Video and Media Technology

8497 36 weeks

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Course Description

Suggested Grade Level: 10 or 11 or 12
Prerequisites: 8415 or 8418 or 8459

This course offers students a hands-on opportunity to study all aspects of video and media production. Students will conceptualize, plan, and contribute through all production phases: preproduction, production, and postproduction. In addition, students will practice various methods of gathering and recording information and creating novel content to create a variety of video and media productions while operating studio editing software and video and audio equipment.
## Task Essentials Table

- Tasks/competencies designated by plus icons (+) in the left-hand column(s) are essential
- Tasks/competencies designated by empty-circle icons (○) are optional
- Tasks/competencies designated by minus icons (−) are omitted
- Tasks marked with an asterisk (*) are sensitive.

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<td>Research the development of broadcasting from early radio to present-day television and broadband.</td>
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<td>Describe the function, role, and influence of video media on society.</td>
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<td>Analyze the expanding media landscape, the top media delivery providers, and the effects on media production and consumer habits.</td>
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<td>Evaluate the laws and ethical concerns affecting video media.</td>
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<td>Write a public service announcement (PSA) storyboard and script.</td>
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<td>Define roles of production personnel and their tasks.</td>
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<td>Demonstrate production safety techniques.</td>
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<td>Identify video production commands and terminology.</td>
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<td>Identify the types and essential parts of video cameras.</td>
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<td>Identify microphones and their applications.</td>
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<td>Identify the operating procedures for essential production equipment.</td>
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<td>Create full-screen graphics and boxes, using a graphics generator or computer-based graphics program.</td>
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Curriculum Framework

Determining the Role of Media in Society

Task Number 39

Research the development of broadcasting from early radio to present-day television and broadband.

Definition

Research should include the development of broadcasting, including

- radio
- first moving pictures (i.e., flip book)
- first global broadcast images
- emerging broadcast formats
- the basic concepts of linear and non-linear editing.

Process/Skill Questions

- What are some milestones in the development of broadcast radio and television?
What was the purpose of early broadcasts?
What influenced the development of broadcasts?

Common Career Technical Core

AR-AV1
Describe the history, terminology, occupations and value of audio, video and film technology.

ITEEA National Standards

13. Assess the Impact of Products and Systems
17. Information and Communication Technologies
7. The Influence of Technology on History

TSA Competitive Events
Digital Video Production

Task Number 40
Describe the function, role, and influence of video media on society.

Definition
Description should include showing

- how society has been influenced by video media politically, economically, and socially
- how video media entertains, informs, educates, and persuades viewers.

Process/Skill Questions

- How has video media made certain issues socially acceptable?
- How has video media influenced political beliefs?
- How has the increased amount of available information allowed economics to diversify?
- What is the correlation between viewers and the media viewed?
- How can videos influence a variety of cultures?
- What are the social implications of a viral video?
Common Career Technical Core

AR-AV1
Describe the history, terminology, occupations and value of audio, video and film technology.

ITEEA National Standards

17. Information and Communication Technologies

4. The Cultural, Social, Economic, and Political Effects of Technology

6. The Role of Society in the Development and Use of Technology

7. The Influence of Technology on History

TSA Competitive Events

Digital Video Production

Prepared Presentation

Task Number 41

Analyze the expanding media landscape, the top media delivery providers, and the effects on media production and consumer habits.

Definition

Analysis should include

- current popular delivery methods of video media
- emerging delivery methods of video media
- identification of the producer and the consumer
- consumer habits
- financial beneficiaries (e.g., Apple TV, Roku, Hulu, Netflix, Xbox Media Center, individuals through YouTube and others)
- mobile technologies.

Process/Skill Questions
• Who might financially benefit from videos?
• How do consumer habits affect emerging video technologies?
• How do emerging video technologies affect consumer habits?

Common Career Technical Core

AR-AV1
Describe the history, terminology, occupations and value of audio, video and film technology.

ITEEA National Standards

17. Information and Communication Technologies

4. The Cultural, Social, Economic, and Political Effects of Technology

6. The Role of Society in the Development and Use of Technology

TSA Competitive Events

Digital Video Production

Prepared Presentation

Task Number 42

Evaluate the laws and ethical concerns affecting video media.

Definition

Evaluation should include an examination of laws and codes of ethics that govern video media. Laws and ethics can be related to such items as

• filming rights
• copyright law, copyright infringement, and digital rights management
• persons appearing in a video and how they are portrayed
• fair use guidelines.

Process/Skill Questions

• Which media organizations have codes of ethics?
- Who regulates and governs compliance of video media and their laws?
- How do copyright laws affect content?

Common Career Technical Core

AR-AV1
Describe the history, terminology, occupations and value of audio, video and film technology.

ITEEA National Standards

13. Assess the Impact of Products and Systems
17. Information and Communication Technologies
7. The Influence of Technology on History

TSA Competitive Events

Digital Video Production

Exploring Types of Video Formats

Task Number 43

Identify various video formats and their characteristics.

Definition

Identification should include characteristics of various video formats or containers, such as

- .avi (Audio Video Interleave)
- .mp4 (Moving Picture Experts Group)
- .flv (Flash Video)
- .mov (Apple's QuickTime)
- .ogg, from Xiph.org
- .mkv (Mastroska)
- .vob (Video Object)
Process/Skill Questions

- What influences the choice of video format?
- What are the advantages and disadvantages of different video formats?
- What equipment is needed for filming and editing different video formats?

ITEEA National Standards

17. Information and Communication Technologies

4. The Cultural, Social, Economic, and Political Effects of Technology

6. The Role of Society in the Development and Use of Technology

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

Task Number 44

Compare the physical compositions of various recording media.

Definition

Comparison should include

- videotape (magnetic oxide)
- DV tape
- solid-state media
- SD card formats
- file transfer protocols.

Process/Skill Questions
- What are the different types of memory cards available for purchase?
- How does a digital video (DV) tape differ from a memory card?
- How can you protect your media?

**Common Career Technical Core**

**AR-AV2**  
Demonstrate the use of basic tools and equipment used in audio, video and film production.

**ITEEA National Standards**

17. Information and Communication Technologies

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

**TSA Competitive Events**

**Digital Video Production**

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**Task Number 45**

**Compare international broadcast standards.**

**Definition**

Comparison should include the broadcast standards of the following:

- National Television System Committee (NTSC) video display format
- Phase Alternating Line (PAL) video display format
- High-definition television (HDTV)
- Digital television (DTV)
- Standard television (SDTV)

**Process/Skill Questions**

- How do these standards affect camera and editing equipment?
- What does dropped frames mean in terms of editing?
- How does resolution affect the quality of picture?
- How is the interlacing process used to record images?
Preproduction: Writing for Video Media

Task Number 46

Analyze the format, components, and composition techniques in a video storyboard and script.

Definition

Analysis should include

- evaluating the use of language, ensuring that
  - the subject-predicate-object sentence structure is used
  - sentences are clear and concise
  - present tense and active voice are maintained
- identifying the format, genre, and main script elements or components
- identifying script and storyboard techniques, including the use of a shot list and materials list.

Process/Skill Questions

- What is the difference between conversational and composition writing?
- What is conversational style and why is it a good choice when writing for video media?
- When should the present tense be avoided?
How does the structure of video media writing affect the viewer?

Common Career Technical Core

AR-AV2
Demonstrate the use of basic tools and equipment used in audio, video and film production.

ITEEA National Standards

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

4. The Cultural, Social, Economic, and Political Effects of Technology

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

Task Number 47

Compose a video script.

Definition

Composition should include

- using writing techniques influenced by a code of ethics
- using responsible writing techniques, including accuracy, attribution, fairness, and balance
- submitting a detailed storyboard, including a shot list and materials list.

Process/Skill Questions

- Where in the sentence should attribution be placed when writing for video media?
Why do video media writers need to be aware of responsible writing techniques?
How does responsible writing affect the credibility of a writer or a media company?

Common Career Technical Core

AR-AV4
Design an audio, video and/or film production.

AR-JB2
Demonstrate writing processes used in journalism and broadcasting.

ITEEA National Standards

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

4. The Cultural, Social, Economic, and Political Effects of Technology

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

Task Number 48

Write a public service announcement (PSA) storyboard and script.

Definition

Writing should follow the format of the PSA, including

- adhering to industry-accepted guidelines for effectiveness
- creating an awareness for a social issue
- limiting video duration to approximately 30 seconds
• submitting a detailed storyboard, including a shot list and materials list.

Process/Skill Questions

• Why do media companies provide PSAs?
• What is the most effective method of conveying the PSA message?
• How do media companies select their PSA topics?
• How can tone of voice, body language, music and editing affect the quality of the PSA?

Common Career Technical Core

AR-AV4
Design an audio, video and/or film production.

AR-JB2
Demonstrate writing processes used in journalism and broadcasting.

ITEEA National Standards

13. Assess the Impact of Products and Systems
17. Information and Communication Technologies
3. The Relationships Among Technologies and the Connections Between Technology and Other Fields
4. The Cultural, Social, Economic, and Political Effects of Technology

TSA Competitive Events

Digital Video Production
Scientific and Technical Visualization (SciVis)
Webmaster

Task Number 49

Write a news story or long news feature script.

Definition

Writing should follow the format for the news story or long news feature script, including
• adhering to industry-accepted guidelines for effectiveness
• maintaining the appropriate format
• highlighting current events that are pertinent to the audience
• adding a shot list and materials list.

Process/Skill Questions

• How does the media outlet determine that an event is newsworthy?
• How does a news director determine the amount of time devoted to a specific news story?
• How are scripts for news stories typically formatted?
• Who uses the script, and which script elements are used?

Common Career Technical Core

AR-AV4
Design an audio, video and/or film production.

AR-JB2
Demonstrate writing processes used in journalism and broadcasting.

ITEEA National Standards

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

4. The Cultural, Social, Economic, and Political Effects of Technology

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

Task Number 50

Write a commercial storyboard and script.
Definition

Writing should follow the commercial storyboard and script format, including

- adhering to industry-accepted guidelines for effectiveness
- persuading or promoting a product or service
- submitting a detailed storyboard, including a shot list and materials list.

Process/Skill Questions

- How is a commercial funded?
- Why are advertisements important to broadcast companies?
- What rights do broadcast companies have to deny or restrict advertiser’s airtime?
- How does the writer determine the most effective concept for a commercial?

Common Career Technical Core

AR-AV4
Design an audio, video and/or film production.

AR-JB2
Demonstrate writing processes used in journalism and broadcasting.

ITEEA National Standards

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

4. The Cultural, Social, Economic, and Political Effects of Technology

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster
Task Number 51

Write a(n) instructional, biographical, documentary, or historical storyboard and script.

Definition

Writing should follow the appropriate format, including

- adhering to industry-accepted guidelines for effectiveness
- planning for extensive preproduction work
- adding a shot list and materials list.

Process/Skill Questions

- What are the additional script components needed for a non-dramatic piece?
- Why is preproduction important for a longer video format?
- What are the purposes of the different types of non-dramatic pieces?

Common Career Technical Core

AR-AV4
Design an audio, video and/or film production.

AR-JB2
Demonstrate writing processes used in journalism and broadcasting.

ITEEA National Standards

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

4. The Cultural, Social, Economic, and Political Effects of Technology

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)
Preproduction: Planning the Production

Task Number 52

Identify the objectives of a production.

Definition

Identification should include objectives that are

- clear
- specific
- simple
- phrased in terms of their effect on viewers.

Process/Skill Questions

- What should the viewers understand after watching the production?
- What is the subject of the production? How is it determined? Why is it helpful to know the subject?
- How does the subject affect video editing and filming?

ITEEA National Standards

11. Apply the Design Processes
13. Assess the Impact of Products and Systems
17. Information and Communication Technologies

TSA Competitive Events

Digital Video Production
Scientific and Technical Visualization (SciVis)
Task Number 53

Create a production proposal (i.e., treatment).

Definition

A production proposal should summarize the production process prior to filming and include

- conceptualization
- analysis of the target audience, media outlet, and likely screen (i.e., output/display) size
- talent and their roles
- the estimated scope of the project
- materials needed for completion.

For funding purposes and programming/release schedules, the production proposal should include

- identification of the target market or audience
- usage
- impact implications.

Process/Skill Questions

- What is the purpose of a treatment?
- What are the components of a production proposal?
- What makes an effective production proposal?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

AR-JB2
Demonstrate writing processes used in journalism and broadcasting.

ITEEA National Standards
11. Apply the Design Processes

13. Assess the Impact of Products and Systems

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

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Task Number 54

Prepare a production budget.

Definition

Preparation should include all costs associated with editing, maintenance of equipment, sets, crew and talent, filming, and local and state taxation issues.

Process/Skill Questions

- What are the factors and who are the individuals that often determine the budget?
- How is the budget controlled?
- Who maintains the budget in larger companies?
- How often is the budget audited?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

11. Apply the Design Processes

13. Assess the Impact of Products and Systems
17. Information and Communication Technologies

3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

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Task Number 55

Develop a production schedule.

Definition

Development of a production schedule should include a timetable listing the order of each production step.

Process/Skill Questions

- How does production timing affect costs?
- What are the determining factors of a production schedule?
- Who maintains the production schedule?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

11. Apply the Design Processes

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies
3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

Task Number 56

Define roles of production personnel and their tasks.

Definition

Definitions should include identifying the daily tasks of various production personnel, which may include

- producers
- station managers
- technical directors
- camera operators
- talent
- script writers
- teleprompter operators
- directors.

Process/Skill Questions

- What qualifications does each member of the production team need?
- What equipment does each member require?
- How do these personnel interact to create a production?
- What is a run down, and who is responsible for creating it?
- What function do unions (e.g., IATSE) have in television and movies?

Common Career Technical Core

AR-AV1
Describe the history, terminology, occupations and value of audio, video and film technology.
ITEEA National Standards

11. Apply the Design Processes

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies

TSA Competitive Events

Career Preparation

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster

Production: Exploring the Elements

Task Number 57

Demonstrate production safety techniques.

Definition

Demonstration should include describing general safety standards for equipment manufacturer specifications for tool and machine use and OSHA guidelines for responding to or preventing

- electrical hazards
- fire hazards
- personal injury issues, including first aid, trip, lifting, and rigging hazards.

Process/Skill Questions

- How should electrical cords be organized?
- How can fires be prevented or minimized on a production set?
• How might guests be advised on the set or studio to keep them safe?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production

Task Number 58

Identify video production commands and terminology.

Definition

Identification should account for differences among segments and occupations within the industry and include the following terms:

• Rule of thirds
• Leading lines
• Head space
• Commands, including
  o Rolling
  o Action
  o Cut
  o Zoom
  o Pan
  o Tilt
  o Truck/dolly
  o In/out
  o Gain
  o Quiet on the set

Process/Skill Questions
• What is the director describing when he/she says: *Dolly in the camera and cut to the host; Bars and tone; and Quiet on the set, stand by crew, stand by talent, roll tape*?
• How does head space apply to photography, videography, and cinematography?
• Why is it important to understand commands when working on a set?

**Common Career Technical Core**

**AR-AV1**
Describe the history, terminology, occupations and value of audio, video and film technology.

**ITEEA National Standards**

17. Information and Communication Technologies

**TSA Competitive Events**

**Digital Video Production**

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**Task Number 59**

**Demonstrate video production commands and terminology.**

**Definition**

Demonstration should include applying or responding to production commands in a live or mock-live set or studio.

**Process/Skill Questions**

• What is the rule of thirds?
• What are leading lines?
• When and why should a videographer use these techniques?

**Common Career Technical Core**

**AR-AV3**
Demonstrate technical support skills for audio, video and/or film productions.

**ITEEA National Standards**

17. Information and Communication Technologies
Task Number 60

Demonstrate camera techniques.

Definition

Demonstration should include

- adjusting and setting white balance
- setting camera for light level
- cropping for the selected format
- adjusting for safe-title zone
- blocking a variety of camera positions
- applying a variety of camera angles
- demonstrating basic camera movements
- framing an interview, using head room, lead room, and room for a super.

Process/Skill Questions

- What is head room? Lead room? Super?
- How does framing affect the appearance of a video broadcast?
- In which direction should the interviewed subject look? At which angle are they traditionally recorded?

Common Career Technical Core

AR-AV2
Demonstrate the use of basic tools and equipment used in audio, video and film production.

ITEEA National Standards

11. Apply the Design Processes
Production: Using Video Production Equipment

Task Number 61

Identify the types and essential parts of video cameras.

Definition

Identification should include

- pre-roll
- viewfinder
- battery
- focus
- lens
- comparison of professional and consumer cameras.

Process/Skill Questions

- What is the purpose of a CCD (charged-coupled device) in video cameras?
- What maintenance does a video camera require?
- What are the emerging video camera trends?

Common Career Technical Core
Task Number 62

Demonstrate situational awareness.

Definition

Demonstration should include finding solutions to address variations in the following conditions:

- Lighting
- Shot composition
- Elements out of production control (e.g., weather, nature, people, natural sound)
- Safety (i.e., location management)

Process/Skill Questions

- What is one of the challenges when shooting a sporting event, such as a football game?
- How can background crowds affect location footage when shooting a news story?
- What are examples of people who collect footage in dangerous situations?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

TSA Competitive Events
Task Number 63

Identify microphones and their applications.

Definition

Identification should include a list of various types and applications of microphones used in the industry.

Process/Skill Questions

• What maintenance does a microphone require?
• What are the different types of microphones?
• What are the emerging trends in microphones?
• What are the recording conditions that would cause you to select one type of microphone over another?

Common Career Technical Core

AR-AV2
Demonstrate the use of basic tools and equipment used in audio, video and film production.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems
17. Information and Communication Technologies
3. The Relationships Among Technologies and the Connections Between Technology and Other Fields

TSA Competitive Events

Digital Video Production

Scientific and Technical Visualization (SciVis)

Webmaster
Task Number 64

Identify the operating procedures for essential production equipment.

Definition

Identification should include the basic operating procedures for the following:

- Audio mixer
- Teleprompter or cue cards
- Video switcher
- Character generator (CG)
- Chromakey
- Tripod
- Steady cam
- Dolly
- Boom
- Jib or crane

Process/Skill Questions

- Why is it important to balance the lighting of a chromakey?
- How would you check your equipment prior to filming?
- What are the advantages of using a tripod?

Common Career Technical Core

AR-AV2
Demonstrate the use of basic tools and equipment used in audio, video and film production.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production

Task Number 65
Create full-screen graphics and boxes, using a graphics generator or computer-based graphics program.

Definition

Creation should include full screens and boxes, used to add visual appeal.

Process/Skill Questions

- What equipment is needed to create full-screen graphics and boxes?
- How is a chromakey used?
- When should boxes be used in a video?
- Who determines the content of a full-screen box in a video?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems
17. Information and Communication Technologies

TSA Competitive Events

Digital Video Production
Scientific and Technical Visualization (SciVis)
Webmaster

Task Number 66

Apply various lighting instruments and lighting techniques.

Definition

Application should include
• demonstrating a basic three-point lighting setup
• identifying lighting techniques and conditions that warrant their use
• choosing the lighting technique that suits the production's overall concept or conditions.

Process/Skill Questions

• What are the different lighting instruments used in production?
• How are the different lighting instruments used?
• What maintenance is required for lighting instruments?

Common Career Technical Core

AR-AV2
Demonstrate the use of basic tools and equipment used in audio, video and film production.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems
17. Information and Communication Technologies

TSA Competitive Events

Digital Video Production
Scientific and Technical Visualization (SciVis)
Webmaster

Task Number 67

Produce a video.

Definition

Production should include taking a video project through the phases/stages of

• preproduction
• production
• postproduction.

Process/Skill Questions
• How does each phase of video production affect the final outcome?
• How do the three phases of video production relate to writing a research paper (i.e., English composition) or completing a science project (i.e., the scientific method)?
• How can preproduction affect postproduction?
• How does the intended target audience influence production decisions?
• In the postproduction phase, what might the client ask to see?
• What might the client ask to see during a progress-check meeting?

Common Career Technical Core

AR-AV4
Design an audio, video and/or film production.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

17. Information and Communication Technologies

TSA Competitive Events

Digital Video Production

On Demand Video

Task Number 68

Define time code.

Definition

Definition of time code should include

• describing how frame and time code relate to the Society of Motion Picture and Television Engineers (SMPTE)
Process/Skill Questions

- What is the format of a time code?
- What is a clip?
- How is time code used in the editing process?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production

Task Number 69

Edit video, using software-based editing equipment.

Definition

Editing should include

- an analysis of raw footage
- a modification of raw footage
- a comparison of video in progress to original storyboard and script.

Process/Skill Questions

- How can software-based editing programs save money?
- What are some types of software-based editing systems?
- What is nondestructive editing?
Task Number 70

Demonstrate file-management techniques.

Definition

Demonstration should include

- labeling, moving, copying, or modifying files in a logical, efficient fashion
- describing digital storage and transfer and scene/clip logging.

Process/Skill Questions

- What are the costs associated with linear versus non-linear editing equipment?
- How many video and audio channels are available on each editing system?
- What are the advantages and disadvantages of each?
- What are the differences between analog and digital recordings?
- How can poor file management hinder the production?
- How does file management apply to everyday life?
- What are the consequences of having a poor logging system?
- How does clip logging compare or contrast with cleaning your locker?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production
Task Number 71

Apply basic audio levels, overmodulation, and mixing techniques.

Definition

Application should include

- using a variety of audio elements: natural sound, narration, sound effects, and music
- mixing by editing audio tracks independently.

Process/Skill Questions

- How does sound affect the overall coherency of a production?
- When editing multiple audio tracks, how are the levels of each determined?
- What are some problems associated with recording sound?
- What is the purpose of a voice-over?
- What is overmodulation?

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

Task Number 72

Edit a simple multi-track, mixed-media sequence.
Definition

Editing a simple sequence should include arranging a combination of shots in a logical order to tell a story.

Process/Skill Questions

- What is an edit log?
- Why is an edit log useful?
- What factors determine the sequence of shots?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production

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Task Number 73

Apply basic video effects and transitions.

Definition

Application should demonstrate the proper pacing and timing of transitions, using the following video effects:

- Dissolves
- Fades
- Wipes
- Motion

Process/Skill Questions

- In what situations should editing effects be added? Avoided?
• What equipment or software can be used to produce editing effects?
• How do editing effects add to the overall appeal of the production?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production

Postproduction: Mastering the Video

Task Number 74

Demonstrate file compression techniques for various distribution methods.

Definition

Demonstration should include

• digital file compression/decompression on codecs
• compression for various output (e.g., web, mobile devices, DVD, broadcast).

Process/Skill Questions

• What is the universal compression method for the web?
• Why is compression used?
• What are the negative effects of compression?
Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production

Task Number 75

Critique video productions.

Definition

Critiques should include a comparison of writing, filming, and editing techniques and provide an opportunity for exploration and growth. Critiques should be completed for self and peers and include

- positive and negative comments on aspects of the project
- suggestions for improvement
- instructional benefits
- teamwork (i.e., collaboration, communication)
- constructive criticism
- reflection on the process and evolution of the project.

Process/Skill Questions

- How might a good production influence an audience?
- What is the difference between critiquing and criticizing?
- What might happen if you did not critique your own work?
- What should occur during and after a critique?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.
ITEEA National Standards

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies

TSA Competitive Events

Digital Video Production

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Task Number 76

Analyze final audio enhancements.

Definition

Analysis should include

- setting levels
- adjusting gain
- panning
- using various listening methods
- optimizing audio levels for distribution.

Process/Skill Questions

- What are the negative effects of an unwanted noise?
- What is the difference between a live recording and a studio-enhanced recording?
- When might it be important to include natural sound?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

13. Assess the Impact of Products and Systems

17. Information and Communication Technologies
Task Number 77

Assemble a final video reel or portfolio.

Definition

Assembly of a compilation of parts of a greater whole to demonstrate specific skills, including

- full documentation for copyright privileges (e.g., release forms, copyright for music and images used)
- final credits
- script and storyboard shot list.

Process/Skill Questions

- Why is it important to document copyrighted work?
- Who might request a copy of your portfolio reel?
- What is the difference between a portfolio reel and a resume?

Common Career Technical Core

AR-AV3
Demonstrate technical support skills for audio, video and/or film productions.

ITEEA National Standards

12. Use and Maintain Technological Products and Systems

TSA Competitive Events

Digital Video Production

SOL Correlation by Task
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<tr>
<th></th>
<th>Task Description</th>
<th>Required Reading</th>
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| 39 | Research the development of broadcasting from early radio to present-day television and broadband. | English: 10.5, 10.8, 11.5, 11.8, 12.5, 12.8  
History and Social Science: VUS.10,WHII.9 |
| 40 | Describe the function, role, and influence of video media on society. | English: 10.2, 11.2, 12.2  
History and Social Science: VUS.8, VUS.9, VUS.10, VUS.11, VUS.12, VUS.13, VUS.14, WHII.9, WHII.10, WHII.11, WHII.12, WHII.13, WHII.14 |
| 41 | Analyze the expanding media landscape, the top media delivery providers, and the effects on media production and consumer habits. |  |
| 42 | Evaluate the laws and ethical concerns affecting video media. | English: 10.5, 10.8, 11.5, 11.8, 12.5, 12.8  
History and Social Science: GOVT.9,GOVT.15 |
| 43 | Identify various video formats and their characteristics. |  |
| 44 | Compare the physical compositions of various recording media. |  |
| 45 | Compare international broadcast standards. | English: 10.5, 10.8, 11.5, 11.8, 12.5, 12.8  
History and Social Science: GOVT.9,GOVT.12,GOVT.15 |
| 46 | Analyze the format, components, and composition techniques in a video storyboard and script. | English: 10.5, 11.5, 12.5 |
| 47 | Compose a video script. | English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7 |
| 48 | Write a public service announcement (PSA) storyboard and script. | English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7  
History and Social Science: GOVT.1,VUS.1 |
| 49 | Write a news story or long news feature script. | English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7  
History and Social Science: GOVT.1,VUS.1 |
| 50 | Write a commercial storyboard and script. | English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7 |
| 51 | Write a(n) instructional, biographical, documentary, or historical storyboard and script. | English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7  
History and Social Science: GOVT.1,VUS.1 |
<p>| 52 | Identify the objectives of a production. | English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7 |
| 53 | Create a production proposal (i.e., treatment). | English: 10.6, 10.7, 11.6, 11.7, 12.6, 12.7 |</p>
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<td>54</td>
<td>Prepare a production budget.</td>
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<td>Develop a production schedule.</td>
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<td>Define roles of production personnel and their tasks.</td>
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<td>Demonstrate production safety techniques.</td>
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<td>58</td>
<td>Identify video production commands and terminology.</td>
<td>English: 10.5, 11.5, 12.5</td>
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<td>59</td>
<td>Demonstrate video production commands and terminology.</td>
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<td>60</td>
<td>Demonstrate camera techniques.</td>
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<td>61</td>
<td>Identify the types and essential parts of video cameras.</td>
<td>English: 10.2, 11.2, 12.2</td>
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<td>62</td>
<td>Demonstrate situational awareness.</td>
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<td>Define time code.</td>
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<td>77</td>
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<td>English: 10.5, 11.5, 12.5</td>
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**Entrepreneurship Infusion Units**

Entrepreneurship Infusion Units may be used to help students achieve additional, focused competencies and enhance the validated tasks/competencies related to identifying and starting a new business venture. Because the unit is a complement to certain designated courses and is not mandatory, all tasks/competencies are marked “optional.”
Appendix: Credentials, Course Sequences, and Career Cluster Information

Industry Credentials: Only apply to 36-week courses

- College and Work Readiness Assessment (CWRA+)
- Digital Video Editor (DVE) Examination
- National Career Readiness Certificate Assessment
- Workplace Readiness Skills for the Commonwealth Examination

Concentration sequences: *A combination of this course and those below, equivalent to two 36-week courses, is a concentration sequence. Students wishing to complete a specialization may take additional courses based on their career pathways. A program completer is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program.*

- Communication Systems (8415/36 weeks)
- Communication Systems (8418/18 weeks)
- Digital Visualization (8459/36 weeks)
- Imaging Technology (8474/18 weeks)
- Imaging Technology (8455/36 weeks)

Career Cluster: Arts, Audio/Video Technology and Communications

<table>
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<th>Pathway</th>
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<td>Audio and Video Equipment Technician</td>
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<tr>
<td></td>
<td>Audio-Video Designer, Engineer Editor</td>
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<td></td>
<td>Multimedia Artist, Animator</td>
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<td></td>
<td>Sound Engineering Technician</td>
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<td>Journalism and Broadcasting</td>
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<td>Technical Director</td>
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<td>Video, Film Editor</td>
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<td>Media Planner, Buyer</td>
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