

Career & Technical Education | Arts & Communication

Audio Broadcast

Subject Code: 340130

Outcome & Competency Descriptions

Course Description:

Sound is essential to broadcast journalism and advertising. Students compare and contrast how sound alone and sound combined with visuals can entertain and inform. They generate content, record, edit, mix, and produce voice and music for airwaves, podcasts, and/or the Internet. They adapt for analog and digital audio while adhering to Federal Communication Commission rules and regulations related to bandwidth and advertising.

Strand 1. Business Operations / 21st Century Skills

Learners apply principles of economics, business management, marketing and employability in an entrepreneur, manager, and employee role to the leadership, planning, developing, and analyzing of business enterprises related to the career field.

Outcome: 1.1. Employability Skills

Develop career awareness and employability skills (e.g., face-to-face, online) needed for gaining and maintaining employment in diverse business settings.

Competencies

- 1.1.1. Identify the knowledge, skills, and abilities necessary to succeed in careers.
- 1.1.2. Identify the scope of career opportunities and the requirements for education, training, certification, licensure, and experience.
- 1.1.3. Develop a career plan that reflects career interests, pathways, and secondary and postsecondary options.
- 1.1.4. Describe the role and function of professional organizations, industry associations, and organized labor and use networking techniques to develop and maintain professional relationships.
- 1.1.5. Develop strategies for self-promotion in the hiring process (e.g., filling out job applications, resumé writing, interviewing skills, portfolio development).
- 1.1.7. Apply problem-solving and critical-thinking skills to work-related issues when making decisions and formulating solutions.
- 1.1.8. Identify the correlation between emotions, behavior and appearance and manage those to establish and maintain professionalism.
- 1.1.9. Give and receive constructive feedback to improve work habits.
- 1.1.10. Adapt personal coping skills to adjust to taxing workplace demands.
- 1.1.11. Recognize different cultural beliefs and practices in the workplace and demonstrate respect for them.
- 1.1.12. Identify healthy lifestyles that reduce the risk of chronic disease, unsafe habits, and abusive behavior.

Outcome: 1.2. Leadership and Communications

Process, maintain, evaluate, and disseminate information in a business.
Develop leadership and team building to promote collaboration.

Competencies

- 1.2.1. Extract relevant, valid information from materials and cite sources of information.
- 1.2.2. Deliver formal and informal presentations.
- 1.2.4. Use negotiation and conflict-resolution skills to reach solutions.
- 1.2.5. Communicate information (e.g., directions, ideas, vision, workplace expectations) for an intended audience and purpose.
- 1.2.6. Use proper grammar and expression in all aspects of communication.
- 1.2.7. Use problem-solving and consensus-building techniques to draw conclusions and determine next steps.
- 1.2.8. Identify the strengths, weaknesses, and characteristics of leadership styles that influence internal and external workplace relationships.
- 1.2.10. Use interpersonal skills to provide group leadership, promote collaboration, and work in a team.
- 1.2.11. Write professional correspondence, documents, job applications, and resumés.
- 1.2.12. Use technical writing skills to complete forms and create reports.
- 1.2.13. Identify stakeholders and solicit their opinions.
- 1.2.14. Use motivational strategies to accomplish goals.

Outcome: 1.3. Business Ethics and Law

Analyze how professional, ethical, and legal behavior contributes to continuous improvement in organizational performance and regulatory compliance.

Competencies

- 1.3.1. Analyze how regulatory compliance affects business operations and organizational performance.
- 1.3.2. Follow protocols and practices necessary to maintain a clean, safe, and healthy work environment.
- 1.3.5. Access and implement safety compliance measures (e.g., quality assurance information, safety data sheets [SDSs], product safety data sheets [PSDSs], United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration [OSHA]) that contribute to the continuous improvement of the organization.
- 1.3.6. Identify deceptive practices (e.g., bait and switch, identity theft, unlawful door-to-door sales, deceptive service estimates, fraudulent misrepresentations) and their overall impact on organizational performance.
- 1.3.7. Identify the labor laws that affect employment and the consequences of noncompliance for both employee and employer (e.g., harassment, labor, employment, employment interview, testing, minor labor laws, Americans with Disabilities Act, Fair Labor Standards Acts, Equal Employment Opportunity Commission [EEOC]).

- 1.3.8. Verify compliance with computer and intellectual property laws and regulations.
- 1.3.9. Identify potential conflicts of interest (e.g., personal gain, project bidding) between personal, organizational, and professional ethical standards.

Outcome: 1.4. Knowledge Management and Information Technology

Demonstrate current and emerging strategies and technologies used to collect, analyze, record, and share information in business operations.

Competencies

- 1.4.3. Verify compliance with security rules, regulations, and codes (e.g., property, privacy, access, accuracy issues, client, and patient record confidentiality) pertaining to technology specific to the industry pathway.
- 1.4.6. Use an electronic database to access and create business and technical information.
- 1.4.7. Use personal information management and productivity applications to optimize assigned tasks (e.g., lists, calendars, address books).
- 1.4.8. Use electronic media to communicate and follow network etiquette guidelines.

Outcome: 1.5. Global Environment

Evaluate how beliefs, values, attitudes, and behaviors influence organizational strategies and goals.

Competencies

- 1.5.3. Use cultural intelligence to interact with individuals from diverse cultural settings.
- 1.5.5. Recognize the ways in which bias and discrimination may influence productivity and profitability.

Outcome: 1.6. Business Literacy

Develop foundational skills and knowledge in entrepreneurship, financial literacy, and business operations.

Competencies

- 1.6.5. Describe organizational structure, chain of command, the roles and responsibilities of the organizational departments, and interdepartmental interactions.
- 1.6.6. Identify the target market served by the organization, the niche that the organization fills, and an outlook of the industry.

Outcome: 1.7. Entrepreneurship/Entrepreneurs

Analyze the environment in which a business operates, and the economic factors and opportunities associated with self-employment.

Competencies

- 1.7.10. Describe techniques for obtaining experience (e.g., apprenticeship, co-operative [co-op] education, work placement, internship, job shadowing) related to an entrepreneurial objective.
- 1.7.13. Protect intellectual property and knowledge (e.g., copyright, patent, trademark, trade secrets, processes).

Outcome: 1.8. Operations Management

Plan, organize, and monitor an organization or department to maximize contribution to organizational goals and objectives.

Competencies

- 1.8.4. Identify alternative actions to take when goals are not met (e.g., changing goals, changing strategies, efficiencies).
- 1.8.8. Identify routine activities for maintaining business facilities and equipment.

Outcome: 1.10. Sales and Marketing

Manage pricing, place, promotion, packaging, positioning, and public relations to improve quality customer service.

Competencies

- 1.10.2. Determine the customer's needs and identify solutions.
- 1.10.3. Communicate features, benefits, and warranties of a product or service to the customer.
- 1.10.5. Monitor customer expectations and determine product/services satisfaction by using measurement tools.

Strand 3. Written Content Creation

Learners apply content creation knowledge and skills to use the intended message for entertainment, journalism, or marketing purposes.

Outcome 3.1. Career-Based Writing

Develop basic skills and knowledge related to fact-, entertainment-, and marketing-based copy.

Competencies

- 3.1.1. Analyze writing content and styles of fact-, entertainment-, and marketing-based models.
- 3.1.4. Compare and contrast vocabulary, transition words, diction, grammar, spelling, syntax, word choice, and sentence structure within writing models.
- 3.1.5. Create and copy that emphasizes the central theme through supporting ideas or facts.
- 3.1.8. Meet organization-sensitive requirements such as tone, approach, and word count while following style guide parameters.

Outcome 3.2. Entertainment-based Writing

Produce copies for products designed for amusement and enjoyment.

Competencies

- 3.2.2. Compare and contrast writing to be read and writing to be performed.
- 3.2.3. Brainstorm the theme and plot through outlining or storyboarding.
- 3.2.4. Create copy in verse format using imagery and symbolism to express sensory details and enhance meaning.
- 3.2.5. Create copy with appropriate tone, content, emotion, and psychology for the speaker or performer.
- 3.2.6. Annotate copy with phonetic spelling for the speaker or performer.
- 3.2.7. Create text for fiction and non-fiction artistic genres.
- 3.2.8. Create fiction and non-fiction scripts for various media.
- 3.2.9. Develop provocative and persuasive audio essays.
- 3.2.10. Determine how the script dictates various elements including setting, music, and blocking.
- 3.2.11. Identify different features of scripts (e.g., setting, dialogue, plot, characters)

Outcome: 3.3. Fact-Based Writing

Write concise and focused copy for journalism.

Competencies

- 3.3.1. Determine what information is newsworthy.
- 3.3.6. Conduct primary source interviews using face-to-face and electronic programming.
- 3.3.11. Create content format, length, and flow based on purpose, audience, and channel.
- 3.3.15. Identify the time-sensitive elements of content.

Outcome: 3.4.

Market-Based Writing

Write concise, creative, memorable, sellable copy for advertising, public relations, and proposals.

Competencies

- 3.4.2. Determine the wants and needs of the target audience.

Outcome: 3.5.

Social Media

Develop content for social media.

Competencies

- 3.5.1. Describe the similarities and differences between social media platforms.
- 3.5.5. Create content tailored to a specific social media platform.

Strand 4. Audio, Video, and Photo Imaging

Learners apply knowledge and skills of photography and videography to capture, engineer, and manipulate audio, images, and video for media production.

Outcome: 4.1. Science of Sound

Apply the characteristics and properties of sound to a professional production.

Competencies

- 4.1.1. Identify the properties of sound.
- 4.1.2. Classify elements in sound transduction, including resistance, balanced versus unbalanced lines, and how sound energy is converted into electrical energy.
- 4.1.3. Measure sound in a variety of ways, such as perceived loudness (human judgement) peak level, RMS root mean squared or LUFS.
- 4.1.4. Identify sound pressure level (SPL).
- 4.1.5. Analyze room acoustics and their impact on sound, such as diffraction, diffusion, phase, and harmonics.
- 4.1.6. Apply the principles of direct sound, early reflection, and reverberation.
- 4.1.7. Apply the principles of digital audio theory (e.g., sampling rate, bit depth, Nyquist Theorem, and various compression algorithms for lossy and lossless audio).

Outcome: 4.2. Audio Capturing

Apply the principles and properties of how sound is measured, converted, and perceived to capture an audio recording for professional purposes.

Competencies

- 4.2.1. Compare and contrast microphone properties (e.g., polar patterns, type of transducer) with their intended use (e.g., handheld, lav, boom).
- 4.2.2. Determine microphone and monitor placement according to directional characteristics.
- 4.2.3. Organize a production from pre-production through publishing and distribution.
- 4.2.4. Distinguish among digital media formats (e.g., .mp3, .mp4, .wav, .aiff).
- 4.2.5. Select a score for production and post-production needs.

Outcome: 4.3. Audio Operations

Manipulate recordings for professional purposes.

Competencies

- 4.3.1. Produce recordings in a variety of settings (e.g., studio, live, post-production).
- 4.3.2. Apply digital signal processing (DSP) (e.g., EQ, compression, reverb, delay, etc.).
- 4.3.3. Synchronize media from different sources.
- 4.3.4. Mix audio, including relative level, spatial positioning, equalization, dynamics processing, and effects processing.
- 4.3.5. Design and set a stage plot for live performance.

- 4.3.6. Mix live sound for a variety of events (e.g., concert, speech, panel discussion, performance, etc.).

Outcome: 4.7. Audio/Video Editing

Edit post-production audio or video for commercial purposes.

Competencies

- 4.7.1. Compare and contrast linear and nonlinear digital editing systems for audio/video.
- 4.7.2. Import and log media for editing.
- 4.7.3. Manage files of digital clips.
- 4.7.4. Use storyboard techniques to place media on a timeline.
- 4.7.6. Edit audio or video online and offline with transitions, cutting points, order of shots, and continuity.
- 4.7.8. Mix audio for video through filters, ambient sound, sound effects, equalization (EQ), and matching levels.
- 4.7.10. Export and upload media for desired specifications and for appropriate platforms.

Strand 6.

Digital Design

Learners apply knowledge and skills of digital design to manipulate and animate new and existing audio, video, or photo images to create graphics for internet, broadcast, mobile, and other multimedia applications.

Outcome: 6.1.

Content Management

Import, store, export, and manage digital assets.

Competencies

- 6.1.7. Export media in the appropriate format for delivery.
- 6.1.8. Manage and archive digital assets through organizational techniques (e.g., metadata, keywords, file/folder structure, name conventions).

Strand 7.

Performance

Learners apply knowledge and skills for performance, including roles, processes, procedures, and production design.

Outcome: 7.8.

Musical Performance

Perform different styles of instrumental or vocal music in solos and ensembles.

Competencies

- 7.8.1. Apply the elements of music that produce an expressive effect.
- 7.8.2. Perform, with expression and technical accuracy, a varied repertoire of particular styles or genres.
- 7.8.5. Perform with attention to key, balance, intonation, phrasing, pitch, and rhythmic accuracy.
- 7.8.7. Employ the correct technique required for characteristic tone production, including: posture, breath support, hand position, embouchure, and vocal placement.

Outcome: 7.11.

Production Management

Assign roles, functions, and procedures based on a script or production plan.

Competencies

- 7.11.1. Identify the stages in the production process.