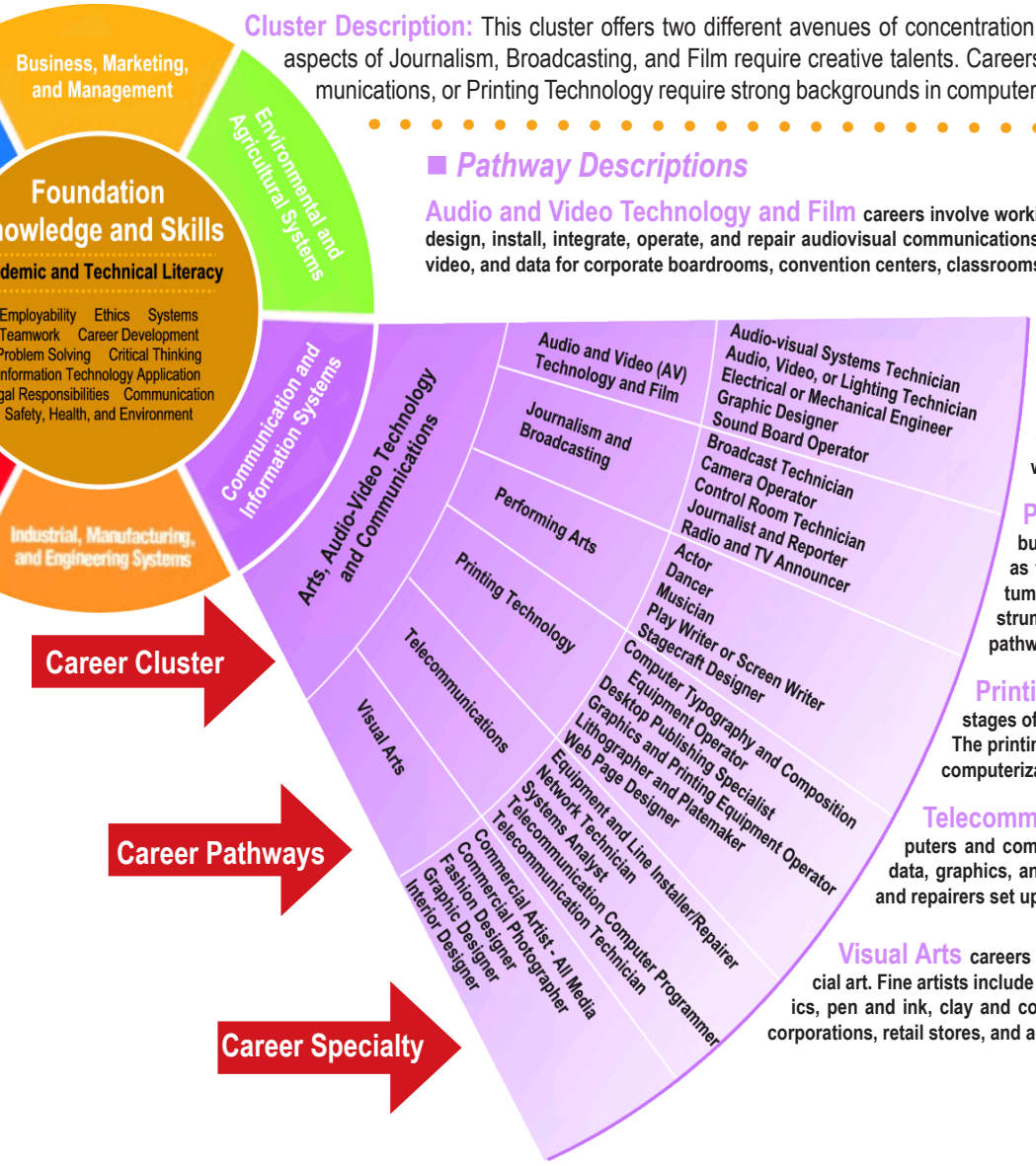
Arts, Audio-Video Technology and Communications Career Cluster

Career Field: Communication and Information Systems

Nebraska Career Education has identified 6 Career Fields that group 16 Career Clusters into areas of common skill development. The Communication and Information Systems Field consists of two clusters: Arts, A/V Technology, and Communications; and Information Technology/

Cluster Description: This cluster offers two different avenues of concentration. Careers in the Performing Arts, Visual Arts, or certain aspects of Journalism, Broadcasting, and Film require creative talents. Careers in Audio-Video Communications Technology, Telecommunications, or Printing Technology require strong backgrounds in computer and electronic-based technology, and a solid foundation



Pathway Descriptions

Audio and Video Technology and Film careers involve working in the AV communications industry to manufacture, sell, rent, design, install, integrate, operate, and repair audiovisual communications equipment. Workers are involved in the presentation of sound, video, and data for corporate boardrooms, convention centers, classrooms, theme parks, stadiums, and museums.

Journalism and Broadcasting workers gather information, prepare stories, and make broadcasts to inform the public about current events. Technical support workers install, test, repair, set up, and operate electronic equipment used to record and transmit radio, television, and cable programs as well as motion pictures. Engineers and supervisors oversee the technicians who operate and maintain the broadcasting equipment.

Performing Arts careers include individuals, groups, and businesses involved in theatrical and musical performances, such as theatrical production companies, actors, agents for actors, costume design companies, and lighting and stage crews. Voice and instrumental musical performers and dancers are also included in this pathway.

Printing Technology workers are involved in one of the three stages of the printing process - prepress, press and binding, or postpress. The printing industry is rapidly moving toward compete digital imaging and computerization.

Telecommunications specialists focus on the interaction between computers and communications equipment that provide information in the form of data, graphics, and video. Telecommunications equipment technicians, installers, and repairers set up and maintain this sophisticated equipment.

Visual Arts careers are generally categorized into two groups - fine art and commercial art. Fine artists include painters and sculptors working with mediums such as oils, acrylics, pen and ink, clay and computers. Commercial artists provide service to clients such as corporations, retail stores, and advertising firms.

Preparation for a Career in the Arts, Audio-Video Technology and Communications Cluster Includes...

Coursework

- Art
- Computer Aided Design (CAD)
- Computer Applications
- Debate and Speech
- Drama
- English and Creative Writing
- Journalism
- Mathematics
- Multimedia/Video Production
- Music - Instrumental/Vocal

School Activities

- Choir
- Create a school web site
- Debate or Speech Team
- Drama Club
- Marching Band
- Photograph/record a school activity
- School newspaper staff
- School play or musical
- Yearbook staff

Community Activities

- Act in a community production
- Create a community web site or promotional video
- Job shadow professionals
- Join community band, choir, orchestra or theatre
- Join Toastmasters International
- Participate in a community art project
- Take dance lessons
- Volunteer in a museum

Example Arts, Audio-Video Technology and Communications Postsecondary Programs of Study

Students preparing for a career in the Arts, Audio-Video Technology and Communications Career Cluster have a variety of postsecondary options. Education and training can be obtained through on-the-job training, technical colleges, two-year community colleges, four-year colleges/universities, and apprenticeship programs. They can enter programs leading to a certificate or a degree at the associate, baccalaureate, or advanced degree level.

The table below shows *examples* of postsecondary Arts, Audio-Video Technology and Communications programs of study organized by pathway.

	On-the Job Training	Certificate	Associates	Bachelor's	Advanced Degrees
Audio & Video Technology and Film		■ Audio & Recording Technology ■ Video Production	■ Audio & Recording Technology ■ Communications Technology ■ Electronics ■ Industrial Video Production ■ Film/Video Technology	■ Design and Visual Communications ■ Electrical Engineering ■ Film Studies and Production ■ Mechanical Engineering ■ Telecommunications Mgt	■ Electronics Engineering
Journalism & Broadcasting		■ Certification by the Society of Broadcast Engineers ■ Radio Announcing ■ Radio Production	■ Audio and Recording Technology ■ Broadcasting - Radio/TV ■ Journalism ■ Mass Media/Communications ■ Media Arts	■ Advertising ■ Broadcasting ■ Journalism ■ News-editorial ■ Visual Communication	■ Journalism
Performing Arts	■ Movie and Stage Grip ■ Usher and Ticket Taker ■ Movie Projectionist	■ Musical Instrument Repair and Tuning ■ Sound Engineering ■ Theater Technology	■ Camera Operation ■ Music ■ Musical Instrument Repair and Tuning ■ Sound Engineering ■ Theater Technology	■ Arts Administration ■ Dance ■ Music ■ Stage Management ■ Theater Arts	■ Music ■ Musical Arts
Printing Technology	■ Bookbinder and Bindary Worker ■ Graphic and Printing Equipment Operator	■ Desktop Publishing ■ Digital Publishing ■ Graphic Communications ■ Offset Publishing ■ Web Page Design	■ Electronic Imaging and Graphics ■ Graphic Design ■ Media Arts ■ Printing Technology ■ Visual Publications	■ Computer Graphics ■ Graphic Design ■ Industrial Design ■ Printing Management ■ Visual Communication and Design	
Telecommunications		■ Electronics Technology	■ Computer and Information Sciences ■ Computer Systems Analysis ■ Electronics Technology in Telecommunications ■ Information Technology	■ Computer Networking and Telecommunications ■ Electronics Engineering ■ Operations Technology ■ Telecommunications Management	■ Electronics Engineering ■ Information Technology ■ Telecommunications Engineering
Visual Arts	■ Photograph Processing Worker	■ Commercial Art ■ Digital Publishing ■ Graphic Art ■ Multimedia ■ Photography	■ Commercial Art ■ Graphic Design ■ Interior Design ■ Media Arts ■ Visual Publications	■ Art History ■ Fashion Design ■ Graphic Design ■ Interior Design ■ Studio Arts ■ Visual Communication	■ Art History ■ Studio Arts

Arts, Audio-Video Technology and Communications Cluster Foundation Knowledge & Skills

There are thousands of challenging educational and career opportunities within the high-skilled world of Arts, Audio-Video Technology and Communications. Below is a list of the knowledge and skills students need to pursue a career in the Arts, Audio-Video Technology and Communications Career Cluster.

■ ***Academic Foundations*: 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.

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.
- 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.

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.

■ ***Communications*: Apply listening skills to clarify and incorporate new knowledge into communication skills.**

- Execute tasks using the knowledge acquired through listening.
- Respond with restatement to clarify information.

Express ideas and information verbally to convey messages to audiences and co-workers.

- Apply speaking skills that organize thoughts and ideas in the proper sequence and present the intended message.
- Apply knowledge of verbal communications to provide clear and concise information, give feedback, and give and receive directions.

Construct meaning from reading for information, new knowledge, technical concepts, vocabulary, and instructions.

- Demonstrate reading strategies to acquire level of meaning required for various end uses.
- Analyze information read to learn meaning, technical concepts, vocabulary, and follow directions.

Demonstrate writing to convey information and express ideas.

- Apply knowledge of multi-paragraph composition to communications for media, art forms, and business applications.
- Apply grammar, punctuation, spelling, and language rules in writing.

Interpret non-verbal and visual communication processes used to enhance conveying a message to co-workers and other audiences.

- Interpret non-verbal behaviors.
- Interpret visual communication processes used to convey messages for various audiences through art forms, technology, films, news, print, and productions.
- Analyze how meanings are interpreted and influenced through various forms of art, audio-video technology productions, and the media.
- Interpret the influence elements of time and place on the visual characteristics, content, purposes, and message of works of art.

■ ***Problem Solving and Critical Thinking*: Apply decision-making and problem-solving techniques to develop potential solutions to workplace problems.**

- Apply the problem-solving method to address workplace issues.
- Demonstrate brainstorming as a skill to generate new and creative ideas when solving problems with challenging or recurring issues.
- Apply critical thinking skills to examine information, analyze challenging issues, and provide creative ideas.
- Demonstrate how to address issues of conflict and how to resolve them.

■ ***Information Technology Applications*: Use Personal Information Management (PIM)/ Productivity applications.**

- Manage personal schedule and contact information.
- Create memos and notes.

Use Electronic Mail applications.

- Understand and identify the functions and purpose of e-mail systems.
- Use e-mail to communicate within and across organizations.

Use Internet applications.

- Search for and access information.

Use Writing/Publishing applications.

- Prepare simple reports and other business communications.

Use Presentation applications.

- Prepare and deliver presentations for training, sales, and information sharing.

Use Computer Operations applications.

- Manage computer operations.
- Manage file storage.

Use Computer-based Equipment (containing embedded computers or processors used to control electromechanical devices).

- Use installation and operation manuals.

■ ***Systems*: 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.
- Evaluate the influences on the evolution of art, technology, media, and performance.
- Distinguish the differing objectives of the general public and the industries in relation to arts and communications.
- Analyze current issues related to the arts, audio-video technologies, telecommunications, printing, and the media.

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.

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.
- Analyze the industry's business practices pertinent to the arts and related technologies.
- Evaluate the role of the arts in business, technology, and the community.

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.
- 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 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.
- Examine labor management processes and agreements generally used in various areas within the arts, audio-video technologies, telecommunications, printing, and the media.

■ ***Safety, Health, and Environmental*: 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.
- Illustrate compliance with OSHA safety regulations and practices related to this cluster.
- Apply MSDS and Hazardous Materials procedures related to handling and disposing of chemicals.
- Apply Hazardous Materials practices in relation to fire and water hazards, electrical coding, and right to know laws regarding hazards.

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.

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.
- Examine safety procedures for operating aerial systems, both with and without individuals on the equipment.
- Demonstrate safety procedures when involved with heights.
- Examine the safety practices related to printing and graphic arts, telecommunications, performing arts, visual arts, and broadcasting.

Analyze life style 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.
- Analyze life style choices required to maintain the work activities of the pathways in this career cluster.

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

■ ***Leadership and Teamwork*: Apply leadership knowledge and skills to achieve group goals.**

- Analyze leadership in relation to these four character traits: trust, positive attitude, integrity, and willingness to accept key responsibilities in a work situation.
- 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.

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.
- Demonstrate teamwork processes that provide team building, consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution.

■ ***Ethics and Legal Responsibilities*: Exhibit ethical conduct in writing, creating, printing, broadcasting, and performing.**

- Analyze ethical principles of decision-making related to clients, customers, fellow workers, and others.
- Analyze ethical conduct that provides proper credit to those whose ideas and content have been used.
- Analyze ethical standards that apply to the delivery of quality performance and products.
- Identify ethics involved in the degree of influence media, arts, and performance have upon individuals.
- Identify the proper use of proprietary information.

Apply knowledge of laws affecting this career cluster.

- Analyze the copyright laws in relation to seeking formal permission to use materials.
- Analyze contracts for potential work in career pathways within this cluster.
- Analyze state, county, and city codes related to decisions affecting work in this cluster.
- Analyze the First Amendment, FCC, the Freedom of Information Act, liable laws, and other regulations for compliance issues relevant to this cluster.
- Analyze the liabilities associated with productions and performances, media, and telecommunications installations.

■ ***Employability and Career Development*: Demonstrate employability skills needed for successful job performance and satisfaction.**

- Demonstrate positive work behavior and personal attributes required for work related to this cluster.
- 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.
- Apply communication strategies to adapt to a culturally diverse environment.
- Manage resources in relation to the position.

Analyze career opportunities, skills required for various careers in this cluster, work securing processes, and continued career development.

- Analyze career information to determine opportunities in this cluster.
- Identify career prerequisites, characteristics, and abilities needed for success in this cluster.
- Demonstrate how to seek and interview for career positions in this cluster.
- Demonstrate developing and using a career development plan.

■ ***Technical Skills*: 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 pathways with common knowledge and skills that provide a worker with the potential for mobility.

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.
- Research the impact of potential new technology advancements related to this cluster in the future.

For additional information on the Arts, Audio-Video Technology and Communications Career Cluster, please contact:

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