.



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Describe how the technologies industry has influenced the economic growth of the arts to the present time.

ARC05.03.02 Analyze the industry's business practices pertinent to the arts and related technologies.

*Sample Indicators* Identify the basic business principles relative to the pathways in this career cluster.  
Examine the business practices amongst the diverse pathways in this career cluster for similarities and differences.

ARC05.03.03 Evaluate the role of the arts in business, technology, and the community.

*Sample Indicators* 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 Analyze and summarize evidence of interdependence between the technical and the artistic sides of this career cluster in order to demonstrate an understanding of the systems involved in the cluster.**

ARC05.04.01 Summarize the features of the partnership 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.

ARC05.04.02 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.

**ARC05.05 Analyze and summarize the formal and informal influences in the abstract and formal structures of business organizations within this cluster to demonstrate an understanding of the influences on holding careers in this field.**

ARC05.05.01 Examine the influence government, public opinion, and diverse local and cultural perspectives may have upon visual arts, media communications, or performance as a business.

*Sample Indicators* 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.



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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.

**ARC05.05.02** Examine labor management processes and agreements generally used in the arts, audio-video technologies, telecommunications, printing, and media fields.

*Sample Indicators* 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.

**Cluster Topic  
ARC06** **SAFETY, HEALTH AND ENVIRONMENTAL: *Understand the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. Follow organizational policies and procedures and contribute to continuous improvement in performance and compliance.***

**ARC06.01** **Maintain safe and healthful working conditions by completing work tasks in accordance with rights and applicable responsibilities in a arts, audio-visual technology and communications work environment to protect employees' well being.**

**ARC06.01.01** 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.  
Describe ways to positively impact occupational safety and health.

**ARC06.01.02** 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.

**ARC06.02** **Assess and control methods to reduce sources of office and worksite accident hazards common in the arts, audio-visual technology and communications industry in order to promote a safe and accident free working environment.**

**ARC06.02.01** Demonstrate completion of a variety of methods to prevent and correct common hazards.  
*Sample Indicators* Identify and describe common hazards in the workplace.



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Identify and describe major sources of information about hazards in the workplace (e.g., MSDS, work procedures, exposure control plans, training materials, labels, and signage).

Identify sources of combustible/flammable materials, fire and emergencies to establish a fire safe environment.

Interpret safety signs and symbols.

ARC06.02.02

*Sample Indicators*

**Demonstrate personal and group health and safety practices.**

Identify procedures necessary for maintaining a safe work area.

Identify methods to correct common hazards.

Identify methods for disposing of hazardous materials.

Demonstrate principals of safe physical movement to avoid slips, trips, and spills.

Inspect and use protective equipment (PPE).

**ARC06.03**

**Examine and summarize the responsibilities various entities have for promoting a safe and healthy work environment in order to understanding the roles involved in maintaining acceptable conditions in the arts, technology and communications field.**

ARC06.03.01

Summarize the individual employee's responsibility for maintaining health and safety in contrast to a supervisor or others.

*Sample Indicators*

Examine the situations in this career cluster where individuals work independently and are responsible for their own health.

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.

ARC06.03.02

Illustrate situations that demonstrate compliance with OSHA safety regulations and practices related 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 pathways in this cluster.

Demonstrate using safety procedures required in a specific pathway in this cluster.

ARC06.03.03

Apply MSDS and Hazardous Materials procedures related to handling and disposing of chemicals.

*Sample Indicators*

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.

ARC06.03.04

Apply Hazardous Materials practices in relation to fire and water hazards, electrical coding, and right-to-know laws regarding hazards.

*Sample Indicators*

Exhibit knowledge of Hazardous Materials practices.

Demonstrate the use of Hazardous Materials practices related to activities in the career cluster.



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**ARC06.04 Examine and summarize safety related problems that may result from working with electrical circuits used in this cluster to demonstrate a broad understanding of health and safety concerns.**

ARC06.04.01 Demonstrate safe work habits and procedures for application of electricity and static discharge in relation to all technologies in the career cluster.

*Sample Indicators*

- 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.

**ARC06.05 Apply safety procedures in operating equipment commonly used within the career pathways involved in this cluster to demonstrate a broad understanding of important safety practices.**

ARC06.05.01 Demonstrate the ability to set and use a ladder.

*Sample Indicators*

- Set a ladder safely, both with and without equipment.

ARC06.05.02 Demonstrate safety procedures for operating aerial systems.

Utilize safety procedures to operate an aerial system without individuals on the equipment.

*Sample Indicators*

ARC06.05.03 Demonstrate safety procedures when involved with heights.

*Sample Indicators*

- Demonstrate how to safely climb poles using steps, gaffs, scaffolding, and ladders.

ARC06.05.04 Apply 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.

*Sample Indicators*

**ARC06.06 Examine and summarize the life style implications and physical demands required by work activities common in the arts, audio/visual, technology and communications cluster to demonstrate an broad perspective regarding the nature of work in the industry.**

ARC06.06.01 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.

ARC06.06.02 Summarize life style 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.



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Interpret the impact of choices regarding nutrition, stress, exercise, and alternative decisions on an individual's ability to sustain a career in performance.

**ARC06.07 Demonstrate personal safety habits and procedures while on work-related assignments in various locations beyond the business site to ensure personal safety and well-being.**

ARC06.07.01 Apply personal safety practices required for various pathways within this career cluster.

*Sample Indicators* 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.

ARC06.07.02 Apply the safety practices required for working away, "on-location," or in an open environment.

*Sample Indicators* 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.

**Cluster Topic ARC07 LEADERSHIP AND TEAMWORK: Use leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.**

*No additional statements in this topic beyond those found in the Essential Knowledge and Skills Chart.*

**Cluster Topic ARC08 ETHICS AND LEGAL RESPONSIBILITIES: Know and understand the importance of professional ethics and legal responsibilities.**

**ARC08.01 Exhibit ethical conduct in writing, creating, printing, broadcasting, and performing to uphold high standards for behavior in the industry.**

ARC08.01.01 Analyze ethical principles of decision-making related to clients, customers, fellow workers, and others.

*Sample Indicators* Define professional code of ethics.

Examine the professional code of ethics (e.g., Society of Professional Journalism).

ARC08.01.02 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.

Identify current concerns about consumer ethics related to the music and the video industries.

Identify ethical and unethical conduct in a given work situation.

ARC08.01.03 Analyze ethical standards that apply to the delivery of quality performance and products.

*Sample Indicators* Define ethical standards.



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Examine the problems related to maintaining ethical standards in situations without a clear standard.

ARC08.01.04

Identify ethics involved in the degree of influence media, arts, and performance have upon individuals.

*Sample Indicators*

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.

ARC08.01.05

Identify the proper use of proprietary information.

*Sample Indicators*

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**

**Analyze and apply laws affecting arts, technology and communication enterprises to maintain up-to-date compliance with key regulations influencing the industry.**

ARC08.02.01

Analyze the copyright laws in relation to seeking formal permission to use materials.

*Sample Indicators*

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.

ARC08.02.02

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

*Sample Indicators*

Examine different types of contracts.

Interpret various types of contracts.

Identify essential elements a contract needs to contain for protection of both parties.

ARC08.02.03

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.

Describe relevant statutes for this cluster.

Identify agencies and organizations that oversee and enforce these statutes.

Identify assistance professional organizations offer for securing permits.

ARC08.02.04

Analyze the First Amendment, FCC, the Freedom of Information Act, liable 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.



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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.

ARC08.02.05 Analyze the liabilities associated with productions and performances, media, and telecommunications installations.

*Sample Indicators*

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.

### Cluster Topic ARC09

**EMPLOYABILITY AND CAREER DEVELOPMENT:** *Know and understand the importance of employability skills. Explore, plan, and effectively manage careers. Know and understand the importance of entrepreneurship skills.*

**ARC09.01 Explain written organizational policies, rules and procedures common to careers in arts, AV, technology and communication fields to help employees perform their jobs.**

ARC09.01.01 Locate appropriate information on organizational policies in handbooks and manuals.

*Sample Indicators*

Identify the contents of various organizational publications.  
Select the appropriate document (s) as reference for a given situation.

ARC09.01.02 Discuss how specific organizational policies and rules influence a specific work situation.

*Sample Indicators*

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.

**ARC09.03 Identify, examine and select career opportunities in one or more arts, AV, technology and communication related career pathways in order to explore career options.**

ARC09.03.01 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.

ARC09.03.02 Match personal interests and aptitudes to selected careers.

*Sample Indicators*

Identify educational and credentialing requirements for career cluster and pathways.  
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.

### Cluster Topic ARC10

**TECHNICAL SKILLS:** *Use the technical knowledge and skills required to pursue the targeted careers for all pathways in the career cluster, including knowledge of design, operation, and maintenance of technological systems critical to the career cluster.*



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**ARC10.01 Demonstrate the use of technical knowledge and skills that relate to pathways in this cluster to allow for mobility among numerous career options within the family of related occupations.**

ARC10.01.01 State how various pathways within the cluster work together to generate productions, media, and other activities.

*Sample Indicators* 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.

ARC10.01.02 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 the pathways with the most discrete knowledge and skills, and compare the potential for career crosswalks.

**ARC10.02 Summarize knowledge of the systems within various pathways contained in the cluster to keep abreast of new technological advancements and tools important to work in this industry.**

ARC10.02.01 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.

ARC10.02.02 Research the impact of potential new technology 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.