

# DIGITAL CINEMA PRODUCTION



## PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in cinematography/short film production.

First, download and review the General Regulations at: [updates.skillsusa.org](http://updates.skillsusa.org).

## ELIGIBILITY

Open to all active SkillsUSA members enrolled in a program with filmmaking/video production as the occupational objective.

## CLOTHING REQUIREMENT

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

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

## EQUIPMENT AND MATERIALS

1. Supplied by contestant:
  - a. USB thumb drive with self-addressed envelope if you want it returned
  - b. DSLR or video cameras
  - c. Up to two computers to be used for editing and music composition
  - d. Copyright-free music or licensed music (must bring proof of license for each song or sound effect used)

- e. Optional equipment that may be used:
  1. Audio
    - Boom pole for microphones
    - Wireless microphones
    - Lavalier microphones
    - Multiple microphones
    - Shotgun microphone
    - Portable mixer
  2. Lighting
    - Reflectors
    - Camera-mounted lighting
    - Handheld lighting units
    - Hot lights (on stands)
    - LED lights (on stands)
  3. Camera
    - DSLR that shoots video
    - Video camera
    - Cellphone camera
    - 16x9 format
  4. Production equipment
    - Mono or tripods
    - Steadycam-type system
    - Sliders
    - Body mount straps
    - Dolly
    - Jib or crane
- f. All competitors must create a one-page résumé and submit a hard copy to the technical committee chair at orientation. Failure to do so will result in a 10-point penalty.

**Note:** Your contest may also require a hard copy of your résumé as part of the actual contest. Check the Contest Guidelines and/or the updates page on the SkillsUSA website: [updates.skillsusa.org](http://updates.skillsusa.org).

## SCOPE OF THE CONTEST

The contest is defined by the current industry technical standards.

The contest will be divided into four portions: a written exam that will assess knowledge in industry standards, a storyboard assignment to be completed in teams of two people, an interview with one or more judges and a short video (four-and-one-half to five minutes) that will be filmed and edited *on site* (meaning all work must be done between contest briefing and designated turn-in time).

All footage must be acquired after the contest has begun and must be filmed within the area specified by the field assignment.

## Knowledge Performance

The contest will include a written exam covering basic cinema knowledge. The team will complete the test together. The exam will be given on Thursday.

## Competition Schedule/Locations

1. **Preproduction, filming, editing:** 35 hours
2. **Interview:** 15 minutes
3. **Filming locations:** To be announced at the orientation

## Skill Performance

1. The contestants will submit a four-and-one-half to five minute video, which will be created and completed in its entirety at the national conference by a team of two students.
2. No preproduced video, photos, or stock footage is allowed.
3. The video will use a theme, single word or a simple phrase that will be given out at the contest orientation. Orientation attendance is mandatory.
4. Participants must turn in the finished video on their thumb drive in the required format to be announced during the orientation. The thumb drive must be submitted to the judges at the time and location specified during the orientation. If students want the thumb drive returned they must provide a postage-paid envelope.
5. The submission is to be a creative video piece. It is not in the form of a PSA, news story or promotional video.
7. The scoring rubric will include (but is not limited to) the following criteria:
  - a. Written exam
  - b. Overall creativity
  - c. Shot log/shot list
  - d. Script/storyboard
  - e. Camera techniques
  - f. Lighting
  - g. Audio elements
  - h. Titles
  - i. Editing (pacing and structure)
  - j. Interview and pitch of film

## Standards and Competencies

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

- 1.1 Describe cinema 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 Preproduction
  - 1.4.2 Production stage
  - 1.4.3 Postproduction
- 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

### DCP 2.0 — Implement the knowledge needed to describe the task of location scouting

### DCP 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 lenses
- 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

### DCP 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 exposure using f-stops
- 4.8 Explain frame rates
- 4.9 Demonstrate use of camera view finder

**DCP 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

**DCP 6.0 — Apply the knowledge and skills needed to describe and demonstrate cinema 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 lighting modifiers
- 6.6 Demonstrate three-point lighting (i.e., main, 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

**DCP 7.0 — Implement the skills and knowledge needed to describe and demonstrate audio**

- 7.1 Describe the frequency/loudness relationship
- 7.2 Define room tone
- 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

**DCP 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 Define digital compression
  - 8.7.1 Describe MPEG-2
  - 8.7.2 Describe MPEG-4
  - 8.7.3 Describe JPEG
- 8.7 List professional video formats

**DCP 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 online and offline editing

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

- 10.1 Describe titling
- 10.2 Describe character generator

**DCP 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

## Screening of Submissions

A number of the submissions may be screened following the debriefing on Friday. These will be the best videos submitted but will not be presented in a way as to reveal scores. Competition winners will be announced at the final awards ceremony.

## 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: [www2.mcrel.org/compendium/browse.asp](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).