

# TELEVISION (VIDEO) PRODUCTION



## PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of television/video production.

First, download and review the General Regulations at: <http://updates.skillsusa.org>.

## CLOTHING REQUIREMENTS

### Class E: Contest specific — Business Casual

**For men:** Official SkillsUSA white polo shirt, black dress slacks, black socks, black leather shoes.

**For women:** Official SkillsUSA white polo shirt with black dress skirt (knee-length) or black slacks; black socks or black or skin-tone seamless hose; black leather dress shoes.

These regulations refer to clothing items that are pictured and described at: [www.skillsusastore.org](http://www.skillsusastore.org). If you have questions about clothing or other logo items, call 800-401-1560 or 703-956-3723.

**Note:** Contestants must wear their official contest clothing to the contest orientation meeting.

## ELIGIBILITY

Open to a team of two active SkillsUSA members enrolled in a career and technical education (CTE) program with video production as the occupational objective.

## EQUIPMENT AND MATERIALS

1. Supplied by the national technical committee: facilities, USB thumb drive for each team, music (see more detail about music below)
2. Supplied by the contestants:
  - a. A camera system capable of recording video and outputting video. Submissions must be one of the following: Quicktime (.mov) file,

H.264, or MPEG-2. If using Quicktime, it must be compressed using either the H.264 or MPEG-2 codec.

- Aspect Ratios: 4:3 (4x3) or 16:9 (16x9)
- Frame Rates: 24fps, 29.97fps, or 30fps.
- Scanning: Progressive or Interlaced
- Resolution: 480 (SD) formats, and 720,1080 (HD) formats are acceptable up to 30fps.
- Codecs: H.264 or MPEG-2

Videos will be exported as files and transferred to USB thumb drive media for submission. Audio and video must be in the same file; submissions with separate audio and video files cannot be accepted.

*Note:* Contestants may shoot (record) in any format/frame rate/resolution desired, but the final project to be turned in must follow the specs outlined above.

- b. One nonlinear editing system (multiple computers are not allowed)
- c. Microphone (wired and/or wireless)
- d. Batteries and power supply/charger for camera
- e. Critical requirement: The recording media for your system *should be new and unwrapped — still in its package*. Exception: P2 cards may be previously opened. (Any previously opened media must be verified by contest staff.)
- f. 20' AC extension cord
- g. Multiple outlet power strip
- h. Camera support system (tripod, monopod, shoulder mount, sliders, steadicam, etc. are all allowed; dollies, jibs/cranes, drones, however, are not permitted.) Our goal is to create as little a "footprint" as possible while shooting because of safety and traffic flow concerns.
- i. Headphone splitters, if desired, must be supplied by contestants.
- j. The contest coordinators may provide a selection of music freely available for contest use. If contestants want to bring their own music beds/libraries, then a written copyright permission letter

from the copyright holder must be submitted with entry. A blanket letter from a music library may be used. In lieu of a letter, a copy of the receipt for the purchase or lease of the library may be submitted. *Videos containing music not properly licensed will result in severe point reduction.*

*Note:* Contestants may also create their own music during post-production.

- k. No. 2 pencil will be needed for the orientation meeting to complete Scantron test.
- l. All competitors must create a one-page résumé and submit a hard copy to the technical committee chair at orientation. Failure to do so can result in a 10-point penalty. This contest requires a hard copy of your résumé as part of the actual contest.
- m. Contestants may use an on-camera (battery or camera-powered) light, but we cannot allow lights that require wall power or light stands.
- n. Any software editing/compositing/mixing system may be used, but no third-party templates may be used.
- o. No stock photography, no stock video, no stock animation or graphics packages are allowed.
- p. Sound effects and sound effects libraries may be used.

**Note:** Check the Contest Guidelines and/or the updates page on the SkillsUSA website at <http://updates.skillsusa.org>.

### **Safety Requirements**

Both the instructor and the contestant certify by agreeing to enter this contest that the contestant has received instructions and has satisfactorily passed an examination on the safe use of tripods and other mounts (if used). They also certify that the equipment has been thoroughly inspected and is in safe working condition. Further, they agree that SkillsUSA Inc., the SkillsUSA Championships technical committees and judges are released from all responsibility relating to personal injuries resulting from its use. Contestants will be removed from competition if proper training has not been provided and/or they are using the equipment in an unsafe manner.

### **SCOPE OF THE CONTEST**

The contest is defined by industry standards as set by the current industry technical standards. The contest will be divided into three portions: a résumé, a written exam and a video assignment to be completed in teams of two that will assess knowledge in industry standards.

#### **Knowledge Performance**

The contest will include a written exam to be taken as a team covering basic video knowledge.

#### **Skill Performance**

The contest will include a video assignment to be completed by a team of two student members from the same school and same division. The assignment will consist of the following:

1. A video that conveys the assigned theme/objective that will appeal to the indicated target audience (demographic)
2. Contestants are to edit a 60-second video production (penalties will be assessed for video projects under/over 60 seconds)
3. The completed video production must convey an adequate representation of the subject or theme
4. Designated time periods will be provided for recording and editing
5. Emphasis will be placed on: professional production of the video by industry standards, quality of audio and video, and conveyance of theme to the viewer (target audience)

All teams will submit projects on a SkillsUSA provided USB thumb drive or as a computer file using a CODEC specified during the contest. Contestants will demonstrate their ability to perform jobs or skills selected from the following list of competencies as determined by the SkillsUSA Championships technical committee.

## Standards and Competencies

### TV 1.0 — Apply the knowledge and skills necessary to describe the production overview

- 1.1 Describe video production careers
- 1.2 Explain production overview
- 1.3 Complete program proposal and treatment for a production
- 1.4 Explain the three production steps
  - 1.4.1 Explain pre-production
  - 1.4.2 Define the production stage
  - 1.4.3 Explain the post-production step
- 1.5 Complete storyboards for a production
- 1.6 Define scriptwriting guidelines
- 1.7 Explain costing out a production
- 1.8 Define world video standards
- 1.9 Define HDTV standards

### TV 2.0 — Implement the knowledge needed to describe how television works, video quality and color

- 2.1 Describe fields and frames
- 2.2 Define interlaced and progressive scanning
- 2.3 Describe analog and digital signals
- 2.4 Describe component and composite video signals
- 2.5 Demonstrate use of waveform monitor and vectorscope
- 2.6 Describe principles of color

### TV 3.0 — Apply the knowledge needed to describe and demonstrate lens operation and control

- 3.1 Describe the type of lenses
- 3.2 Define angle of view
- 3.3 Describe zoom ratio
- 3.4 Demonstrate f-stops iris
- 3.5 Demonstrate control of depth of field
- 3.6 Illustrate focusing/follow focus/rack focus/macro focus
- 3.7 Explain the application of filters
- 3.8 Explain image stabilization

### TV 4.0 — Apply the knowledge and skills necessary to describe and demonstrate camera operation and control

- 4.1 Define video resolution
- 4.2 Describe and demonstrate camera mounts and tripod use
- 4.3 Operate camera pan heads
- 4.4 Demonstrate basic camera moves (i.e., pan/tilt/dolly/truck/pedestal)

- 4.5 Illustrate black balancing and white balancing
- 4.6 Describe shutter speed
- 4.7 Demonstrate control of exposure through the use of f-stops
- 4.8 Explain frame rate
- 4.9 Demonstrate use of camera viewfinder
- 4.10 Describe safe area

### TV 5.0 — Implement the skills and knowledge needed for describing and demonstrating composition

- 5.1 Describe form vs. content
- 5.2 Demonstrate insert and cutaway shots
- 5.3 Describe static composition
- 5.4 Describe dynamic composition
- 5.5 Define single center of interest
- 5.6 Describe shifting the center of interest
- 5.7 Demonstrate leading the subject
- 5.8 Describe the Rule of Thirds
- 5.9 Define maintaining tonal balance
- 5.10 Define balance of mass
- 5.11 Demonstrate frame central subject matter
- 5.12 Define controlling the number of prime objects

### TV 6.0 — Apply the knowledge and skills needed to describe and demonstrate video lighting

- 6.1 Describe hard and soft lighting
- 6.2 Define color temperature
- 6.3 Demonstrate intensity control through varying distance
- 6.4 Identify lighting instruments
- 6.5 Identify attachments to lighting instruments
- 6.6 Demonstrate three-point lighting (i.e., key/fill/back light)
- 6.7 Describe lighting ratios
- 6.8 Describe back light intensity
- 6.9 Describe subject-to-background distance
- 6.10 Describe area lighting
- 6.11 Apply the uses of existing (natural) light
- 6.12 Demonstrate drawing of a light plot
- 6.13 Identify lighting controls
- 6.14 Calculate on-location power needs

### TV 7.0 — Implement the skills and knowledge needed to describe and demonstrate audio

- 7.1 Describe the frequency-loudness relationship
- 7.2 Define room acoustics
- 7.3 Differentiate major microphone designs
- 7.4 Describe directional characteristics

- 7.5 Define handheld and personal microphones
- 7.6 Position microphones
- 7.7 Identify audio connectors
- 7.8 Demonstrate positioning of microphone cables
- 7.9 Describe types and uses of wireless microphones
- 7.10 Describe phase cancellation
- 7.11 Describe methods of creating the stereo effect
- 7.12 Describe digital audio
- 7.13 Describe analog audio
- 7.14 Demonstrate operation of audio mixer controls
- 7.15 Describe issues of using audio from a PA system
- 7.16 Describe production communication systems

**TV 8.0 — Apply the knowledge and skills needed to describe and demonstrate video recording media**

- 8.1 Describe the videotape recording process
- 8.2 Describe hard drive-based recording
- 8.3 Describe disk-based camcorders
- 8.4 Define solid state memory storage
- 8.5 Describe video servers
- 8.6 Describe consumer video formats
- 8.7 Define digital compression
  - 8.7.1 Describe MPEG-2
  - 8.7.2 Describe MPEG-4
  - 8.7.3 Describe JPEG
- 8.8 List professional video formats

**TV 9.0 — Apply the knowledge and skills needed to describe and demonstrate video editing**

- 9.1 Describe continuity editing
- 9.2 Demonstrate continuity techniques
- 9.3 Demonstrate cutaways
- 9.4 Define relational and thematic editing
- 9.5 Demonstrate bridging jumps in action
- 9.6 Demonstrate bridging interview edits
- 9.7 Illustrate shooting angles
- 9.8 Describe or demonstrate audio continuity
- 9.9 Demonstrate maintaining consistency in action and detail
- 9.10 Demonstrate operation of software-based editors
- 9.11 Use linear and non-linear editing systems
- 9.12 Explain time-code
- 9.13 Define on-line and off-line editing

**TV 10.0 — Apply the knowledge and skills needed to describe and demonstrate graphics**

- 10.1 Describe titling
- 10.2 Describe character generator

**TV 11.0 — Apply the knowledge and skills needed to describe and demonstrate location production**

- 11.1 Complete a location survey
- 11.2 Define camera placement
- 11.3 Illustrate microphone placement for on-location audio
- 11.4 Demonstrate on-location lighting techniques
- 11.5 Illustrate on-location production communication
- 11.6 Define multiple-camera production
- 11.7 Define single-camera production
- 11.8 Define film-style dramatic production

**Committee Identified Academic Skills**

The technical committee has identified that the following academic skills are embedded in this contest.

**Math Skills**

- Measure angles
- Apply transformations (rotate or turn, reflect or flip, translate or slide, and dilate or scale) to geometric figures
- Find slope of a line

**Science Skills**

- Use knowledge of mechanical, chemical and electrical energy
- Use knowledge of heat, light and sound energy
- Use knowledge of temperature scales, heat and heat transfer
- Use knowledge of sound and technological applications of sound waves
- Use knowledge of the nature and technological applications of light
- Use knowledge of static electricity, current electricity and circuits

**Language Arts Skills**

- Demonstrate use of such verbal communication skills as word choice, pitch, feeling, tone and voice
- Analyze mass media messages

## Connections to National Standards

State-level academic curriculum specialists identified the following connections to national academic standards.

### Math Standards

- Numbers and operations
- Geometry
- Measurement
- Data analysis and probability
- Problem solving
- Communication
- Connections
- Representation

*Source:* NCTM Principles and Standards for School Mathematics. For more information, visit: <http://www.nctm.org>.

### Science Standards

- Understands the structure and properties of matter
- Understands the sources and properties of energy
- Understands forces and motion
- Understands the nature of scientific inquiry
- Understands the scientific enterprise

*Source:* McREL compendium of national science standards. To view and search the compendium, visit: <http://www2.mcrel.org/compendium/browse.asp>.

### Language Arts Standards

- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes
- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes
- Students conduct research on issues and interests by generating ideas and questions and by posing problems. They gather, evaluate and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience

- Students use spoken, written and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion and the exchange of information)

*Source:* IRA/NCTE Standards for the English Language Arts. To view the standards, visit: [www.ncte.org/standards](http://www.ncte.org/standards).