

## **CAREER CLUSTER™: ARTS, A/V, TECHNOLOGY AND COMMUNICATIONS** **NM Job Council's 13 Economic Sectors Primary Alignment: Digital Media**

**Pathways and related Programs of Study in this career cluster address** designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

The Pathways for this Career Cluster™ are:

- Audio and Video Technology and Film
- Printing Technology
- Visual Arts
- Performing Arts
- Journalism and Broadcasting
- Telecommunications

### **PROGRAM LEARNING OUTCOMES FROM THE NASDCTE COMMON CAREER TECHNICAL CORE FOR ARTS, A/V, TECHNOLOGY AND COMMUNICATIONS:**

*Note: it is expected that a student completing any Program of Studies in this Career Cluster would transition to post secondary college and career being able to know and do each of these Standards, unless otherwise noted.*

1.	Analyze the interdependence of the technical and artistic elements of various careers within the Arts, A/V Technology and Communications Career Cluster.
2.	Analyze the importance of health, safety and environmental management systems, policies and procedures common in arts, audio/video technology and communications activities and facilities.
3.	Analyze the lifestyle implications and physical demands required in the arts, audio/video technology and communications workplace.
4.	Analyze the legal and ethical responsibilities required in the arts, audio/video technology and communications workplace.
5.	Describe the career opportunities and means to achieve those opportunities in each of the Arts, A/V Technology and Communications Career Pathways.
6.	Evaluate technology advancements and tools that are essential to occupations within the Arts, A/V Technology and Communications Career Cluster.

**THE CERTIFICATIONS LISTED BELOW ARISE FROM INTERVIEWS, WEBINARS, AND FOCUS GROUPS WITH SECONDARY AND POST SECONDARY EDUCATORS AS WELL AS INPUT FROM INDUSTRY PARTNERS AND REPRESENTATIVES. THE NEXT STEP FOR VALIDATION IS LABOR MARKET DATA AND THE ECONOMIC NEEDS OF BOTH THE STATE OF NEW MEXICO AND THE REGIONS.**

#### **Workforce Certification:**

Certiport Certification: 1. Photoshop 2. InDesign

NOCTI: Audio Visual Communications

Adobe Certified Associate (ACA): 1. Visual Communication Using Adobe Photoshop 2. Graphic Design & Illustration Using Adobe Illustrator 3. Web Authoring Using Adobe Dreamweaver

Below are the POS's developed by the statewide stakeholders who participated in the development process.

**Audio and Video Technology and Film:** Broadly, individuals that work in the AV communications industry manufacture, sell, rent, design, install, integrate, operate and repair the equipment of audiovisual communications. They are involved in the presentation of sound, video and data to groups in such venues as corporate boardrooms, hotels, convention centers, classrooms, theme parks, stadiums and museums. The major activity sectors in the AV communications industry are distributive service firms (AV dealers, rental companies, consultants, designers, and related firms), manufacturers of AV presentations and communications products and large end-users.

**Program Learning Outcomes from the NASDCTE Common Career Technical Core AUDIO AND VIDEO TECHNOLOGY AND FILM PATHWAY :**

*Note: it is expected that a student completing the Program of Studies listed below would transition to post secondary college and career being able to know and do each of these Standards, unless otherwise noted.*

1. Describe the history, terminology, occupations and value of audio, video and film technology.
2. Demonstrate the use of basic tools and equipment used in audio, video and film production.
3. Demonstrate technical support skills for audio, video and/or film productions.
4. Design an audio, video and/or film production.

**Program of Studies Course Sequence for Audio and Video Technology and Film Pathway:**

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Career and Technical Courses and/or Degree Major Courses as Dual Credit	1172 Film/Videotape	1176 -Digital Film Production II	1177 Digital Film Production III	1178 Digital Film Production IV
Media Arts Entrepreneur Path (suggested by Focus Group)	1921 Mass Media-Communication:	221 Introductory Business	1911 Mass Media-Production	530 Entrepreneurship
Suggestions for Enrichment to POS			Dual Credit: Fabrication for Film	Dual Credit: Film 1001

**Program Learning Outcomes Matrix for Telecommunications Pathway:**

*Note: each dot represents the understanding that the student taking that course would have the best opportunity to know and be able to do the CCTC knowledge and skill standards listed above.*

Courses in the POS		Program Learning Outcomes			
STARS No.	Course Title	1	2	3	4
1172	Film/Videotape	•	•		
1176	Digital Film Production II	•	•	•	
1177	Digital Film Production III	•	•	•	•
1178	Digital Film Production IV	•	•	•	•

<b>Program Learning Outcomes Matrix:</b>	
Courses in the POS	
STARS No.	Course Title
1172	Film/Videotape: Recommended for Students Grades K - 12 - Course exposes students to the materials, processes, and artistic techniques involved in film or videotape. Students learn about the operation of a camera, lighting techniques, camera angles, depth of field, composition, storyboarding, sound capture, and editing techniques. Course topics may also include production values and various styles of filmmaking (documentary, storytelling, news magazines, animation, and so on). As students advance, the instruction regarding the creative process becomes more refined, and students are encouraged to develop their own artistic style. In order to develop each student's style and artistic eye, major filmmakers, cinematographers, and their films may also be studied.
1176	Digital Film Production II: Grades 10-12 – Digital Film Production II focuses on the mastery of intermediate knowledge, skills and concepts related to film production. The student develops advanced techniques and applies them to individual, collaborative and community-based projects. The student continues to investigate and analyze current trends in filmmaking, including career opportunities, contemporary technical and aesthetic considerations. The student analyzes and applies best practices to film production projects, and evaluates their effectiveness in field productions.
1178	Digital Film Production IV: Grade 12 –Offers the student the opportunity to demonstrate mastery of film production skills and concepts with an emphasis on professional portfolio development. The student produces work that reflects an individual style and sensitivity to professional conventions. Student will demonstrate leadership in the creation of individual collaborative and community-based projects and use these opportunities to identify career and educational choices. The student will demonstrate best practices for field productions and model awareness of contemporary technical and aesthetic considerations. Literacy is integrated throughout the course.
1177	Digital Film Production III – Grades 11-12 – Digital Film Production III offers the student an opportunity to further study film making principles and techniques with emphasis on mastery of aesthetic and technical skills and concepts. The student refines advanced techniques through work on individual, collaborative and community-based projects. The student integrates current trends in filmmaking, including career opportunities, and contemporary technical and aesthetic considerations into his/her work. The student develops and determines best practices for film production projects, and evaluates their effectiveness in field productions. Literacy is integrated throughout the course.

**Journalism and Broadcasting:** News analysts, reporters and correspondents gather information, prepare stories and make broadcasts that inform us about local, state, national and international events; present points of view on current issues; and report on the actions of public officials, corporate executives, special interest groups and others who exercise power. Broadcast and sound technicians install, test, repair, set up and operate the electronic equipment used to record and transmit radio and television programs, cable programs and motion pictures. Chief engineers, broadcast field supervisors and transmission engineers supervise the technicians who operate and maintain broadcasting equipment.

**Program Learning Outcomes from the NASDCTE Common Career Technical Core for Journalism and Broadcasting Pathway:**

*Note: it is expected that a student completing the Program of Studies listed below would transition to post secondary college and career being able to know and do each of these Standards, unless otherwise noted.*

1.	Describe the diversity of functions within the Journalism and Broadcasting Career Pathway.
2.	Demonstrate writing processes used in journalism and broadcasting
3.	Plan and deliver a media production (e.g., broadcast, video, Internet, mobile).
4.	Demonstrate technical support related to media production (e.g., broadcast, video, Internet, mobile).

**Program of Studies Course Sequence for JOURNALISM AND BROADCASTING PATHWAY:**

*Note: it is expected that a student completing the Program of Studies listed below would transition to post secondary college and career being able to know and do each of these Standards, unless otherwise noted.*

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Career and Technical Courses and/or Degree Major Courses as Dual Credit	1902 Journalism	1905 Journalism Writing	1931 Photojournalism	1904 Editor

**Program Learning Outcomes Matrix for Telecommunications Pathway:**

*Note: each dot represents the understanding that the student taking that course would have the best opportunity to know and be able to do the CCTC knowledge and skill standards listed above.*

Courses in the POS		Program Learning Outcomes			
STARS No.	Course Title	1	2	3	4
1902	Journalism				
1905	Journalism Writing				
1931	Photojournalism				
1904	Editor				

<b>Program Learning Outcomes Matrix:</b>	
Courses in the POS	
STARS No.	Course Title
1905	Journalism Writing: Recommended for Students Grades 9 - 12 - Course introduces news, sports, feature and editorial writing in addition to advertising, headline writing, new editing and photography. Journalism provides a common core of skills in listening, speaking, reading and writing and technology in journalism and the new media. Emphasis is given to the study of law of the press, journalistic responsibility and concepts in layout and design, using computers, including researching and web page development on the Internet.
1902	Journalism: Recommended for Students Grades 9 - 12 - Course associated with the production of a school newspaper, yearbook, or literary magazine; therefore, they not only emphasize writing style and technique, but also production values and organization. Beginning journalism courses introduce students to the concepts of newsworthiness and press responsibility; develop students' skills in writing and editing stories, headlines, and captions; and teach students the basics of production design, layout, and printing of a publication. Advanced students learn and practice more refined journalistic techniques, participate to a greater extent in the formation and/or management of the production team, and gain experience in critical evaluation of story content and the publication as a whole. Photography and photojournalism skills may be included.
1931	Photojournalism - Recommended for Students Grades 9 - 12 - Course exposes students to the manner in which photography is used to convey information and experiences. Typically coordinated with production of the school newspaper or yearbook, Photojournalism courses provide students with the opportunity to improve their photocomposition and film development skills, and to apply their art to journalistic endeavors.
1904	Editor: Recommended for Students Grades 11 - 12 - Student will direct, lead, produce and edit a section of the yearbook or the newspaper along with a staff of other students

**Telecommunications:** Telecommunications specialists focus on the interaction between computer and communications equipment. Telecommunications equipment is computerized and can communicate a variety of information, including data, graphics and video. The workers who set up and maintain this sophisticated equipment are telecommunications equipment technicians, installers

<b>Program Learning Outcomes from the NASDCTE Common Career Technical Core TELECOMMUNICATIONS FOR TELECOMMUNICATIONS PATHWAY:</b>	
1.	Demonstrate the use of telecommunications terminology, tools and test equipment.
2.	Demonstrate telecommunication installation processes using appropriate tools, materials, schematics, diagrams, blueprints and industry specific codes and regulations.
3.	Demonstrate decision making, problem-solving techniques and communication skills when providing services for customers.
4.	Demonstrate the installation, repair and delivery of network systems.

<b>Program of Study Course Sequence for TELECOMMUNICATIONS PATHWAY:</b>				
<i>Note: it is expected that a student completing the Program of Studies listed below would transition to post secondary college and career being able to know and do each of these Standards, unless otherwise noted.</i>				
	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Career and Technical Courses and/or Degree Major Courses as Dual Credit	316 Computing Systems	318 Network Technology	304 Computer Applications II	<i>A course must be developed by a post secondary institution addressing Standard 1 and 2</i>
Suggestions for Enrichment to POS			Dual Credit: Principles of Telecommunication Systems	Dual Credit: Advanced Analog and Digital Logic and Circuits

<b>Program Learning Outcomes Matrix for Telecommunications Pathway:</b>					
<i>Note: each dot represents the understanding that the student taking that course would have the best opportunity to know and be able to do the CCTC knowledge and skill standards listed above.</i>					
Courses in the POS		Program Learning Outcomes			
STARS No.	Course Title	1	2	3	4
304	Computer Applications II	•	•	•	•
316	Computing Systems			•	•
318	Network Technology			•	•

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<b>Program Learning Outcomes Matrix:</b>	
Courses in the POS	
STARS No.	Course Title
304	Computer Applications II – Grades 10-12 – In Computer Applications II, the emphasis is on the mastery of advanced computer usage techniques for post high school education and career enhancement. Topics include: language scripting, advanced telecommunications with national and international access, the consolidation of word processing, database and spreadsheet skills into report production, advanced computer graphic manipulation, desktop integration for industry publication, beginning multi-platform network information management, and multimedia presentations.
316	Computing Systems: Courses offer a broad exploration of the use of computers in a variety of fields. Course content may have a considerable range, but typically includes; the introduction of robotics and control systems, computer assisted design, computer aided manufacturing systems, and other computer technologies as they relate to industry
318	Network Technology: Courses introduce students to the technology involved in the transmission of data between and among computers through data lines, telephone lines, or other transmission media (such as hard wiring, cable television networks, radio waves, and so on). The course may emphasize the capabilities of networks, network technology itself, or both. Content topics emphasizing network capabilities include electronic mail, public networks and electronic bulletin boards; topics emphasizing the technology include network software, hardware, and peripherals involved in setting up and maintaining a computer network.

**Performing Arts:** A variety of businesses and groups involved in theatrical and musical performances are included in this pathway. Theatrical production companies, for example, coordinate all aspects of producing a play or theater event. Agents represent actors and assist them in finding jobs. Costume design management companies design costumes. Lighting and stage crews handle the technical aspects of productions. Also in this segment are dance studios, schools and halls, which provide places for professional and amateur dancers to practice, perform and learn. Performers of live musical entertainment include musical artists, dance bands, orchestras, jazz musicians and various modern bands. Orchestras range from major professional orchestras with million-dollar budgets to community orchestras often with part-time schedules.

<b>Program Learning Outcomes from the NASDCTE Common Career Technical Core for PERFORMING ARTS PATHWAY:</b>	
1.	Describe the scope of the Performing Arts Career Pathway and the roles of various individuals in it.
2.	Demonstrate the fundamental elements, techniques, principles and processes of various dance styles and traditions.
3.	Perform a varied repertoire of vocal and/or instrumental music representing diverse styles, cultures and historical periods.
4.	Demonstrate knowledge of music theory.
5.	Explain key issues affecting the creation of characters, acting skills and roles.
6.	Create stage, film, television or electronic media scripts in a variety of traditional and current formats.
7.	Describe how technology and technical support enhance performing arts productions.
8.	Analyze all facets of stage and performing arts production management.

<b>PROGRAM OF STUDY Course Sequence for PERFORMING ARTS PATHWAY:</b>				
<i>Note: it is expected that a student completing the Program of Studies listed below would transition to post secondary college and career being able to know and do each of these Standards, unless otherwise noted.</i>				
	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Career and Technical Courses and/ or Degree Major Courses as Dual Credit	1194 Integrated Fine Arts	Select from the following: 1113 Drama-Acting/ Performance 1101 Dance Technique 1141 Theory of Music 1116 Theater and Playwriting Basics	1195 Fine and Performing Art-Advanced Study in Field of Choice	1196 Fine and Performing Art-Independent Study



<b>Program Learning Outcomes Matrix FOR PERFORMING ARTS PATHWAY:</b> <i>Note: each dot represents the understanding that the student taking that course would have the best opportunity to know and be able to do the CCTC knowledge and skill standards listed above.</i>									
Courses in the POS		Program Learning Outcomes							
STARS No.	Course Title	1	2	3	4	5	6	7	8
1113	Drama-Acting/Performance								
1101	Dance Technique								
1141	Theory of Music								
1116	Theater and Playwriting Basics								
1195	Advanced Study in Field of Choice								
1196	Advanced Study in Field of Choice								
1194	Integrated Fine Arts								

<b>Program Learning Outcomes Matrix:</b>	
Courses in the POS	
STARS No.	Course Title
1113	Drama-Acting/Performance - Recommended for Students Grades 9 - 12 - Course is intended to promote students' experience and skill development in one or more aspects of theatrical production, but concentrate on acting and performance skills. Initial courses are usually introductory in nature, while the more advanced courses concentrate on improving technique, expanding the students' exposure to different types of theatrical techniques and traditions, and increasing their chances of participating in public productions. Career opportunities in the theater may be discussed.
1101	Dance Technique - Recommended for Students Grades 7 - 12 - Course provides experience in one or several dance forms (i.e., modern, jazz, ballet, tap). Initial classes are usually introductory in nature, while the more advanced classes concentrate on improving technique and may offer or require choreographic and evaluative experiences.
1141	Theory of Music - Recommended for Students Grades K - 12 - Course teaches an understanding of the fundamentals of music, and includes one or more of the following topics: composition, arrangement, analysis, aural development, and sight-reading; Music Theory courses may or may not require previous musical experience.
1116	Theater and Playwriting Basics - intended to improve students' skills in creating a script suitable for live production. Playwriting classes enable students to develop a personal voice, style, and aesthetic by expanding their exposure to various playwrights and different types of theatrical techniques and traditions. Students are expected to write original scenes, one act plays, or full productions.

<b>Program Learning Outcomes Matrix:</b>	
Courses in the POS	
STARS No.	Course Title
1195	Fine and Performing Art-Related Subjects - Recommended for Students Grades 9 - 12 - Course offers instruction in topics related to the fine and performing arts; such topics may include design principles, psychology, mathematics, and/or science.
1196	Fine and Performing Art-Independent Study - Recommended for Students Grades 9 - 12 - Course is often conducted with instructors or professional artists as mentors, enable students to explore a particular art form in more detail and depth than in other courses. Polishing talent, building confidence for professional showings or portfolio submission, and gaining experience in public performances or displays are emphasized. Career opportunities may be explored.
1194	Integrated Fine Arts - Recommended for Students Grades K - 12 - Course explores self expression across the fine arts: any subset or all of the visual arts,music,dance,theater,and literature maybe included in the curriculum for these courses. Students both study and critique the works of others and participate in or produce art themselves. These courses often include comparative study of various art forms over time, i.e., the interrelationship of literature, music, and the performing arts of a particular time period and culture.

**Visual Arts:** Visual artists create art to communicate ideas, thoughts or feelings. They use a variety of methods—painting, sculpting or illustrating—and an assortment of materials, including oils, watercolors, acrylics, pastels, pencils, pen and ink, photography, plaster, clay and computers. Their works may be realistic, stylized or abstract and may depict objects, people, nature or events. Visual artists are generally categorized in two groups. Fine artists create art to satisfy their own need for self-expression. Illustrators and graphic designers, on the other hand, put their artistic skills at the service of commercial clients, such as major corporations; retail stores; and advertising, design and publishing firms.

<b>Program Learning Outcomes from the NASDCTE Common Career Technical Core for VISUAL ARTS PATHWAY:</b>				
1.	Describe the history and evolution of the visual arts and its role in the impact on society.			
2.	Analyze how the application of visual arts elements and principles of design communicate and express ideas.			
3.	Analyze and create two- and three-dimensional visual art forms using various media.			
<b>POS Course Sequence:</b>				
	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
Career and Technical Courses and/or Degree Major Courses as Dual Credit	1300 Communication Exploration	*Introduction to Visual Arts and Related Careers	Select from the following: 1158 Two-Dimensional Art 1159 Three-Dimensional Art 1171 Photographic Art 1175 Computer Assisted Art	1196 Advanced Study in Field of Choice

<b>Program Learning Outcomes Matrix:</b>				
Courses in the POS		Program Learning Outcomes		
STARS No.	Course Title	1	2	3
1300	Communication Exploration			
1158	Two-Dimensional Art			
1159	Three-Dimensional Art			
1171	Photographic Art			
1175	Computer Assisted Art			
1196	Advanced Study in Field of Choice			

<b>Program Learning Outcomes Matrix:</b>	
Courses in the POS	
STARS No.	Course Title
1300	Communication Exploration - Course surveys an array of topics employing graphic and technical communication, exposing students to various methods of communication such as drafting, photography, graphic arts/printing, commercial art, telecommunications, and electronic and computer aided communication. These courses may serve as a basic introduction to the methods, tools, and techniques of these areas.
1158	Two-Dimensional Art - Recommended for Students Grades 9 - 12 - The purpose of this course is to assist students to develop a portfolio demonstrating a broad interpretation of two-dimensional issues. This type of design involves purposeful decision-making about how to use the elements and principles of art in an integrative manner. This course is intended to prepare students for the optional Advanced Placement Exam in this subject and should follow the published College Board guidelines.
1159	Three-Dimensional Art - Recommended for Students Grades 9 - 12 - The purpose of this course is to assist students to develop a portfolio demonstrating a broad interpretation of sculptural issues in depth and space. These may include mass, volume, form, plane, light, and texture. This course is intended to prepare students for the optional Advanced Placement Exam in this subject and should follow the published College Board guidelines.
1171	Photographic Art - Recommended for Students Grades K - 12 - Course exposes students to the materials, processes, and artistic techniques of taking artistic photographs. Students learn about the operation of a camera, composition, lighting techniques, and depth of field, filters, camera angles, and film development. The course may cover black and white, or color photography, or both. As students advance, the instruction regarding the creative process becomes more refined, and students are encouraged to develop their own artistic style. In order to develop each student's style and artistic eye, major photographers, art movements, and styles may also be studied.
1175	Computer Assisted Art - Recommended for Students Grades K - 12 - Course enables students to discover and explore how the computer can be used to create or to assist in the production of various forms of artwork. Previous courses in the intended art form are usually not required for enrollment. Computer Assisted Art courses provide the opportunity to become more adept in both the art form and in the use of the computer.
1196	Fine and Performing Art-Independent Study - Recommended for Students Grades 9 - 12 - Course is often conducted with instructors or professional artists as mentors, enable students to explore a particular art form in more detail and depth than in other courses. Polishing talent, building confidence for professional showings or portfolio submission, and gaining experience in public performances or displays are emphasized. Career opportunities may be explored.

**Focus Group's Additional Comments and Suggestions:**

- **There should be a Digital Media Pathway that includes Graphics, Film Animation, and Gaming.**
- **Printing Technology is not current or as relevant and can be dismissed.**
- **Telecommunications should be moved to the Information Technology Cluster**