

Intermediate Audio/Video Technology and Film

Curriculum Content Frameworks

Please note: All assessment questions will be taken from the knowledge portion of these frameworks.

Prepared by

Lisa Byrd, Cutter Morning Star High School
Peggy James, Rogers High School
Sallie Langford, Fayetteville High School
Mary Lavergne, Malvern High School
Jonelle Lipscomb, Fayetteville High School

Edited by

Raymond Henson, Education & Instruction Manager
Barbara Lensing, Education & Instruction Coordinator
Dave Fisher, Education & Instruction Coordinator
Office of Career Guidance, Exploration, and Preparation
Arkansas Department of Career Education

Disseminated by

Karen Chisholm, Education & Instruction Manager
Lesia Edwards, Education & Instruction Coordinator
Career and Technical Education
Office of Assessment and Curriculum
Arkansas Department of Career Education

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Intermediate Audio/Video Technology and Film

Grade Levels: 10, 11, 12

Prerequisite: Fundamental AVT & F

Course Code: 493650

Course Description: This is the advanced core course for students in the audio-visual technology & film career pathway. Students will go beyond the basics of film and television production and develop specialties in one or more forms of audio-video communication such as camera work and editing, animation, graphics and sound (including music) production for video. Students will work as a team to complete various productions such as multimedia presentations and videos for special events and programs, documentaries, commercials, instructional videos, and video slideshows. These students will expand their knowledge of different types of software and techniques used in production, work on more complicated projects, as well as take on mentoring and leadership roles in the production process.

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Unit 1: The Communications Process

Hours: 10

Terminology: Documentary, Genre, News broadcast, Production forms, Style

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce				
Knowledge	Application	Skill Group	Skill	Description		
1.1 Define terms related to AVT&F (audio-video technology and film) communication process	1.1.1 Use terminology correctly and appropriately	Foundation	Reading	Applies/Understands technical words that pertain to subject [1.3.6]		
			Speaking	Applies/Uses technical terms as appropriate to audience [1.5.2]		
			Writing	Applies/Uses technical words and concepts [1.6.4]		
1.2 Summarize the beginnings and evolution of AVT&F and how it relates to technology	1.2.1 Create a presentation on a technological event or time period during the evolution of audio, video, or film production	Foundation	Writing	Analyzes data, summarizes results, and makes conclusions [1.6.2]		
		Interpersonal	Cultural Diversity	Discuss contributions and innovations made by women and/or minority groups [2.2.2]		
		Thinking	Creative Thinking	Prepares presentation based on subject research, interviews, surveys [4.1.10]		
1.2.2 Compare the development of radio and television to film and the technological changes of each	1.2.2 Compare the development of radio and television to film and the technological changes of each	Thinking	Creative Thinking	Makes connections between seemingly unrelated ideas [4.1.6]		
		1.3 List various types of audio-video approaches that convey information or create an emotional impact	1.3.1 Categorize the style of several samples of video clips	Thinking	Reasoning	See relationship between two or more ideas, objects, or situations [4.5.5]
				1.3.2 Critique a video production using a specific style. (Example: News Broadcast, Documentary Film, Multimedia Presentations)	Thinking	Creative Thinking
1.3.3 Compare the genre of several samples of video clips	1.3.3 Compare the genre of several samples of video clips	Thinking	Problem Solving		Tracks and evaluates results [4.4.10]	
		Thinking	Reasoning	See relationship between two or more ideas, objects, or situations [4.5.5]		
1.4 Identify ethical responsibility by relating the degree of influence the media has on individuals	1.4.1 Illustrate how truth can be upheld in ambiguous situations	Personal Management	Integrity/Honesty/Work Ethic	Describes/Explains significance of integrity, honesty, and work place ethics [3.2.4]		

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
	1.4.2 Demonstrate ethical behaviors in presenting information to the public	Personal Management	Integrity/Honesty/Work Ethic	Describes/Explains significance of integrity, honesty, and work place ethics [3.2.4]
1.5 Identify how First Amendment, Freedom of Information Act, libel, slander, and copyright laws affect the AVT&F industries Cour	1.5.1 Examine issues related to libel, slander, plagiarism, and the invasion of privacy	Personal Management	Integrity/Honesty/Work Ethic	Follows established rules, regulations, and policies [3.2.5]
	1.5.2 Formulate the production of forms necessary in the AVT&F field (i.e. release forms, permission to use copyrighted materials, applications for licensure, etc.)	Foundation	Writing	Composes and creates document - letters, manuals, reports, proposals, graphs, flow charts, etc. [1.6.8] Organizes information into an appropriate form [1.6.10]
		Personal Management	Integrity/Honesty/Work Ethic	Follows established rules, regulations, and policies [3.2.5]
1.6 Identify communication skills necessary in group situations in the AVT&F pathway	1.6.1 Facilitate the work of a group using communication, negotiation, and collaboration [1.6.1]	Interpersonal	Leadership	Influences group behavior [2.4.8]
			Negotiation	Assists in reaching a settlement/conclusion through compromise [2.5.1]
	1.6.2 Integrate the management of shared files and other on-line information into an AVT&F production	Interpersonal	Teamwork	Contributes to group with ideas, suggestions, and effort [2.6.2]
			1.6.3 Demonstrate proficiency in several methods of communication within a group production (presentations, group meetings, telephone, email)	Foundation
	Reading	Uses appropriate materials and techniques as specified [1.3.20]		
Speaking	Uses verbal language and other cues such as body language appropriate in style, tone, and level of complexity to the audience and occasion [1.5.14]			
		Interpersonal	Writing	Uses language, style, organization, and format appropriate to subject matter, purpose, and audience [1.6.19]
			Cultural Diversity	Recognize differences among team members [2.2.3]

Unit 2: Career Skills

Hours: 20

Terminology: Commercial, Press kit

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
2.1 Define terms related to AVT&F career and employability skills	2.1.1 Use terminology correctly and appropriately	Foundation	Reading	Applies/Understands technical words that pertain to subject [1.3.6]
			Speaking	Applies/Uses technical terms as appropriate to audience [1.5.2]
			Writing	Applies/Uses technical words and concepts [1.6.4]
2.2 Identify the responsibilities of producers, directors, editors, as well as other specialists in the career pathway of AVT&F	2.2.1 Select and interview someone who is currently employed in one of these fields	Personal Management	Career Awareness, Development, and Mobility	Develop skills, locate, evaluate, and interpret career information [3.1.4] Explore career opportunities [3.1.6]
	2.2.2 Create a résumé and letter of application for one of these roles for a class production	Personal Management	Self-Esteem	Creates a positive self-image by selling self in a letter of application [3.5.2] Develops self-confidence by creating a résumé which promotes personal strengths/abilities [3.5.5]
	2.2.3 Demonstrate the ability to take on the responsibilities and manage resources in relation to this position	Personal Management	Organizational Effectiveness Self-Esteem	Applies knowledge to implement work-related systems or practice [3.3.4] Presents positive image of personal attitudes and abilities [3.5.7]

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
2.3 Describe employability skills needed for successful job performance in this career pathway	2.3.1 Analyze the major reasons employees lose jobs in the AVT&F pathway and discuss what can be done to prevent this from occurring	Personal Management	Organizational Effectiveness	Identifies characteristics desired by organization [3.3.6]
	2.3.2 Demonstrate positive work behavior and personal attributes required in this career pathway such as responsibility for decisions and taking initiative to enhance activities	Interpersonal	Self-Esteem	Develops/Initiates a plan for self-improvement [3.5.4]
			Cultural Diversity	Works effectively with men and women from diverse backgrounds-ethnic, social, educational, etc. [2.2.5]
2.3.3 Demonstrate effective communication skills with supervisors, clients, and peers	Personal Management	Responsibility	Sets high standards for self in completion of a task [3.4.9]	
Cour se Code : 4936 50	2.4.1 Develop a written plan	Interpersonal	Teamwork	Demonstrates understanding, friendliness, adaptability, empathy, and politeness in new and ongoing group settings [2.6.3]
	2.4.2 Refine and update a resume and portfolio	Personal Management Skills	Career Awareness, Development, and Mobility	Establishes and implements at plan of action [3.1.5]
2.5 List economical factors involved in the production of AVT&F	2.5.1 Compare non-profit to commercial ventures in this pathway	Personal Management Skills	Career Awareness, Development, and	Analyzes own knowledge, skills, and ability [3.1.2]
		Foundation	Reading	Draws a conclusion from what is read [1.3.12]
	2.5.2 Examine the use of promotional materials, public service announcements, commercials, and press kits	Thinking	Decision Making	Identifies pros and cons to assist in decision-making process [4.2.7]
Reasoning			See relationship between two or more ideas, objects, or situations [4.5.5]	
		Thinking	Knowing How to Learn	Processes new information as related to workplace [4.3.5]
			Reasoning	Uses logic to draw conclusions from available information [4.5.6]

Unit 3: Technical Skills

Hours: 50

Terminology: Analog sound, Animation, AVI, Back light, Background music, Bit, Bug, Diffusers, Digital sound, Equalizer, Fill light, Frequency, Fresnel, Gain/boost, Key light, Mixer, Monitor, Mp3, Mpeg, Playback systems, QuickTime, Reflectors, Synchronization, Wav

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do			ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description	
3.1 Define terminology related to the equipment and skills required in the AVT&F pathway	3.1.1 Use terminology correctly and appropriately	Foundation	Reading	Applies/understands technical words that pertain to subject [1.3.6]	
			Speaking	Applies/Uses technical terms as appropriate to audience [1.5.2]	
			Writing	Applies/Uses technical words and concepts [1.6.4]	
3.2 List audio techniques and equipment used for AVT&F productions (recorders and mics, mixers and equalizers, and monitoring equipment)	3.2.1 Select equipment required for different types of audio production	Thinking	Decision Making	Evaluates information/data to make best decision [4.2.5]	
	3.2.2 Illustrate techniques required for synchronization of audio with video from different cuts	Thinking	Knowing How to Learn	Uses available resources to acquire new skills or improve knowledge and skills [4.3.4]	
	3.2.3 Demonstrate techniques required for synchronization of multiple audio tracks (such as voice-overs with background music)	Thinking	Knowing How to Learn	Uses available resources to acquire new skills or improve knowledge and skills [4.3.4]	
3.3 Describe the difference in data signals and equipment for analog and digital technology	3.3.1 Analyze problems that may be encountered when working with analog and digital technology	Thinking	Problem Solving	Draws conclusions from observations, evaluates conditions, and gives possible solutions [4.4.5]	
3.4 Discuss techniques to maximize sound performance using various audio formats	3.4.1 Demonstrate digitally enhancing audio	Thinking	Knowing How to Learn	Processes new information as related to workplace [4.3.5]	
			Problem Solving	Draws conclusions from observations, evaluates conditions, and gives possible solutions [4.4.5]	
	3.4.2 Demonstrate techniques used for audio equalization	Thinking	Decision Making	Generates options/alternatives [4.2.6]	
			Knowing How to Learn	Processes new information as related to workplace [4.3.5]	

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce			
Knowledge	Application	Skill Group	Skill	Description	
3.5 Identify types and placement for lighting fixtures in various locations	3.5.1 Demonstrate lighting techniques for portable and studio productions	Thinking	Reasoning	Uses logic to draw conclusions from available information [4.5.6]	
3.6 Identify several types of software used in the development of graphic, video, and animation files	3.6.1 Demonstrate how to incorporate several types of software in the development of a single video project	Thinking	Seeing Things in the Mind's Eye	Organizes and processes images-symbols, pictures, graphs, objects, etc [4.6.2] Visualizes a finished product [4.6.4]	
3.7 Describe operation of video editing and playback systems including various peripherals used for editing	3.7.1 Create videos using several digital platforms	Thinking	Creative Thinking	Uses imagination to create something new [4.1.1]	
	3.7.2 Demonstrate cabling for different audio-video productions as well as for changing formats	Thinking	Decision Making Problem Solving Seeing Things in the Mind's Eye	Demonstrates decision-making skills [4.2.4] Devises and implements a plan of action to resolve a problem [4.4.3] Visualize a system's operation from schematics [4.6.3]	
3.8 List advanced camera shots and techniques that are found in professional videos	3.8.1 Analyze video clips that demonstrate advanced shots and techniques	Thinking	Reasoning	Uses logic to draw conclusions from available information [4.5.6]	
	3.8.2 Demonstrate proficiency in using advanced camera shots and techniques in video production	Thinking	Creative Thinking Problem Solving	Develops visual aids to create audience interest [4.1.4] Draws conclusions from observations and gives possible solutions [4.4.5]	
3.9 Discuss technical support in the AVT&F pathway	3.9.1 Demonstrate basic troubleshooting audio and video problems	Thinking	Problem Solving	Draws conclusions from observations and gives possible solutions [4.4.5] Tracks and evaluates results [4.4.10]	
3.10 Identify editing skills related to various delivery requirements required by different postproduction formats	3.10.1 Compare and contrast skills needed to meet the requirements of different postproduction formats	Thinking	Reasoning Seeing Things in the Mind's eye	See relationship between two or more ideas, objects, or situations [4.5.5] Visualize a finished product [4.6.4]	

Unit 4: The Production Process

Hours: 40

Terminology: Crew, Production elements, Script

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce		
Knowledge	Application	Skill Group	Skill	Description
4.1 Define terminology related to the production skills required in the AVT&F pathway	4.1.1 Use terminology correctly	Foundation	Reading	Applies/Understands technical words that pertain to subject [1.3.6]
			Speaking	Applies/Uses technical terms as appropriate to audience [1.5.2]
			Writing	Applies/Uses technical words and concepts [1.6.4]
4.2 Identify the key elements of an audio script	4.2.1 Demonstrate writing audio scripts for various programs	Foundation	Writing	Uses language, style, organization, and format appropriate to subject matter, purpose, and audience [1.6.19]
4.3 Identify how audio enhances AVT&F productions	4.3.1 Explain how various styles of music can create a specific emotional impact	Thinking	Reasoning	Uses logic to draw conclusions from available information [4.5.6]
	4.3.2 Create music or sound effects for a video production	Thinking	Creativity	Uses imagination to create something new [4.1.1]
4.4 Discuss critical elements in designing a production in each of the stages (pre-production, production, and postproduction)	4.4.1 Create short script and identify resources needed to begin the production (such as equipment, crew, and cast requirements)	Foundation	Writing	Uses language, style, organization, and format appropriate to subject matter, purpose, and audience [1.6.19]
		Thinking	Creativity	Identifies new goals and objectives [4.1.8]
			Decision Making	Demonstrates decision-making skills [4.2.4]
	4.4.2 Analyze the script and storyboard development process for a successful production	Foundation	Reading	Evaluates written information for accuracy, appropriateness, and style [1.3.14]
			Writing	Evaluates written information for appropriateness/content/clarity [1.6.9]
	Thinking	Decision Making	Evaluates information/data to make best decision [4.2.5]	

CAREER and TECHNICAL SKILLS What the Student Should be Able to Do		ACADEMIC and WORKPLACE SKILLS What the Instruction Should Reinforce				
Knowledge	Application	Skill Group	Skill	Description		
Cour	4.4.3	Create a shot list, tape log, and any other documents required for the production stage	Foundation	Writing	Organize information into an appropriate format [1.6.10]	
			Thinking	Knowing How to Learn	Processes new information as related to workplace [4.3.5]	
	4.4.4	Critique a production to determine how elements work together to make the production successful, what can be done to improve it, and suggestions about the necessary revisions/edits to do so	Interpersonal	Customer Service	Handles criticism, disagreement, or disappointment during a conversation [2.3.5]	
			Thinking	Creative Thinking	Finds new ways of dealing with existing problems/situations [4.1.5]	
				Problem Solving	Revises plan of action indicated by findings [4.4.9]	
			Reasoning	Uses logic to draw conclusions [4.5.6]		
	4.4.5	Demonstrate applying two methods of postproduction to the same audiovisual technology and film presentation or production (i.e. DVD and VHS or computer presentation and VHS)	Thinking	Decision Making	Generates options/alternatives [4.2.6]	
				Knowing How to Learn	Uses available resources to acquire new skills or improve knowledge and skills [4.3.4]	
4.5	Identify the importance of leadership in an AVT&F production	4.5.1	Demonstrate leadership qualities while working on group productions (such as contributing ideas; building the organization; acting as a role model; adhering to policies, procedures, and standards; promoting the organization's vision; mentoring others; as well as setting and meeting deadlines.)	Interpersonal	Coaching Leadership	Help others learn new skills [2.1.3] Comprehends ideas and concepts related to leadership [2.4.2]
4.6	Identify teamwork skills to use in group productions that will enhance achieving the common goal	4.6.1	Demonstrate teamwork skills when working with co-workers, supervisors, and others outside of the organization	Interpersonal	Teamwork	Works effectively with others to reach a common goal [2.6.6]
		4.6.2	Demonstrate teamwork processes that include the respect for the opinions of others, cooperation, adaptability, conflict resolution, and meeting deadlines	Interpersonal	Cultural Diversity Teamwork	Respect others' personal values, cultures, and traditions [2.2.4] Demonstrates understanding, friendliness, adaptability, empathy, and politeness in new and ongoing group settings [2.6.3]

Glossary

Unit 1: The Communications Process

1. Documentary – an informative, nonfiction depiction of occurrences
2. Genre – a division or category of a particular form of film or video which share common elements (settings, content and subject matter, themes, period, plot, styles, situations or standards); i.e. film genre include westerns, action, adventure, comedy, drama, historical, horror, music, science fiction, and war
3. News broadcast – a newscast that usually consists of the coverage of various news events and other information, produced locally by a television or radio station or a network
4. Production forms – any forms needed for production, including release forms, contracts, location requests, etc.
5. Style – the manner by which any given film's genre is created for the screen

Unit 2: Career Skills

1. Commercial – a paid advertisement on television or radio that is sponsored by an advertiser or supported by advertising (commercial television)
2. Press kit – a packaged set of promotional materials, such as photographs and background information, for distribution to the press

Unit 3: Technical Skills

1. Analog sound – a signal that fluctuates exactly like the original stimulus; i.e. recording onto magnetic tape with measurable electrical signals and voltage
 2. Animation – process of taking series of still frames of slightly different drawings or objects which, when presented at normal speed, give the illusion of motion
 3. AVI (audio video interleave) – an audio–video standard designed by Microsoft
 4. Back light – light directed from behind and above the subject used to separate and add dimension to a scene and is slightly stronger than front light
 5. Background music – a track of music used to fill behind voice–overs or other audio tracks
 6. Bit – a digit used to encode a piece of data (8-bit, 16-bit, etc.)
 7. Bug – also known as DOG (Digital On-screen Graphic), is a form of visual station identification
 8. Diffusers – attachments that fit over the front of a light and softens its quality
 9. Digital sound – in contrast to the analog process, the encoding of electronic information in the form of discrete "on" or "off" pulses
 10. Equalizer – a device for adjusting the relative strengths of different audio frequencies
 11. Fill light – a soft light used to partially fill in the shadows caused by the key light, typically one–half the intensity
 12. Frequency – the number of times a sound or signal vibrates each second expressed in cycles per second or hertz
 13. Fresnel – named after the inventor of the lens it is light with step like concentric rings commonly used as a key light
 14. Gain/boost – the electronic amplification of the signal made from an image or sound
- 50 Key light – the brightest frontal light on a scene

Unit 3: Technical Skills

16. Mixer – a device that balances the input strengths of signals from two or more sources, especially microphones
17. Monitor – a TV set, normally without an RF tuner or audio circuitry, used for the checking of color, composition, etc., during a production
18. MP3 – a popular digital audio encoding designed to greatly reduce the amount of data required to represent audio and can also refer to files of sound or music recordings stored on computers in the MP3 format
19. MPEG – a digital compression standard for moving video images that allows the images to occupy less memory or disk space
20. Playback systems – any system used to play video/audio productions, including any necessary cabling and components such as VCRs, DVD players, monitors, speakers, CD players, and tape decks
21. QuickTime – software from Apple Computer, Inc. that enables the storage, editing, and playing of digitized video and audio media on a computer
22. Reflectors – large silver, white, or colored surfaces used to bounce light onto a subject or scene
23. Synchronization – to align or match different tracks or data
24. Wav (waveform) – a sound format developed by Microsoft and used extensively in Microsoft Windows

Unit 4: The Production Process

1. Crew – production staff members that work behind the camera
2. Script – written documentation of a program (formatted like a play) which includes scenes, dialogue, narration, stage directions, and effects
3. Production elements – components of video production: such as lightening, sound, and story