



TELEVISION (VIDEO) PRODUCTION



SkillsUSA Championships Technical Standards

PURPOSE

To evaluate each competitor'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>.

ELIGIBILITY (TEAM OF TWO)

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.

CLOTHING REQUIREMENTS

Class E: Competition Specific — Business Casual

- Official SkillsUSA white polo shirt
- Black dress slacks or black dress skirt (knee-length minimum)
- Black closed-toe dress shoes

Note: Wearing socks or hose is no longer required. If worn, socks must be black dress socks and hose must be either black or skin-tone and seamless/nonpattern.

These regulations refer to clothing items that are pictured and described at www.skillsusastore.org. If you have questions about clothing or other logo items, call 1-888-501-2183.

Note: Competitors must wear their official competition clothing to the competition orientation meeting.

EQUIPMENT AND MATERIALS

1. Supplied by the national technical committee:
 - a. Facilities
 - b. USB thumb drive for each team
 - c. Music (see more detail about music below).
2. Supplied by the competitors:
 - 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.
 - 1.) Aspect Ratios: 4:3 (4x3) or 16:9 (16x9)
 - 2.) Frame Rates: 24fps, 29.97fps or 30fps
 - 3.) Scanning: Progressive or Interlaced
 - 4.) Resolution: 480 (SD) formats, and 720,1080 (HD) formats are acceptable up to 30fps
 - 5.) Codecs: H.264 or MPEG-2

Note: 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:** Competitors 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 competition 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. However, 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 competitors.
 - j. The competition coordinators may provide a selection of music freely available for competition use. If competitors 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: Competitors may also create their own music during post-production.
 - k. No. 2 pencil will be needed for the orientation meeting to complete the Scantron test.
 - l. Competitors may use an on-camera (battery or camera-powered) light, but we cannot allow lights that require wall power or light stands.
 - m. Any software editing/compositing/ mixing system may be used, but no third-party templates may be used.

- n. No stock photography, no stock video, no stock animation or graphics packages are allowed.
- o. Sound effects and sound effects libraries may be used.
- p. All competitors must create a one-page resume. See “Resume Requirement” below for guidelines.

RESUME REQUIREMENT

Competitors must create a one-page resume to submit online. SkillsUSA national competitors should submit their resume by June 1. The link for resume submission will be published on <http://updates.skillsusa.org> on May 1. Failure to submit a resume will result in a 10-point penalty.

Your resume must be saved as a PDF file type using file name format of “Last Name_First Name.” For example, “Amanda Smith” would save her resume as **Smith_Amanda**. If you need assistance with saving your file as a PDF, visit [the Adobe website](#) for more information.

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

PROHIBITED DEVICES

Cell phones or other electronic devices not approved by a competition’s national technical committee are **NOT** allowed in the competition area. Please follow the guidelines in each technical standard for approved exceptions. Technical committee members may also approve exceptions onsite during the SkillsUSA Championships if deemed appropriate.

Penalties for Prohibited Devices

If a competitor’s electronic device makes noise or if the competitor is seen using it at any time during the competition, an official report will be documented for review by the SkillsUSA Championships director. If confirmed that the competitor used the device in a manner which compromised the integrity of the competition, the competitor’s scores may be canceled.

SAFETY REQUIREMENTS

Both the instructor and the competitor certify by agreeing to enter this competition that the competitor 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. Competitors 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 COMPETITION

The competition is defined by industry standards and will be divided into three portions: a resume, a written exam and a video assignment.

KNOWLEDGE PERFORMANCE

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

SKILL PERFORMANCE

The competition 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. Competitors 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 competition. Competitors 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 preproduction.
 - 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 script writing 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 (e.g., 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 a 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 a 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 distances.
- 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 backlight 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 timecode.
- 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.

TV 12.0 — SkillsUSA Framework

The SkillsUSA Framework is used to pinpoint the Essential Elements found in Personal Skills, Workplace Skills, and Technical Skills Grounded in Academics. Students will be expected to display or explain how they used some of these Essential Elements. Please reference the graphic above, as you may be scored on specific elements applied to your project. For more, visit: www.skillsusa.org/about/skillsusa-framework/.



COMMITTEE IDENTIFIED ACADEMIC SKILLS

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

Math Skills

- Measure angles.
- Apply transformations (rotate or turn, reflect or flip, translate or slide, and dilate or scale) to geometric figures.
- Find the 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: 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: 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.