



## **2019-2020 Regional Contest Catalog**

***Please read the introduction before  
reviewing specific contest information.***

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# INTRODUCTION

Dear Advisors and Students,

We are so glad you will be participating in the SkillsUSA regional competitive events. These contests are qualifying events for the SkillsUSA California State Leadership and Skill Conference. Included in this catalog are contest descriptions and guidelines to help contestants prepare. Always refer to the national technical standards for additional information. For state only contests, guidelines posted are as prepared by the technical committee.

*If you have any questions about a contest guideline, please contact the Competitive Events Coordinator at [compcoordinator@skillsusaca.org](mailto:compcoordinator@skillsusaca.org).*

## Eligibility for Regional Events

- Open to all SkillsUSA members registered and submitted by 11/22/19.
- Chapters must complete level one of the Chapters of Excellence Program by 11/22/19.
  - A chapter that registers contestants for Regional Leadership and Skill Conference and does NOT complete the level one of CEP will be changed to observers. No refund will be provided. For more information about CEP visit <https://www.skillsusa.org/programs/chapter-excellence-program/>

## Contest Attire

- SkillsUSA attire is indicated in each contest guideline. Refer to the National Technical Standards and clothing requirements.
- SkillsUSA branded attire is not required at the regional level. The style and type of attire should match the standards as indicated. For example, if a contestant wears the attire below without a SkillsUSA logo at the regional contest, they will not be penalized. This applies to class B through class I. Class A attire is the Official Dress attire of SkillsUSA.



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To access the National Technical Standards, you will need to [login to your SkillsUSA account](#) and click on “Access Tech Standards” on the home page. Look at the screenshot below for the yellow arrow indicating the link.

Main Membership Conference Help Logout

tom.vessella@skillsusa.org  
SkillsUSA

Membership Registration will open August 5th for the 2019-2020 school year. Hope you had a wonderful summer!  
Check your state dues and deadlines here: <http://www.skillsusa.org/membership-resources/advisors/dues-and-deadlines/>

Membership

Conference

Need Help with Registration?  
Call 844-875-4557 between 8 a.m.–5 p.m. EST Monday, Wednesday and Friday, and 11 a.m.–7 p.m. EST Tuesday and Thursday.

Membership Snapshot For  
SkillsUSA California State Office (Reg/Dist: 4)

Conference Snapshot For  
SkillsUSA California State Office (Reg/Dist: 4)  
Region 6 Fall Advisor/Student Leadership Conference

Submitted

NOT Submitted  
Submitted

\* Unsubmitted Members have been entered onto the site but NOT YET SUBMITTED to the National Office, and therefore are not considered SkillsUSA Members and are not eligible to compete.

**Check out our new feature for Students to Self-Register by Cell Phone! \*\***  
[Click here for details!](#)  
[Click for a Word document to update and share with students](#)  
\*\* = Available in participating states

Chapter Excellence Program

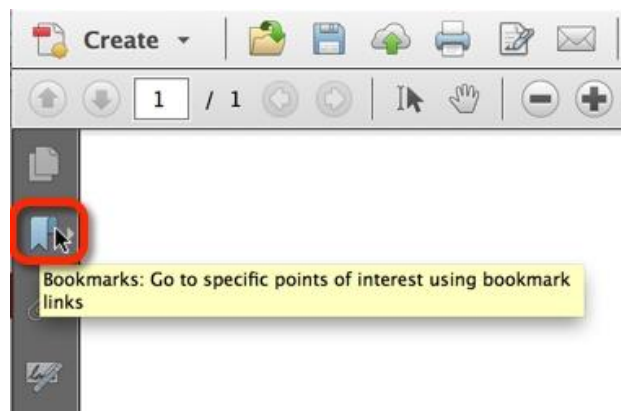
SkillsUSA Career Essentials: Foundations  
Career Essentials: Foundations

Access SkillsUSA Championships Technical Standards

jump into STEM  
Jump Into STEM!

CLICK HERE

**Use the Bookmarks tab in your PDF reader to go directly to each contest.**



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## 2019-2020 SkillsUSA Theme



**I'M READY**

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### 3-D VISUALIZATION & ANIMATION

#### Contest Description

Contestants will be modeling and displaying 3 related objects. These objects will be created using modifiers, extruding, lathing, and compound objects through Boolean orthographic views in Story-Boards.

#### Regional Competition

- Students are evaluated on their technical knowledge, production skills and creative abilities – including visual development and a 6-panel storyboard within a 3-hour time period. Be sure to allow time for rendering and creating the complementary props within the 3-hour time period.
- In addition, contestants will need to create and submit three high quality still renderings at a resolution of 1920 x 1080 pixels in true color (24 or 32-bit color depth) to show the quality of textures and lighting and a 10-second video.

#### Knowledge Performance

The contest may include a written exam assessing technical knowledge, production skills, and creative/artistic abilities.

#### Contest Guidelines:

- The three models will be rendered in an appropriate viewport with a  $\frac{3}{4}$  view of the produced scene.
- Complimentary props will be needed to complete the scene, determined by the judge and written scenario.
- You will be using a three-point and target lighting setup to illuminate your scene and environment.
- This is a two-person team event.

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## **Materials Supplied by SkillsUSA CA**

1. Workstation with table space for two personal computers, two chairs, and space for developing the project.
2. Access to a 110-volt electrical outlet

## **Student Materials List**

1. Two complete graphics stations including personal computers, monitors, and input devices.
2. Contestants will bring the software of their choice. The software must be capable of producing both 2-D and 3-D renderings and animation.
3. USB drives with acceptable capacity to hold the stills and animations that are to be turned in for judging.
4. One multiple-outlet surge protector.
5. Paper and art supplies for storyboard development to include colored pencils, two 11" x 17" tablets, chalk, glue stick, charcoal, and regular pencils.
6. Contestants may bring published reference books and software manuals.
7. All competitors must create a one-page resume and submit a hard copy to the judges.

## **Clothing Requirement**

### **Class E: Contest specific - Business Casual**

#### [Clothing Requirements 2020](#)

*Note: Check the National Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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### 20-Second Elevator Story

#### Contest Description

Contestants will have 20 seconds to respond to the question, ***“What is SkillsUSA?”*** Contestants should also incorporate the current theme in their presentation. The 2019-2020 theme is: ***“Champions at Work, I’m Ready.”***

#### Regional Competition

Approximately 1 minute for each contestant

- There is no written knowledge test required in this contest
- This contest accesses public speaking skills through the delivery of a 20-second speech

#### Contest Guidelines

Contestants should prepare for the 20 Second Elevator by developing the following competencies:

1. Make a formal introduction.
2. Understand and practice elements of informal conversation.
3. Prepare for a presentation on a given topic for a specific time.
4. Demonstrate an effective delivery style.
5. Demonstrate good platform deportment and personal confidence.
6. Organize speech material in a logical and coherent manner.
7. Effectively vary voice in pitch, tone, tempo, and volume.
8. Contestants will use no manuscripts, note cards or any other written material.

#### Materials Supplied by SkillsUSA CA

Timer/Stopwatch

All information for judges

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### **Student Materials List**

1. Resume (Printed)
2. SkillsUSA Official Dress

### **Clothing Requirements**

#### **Class A: Contest Specific - SkillsUSA Official Attire**

#### [Clothing Requirements 2020](#)

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### ACTION SKILLS

#### Contest Description

Contestants are to give a 5-7 minute demonstration of the skill area they are training in. Contestants are encouraged to use examples, experiments, displays or any other practical visual aid to help better explain their presentation.

#### Regional Competition

Duration: 5-7 minutes

#### Scoring Guidelines:

Judging Categories	Points
Introduction	100
Organization of demonstration	200
Detailed & Complete Explanations	350
Closing	100
Interest in demonstration	250

#### Judging Penalties:

Contestants can be penalized for:

1. Non-official dress
2. Presentation time (over or under)
3. Safety violations
4. Time for setup/takedown
5. Rule violation

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6. No resume

### **Materials Supplied by SkillsUSA CA**

1. Timekeeper
2. Stopwatches

### **Knowledge Performance**

There is no written knowledge test required in this contest.

### **Student Materials List**

1. Resume- all contestants must create a one-page resume and submit a hard copy
2. All equipment and materials needed for the demonstration.

### **Clothing Requirements**

**Class A: Contest specific - Official SkillsUSA Attire**

### **[Clothing Classifications 2020](#)**

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### **ADDITIVE MANUFACTURING**

#### **Contest Description**

This contest is a team event comprised of two contestants.

The contest will consist of:

1. 3D design that demonstrates a thoughtful design for additive manufacturing and solves a given problem under given constraints
2. 3D “mini-challenge” designed to quickly test the contestant’s knowledge of 3D printing

#### **Regional Competition**

1. Engineering Notebook (Engineering notebook guidelines below)
2. Print out of 3D design files, including print history
3. Printed part
4. Presentation of design

#### **Contest Guidelines**

1. Focus on the use of moving parts, model and support material usage, build size, print time and functionality.
2. Moving parts that rotate freely must be part of the design.
3. The geometry of the design must be defined in a 3D computer design system capable of rendering files in STL and print format

#### ***3D Printed Design - Students must create a design that:***

1. Prints in less than 2 hours
2. A build volume of no greater than 2” x 2” x 2“
3. Uses more than 5” of build material
4. Uses no more than 2” amount of support material

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### *Engineering Notebook should:*

1. Be clearly labeled with contestant name(s), date and page # on each page
2. Begin with a problem statement
3. Include discovery and documentation of the approach to solving the problem
4. Include sketched design concepts with critical features labeled
5. Critical dimensions clearly labeled in a design sketch
6. Considerations for designing for FDM distinctly addressed (i.e. part strength, part orientation), especially including any expected risks during printing
7. Design decisions and alternatives are documented and evaluated thoughtfully

### **Knowledge Performance**

There will be a written exam for Additive Manufacturing

### **Items contestants are evaluated on:**

1. The team clearly describes their understanding of the problem to be solved
2. Design Process: good design logic is used for key design choices was intentional and well-communicated
3. The presentation is professional and well-rehearsed
4. Practical evaluation: Part functions the way team intended in 3 out of 3 tests

### **Materials Supplied by SkillsUSA CA**

1. 3D printer testing rig
2. Lumber (least 12" x 12" to secure the rig )

### **Student Materials List**

1. 3D design submitted by the required date
2. USB drive loaded with 3D design
3. Engineering notebook
4. Presentation
5. A hard copy of a one-page resume

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### **Clothing Requirements**

#### **Class E: Contest specific - Business Casual**

##### [Clothing Classifications](#)

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### ADVERTISING DESIGN

#### Contest Description

Tests technical skills and creative aptitude as though contestants worked for an advertising agency. In addition to a written test, competitors will re-create a given advertisement on the computer. Contestants also compete in a creative portion of the competition. The creative portion involves the application of creative thinking and the development of a design problem.

#### Regional Competition

Duration: 3-4 hours

1. Written Exam (30 mins)
2. Design Contest (2.5 hours)

#### Knowledge Skills

1. There will be a written exam that includes:
  - a. Design principles
  - b. Fonts & color theory
  - c. Software-specific techniques
  - d. File saving & extensions
  - e. Marketing & advertising principles

#### Skill Performance

Layout, drawing, and illustration skills are used, as well as their ability to create vibrant, effective designs using the computer.

The skill performance portion of the contest will be divided into two parts:

1. Design an existing advertisement
2. A design challenge

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### Contest Guidelines

1. Redesign of an existing advertisement using contest-supplied software
2. Design challenge to complete in the allotted time by hand and on computer
3. Three stages of the creative process must be followed:
  - Thumbnails
  - Roughs
  - Comprehensive stage
4. Contestants will not be allowed to use any reference materials that are not supplied by SkillsUSA
5. Internet may NOT be used at any time on any device
6. Contestants must use provided images during competition

### Scoring Guidelines:

Competitors are judged on their accuracy, proficiency with industry-standard software and ability to meet the given deadline

1. Logo (vector is preferred)
  - Appropriate look & feel for client/brand
  - Composition & balance
  - Appropriate font
  - Appropriate color(s)
  - Thumbnails are differentiated and show thought
2. Advertisement
  - Appropriate look & fee for client/brand
  - Composition & balance
  - Appropriate fonts
  - Appropriate colors
  - Strategic use of the logo
  - Thumbnails are differentiated and show thought
3. Technical
  - Dimensions
  - Color mode
  - Crops & bleeds
  - Usage of provided copy & imagery

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### 4. Sample projects #1 and #2

#### **Materials Supplied by SkillsUSA CA**

1. Required content (copy + imagery) for project
2. Appropriate workspace (including extension cords and surge protectors)
3. Timekeeper
4. Wifi access is not guaranteed

#### **Student Materials List**

1. Personal computer with licensed software
2. Paper and colored pencils for notes and required thumbnails

#### **Clothing Requirements**

##### **Class E: Contest-specific - Business Casual**

[Clothing Classifications 2020](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### AMERICAN SPIRIT

#### Contest Description

This is a notebook contest for teams of 3, documenting SkillsUSA chapters' community service, patriotism, citizenship, and promotion of career and technical education projects that demonstrate a belief in the American way of life and the purposes of SkillsUSA.

#### Regional Competition

This contest evaluates local chapter activities for community service, citizenship projects and those projects with patriotic overtones that demonstrate a belief in the American way of life.

#### Knowledge Skill

There is no written exam for this contest.

#### Contest Guidelines

1. Entries must be typed and submitted in an official three-ring SkillsUSA notebook or scrapbook.
2. The notebook/scrapbook will contain no more than 75 sheets of paper the size of the official SkillsUSA notebook or scrapbook.
3. Both surfaces of the 75 sheets may be filled for a *maximum* of 150 surfaces.
4. All competitors must create a one-page resume and submit a hard copy to the Coordinator or Judge.

#### Penalties

- 10 points per sheet of paper will be deducted for exceeding these maximums.
- A surface is only that material which can be pasted or glued to the basic notebook/scrapbook paper.

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- Any pockets, fold-out pages, multiple pages or similar features will count as additional surfaces and will be subject to penalty except where specifically stated otherwise.
- Pages may be plasticized without affecting the scores.
- Original copies of newspaper articles must be submitted.
- Photocopies of articles, letters or digital communications are not acceptable.
- Dates of articles must be in the article, letter, or digital communication or the date must be attached to the newspaper article, letter or digital communication (digital communication should contain the URL link as well).

No complete names should be used anywhere in the book - first OR last names only.

#### **Documentation must include the following in this order:**

**Title Page:** Include the name of the chapter, name of chapter president, school name, school address and school telephone number, and a complete list of all credentials or certifications offered through the school's SkillsUSA pathway(s). The order should be as listed.

**Table of Contents:** (This should be Page 1.) The table of contents will follow the presented order list with page numbers. (It is better to itemize each section with page numbers for the item rather than a range of pages for the section.)

#### **Section I: Community Service**

1. A single project description
2. Indication of the applicable SkillsUSA Framework component (Personal Skills, Workplace Skills, Technical Skills Grounded in Academics) and Essential Elements for project
3. Objectives for the project
4. Evidence of planning for project
5. Methods of implementation
6. The number of members involved in the activity and the total membership (if the activity was done by a single pathway, use the pathway membership; however, if the entire chapter participated, use the total membership numbers)

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7. Letters (two or three) of recommendation or recognition
8. Photographs (at least three and no more than six)

### **Section II: Patriotism and Citizenship**

#### *Project description*

2. Indication of the applicable SkillsUSA Framework component (Personal Skills, Workplace Skills, Technical Skills Grounded in Academics) and Essential Elements for project
3. Objectives for the project
4. Evidence of planning
5. Methods of implementation
6. The number of members involved in the activity
7. Letters of recommendation or recognition
8. Photographs (at least three and no more than six)

### **Section III: Promotion of Career and Technical Education:**

#### *Project Description*

1. Indication of the applicable SkillsUSA Framework component (Personal Skills, Workplace Skills, Technical Skills Grounded in Academics) and Essential Elements for project
2. Objectives for the project
3. Evidence of planning for project
4. Methods of implementation
5. The number of members involved in an activity
6. Letters of recommendation or recognition
7. Photographs (at least three and no more than six)

**Letters of Recommendation/Recognition:** (three for each project — one from each category below)

1. Letter from a school administrator will be required for each project on school letterhead stationery with a signature and date.

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2. Letter from a business, organization or industry representative will be required for each project, on official stationery with a signature
3. Letter from local newspaper, radio station or TV station verifying that articles have been submitted and/or published to publicize the activity conducted by the SkillsUSA chapter.
4. Original copies of the newspaper articles must be submitted.
5. The date of the project must be within the article or attached to the article.
6. Photocopies of the articles are not acceptable.

### **Photographs:**

1. At least three and not more than six good photographs (digitally reproduced copies are acceptable for photographs) of each project must be submitted to show events as they were conducted. (A collage-type picture is acceptable but must be printed as a single item.)
2. Photos should be affixed in the scrapbook/notebook and identified.
3. Photographs should be labeled with a description of the event taking place. Names (use only the person's first or last name) of people in the photograph should be included.

### **4. Interview:**

1. An interview will be set up with one student designated by the advisor. Students will have an opportunity to explain how they approached various activities and how the project benefited their class. The interview will be used to help verify points awarded by the judges and to answer any questions they may have.
2. No PowerPoint presentations or visual aids other than the notebook may be referenced during the interview



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### **Materials Supplied by SkillsUSA CA**

List all the items that a student is expected to provide.

### **Student Materials List**

1. Resume
2. Official Dress
3. Notebook/Scrapbook

### **Clothing Requirements**

#### **Class A: SkillsUSA Attire**

#### [Clothing Classifications](#)

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### ARCHITECTURAL DRAFTING/DESIGN

**The following information may also apply to these contests:**

- Architectural Drafting (National contest)
- Technical Drafting (National contest)
- Architectural Design (State contest)
- Technical Design (State contest)
- Introductory Drafting A and B (State only)

#### **Contest Description**

Contestants will use their drafting skills to solve an architectural problem. The problem includes a written test, a hand sketch, and drawings EITHER computer-generated or board drafted. *If board drafting, please bring all the necessary equipment.* The contest tests the contestants' problem-solving abilities, not simply their CAD skills.

#### **Regional Competition**

3 Hours

The contest will assess skill performances by providing a hand sketch and or computer-generated problem that may be solved either board drafting or CAD.

INSTRUCTORS-please coordinate with your District's Information Technology Services regarding software licensing. Many District's IT store software licenses on a remote server that cannot be accessed when computers are removed from the District's network. This has been a common and stressful problem in years past when students arrive to set up their computers and cannot open or use their software program. We highly recommend setting up District computers offline prior to traveling to the Conference to verify software is accessible outside of the District network.

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### Contest Guidelines

1. Drafting competitors must be familiar with exporting/printing their work in a portable document format (PDF). Most software programs have an integral "Print to PDF" option or Adobe PDF driver loaded into their printer options. If not, there are several open-source PDF writer programs available for free online. We recommend the following:

Foxit Reader: <https://www.foxitsoftware.com/products/pdf-reader/>

CutePDF Writer: <http://www.cutepdf.com/products/cutepdf/writer.asp>

2. The students will be issued a flash drive on the day of the contest for saving their PDF files. The flash drives will be collected and only the PDF files on these will be used to plot the drawings. Students may use standard or customized title block for their drawings (all drawings will be printed on size 8.5 x 11 or 11 x 17 paper) but any references to school name, location, or students names must be deleted or their drawings will be disqualified. *Drawings must be anonymous for judging.*
3. Set-Up time for bringing in computers, manual drafting equipment, and advisor orientation is TBD. Students will be expected to leave their computers and drafting boards overnight. The room will be locked and secured until the next Morning.
4. Students competing in the Technical Drafting and Technical Design contests are expected to be familiar with new standard ASME- Y14.5-2009
5. All contestants must create a one-page resume and submit a hard copy to the Judges prior to the start of the contest.

### Knowledge Performance

This contest includes a written test assessing general knowledge of architecture and drafting.

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### Materials Supplied by SkillsUSA CA

1. Flat table space approximately 24"x72"
2. Chair
3. Two 110-volt electric outlets
4. Flash drive
5. Printer/plotter
6. Paper

### Materials List Supplied by the Student:

1. **Personal computer and software** - students may use any software to complete their contest if computers are not supplied at the host site.
2. Students using manual drafting tools are required to provide all their drafting equipment and vellum for the competition (3 sheets of 11 x 17). Vellums may have pre-printed title blocks on them but all references to school name, location, or student names must be deleted.
3. Computer-aided drafting software that is able to create 3D models
4. *Machinery's Handbook* or and three additional published reference books
5. 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.

### Clothing Requirements

#### Class E: Contest specific - Business Casual

[Clothing Classifications 2020](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### AUDIO PRODUCTION

#### Contest Description

This contest is open to active SkillsUSA members enrolled in Career and Technical Education (CTE) Audio/Radio Production programs. Teams of two students will produce (plan, write, voice, record, edit, render, etc.) a 5-minute radio production such as a PSA, NPR-style soundscape, sound-rich/NPR style news story, sound & interview only news story, etc. A: 30 Second Ad Spot will also be produced and inserted into the production. The completed production requires students to demonstrate their ability to plan a project that meets a specific prompt & run time; gather, edit and mix a variety of audio sources; and finally, render the completed project to a specified audio file. Contest entrants are required to submit an individually personalized resume. No written test on Audio/Radio terminology will be given at the Regional level. **This is NOT a live event.**

#### Regional Competition

##### Important Notes for SkillsUSA CA Contestants

Please read the guidelines below for the Regional & State competitions and review the SkillsUSA requirements for student resumes. **SkillsUSA attire is required** and will be checked during interviews. Each team is responsible for bringing to the conference the team submission on a PC Formatted Flash-Drive marked with Team Number, all needed materials and personalized individual resume for the project in a Team Number labeled 3-Ring Binder. **No production equipment is needed on-site during this contest. This contest is completed in advance and delivered to the Regional Conference.**

*The contest prompt will be provided prior to Regional competition.*

**FAILURE TO COMPLY WITH CONTEST RULES & GUIDELINES WILL RESULT IN DISQUALIFICATION.**

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## Regional 2019-2020 Contest Catalog

All winners of the competition at the Regional level will be required to review and follow all SkillsUSA CA contest rules and standards.

### Documents

[Contest Considerations](#)- Regional (2020)

[Contest Guidelines](#) Regional (2020)

[Contest Score Sheet](#)

[Contest Example Forms](#)

[Contest Prompt](#)

### Materials Supplied by SkillsUSA CA

1. Theme and objective for the production
2. If necessary, transportation to and from “on scene” location.
3. Audio equipment, cables, and connectors outside of required contestant supplied equipment and editing, cables and connectors.

### Student Materials List

1. Portable digital audio recorder with removable recording media.
2. Microphone with the audio cable.
3. Method of importing digital audio from field recorder to the editing system.
4. Audio editing software/system (use of laptops is strongly encouraged).
5. Writing implements
6. USB flash drive
7. Scratch paper for notes
8. Headphones (not earbuds)
9. One-page, typed, hard copy of a resume to be submitted to judges.

### Clothing Requirements

#### Class E: Contest Specific - Business Casual

[Clothing Classifications 2020](#)

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

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### AUTOMATED MANUFACTURING TECHNOLOGY

#### Contest Description

The contest evaluates teams for employment in integrated manufacturing technology fields of computer aided drafting/design (CAD), computer aided manufacturing (CAM), and computer numerical controlled machining (CNC). CAD operators construct the part geometry; the CAM operator generates the tool paths; and the CNC operator sets up and machines the part. Plotting is not a scored event; however, the contestants must be able to generate a plot file that will be used to send their data to the plotter.

#### Regional Competition

Duration: 3 Hours

Rapid prototyping and concurrent engineering are two of the newest methods that the industry uses to reduce the time and cost it takes to bring a product to market. Rapid prototyping is defined by its title and how quickly you can make a prototype. Concurrent engineering involves the designer and manufacturer working on the design of the product throughout the entire development of the product.

*For the regional contest we will be concentrating on the rapid prototyping only.*

#### Materials Supplied by SkillsUSA CA

CNC Center:

1. Machinist vise
2. Hold-downs and clamps
3. Tool holders
4. End mills
5. Part(s) design
6. Competition packet
7. Material for machining

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## Regional 2019-2020 Contest Catalog

### Student Materials List

1. One page hard copy resume to submit to judges
2. Computer loaded with CAD software (must have an open ethernet port) and Windows XP SP3/Vista/7-32 or 64 bit 8/10
3. One 6" dial or digital vernier caliper
4. Dial indicator (must have  $\frac{3}{8}$ " holding shank to fit into tool holder)
5. Calculator
6. Safety glasses (safety glasses with side shields or goggles (prescription glasses must be covered with goggles unless they are equipped with side shields))
7. Sharpened Pencils
8. One 6" dial or digital vernier caliper
9. One dial indicator.
10. Dial indicator must have  $\frac{3}{8}$ " holding shank to fit into tool holder supplied by the technical committee.
11. One pair of  $\frac{3}{4}$ " and/or 1" parallels (complete set soft-jaw parallel pliers)
12. One soft-face hammer
13. One 6" or 12" steel rule
14. Each team must provide a USB memory device
15. Each team must provide a machinist handbook
16. Each team can provide appropriate sized end mills

### Contest Guidelines

Your engineering project manager has provided the base outline of the materials within this document to begin your planning and manufacturing process. Your success on this project is based on the following criteria:

- 1) Company Statement of Qualifications
- 2) Complete design documentation (drawings)
- 3) Complete documentation of process plan, tooling, setup, and CNC code
- 4) Quality assurance documentation (inspection)
- 5) Adaptability of team – concurrent engineering from prototyping to production

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## Regional 2019-2020 Contest Catalog

- 6) Proper use of technology for the preparation of the product documentation, setups, design, and machining
- 7) Packaging the complete project with accompanying documentation in an orderly, professional presentation
- 8) Safety in the manufacturing process
- 9) Efficient use of time, material and resources
- 10) Effective use of teamwork in managing the project
- 11) Attitude, this problem will not be easy and teams are expected to persevere through the duration of the competition.

### **TEAM GUIDELINES**

- 1) The team is organized for primary responsibilities and duties.
- 2) There will be a team leader identified to interact with the judges.
- 3) Your breaks are based upon team decisions with the exception of the mandatory lunch break.
- 4) Breaks are to be taken within assigned individual work areas.
- 5) Team members must notify a technical committee member or a judge before taking a bathroom break. Only one team member is allowed to leave the contest area at a time.
- 6) IN CASE OF HARDWARE, OR A MACHINE FAILURE PROBLEM:  
The team leader will communicate the problem to the judges so that the running time clock can be stopped for that team. In case of a stopped time clock, all work will stop for the entire team until the problem is resolved.
- 7) IN THE CASE OF SOFTWARE PROBLEMS: The choice of CAD and CAM software is the responsibility of the team. All software must be original copies. If your team develops a problem with your software, the Technical Committee will work in whatever way it can to resolve the problem but the clock will not be stopped.

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#### Regional 2019-2020 Contest Catalog

8) You must create a separate file of your CAD drawing on your CAD computer and transport it to your CAM computer via USB memory stick.

**NOTE 1:** A corporate statement of qualifications is an important document for companies that are bidding for contracts or trying to win new customers. The document sets out a company's capability for supplying a product, providing a service or handling a project. Writing a strong statement of qualifications helps to differentiate a company from its competitors. In some markets, such as federal business, a corporate statement of qualifications is a mandatory requirement, according to the Federal Allies Institute; in others, it is a powerful marketing tool that can open doors to new opportunities.

**NOTE 2:** California AMT, Inc. will post the problem including a sketch and/or an obsolete example of a part that they wish to have prototyped on the California Skills WEB site during the 2nd week of November 2016.

**NOTE 3:** Before the regional contest your automated manufacturing team should have:

- Developed a company logo and name
- Developed a company Statement of Qualifications for distribution to the judges
- Completed a set of CAD generated dimensioned drawings (Isometric and 3 view orthographic)
- Finished a prototype part
- Completed prototype documentation including Process Plan, Fixture Description, and Quality Assurance Form.

**Note 4:** At the regional contest the team should be prepared to make a presentation to the judges promoting their company and further detailing the highlights within their company's Statement of Qualifications. Students should also present to the judges how they approached the problem, what issues they found and how they resolved them. The judges are much more accepting of quality control issues if the teams are able to identify them and document them according the Quality Assurance Forms.

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## Regional 2019-2020 Contest Catalog

### **Clothing Requirements**

#### **Class C: Contest specific - Manufacturing/Construction Khaki Attire**

[Clothing Classifications 2020](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **AUTOMOBILE MAINTENANCE & LIGHT REPAIR** **(High School Only)**

#### **Contest Description**

The contest will be consistent with the auto maintenance and light repair task list outlined in guidelines published by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). Contestants will demonstrate their ability to perform jobs or skills selected from the standards determined by the SkillsUSA Championships Technical Committee

#### **Regional Competition**

Duration: 3 hours

#### **Knowledge Performance**

The contest will include a written knowledge test given by ASE and consist of 50 questions covering all skill areas found in the ASE Education Foundation Maintenance and Light Repair Program Standards and the Official ASE Study Guide-Auto Maintenance and Light Repair (G1) test.

The test for this contest will be comprised of maintenance and repair content from these skill areas:

1. Engine repair
2. Automatic transmission/transaxle
3. Manual drivetrain and axles
4. Suspension and steering
5. Brakes
6. Electrical/electronic steering
7. Heating and air conditioning
8. Engine performance

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## Regional 2019-2020 Contest Catalog

### Skill Performance

The contest will include a series of workstations. Workstations consist of a vehicle and/or simulators, components, service publications and interpersonal skills stations (such as customer service and job interview).

### Contest Guidelines

1. A variety of vehicles sold in the United States will be used in the contest. This will include both domestic and imported vehicles.
  2. Safety, quality, ability to follow instructions and procedures, accuracy (in comparison with factory specifications), workmanship, and other skills representative of the trades identified by industry leaders will be judged.
  3. A total of four to six stations will be assigned. Each station must be broken down into specific task criteria and separate steps based on the task.
- For example:  
*Station No. 1 Wire test and repair segments*
    - Identify faulty circuit = x points
    - Repair condition = x points
    - Assemble/retest = x points
    - Resistor board tests = x points
    - Compare values to specs = x points
    - Workmanship = x points
    - *Safety practices = x points*
4. The points allowed for each station will be assigned by the national technical committee and will be based on the difficulty of each assigned task.
  5. Time limits will be assigned for each task, but no bonus points will be awarded for early completion.

### Materials Supplied by SkillsUSA CA

- All necessary tools and equipment for the contest
- All necessary service publications for the contestants

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## Regional 2019-2020 Contest Catalog

### **Student Materials List**

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.

### **Clothing Requirements**

#### **Class D: Contest Specific - Automotive Blue Attire**

[Clothing Classifications 2020](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **AUTOMOTIVE REFINISHING TECHNOLOGY**

#### **Contest Description**

The contestant will demonstrate the ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). The competition includes a series of workstations to assess skills in the following areas: surface preparation, spray gun operation, paint mixing, matching and applying, solving paint application problems, determining finish defects, causes and cures and utilizing safety precautions. The competitor will also complete an interview, a written estimate, and an ASE written exam. The overall appearance of the finished products, speed and proper safety practices will be judged.

#### **Regional Competition**

Duration: 3 hours

#### **Knowledge Performance**

The contest includes a written knowledge test based on the ASE standard, which will consist of 50 questions.

#### **Skill Performance**

The contest will include a series of workstations. Workstations consist of a vehicle and/or simulators, components, service publications and interpersonal skills stations (such as customer service and job interview).

The skill contest will include all or some of: a manually written estimate, an interview, and a series of workstations, in the following areas:

- Spot repair
- Color tinting
- Featheredge
- Prime and Block
- Paint ID

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## Regional 2019-2020 Contest Catalog

- Masking

The overall appearance of the finished product, speed, and proper safety practices will be judged.

### **Materials Supplied by SkillsUSA CA**

All equipment necessary for the completion of the contest activities.

### **Student Materials List**

One page hard copy resume to submit to judges

Safety goggles with side shields or goggles

### **Clothing Requirements**

**Class D: Contest Specific-Automotive Blue Attire**

[Clothing Classifications](#)

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## Regional 2019-2020 Contest Catalog

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### **AUTOMOTIVE SERVICE TECHNOLOGY**

#### **Contest Description**

Contestants will demonstrate their ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). Workstations consist of on-vehicle, simulations, bench and component testing, and a written test. Contestants will be judged on technical competency, accuracy, quality, safety, and the ability to follow directions. There are 4 skill stations and a written test.

#### **Regional Competition**

Duration: 3 hours

The contest will include a series of workstations and a written test. Workstations consist of a vehicle and/or simulators, components, service publications and interpersonal skills stations such as Customer Service and Job Interview.

#### **Skill Performance**

The contest will include a written knowledge test given by ASE and will consist of questions covering all eight automobile areas identified in the ASE Education Foundation Automobile Program Standards and the Official ASE Study Guide-Automobile Tests. The test for high school and postsecondary will be comprised of diagnostic and repair content from these skill areas:

- Engine repair
- Manual drive-train and axles
- Suspension and steering
- Brakes
- Electrical/electronic steering
- Engine performance
- Heating and Air Conditioning
- Automatic Transmissions and Transaxles

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## Regional 2019-2020 Contest Catalog

### **Materials Supplied by SkillsUSA CA**

- All necessary tools and equipment for the contest
- All necessary service publications for the contestants

### **Student Materials List**

- One page hard copy of your resume to submit to the judges

### **Clothing Requirements**

#### **Class D: Contest Specific - Automotive Blue Attire**

[Clothing Classifications 2020](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### AVIATION MAINTENANCE TECHNOLOGY

#### Contest Description

The contest will be consistent with the airframe and powerplant mechanics certification guide published by the Department of Transportation Federal Aviation Administration Advisory Circular EA-AC 65-2D [Amdt. 147-2, 35 FR 5535, April 3, 1970, as amended by Amdt. 147-5, 57 FR 28960, June 29, 1992] and Sec. 6(c), Dept. of Transportation Act; 49 U.S.C. 1655(c) [Amdt. 147-2, 35 FR 5535, April 3, 1970, as amended by Amdt. 147-5, 57 FR 28961, June 29, 1992].

The high school contest will cover the competencies classified as general aviation by the FAA.

The college/postsecondary contest will cover those competencies classified as power plant and airframe by the FAA.

#### Regional Competition

Duration: 3 Hours

#### Skill Performance

The contest will include a series of operations of eight to 15 operations. Each operation must be broken down into specific criteria and points will be assigned based on the difficulty of the task.

#### Contest Guidelines

Tasks assigned to a contestant will not have a set time limit or sequence

The following shop safety rules will be followed:

- Safety glasses must be used
- No loose clothing is permitted

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#### Regional 2019-2020 Contest Catalog

- Long hair must be tied behind the head and netted or worn under a cap.
- No jewelry will be allowed

### **Knowledge Performance**

The contest will include a written knowledge test that assesses general knowledge of aviation maintenance technology. Definitions, knowledge, processes and procedures relevant to aviation maintenance technology will be assessed.

### **Materials Supplied by SkillsUSA CA**

1. All necessary tools and equipment for the contest
2. All necessary information and furnishings for judges and technical committees

### **Student Materials List**

1. Supplied by the contestant:
2. Calculator (non-programmable)
3. All competitors must create a one-page résumé and submit a hard copy to the judges
4. Earplugs
5. Safety glasses

### **Clothing Requirement**

#### **Class D: Contest Specific — Blue Attire**

#### [Clothing Classifications](#)

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## Regional 2019-2020 Contest Catalog

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### BARBERING

#### Regional Contest

The contest criteria were drawn from industry standards identified by SkillsUSA technical committee comprised of business and industry representatives, which includes Burmax Co. Inc., CMW Inc., Fantastic Sam's, Marianna, Milady, Regis Corp./Supercuts, Sport Clips and Pivot Point International with emphasis in Cosmetology.

#### Regional Competition

Contestants will have up to 4 hours

- Written resume and small interview - 1 hour
  - Men's Flat Top- 1 hour
  - Men's Creative Free Style Design Cut and Beard Design Including Color- 2 hours
1. *Customer Service and Professionalism* – Contestants will demonstrate their ability to communicate with clients professionally and friendly. They should demonstrate giving accurate information to the client at hand so they are able to show up on time for their appointment and answer any questions or concerns the client may have.
  2. *Styling and Finishing Techniques* – Contestants must create a range of special effects in an upswept style, which can be used during special events and have dimensional texture created with different hair color techniques previously done on the manikin.
  3. *Cutting Precision Techniques*– Contestants will demonstrate their ability to follow directions while creating a uniform and even haircut. Student should show the proper usage of scissors, clippers, and tools used during the performance of any of the services.

#### Knowledge Requirement

There will be a written safety test.

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## Regional 2019-2020 Contest Catalog

### Contest Requirements

1. *Interview and Communication Skills* (1 hour – 100 possible points). Student will follow oral and written instructions, respond to oral questions, and demonstrate skill and career readiness by answering questions during a small interview. Complete employment application. Complete Mini Resume. Introduce themselves and respond to oral questions. Verify resume information and demonstrate critical thinking skills.
2. *Men's Flat Top Cut* (1 hour – 200 possible points): Students execute a men's flat top haircut on manikin at a length selected by the National Technical Committee. Student will perform the haircut using shears, thinning shears, texturizing shears, razor and/or clipper and trimmers as needed, demonstrate the correct techniques for cutting a Flat Top, demonstrate fading, blending, sectioning, lining and finishing. If needed, Contestant may apply styling aid to help Fine tune the flat top. Complete style using desired styling products. Student must follow all safety and sanitation procedures and maintain a clean area at all times. NO CLIPPER ATTACHMENTS WILL BE ALLOWED.
3. *Men's Creative Freestyle Design Cut and Beard Design including hair and beard color of your choice* (2 hours- 500 possible points). It will include an oral presentation of the Creative Design: Student will identify the theme of the men's creative freestyle design cut and beard design including hair and beard color on paper and turn in hard copy to technical chairman at orientation. A second copy of the freestyle design should be with the contestant during the skill portion of the competition. Student will demonstrate fading, blending, sectioning, lining and finishing. He or she will create a men's creative freestyle design cut and beard design including hair and beard color. Any type of temporary haircolor can be used. Finish the hair design using blow dryer or thermal tools such as curling iron, flat iron, styling products etc., as needed. The finished style should demonstrate balance, proportion and form in the finished creative cut and beard design. Incorporation of current trends in both haircut, hair color and beard design should be performed. Follow all safety and sanitation procedures and maintain a clean area at all times. Contestant will give a 1-3 min speech on their design to the judge. NO CLIPPER ATTACHMENTS WILL BE ALLOWED.

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## Regional 2019-2020 Contest Catalog

### **Materials Supplied by SkillsUSA CA**

1. Timekeeper
2. Any pictures used for haircut designs
3. First Aid Kit
4. Power Outlets
5. Tables
6. Mirrors

### **Student Materials List**

1. Cutting shears
  - a. Thinning shears
  - b. Razor and spare blade
  - c. Clipper
  - d. Trimmers
2. Blow dryer or any thermal tools
3. Styling products of choice
4. Finishing spray
5. Combs
6. Brushes
7. Spray bottle (filled with water)
8. Hair color of choice (Professional Temporary: examples are pencils, chalks, spray, or hair paint. Any type of temporary color not requiring water to rinse is acceptable)
9. Towels (minimum of 6) and paper towels
10. Neck strips
11. Clippies or hair clips
12. Hospital grade disinfectant in a labeled spray bottle
13. Hand sanitizer
14. Blood spill kit (must contain a biohazard bag)
15. Tripod
16. #2 pencil and a blue or black pen

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#### Regional 2019-2020 Contest Catalog

17. All competitors must create a one-page Résumé to be turned in at Contestant Orientation.
18. Contestants must create a colored drawing of their creative haircut design with color application and beard design with beard coloring. It should include a written description of the method used to create the design and a picture of the final.
19. Competitors will need two copies of their design theme, one is to be attached to their mirror during the competition. NO pictures from a magazine or internet, **it MUST be hand drawn.**
20. A hard copy of the Resume (U) and Drawing (V) must be submitted to the technical committee chair at orientation.
21. **\*Students must bring a tripod and two male doll heads; NO COLOR on mannequins. It will be used for the Creative Cut and Beard Design Contest. Mannequins should be at minimum of 5" hair length. Any shorter hair mannequin will be disqualified.**

#### Official SkillsUSA Clothing Correct Attire

##### [Clothing Classifications](#)

Contestants may wear an Apron during the contest.

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

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### BASIC HEALTHCARE SKILLS

#### **Contest Description**

Evaluate a contestant's beginning level of health occupations knowledge with topics related to healthcare such as communication skills, knowledge, employability, law and ethics, and work safety.

**Duration:** 3 to a 5-minute demonstration of the basic health care skills including an oral interview.

#### **Knowledge Performance**

The contest will include a written test assessing knowledge of basic health care skills. Topics assessed may include but are not limited to: life sciences related to health care, communication skills, employability, law and ethics, and work safety practices.

#### **Skill Performance**

The skill assessment portion of the contest will be a series of workstations in which contestants will demonstrate their knowledge of basic health care skills. Topics that will be assessed may include but are not limited to: core therapeutic and clinical skills, emergency care for infants through adults, communication skills, key medical terms and abbreviations, law and ethics, and work safety. Prior to the event, the contestant will prepare a 5-7 minute demonstration of basic healthcare skills. The guidelines for this presentation are listed below.

#### **Contest Guidelines**

1. The purpose of the presentation is to present a topic related to basic health care through demonstration, display and/or explanation.
2. A presentation will be compact, no larger than 30" x 30" x 30" and presented in five to seven minutes. A 3' x 6' table space will be available. Any visual aids

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### Regional 2019-2020 Contest Catalog

(signs, charts, transparencies, slides, diagrams) are to be prepared by contestants. Three-sided poster display boards and PowerPoint presentations stored on flash drives are permitted (**no note cards**). No full-size adult mannequins are allowed. No pressurized aerosol cans of any kind will be permitted, and no compressed air, gas or flammable liquid may be used.

3. All employers' names and manufacturers' trade names must be covered or removed.
4. The demonstration will neither promote nor advertise any commercial organization or product.
5. The title should designate the exact nature of the presentation. Catchy titles are not appropriate to the scientific and educational purposes of the presentation.
6. The prepared presentation does not include another person acting as a patient.
7. Complete a job application and résumé.
8. Be prepared to present an oral interview.

### Materials Supplied by SkillsUSA CA

- Timekeeper
- 3' x 6' tablespace
- Test Packet

### Student Materials List

- #2 pencil
- Black pen
- Safety glasses/shield (if needed for presentation)
- Resume
- Prepared presentation
- Laptop, computer, projector screen

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## Regional 2019-2020 Contest Catalog

### **Clothing Requirement**

#### **Class B: Healthcare Attire**

##### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### BROADCAST NEWS PRODUCTION

#### Contest Description

This contest is open to active SkillsUSA members enrolled in Career and Technical Education (CTE) with media technology and/or news broadcasting programs. This contest is comprised of four student members; two students serve as the news anchor team, one student will serve as the team's director/technical director and one student will serve as the floor director. Each team will prepare a news rundown, write, produce and perform a three-minute newscast as if it were live. Teams are evaluated on their broadcast writing ability, voice quality, diction, timing, pacing and on-camera performance techniques. Contest entrants are required to submit an individually personalized resume. No written test on Broadcast News terminology will be given at the Regional level. **This is NOT a live event.**

#### Important Notes for SkillsUSA CA Contestants

Please read the guidelines below for the Regional and State competitions and review the SkillsUSA requirements for student resumes. **SkillsUSA attire is required** and will be checked during interviews. Each team is responsible for bringing to the conference the team submission on a PC Formatted Flash-Drive marked with Team Number, all required materials and personalized individual resumes for the project in a Team Number labeled 3-Ring Binder.

**FAILURE TO COMPLY WITH CONTEST RULES & GUIDELINES WILL RESULT IN DISQUALIFICATION.**

**No TV, control room or production equipment is needed on site during this contest. This contest is completed in advance and delivered to the Regional conference.**

*The contest prompt will be provided prior to Regional competition.*

All winners of the competition at the Regional level will be required to review and follow all SkillsUSA CA contest rules and standards.

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## Regional 2019-2020 Contest Catalog

[Contest Guidelines](#) Regional (2020)

[Contest Considerations](#) - Regional (2020)

[Contest Scoresheet](#)

[Contest Example Forms](#)

### CLOTHING REQUIREMENT

#### [Clothing Classifications](#)

##### ***For the anchorperson:***

- Red SkillsUSA blazer, windbreaker or sweater, or black or red SkillsUSA jacket
- Button-up, collared, white dress shirt (accompanied by a plain, solid black tie), white blouse (collarless or small-collared) or white turtleneck, with any collar not to extend into the lapel area of the blazer, sweater, windbreaker or jacket
- Black dress slacks (accompanied by black dress socks or black or skin-tone seamless hose) or black dress skirt (knee-length) (accompanied by black or skin-tone seamless hose)
- Black dress shoes

##### ***For other team members:***

- Official SkillsUSA white polo shirt
- Black dress slacks (accompanied by black dress socks or black or skin-tone seamless hose) or black dress skirt (knee-length) (accompanied by black or skin-tone seamless hose)
- Black leather close-toe dress shoes.

***Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:***  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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Regional 2019-2020 Contest Catalog

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### **BUILDING MAINTENANCE**

#### **Contest Description**

Evaluation of contestant's preparation for employment and professionalism in the field of building maintenance. The contest will assess student's knowledge in basic cleaning of commercial buildings.

#### **Regional Competition**

Duration: 7-10-minute presentation describing a hands-on skill consisting of restroom cleaning, floor care (tile and carpet), office cleaning, or liquid measurement. Refer to national technical standards for Building Maintenance.

#### **State Competition**

Oral assessment of national technical standards. Refer to standards BLMT 1.0 through BLMT 9.0. Measuring assessment based on BLMT 4.4. Students will demonstrate hands-on skills-based non-technical standards BLMT 8.0 through 8.3.

- Oral assessment 15 minutes
- Measurement assessment 5 minutes

#### **Eligibility**

A letter from the appropriate school official on school letterhead stating that the contestant is classified under the provisions of Public Law 105-17, Individuals with Disabilities Education Act, 1997, is required for participation.

#### **Contest Guidelines**

Contestants will be asked to provide an oral explanation of a procedure and answer a question.

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## Regional 2019-2020 Contest Catalog

### **Knowledge Performance**

The contest does not require a written knowledge test. Contestants will need basic knowledge of cleaning and maintenance, safety and customer service for the skill performance activities.

### **Materials Supplied by SkillsUSA CA**

1. Timekeeper
2. Three tables

### **Student Materials List**

1. Eligibility Letter
2. Resume
3. Official Contestant clothing

### **CLOTHING REQUIREMENT**

#### **Class C SkillsUSA Attire**

[Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **CABINETMAKING**

#### **Contest Description**

Requires the building of a small cabinet from materials and drawings supplied. Contestants are expected to read the drawings, layout, cut the parts using a table saw, use a laminate trimmer, using a handheld drill, hinge boring machine, and various hand tools. The parts must be accurately assembled, sanded and adjusted to tolerances specified by the judges.

#### **Contest Guidelines**

The contestant will be given all necessary information by job sheets or prints of articles to be constructed. Contestants will use joinery techniques as specified.

The contest criteria are drawn from the CTE Curriculum Standards for the Wood and Wood Products Industry with an emphasis in Cabinetmaking.

#### **The core elements to be tested are:**

*Planning and Layout* – will include exercise in plan reading, estimating and cost calculations. It will include a written and hands-on activity.

*Materials Processing and Assembly* – will involve layout, cutting and assembling of typical components representative of the cabinet making industry.

*Tool Handling and Techniques* – contestants will demonstrate their ability to safely use, care for and transport hand tools and portable power tools.

#### **Regional Competition**

Duration: Contestants will have 3-3.5 hours (depending on regional schedule) to complete the two components of the contest. For example, if contest begins with orientation at 8 a.m., contestants should finish by 12 noon.

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## Regional 2019-2020 Contest Catalog

*Contestants should be prepared to do the following:*

- Safety and PPE (safety glasses at all times!!!)
- Prepare a bill of materials (use your best penmanship!)
- Material layout (“optimization of material”)
- Manufacture:
  1. Use of biscuit and pocket hole joinery.
  2. Use a router to detail edges.
  3. Use of drill or drill press
  4. Use of jigsaw and/or band saw.
  5. Safe table saw setup and use.
  6. Setup and use of the miter saw in a production environment (stops), i.e. cross-cutting.
  7. Proper gluing of all components and using mechanical fasteners.
  8. Easing edges.
  9. Preparation of finished product.
  10. Presentation!

### **Knowledge Performance**

The contest will include a written test.

### **Skill Performance**

The contest consists of workstations that require the building of a small cabinet from materials and drawings supplied. 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.

### **Oral Interview Expectations:**

Cabinetmaking is a national SkillsUSA competition; an oral interview is part of the national scorecard judging criteria and therefore a requirement of the competition. Accordingly, contestants should be prepared to be informally “interviewed” by judges during the contest. They may be asked 1-2 questions about basic woodworking knowledge, the contest project, or about their school woodworking program.

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### **Materials Supplied by SkillsUSA CA**

List all the items that a student is expected to provide.

**Student Tool List** (required; bring 1 of each unless otherwise noted) *Ensure that all cutting tools are properly sharpened.*

### **Required Items:**

1. Toolbox (no buckets)
2. Nail apron
3. *Clear* safety glasses
4. Dust mask
- 5 #2 pencils, sharpened – qty 2
6. Tape measure (1/16" graduations)
7. Calculator
8. Square: speed, try or combo
9. Utility Knife
10. 13oz (or larger) curved claw hammer
11. 1/16" or 1/32" nailset (min1)
12. Backsaw
13. Screwdriver with interchangeable bits
14. #2 square drive bit, 6" long
15. Cordless drill motor/driver w/bits and charger
16. Parallel jaw/quick grip bar clamps (qty. 2)
17. Block Plane (low angle recommended)
18. 10mill bastard file
19. Sanding block for 1/4 sheet
20. Sheets sandpaper (80, 120, & 220 grit)
21. Cabinet scraper
22. 1" flexible putty knife
23. Air hose, 25' long
24. Pliers

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### **Optional/Permitted items:**

1. Air nailer, 18 or 23 gauge
2. Crosscut saw
3. Drill bits
4. Compass
5. 1 set (4 pc) wood chisels ½" - 1" sharpened
6. Rubber or wood mallet
7. 2 - 6" "C" clamps

### **Clothing Requirements:**

#### **Class C: Contest specifics - Manufacturing/Construction Khaki Attire**

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### CAREER PATHWAY SHOWCASE

#### Contest Description

A student team of three will use their course of study to develop a learning-based project that will benefit their class, school, community or industry. The project must highlight an aspect of their career cluster training. Upon completion of the project, the students will develop a display and use it within their community to explain their training and their project. This contest will judge mastery of their training, its application, the project's benefit to their community, and display and presentation techniques.

#### Contest Guidelines

1. A team consisting of three students enrolled in the same recognized Career Pathway program must present the project; students may be members of only one team.
2. Emphasis is placed on the project, the display and the presentations/demonstrations.
3. The project must be related to the program of study, determines the pathway of the project.
4. Panel of judges selected from business, labor, education and government, will evaluate projects.
5. Guidance by career pathway instructors, counselors, and career and academic teachers is encouraged, but advisors may not assist in the setup or presentation.

#### Project Requirements

1. Time limit: The presentation/demonstration shall be at least four minutes in length but not exceed eight minutes.
  - a. *Penalty:* five points will be deducted for each 30 seconds or fraction thereof under four minutes or over eight minutes.
  - b. Judges may ask questions, not to exceed two minutes.

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2. Maximum size of the display area is 7'10" wide x 7'10" long.
  - a. Display components may extend to 8' high.
  - b. Projects exceeding these limits will be disqualified.
3. Project Mobility: All projects must be self-contained. There will be no on-site technical support, internet hookup, or backup equipment. Each team must be able to maneuver the project into the contest area. For large projects, modular makeup is recommended.

### **CAREER PATHWAYS**

The project must be entered in its appropriate pathway. The technical committee may reassign a team to another pathway at its sole discretion.

#### **Arts and Communication**

*Arts, Audiovisual Technology and Communications:* Designing, producing, exhibiting, performing, writing and publishing multimedia content, including visual and performing arts and design, journalism and entertainment services.

#### **Business, Management and Technology**

*Business Management and Administration:* Planning, managing and providing administrative support, information processing, accounting, human resource management services and related management support services.

*Finance Services:* Planning, managing and providing banking, investment, financial planning and insurance services.

*Information Technology:* Designing, developing, managing and supporting hardware, software, multimedia and systems integration services.

*Marketing, Sales and Services:* Planning, managing and performing wholesaling and retailing services and related marketing and distribution support services including

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merchandise/product management and promotion.

### **Human Services**

*Government and Public Administration:* Planning, managing and providing government legislative and administrative and regulatory services and related general-purpose government services at the federal, state and local levels.

*Law, Public Safety and Security:* Planning, managing and providing judicial, legal and protective services, including professional and technical support services in the fire protection and criminal justice systems.

*Education and Training Services:* Planning, managing and providing education and training services and related learning support services including assessment and library and information services.

*Human Services:* Planning, managing and providing human services including social and related community services.

*Hospitality and Tourism:* Planning, managing and providing lodging, food, recreation, convention and tourism and related planning and support services such as travel-related services.

### **Health Services**

*Health Science:* Planning, managing and providing diagnostic, therapeutic and information and environmental services in health care.

### **Industrial and Engineering Technology**

*Architecture and Construction:* Designing, planning, managing, building and maintaining physical structures, including roadways and bridges and industrial, commercial and residential facilities and buildings.

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***Manufacturing:*** Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

***Science, Technology and Math:*** Planning, managing and providing scientific research and professional and technical services (e.g., physical science, social service, engineering) including laboratory and testing services and research and development services.

***Transportation Distribution and Logistics:***

Planning, management and movement of people, materials and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

### **Natural Resources/Agriculture/Food**

***Agricultural, Food and Natural Resources:***

Planning and managing agriculture, food, fiber and natural resource systems. This includes production of agricultural commodities, including food, fiber, wood products, horticultural crops and other plant and animal products. Also includes financing, marketing and distribution of agricultural products; farm production and supply and service industries; horticulture and landscaping services and the use and conservation of land and water resources; development and maintenance of recreational resources; mining and extraction operations and related environmental management services.

### **Materials Supplied by SkillsUSA CA**

One 7'10" wide x 7'10" deep space supplied with a 6' table (2 chairs may be available)

### **Student Materials List**

1. Project for display
2. If needed, one three-prong, 20' 110v electrical power strip

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## Regional 2019-2020 Contest Catalog

3. All competitors must create a one-page resume and submit a hard copy to the competition judge. Failure to do so will result in a 10-point penalty.

### **CLOTHING REQUIREMENT**

#### **Class A: SkillsUSA Official Attire**

[Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### **CARPENTRY**

#### **Contest Description**

Contestants will frame walls using wood and or metal steel studs, cut and install rafters, gable end overhangs, fascia board and soffit installation, install sheathing and or exterior siding and trim. Demonstration of knowledge of stair construction is required. Contestants will be judged on accuracy, ability to read and interpret blueprints, workmanship, safety and the proper use of tools, equipment, and materials.

#### **Regional Competition Contest Guidelines**

Time limit: Contestants will be stopped when time limits, as specified on the contest job sheet, are up. However, contestants may stop whenever they have completed a particular phase of the contest.

The dismantling of the project will be considered the final sequence or task of this contest.

#### **Knowledge Performance**

The contest will include a written test that assesses the knowledge of carpentry including but not limited to building materials, foundations and forms, rough framing, roof framing, exterior finish, interior finish, stairs, lumber, and tools.

#### **Skill Performance**

The contest will assess accuracy, workmanship, the ability to read and interpret plans and the proper use of tools, equipment, and materials. Contestants will frame walls using wood and steel studs, cut and install rafters and fascia. Exterior siding and trim may be included. Demonstration of knowledge of stair construction may be required.

#### **Resume**

Each Contestant must turn in a one-page typed resume

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### **State competition**

All contestants must provide a copy of their OSHA 10 on the first day of the competition. Students who have not completed the OSHA 10 or do not have with them at the time of the competition will receive a 10% reduction in their final score for the competition.

### **Materials Supplied by SkillsUSA CA**

1. Prefabricated saw horses
2. All lumber and materials, as specified on the job sheet
3. Job sheets and blueprints for each contestant and judge
4. Hard hat
5. Safety glasses

### **Student Materials List**

1. Cut-resistant Level 3 gloves
2. One 8 pt. crosscut saw (10 pt. or 12 pt. optional)
3. Claw hammer
4. One set chisels (1/4" to 1") -optional
5. Framing square
6. 16' or longer steel tape measure
7. Utility knife with standard blades
8. Two pencils
9. One each — 1 and 2 pt. Phillips and 4" and 8" standard screwdrivers or one multi-tip with an equivalent tip
10. Wrecking bar or gooseneck pinch bar
11. Cat's paw (nail puller)
12. Chalk box and line
13. One nail set
14. Straight aviation snip or any metal-cutting snips
15. 24" or 30" spirit level
16. Carpenter's tool and nail pouch with belt and/or suspenders
17. Stair gauges-optional
18. Combination square and/or speed square
19. 25' power cord (UL approved grounded)

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#### Regional 2019-2020 Contest Catalog

20. Calculator-optional

21. A power circular saw with new carbide-tipped blade

### **CLOTHING REQUIREMENT**

#### **Class C: Contest Specific**

#### **Manufacturing/Construction Khaki Attire**

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### CHAPTER BUSINESS PROCEDURE

#### **Contest Description**

Student teams of six members, will demonstrate their knowledge of parliamentary procedure in both a written exam and a team demonstration. The written exam will consist of 100 questions related to materials found in Robert's Rules of Order—Newly Revised.

Open to active SkillsUSA members. The team need not be comprised of officers, but team members must be organized under one local charter. All team members must be members of the same division. Each team will consist of six registered members. The team may perform with five members without penalty in the event that a member fails to show up or is forced to withdraw within five days of the competition.

#### **Regional Competition**

During the presentation, the team will demonstrate the running of a typical business meeting using a standard order of business. During the presentation, the team must properly insert into the order of business the secretary's minutes, treasurer's report and business items identified by the technical committee.

In addition to the debate and transaction of the business items, teams will also properly demonstrate at least 6 different parliamentary procedure motions, including at least one of each of the following: main, privileged, subsidiary, incidental and motions that bring back issues to the floor. Minutes of the demonstration will be read by the secretary upon completion of the demonstration.

#### **Materials Required by Contestants:**

1. Resume
2. SkillsUSA Official Dress

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## Regional 2019-2020 Contest Catalog

### Materials Supplied by SkillsUSA CA

- Speaker's stand (lectern)
- Gavel
- Pad and pencil for secretary
- One copy of the latest edition of *Robert's Rules of Order, Newly Revised* per demonstration room
- Packet for each team, which will include:
  - a. Minutes of previous meeting (these minutes cannot be modified)
  - b. Treasurer's report
  - c. Paper for any committee report
  - d. One pencil
  - e. Stopwatch
  - f. Extra pencils as may be required

### Clothing Requirements

#### Class A: SkillsUSA Official Attire

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### CHAPTER BUSINESS DISPLAY

#### Contest Description

Contestants will compete as a team of three. Teams create a promotional exhibit that is designed and constructed by SkillsUSA students. The display is to be based on the theme for the current year: ***“Champions at Work: I’m Ready.”*** All three students prepare, assist with the setup of the display and present the information during the interview.

#### Materials Supplied by SkillsUSA CA

1. Space for the contest.
2. Judges

#### Student Materials List

1. Complete Display (Review National Standards for requirements)
2. Resume (hard copy)
3. SkillsUSA Official Dress
4. Notebook- (Review National Standards for requirements)

#### Clothing Requirements

##### ***Class A: SkillsUSA Official Attire***

##### **[Clothing Classifications](#)**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

**<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>**

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## Regional 2019-2020 Contest Catalog For Public Review

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### **CNC MILLING SPECIALIST**

#### **Contest Description**

The contest will assess the ability to write the CNC program for a part drawing and materials, determine tool offsets, setting up the machine and producing a part on a milling machine. The contest will include a written test evaluating a contestant's knowledge of Computer Numerical Control machining in such areas as basic machining skills, CNC programming, setting up a CNC machine, performing mathematical calculations related to CNC, communication, and inspection.

#### **Regional Competition**

Contestants will have 3 hours to complete two components of the contest:

- *Written Test:* The contest will include a written test evaluating a contestant's knowledge of Computer Numerical Control machining in such areas as basic machining skills, CNC programming, setting up a CNC machine, performing mathematical calculations related to CNC, communication and inspection.
- *Hands-on skill competition:* The contest will assess the ability to write the CNC program for a part drawing and materials, determine tool offsets, set up the machine and producing a part.

This is a contest for programming skills. Contestant parts will only run on machines if programs run without violating safety standards or damaging machines.

An overview of a Haas CNC controller will be available for orientation before the competition with technicians on hand to help competitors familiarize themselves with the interface.

#### **Contest Guidelines**

The core elements to be tested are:

1. CNCM 1.0 — Apply basic machining skills per industry standards as set forth by the SkillsUSA technical committee

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#### Regional 2019-2020 Contest Catalog For Public Review

2. CNCM 2.0 — Demonstrate knowledge of CNC programming per industry standards as set forth by the SkillsUSA technical committee
3. CNCM 3.0 — Perform mathematical calculations as needed for calculating speeds, feeds, program coordinates, angles, radii and tangent points
4. CNCM 4.0 — Communicate and demonstrate an understanding of all symbols on a blueprint
5. CNCM 5.0 – Inspect work per industry standards as set forth by the SkillsUSA technical committee

#### **Materials Supplied by SkillsUSA CA**

##### **EQUIPMENT**

- Haas Simulator (Must be proficient before the competition)

##### **Supplied by Contestants:**

- Non-programmable calculator
- Pencils and paper
- Machinery's Handbook (optional)
- One page Resume

#### **Clothing Requirements**

##### **Class C: Contest specific - Manufacturing/Construction Khaki Attire**

##### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### **CNC TECHNICIAN**

#### **Contest Description**

Contestant knowledge of CNC programming. Related knowledge and skill in the areas of engineering drawing interpretation, GD&T, technical math, machining practices, use of precision measuring/hand tools and ability to communicate verbally using proper industry terminology are also part of this competition.

#### **Regional Competition**

Contestants will have 3 hours (depending on regional schedule) to complete two components of the contest:

- 1) Written Test: The contest will include a written test evaluating a contestant's knowledge of Computer Numerical Control machining in such areas as basic machining skills, CNC programming, setting up a CNC machine, performing mathematical calculations related to CNC, communication and inspection.
- 2) Hands-on skill competition: The contest will assess the ability to write the CNC program for a part drawing and materials, determine tool offsets, set up the machine and producing a part.

#### **The core elements to be tested are:**

- CNCM 2.0 — Demonstrate knowledge of CNC programming per industry standards as set forth by the SkillsUSA technical committee
- CNCM 3.0 — Perform mathematical calculations as needed for calculating speeds, feeds, program coordinates, angles, radii, and tangent points
- CNCM 4.0 — Communicate and demonstrate an understanding of all symbols on a blueprint
- CNCM 5.0 – Inspect work per industry standards as set forth by the SkillsUSA technical committee
- CNCT 1.0 — Apply basic machining skills per industry standards as set forth by the SkillsUSA technical committee

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- CNCT 2.0 — Demonstrate knowledge of CNC programming per industry standards as set forth by the SkillsUSA technical committee
- CNCT 3.0 — Perform mathematical calculations as needed for calculating speeds, feeds, program coordinates, angles, radii, and tangent points
- CNCT 4.0 — Communicate and demonstrate an understanding of all symbols on a blueprint
- CNCT 5.0 – Inspect work per industry standards as set forth by the SkillsUSA technical committee

#### **Materials Supplied by SkillsUSA CA**

##### **EQUIPMENT**

- Haas Simulator (Must be proficient before the competition)

##### **Student Materials List**

- Non-programmable calculator
- Pencils and paper
- Machinery's Handbook (optional)
- One page Resume

##### **Clothing Requirements:**

##### **Class C: Contest specific - Manufacturing/Construction Khaki Attire**

##### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog For Public Review

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### **CNC TURNING SPECIALIST**

#### **Contest Description**

The contest will assess the ability to write the CNC program for a part drawing and materials, determine tool offsets, setting up the machine and producing a part on a lathe. The contest will include a written test evaluating a contestant's knowledge of Computer Numerical Control machining in such areas as basic machining skills, knowledge of CNC programming, setting up a CNC machine, performing mathematical calculations related to CNC, communication, and inspection.

#### **Regional Competition**

Contestants will have 3- hours to complete two components of the contest:

- 1) Written Test: The contest will include a written test evaluating a contestant's knowledge of Computer Numerical Control machining in such areas as basic machining skills, CNC programming, setting up a CNC machine, performing mathematical calculations related to CNC, communication and inspection.
- 2) Hands-on skill competition: The contest will assess the ability to write the CNC program for a part drawing and materials, determine tool offsets, set up the machine and producing a part.

#### **The core elements to be tested are:**

- CNCM 1.0 — Apply basic machining skills per industry standards as set forth by the SkillsUSA technical committee
- CNCM 2.0 — Demonstrate knowledge of CNC programming per industry standards as set forth by the SkillsUSA technical committee
- CNCM 3.0 — Perform mathematical calculations as needed for calculating speeds, feeds, program coordinates, angles, radii, and tangent points
- CNCM 4.0 — Communicate and demonstrate an understanding of all symbols on a blueprint

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#### Regional 2019-2020 Contest Catalog For Public Review

- CNCM 5.0 – Inspect work per industry standards as set forth by the SkillsUSA technical committee
- CNCT 1.0 — Apply basic machining skills per industry standards as set forth by the SkillsUSA technical committee
- CNCT 2.0 — Demonstrate knowledge of CNC programming per industry standards as set forth by the SkillsUSA technical committee
- CNCT 3.0 — Perform mathematical calculations as needed for calculating speeds, feeds, program coordinates, angles, radii, and tangent points
- CNCT 4.0 — Communicate and demonstrate an understanding of all symbols on a blueprint
- CNCT 5.0 – Inspect work per industry standards as set forth by the SkillsUSA technical committee

#### **Materials Supplied by SkillsUSA CA**

##### **EQUIPMENT**

- Haas Simulator (Must be proficient before the competition)

##### **Student Materials List**

- Non-programmable calculator
- Pencils and paper
- Machinery's Handbook (optional)
- One page Resume

##### **Clothing Requirements**

##### **Class C: Contest specific - Manufacturing/Construction Khaki Attire**

[Clothing Classifications:](#) Class C

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog For Public Review

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### **CO2 DRAGSTER**

#### **Contest Description**

This is an open contest to all SkillsUSA members, regardless of regional results. This contest is now a secondary (7–12th grade), and a post secondary contest. Each contestant is limited to one entry in the race category. The SkillsUSA California CO2 Dragster Competition is designed to promote enthusiasm and motivation through hands-on experiences and competition. Key concepts of design, woodworking skills, measuring skills, and accurate record keeping are combined to advance the goals of SkillsUSA.

#### **Regional Competition**

Each drag race vehicle must pass inspection. Failure to meet any one of the specifications will eliminate the car from the contest.

The competition will consist of five major components, plus a Bonus Elimination.

1. Standard Performance Criteria
2. Time Trial Results
3. Design & Construction Assessment
4. Portfolio Assessment.
5. Drawing Assessment.

#### **Standard Performance Criteria (30%)**

The standard performance data for the dragster will be determined from a series of performance tests. Standard performance will be worth 30 % of the Skills Quotient. There will be 300 points possible in the standard performance category. Scoring will be determined through the Standard Performance Criteria Rubric as shown.

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1. Rolling friction – Rolling friction will be calculated by rolling the dragster down a test ramp and measuring the distance traveled from the center of the front of the ramp to the farthest point traveled by the dragster. See figure below.
2. Alignment – The alignment of the dragster will be measured by rolling the dragster down a test ramp and measuring the distance perpendicular from a line extending from the centerline of the test ramp at 3 feet from the base of the test ramp. See figure below.
3. Aerodynamic Drag – The aerodynamic drag will be determined by measuring the frontal drag in a wind tunnel.

#### **Time Trials Results (40%)**

Time trial results will be 40% of the total preliminary scoring. There will be 400 points possible for the time trials.

1. Dragsters will complete two at a time but will race only against time.
2. Dragsters will run on mono-filament line down a 65-foot track.
3. Timing will begin when firing mechanism is fired. Both dragsters will start simultaneously
4. Timing will end when the dragster passes through the electronic beam at the finish line. Times will be recorded to the nearest 1/000 of a second
5. All dragsters will have two time trials.
6. The average of these two trials will be calculated and then divided into the fastest average time trial of all competitors.
7. The result of this division will be multiplied by 40 and rounded to the nearest whole number to determine the amount of points awarded for the time trial results.

*Example:* A dragster had two time trials of 1.220 and 1.320. The average of these would be 1.270. If the fastest dragster in the time trials had an average time of 1.115, then the points scored would be 1.115 divided by 1.270 and the result multiplied by 200, or 175.59. Rounded to the nearest whole number, the scored awarded would be 176 points. ie....  $(1.115 / 1.270) \times 200 = 176$



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### **Design & Construction Assessment (15%)**

Design & Construction Assessment will be 15% of the Skills Quotient. There will be 150 points possible for design & construction. Dragsters will be assessed by a scoring rubric

- Aesthetics – The appearance of the shape, uniqueness, graphic additions, colors, etc. as a whole are pleasing
- Durability – The overall construction of the dragster is a solid as evidenced by performance in the four time trials.
- Finish – The finish of the dragster is smooth, consistent, and lustrous.

### **Drawing Assessment (15%)**

The drawing assessment will be 15% of the criteria, and will be worth 150 points. The drawing will be assessed using the rubric below.

Excellent	= 50 points
Above Average	= 40 points
Average	= 30 points
Below Average	= 20 points
Poor	= 10 points

**Neatness-** The overall appearance of the drawing is pleasing. The use of mechanical drawing tools is evident.

**Scale** - The drawing is to scale and labeled as such. The spacing of borders and views are appropriate. The dimensions are accurate.

**Completeness** - The drawing has a border and title block. The drawing has a top view and side view along with dimensions.

### **Bonus Elimination Competition**

1. An additional Bonus Elimination Competition will provide the opportunity for head to head racing to help determine the champion. The students with the best 16 scores will compete in the Bonus Elimination Competition.
2. Dragsters will be seeded in standard tournament order, with the best score having the #1 seed, and the 16th score having the #16 seed.
3. The Bonus Elimination Competition will be a single elimination with dragsters running in head to head competition. Each round of competition that a dragster

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runs in will add a 10-point bonus on the Skills Quotient Sheet. If the dragster competes in the final round to determine the winner, 40 points is added to the final score.

4. The winner of the Bonus Elimination Competition would receive 50 bonus points in addition to those earned in each round to be added to the final score.

#### **SkillsUSA California Dragster Specifications**

*Judges Note: Most cars have difficulty passing inspection and are therefore disqualified. Failure to meet any one of the criteria listed below will result in a car being eliminated from the contest.*

- 1) The dragster must have a weight of 2.5 oz or more (without CO2 cartridge)
- 2) Weight may be added to the body so long as it is not deemed unsafe. Doing so will lead to fewer points awarded in the design and construction evaluation criteria.
- 3) The completed dragsters maximum overall length will be no greater than 12.000 inches. Its minimum length will be no less than 8 inches.
- 4) The completed dragsters maximum overall width will be 3.75 inches. Its minimum width will not be less than 2.500 inches.
- 5) The dragster must have a cartridge hole depth of 2.000 inches.
- 6) The dragster must have a cartridge hole diameter of .750 inches.
- 7) The cartridge hole may be relatively loose or tight due to the nature of wood.
- 8) The height of the cartridge hole (measured from the track surface to the center of the hole) must be 1.300 inches minimum, 1.700 inches maximum.
- 9) The dragster must have a minimum of .125 inches of wood around the cartridge hole. Nothing but the back of the cartridge hole should be exposed.
- 10) The dragster must have two screw eyes, each located on the centerline of the dragster, with a minimum of 4.000 inches between the screw eyes.
- 11) The dragsters body must be one continuous piece of solid or laminated wood of sufficient strength to withstand racing.
- 12) Bearings, bushings, and lubricants may be used in the construction.
- 13) The dragster must have at least three wheels.
- 14) The wheel's maximum diameter will be 2.000 inches; minimum diameter will not be less than 1.000 inch.

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- 15) The wheel's maximum width will be .800 inches. The minimum width of the wheels will not be less than .062 inches.
- 16) Wheels must be made of plastic or rubber.
- 17) Nothing but the wheels may touch the track surface. The body and eyelets should be clear of the track and must pass over a dime when laid flat.
- 18) Any dragster deemed unsafe in the opinion of the judge(s) will be disqualified.
- 19) Dragster, Resume and working drawings are required at check-in time.

\*These specifications are crucial to maintain safety and compatibility with race hardware.

#### **Materials Supplied by SkillsUSA CA**

- a. C02 Track
- b. Wind Tunnel (if available)
- c. C02 Cartridges
- d. All necessary information and furnishings for judges and technical committee

#### **Student Materials List**

- a. C02 Dragster
- b. C02 Drawing
- c. Resume

#### **Clothing Requirements**

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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### **COLLISION REPAIR**

#### **Contest Description**

The competition includes a series of workstations to assess skills in the following areas: metal straightening and structural analysis. There will be a written test on estimating, structural analysis, and an ASE type exam. The competitors will also participate in an interview. The overall appearance of the finished product, speed and proper safety practices will be judged.

#### **Regional Competition**

Duration: 3 Hours

The contest will be consistent with the Collision Repair/Refinishing Technician Task List outlined in the guidelines published by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF), found online at [www.aseeducation.org/](http://www.aseeducation.org/).

#### **Knowledge Performance**

The contest includes a written knowledge test given by ASE, which will consist of 50 questions covering three areas of the Collision Repair areas that are identified in the NATEF ASE Education Foundation Collision Repair/Refinishing Program Standards and the ASE Official Study Guide: Collision Repair/Refinish, an estimating test and a structural test. The tests for the high school and college contests will be comprised of diagnosis and repair content from these skill areas: Non-structural Analysis and Damage Repair, Structural Analysis and Damage Repair, Mechanical and Electrical Components, and Estimating.

#### **Skill Performance**

Contestants will demonstrate their ability to perform jobs and skills based on the task list outlined by the National Institute for Automotive Service Excellence (ASE) and the National Automotive Technicians Education Foundation (NATEF). The competition includes a series of workstations to assess skills in the following areas: metal

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straightening, and structural analysis. There will be a written test on estimating structural analysis, and an ASE exam. The competitors will also participate in an interview. The overall appearance of the finished product, speed, and proper safety practices will be judged.

#### **Materials Supplied by SkillsUSA CA**

##### *Materials for metalworking phase:*

- Identical fenders to be repaired
- Plastic filler
- Various grits of sandpaper/DA
- Sanders, hand sanding blocks, Roloc disc.
- Plastic filler mixing boards and spreaders
- Dust respirator
- Cartridge-type respirators
- Vixen file
- *Safety glasses*

##### *Materials for estimating phase:*

- Vehicle owner's name and address
- Scratchpads
- Estimate sheets
- Estimate books
- Calculators
- Parts price list for car involved

#### **Materials supplied by contestant:**

- Specialty hand tools (i.e. bullseye pick, etc.). No power hand tools required
- 9/16" and 5/8" wrenches
- Tape measure
- Two hard copies of résumé

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### **Clothing Requirement**

### **Class D: Contest Specific - Automotive Blue Attire**

### **[Clothing Classifications](#)**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### COMMERCIAL BAKING

#### **Contest Description**

Challenges contestants to meet production and quality standards expected by the industry. Students must scale, mix, prepare and bake six products: 1) bread, 2) rolls, 3) Danish, 4) cookies, 5) pies, and 6) cake-decorating skills. They must deliver a quality, salable product while working efficiently under job-like conditions.

#### **Regional Competition**

Duration: 3 hours

The contest will be geared toward the commercial (retail) baking business rather than the commercial restaurant business.

#### **Knowledge Performance**

The contest will include a written test assessing baking fundamentals. The exam consists of 50 multiple-choice questions.

Topics of the exam include:

1. *Weights*
2. *Measures*
3. *General baking math*
4. *Proper temperatures of dough*
5. *Dough handling and baking*
6. *Classifications and properties of ingredients*
7. *Handling and storage of ingredients*
8. *Safety and handling*
9. *Yeast-raised dough products*
10. *Doughnut — cake and yeast-raised*
11. *Cake decorating*
12. *Production, scheduling, planning*
13. *Laminated doughs*
14. *Cookies, pies, and pastries*

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*15. Customer service*

*16. Merchandising of products*

The written test will be scheduled during a contestant meeting and held before the performance portion of the contest.

### **Skill Performance**

The skill performance of the contest will be the actual preparation of goods and presentation of finished products ready for sale to customers.

### **Contest Guidelines**

1. During the contest, all food items needed for baking will be provided; no outside food will be allowed.
2. The product formulas and other instructions needed for product preparation will be posted on the SkillsUSA website
3. A total of six products will be prepared during the performance portion of the contest. The products will be selected by the national technical committee.
4. All products will be visually evaluated on a scale of one to five. Each product will be scored on these elements:
  - External appearance — Volume, form or shape, size, uniformity, structure, color, crust, thickness, character or feel and even bake. For certain products
  - Internal appearance — Slice, structure, color, grain or density, tunneling or holes, texture or feel and even bake
  - Taste — Aroma, flavor, palatability, aftertaste, character, palatability, texture, freshness, moisture and dryness
  - Salability — Product quality, consistency and presentation as a desirable consumer good

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### **Materials Supplied by SkillsUSA CA**

\*Sheet pans: Full and Half

\*Parchment paper

\*2 each per person 9-inch Pie tins

\*3 each per person 6 muffin aluminum baking tray \*2 oz. muffin paper liners

\*Pie Weights

### **NO OUTSIDE FOOD ITEMS MAY BE BROUGHT TO CONTEST**

#### **Supplied by the contestant (at least one of each):**

- Whisk(s)
- Paring knife
- Bread knife / Cake cutter
- Bench scraper
- Silicone high-temperature Spatula(s)
- Measuring cups and teaspoons
- Digital scale
- Kitchen spoon (wooden or plastic)
- 3 each small; 3 each medium; 2 each large mixing bowls \*Kitchen towels (4 min)
- Sifter(s)
- Rolling pin
- Kitchen timer(s) — CELL PHONES WILL NOT BE ALLOWED
- Oven mitts; Oven pads
- Cake turntable
- Piping bags and tips
- Cake cardboards
- Icing spatulas: straight and offset
- Food coloring: blue
- Food coloring: yellow (post-secondary only)
- 2 each – 2 oz. portion scoop
- Blue tape and sharpie to label items
- One palette knife
- One hand whip

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- One large kitchen spoon
- Three pastry bags, tips, and scissors
- One bowl scraper
- One dough knife
- One serrated knife
- One pastry wheel
- One bench brush
- One grease brush
- One pastry brush
- One rolling pin
- Three side towels
- One cleaning towel
- One set of nested mixing bowls (1-, 2- and 3-qt.)
- Thermometer
- Timer
- An oven mitt or panhandlers
- Disposable gloves to handle ready to eat foods
- Pencil or marker to mark baked items
- No other food items allowed (e.g., sprinkles, decorettes, etc.)
- A small (battery-powered or spring) scale (2 lb. to 4 lb. capacity)
- A basic calculator is allowed for baking and written test
- A 1-2 qt. saucepan
- All state winners must create a one- page résumé and submit a hard copy to the judge.

*Note:* This is the minimum of tools needed. Contestants may bring additional materials but they must be stored in your workspace. Judging will also include a neat and clean workspace.

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**Clothing Requirement**

**Class G: Culinary/Commercial Baking Attire**

**Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
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## Regional 2019-2020 Contest Catalog

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### COMMUNITY ACTION PROJECT (DEMONSTRATION)

#### Contest Description

A team of two contestants will develop, execute, document and present a project that was completed in their community or school, which provided a benefit to the community or the school. Based on the national contest technical standards.

**Eligibility:** Open to active SkillsUSA members enrolled in career and technical programs with entry-level job skills as the occupational objective. A letter from the appropriate school official on school letterhead stating that the contestant is classified under the provisions of Public Law 105-17, Individuals with Disabilities Education Act, 1997, is required for participation.

#### Regional Competition

Duration: 2 hours

#### Materials Supplied by SkillsUSA CA

1. Room
2. Table with Chairs for judges
3. All judges materials and resources

#### Student Materials List

1. SkillsUSA Notebook
2. All materials and equipment associated with the presentation
3. Resume
4. SkillsUSA Official Dress

#### Clothing Requirements

- **Class A SkillsUSA Attire**
- [Clothing Classifications](#)

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## Regional 2019-2020 Contest Catalog

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[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### COMMUNITY SERVICE PROJECT

#### Contest Description

The community service competition evaluates local chapter activities that benefit the community. SkillsUSA chapters present their best community service project for the year. Your team of 3 is evaluated on a notebook that reports their chapter's community service project and on a live presentation, which is given to a panel of three judges. Based on the national technical standards.

#### Regional Competition

The contest evaluates local chapter activities that benefit the community. SkillsUSA chapters present their best community service project for the year to a panel of judges. Contestants are evaluated on:

1. A notebook reporting the chapter's community service project
2. A live presentation by a chapter team of three members.

#### Materials Supplied by SkillsUSA CA

1. Room
2. Table and chairs for judges
3. Table for contestants
4. All materials and resources for judges

#### Student Materials List

1. All materials, and equipment associated with the presentation
2. Notebook
3. Resume
4. SkillsUSA Official Dress

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## Regional 2019-2020 Contest Catalog

### **Clothing Requirements**

#### **Class A SkillsUSA Attire**

#### [Clothing Classifications](#)

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## Regional 2019-2020 Contest Catalog

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### **COMPUTER PROGRAMMING**

#### **Contest Description**

The competition consists of project coding and output, a skill-related written test and an interview. The contestants will receive a packet that includes instructions for the written test and each of the two projects. Each project's specifications are written for Visual Basic, Java, C#, C++, and RPG. The projects will be saved on the Desktop in a folder called "SkillsUSA Contestant#\_." All projects will be downloaded to a flash drive.

#### **Regional Competition**

3 Hours

#### **Knowledge Performance**

The contest includes a written knowledge test assessing knowledge of Visual Basic, Java, C++ or RPG or "other approved language."

#### **Skill Performance**

The contest includes a computer programming problem consisting of background information and program specifications with accompanying reference materials and a description of program output requirements. An appropriate (successfully executable) computer program from design notes and instructions will be developed.

#### **Contest Guidelines**

The contestants will receive a packet that includes three or four projects. Each project's specifications are written for either Visual Basic, Java, C++ or RPG.

Projects will be scored on the following six criteria:

1. The correctness of the output
2. Validation of input
3. Internal documentation
4. Efficiency of code

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## Regional 2019-2020 Contest Catalog

5. Quality of work
6. Completeness

The contest will also include an interview to assess contestants' ability to answer questions typical of an entry-level position for a computer programmer.

### **Materials Supplied by SkillsUSA CA**

- Programming instructions
- Timing and judges procedures

### **Student Materials List**

- Desktop computer/monitor or laptop
- Visual Basic, Java, C++ or RPG software
- One copy only of the coding reference manual of the language in which they will code the program
- Ballpoint pens or sharpened pencils
- Blank notebook paper
- 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.

### **Clothing Requirements**

#### **Class E Clothing Specific-Business Casual**

#### **[Clothing Classifications](#)**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

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### COSMETOLOGY

#### Contest Description

This contest is designed to demonstrate the contestant's preparation and knowledge in the field of cosmetology in areas of sanitation, proper setup and disassembly, professionalism in the workplace, and proper techniques in styling and cutting services. This competition is open to all students enrolled in programs with cosmetology as the occupational objective.

#### Regional Competition

Duration: 3 hours

- Written Knowledge Test - 1 hour
- 90 degree Cut and Blowdry - 1 hour
- Long Hair Design - 1 hour
- Verbal Assessment (During the performance of procedures)

#### Knowledge Skills

Written Knowledge Test (1 hour – 200 possible points):

- Contestants will complete a multiple-choice test. It will include, but not limited to, the basic knowledge of SkillsUSA, as well as the state health and regulations, proper sanitation, client protection, procedures, precautions, and health hazards involved in the cosmetology practice.

#### Skills Knowledge

During the contest, students will be asked to give a verbal assessment that is used to demonstrate customer service skills by phone in a simulated work scenario. Students will not know the scenario until they are ready to complete the simulation.

#### Contest Guidelines

- Contestants will have 3 hours (depending on schedule) to complete the components of the contest.

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### Regional 2019-2020 Contest Catalog

- Students may be judged in a few or all of the steps/procedures listed below:

#### *Communication Skills* (Oral Test – 100 possible points)

Contestants must explain the purpose and use of the techniques and tools used, as well as the purpose for the use of it. The verbal assessment will be used to demonstrate customer service skills and technical skills used in a simulated work scenario.

Contestants will be judged on professionalism, knowledge of tools, techniques, and procedures for the services performed.

#### *90 Degree Haircut* (1 hour – 350 possible points)

Contestants should be able to create a uniform 90-degree haircut at a length of 6 inches. Doll hair **MUST NOT** be previously cut. The students must follow the directions provided, and cross-check the haircut to ensure accuracy.

#### *Cutting Precision Techniques*

Contestants will demonstrate their ability to follow directions while creating a uniform haircut at a 90-degree angle at a length of 6 inches. The student should show the proper usage of scissors and tools used during this portion of the test. Contestants must be able to duplicate a uniform layer (90-degree) haircut and design selected by the California Tech Committee.

#### *Long Hair Design* - (1 hour - 350 possible points)

Contestants must show their skill involved in creating a smooth and balanced design with the bobby pins and hair clips hidden, which shows no backcombing or back-brushing from under the style. The techniques they incorporate should follow current trends and be proportionate to the mannequin.

#### *Styling and Finishing Techniques*

Contestants must create a range of special effects in an upswept style, which can be used during special events and have dimensional texture created with different hair color techniques previously done on the mannequin.

1. Contestants must be able to create a classic elegant and contemporary evening long hairstyle that could be used for special events such as weddings. No loose

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hair or just curl down hair be allowed. The use of heating tools such as curling iron or hot rollers, and any type of hair products such as spray, mousse, pomade, etc. is allowed.

2. No extensions, hairpieces, or ornaments allowed
3. Demonstrate creativity that will include form, balance, and rhythm in the hairstyle
4. Steps must be followed in the exact order
5. Tools must be assembled and station prepared
6. Begin to work in the hairstyle of choice, create an evening look, use your creativity to achieve an outstanding up to date style.
7. Once the hairstyle is completed, clean up and leave the mannequin at the station to be judged.

*Note: Contest procedures can just be judged in a few areas of the process; it will be decided prior to the competition without notice. Competition could be switched to a "demonstration only" if the minimum amount of participants is not met.*

**All content is subject to change before the competition.**

### **Clothing Requirements**

Class F: Contest specific - Cosmetology

[Clothing Classifications](#)

### **Materials Supplied by SkillsUSA CA**

1. Timekeeper
2. Work station
3. First Aid Kit
4. Outlets for power

### **Student Materials List**

- Students must bring at least one uncut female doll head that will be used for the long hair design and the 90-degree haircut. Previously cut doll heads will be disqualified. Mannequin should be previously colored.
- Students must have their own kit and are not allowed to share general supplies.

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- Students are required to turn in resumes to their judge.

*In addition, contestants must provide the following items:*

1. Cutting Shears
2. Thinning Shears
3. Razor and spare blade
4. Clippers
5. Thermal Tools (Flat iron and curling iron)
6. Blow Dryer
7. Styling Products of choice (including earrings and makeup)
8. Finishing Spray
9. Combs
10. Spray bottle (filled with water and clearly marked)
11. Towels
12. Clips of choice
13. At least one uncut female doll head
14. Tripod

*Note: Any specialty items such as makeup and earrings, must be provided and pre-done by the student.*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### CREED

#### Contest Description

Contestants are to recite the SkillsUSA Creed and answer questions about the meaning of each of the parts of the Creed. This is a regional and state only contest and does not advance to nationals.

#### Regional Competition

*ONLY middle school and high school freshmen* are eligible to compete in this contest.

The total time allowed for questions and answers is three minutes. The contestant will be stopped if the time limit is exceeded.

#### Contest Guidelines

##### *Recitation*

- Contestants should prepare for the SkillsUSA Creed recitation by developing the following competencies:
  1. Demonstrate an effective delivery style
  2. Pronounce words in a clear and understandable manner
  3. Demonstrate good platform deportment and personal confidence
  4. Effectively vary voice in pitch, tone, tempo, and volume
- The topic for the recitation is the official SkillsUSA Creed (Long Version) as published in the most current SkillsUSA Leadership Handbook
- The contestant may not use a manuscript, note cards or any other written materials
- No introductory or concluding remarks to the SkillsUSA Creed will be allowed other than the title and author.
- One judge will serve as a prompter to assist students who falter (10 seconds) during a recitation

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- Contestants will not mention their name, school, city or state

#### *Interview*

Each contestant will be interviewed by each of the judges. Each judge will ask one question. All contestants will be asked identical questions.

#### **Judging Criteria**

- Memorization
- Voice (Articulation force, pronunciation quality and volume)
- State Presence (Attitude, confidence, ease before judges, poise, body posture, personality, and personal appearance)
- Power of Expression
- Communicative ability, conveyance of thoughts, directness, emphasis, fluency, and sincerity
- Response to Questions

#### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- Time Cards
- All materials and resources for judges

#### **Student Materials List**

- Resume

#### **Clothing Requirements**

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

#### SkillsUSA Creed

<https://www.skillsusa.org/about/history-brand-resources/creed/>

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## Regional 2019-2020 Contest Catalog

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### **CRIME SCENE INVESTIGATION**

#### **Contest Description**

The contest assesses the ability to perform skills related to the crime scene procedures as outlined in *Criminal Investigations* by Bennett and Hess, Seventh Edition, and guidelines as set forth by the SkillsUSA technical committee.

#### **Regional Competition**

Contestants will be directed to the crime scene and briefed as to the situation. The contestants will, as a three-person team, process the crime scene. They will legally search for, properly collect and remove evidence of the crime. One member of the team will be required to lift a latent fingerprint from a pre-selected item of evidence. After the scene has been processed, the contestants will write their report, draw the crime scene sketch and mark their evidence.

#### **Knowledge Performance**

The contest will include a skill-related written knowledge test assessing knowledge of crime scene photography, physical evidence, crime scene sketches, fingerprinting and releasing a crime scene.

#### **Skills Performance**

The contest will include activities that simulate situations encountered by criminal investigation professionals.

#### **Contest Guidelines**

1. Teams will draw numbers during the pre-contest orientation meeting to determine the order of performance and demonstration times.
2. Advisors are made up of instructors, teachers, administrators or educators from high schools, trade schools, technical schools, colleges, and career centers.

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3. Student competitors must be accompanied by their advisor or adult representative. Advisors must check in to the holding area before the competition.
4. During the contest, teams must work independently, without assistance from judges, teachers, fellow students or observers.
5. Advisors will not have contact or be able to assist students while they are competing. Advisors are not allowed in the crime scene or interviewing areas. They are not allowed in the holding area except during their assigned supervision time.
6. There will not be any coaching or assisting competitors once the competition starts. Any advisor found violating these rules, their teams will be disqualified. No exceptions! Contestants will be disqualified for receiving such assistance. It is in the spirit of competition and good sportsmanship to demonstrate professional courtesy to other competitors.
7. Contestants shall in no way disrupt or interfere with the competition.

#### *Cell Phones:*

The possession of a cell phone by the competitors is strictly forbidden on the day of the competition.

#### *Spectators*

Competitors only are allowed in the crime scene area during their own competition. They must leave the area when finished. They are not allowed to return to the competition area. Spectators can have NO contact (visual or verbal) with competitors during the competition.

### **Materials Supplied by SkillsUSA CA**

#### **Crime Scene**

#### **Student Materials Lis**

1. Processing Kit (Basic but not limited to)
2. Fingerprint kit
3. Rulers

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4. Camera
5. Packaging Material
6. Measurement Equipment (Tape Measure)
7. Protective Equipment (Disposable Gloves and booties, face mask)
8. Watch
9. Directional Compass

#### **Forms**

Must be downloaded and brought to the contest

[Crime Scene Forms](#)

[Photo Form](#)

[Chain of Custody Form](#)

[Evidence Log](#)

#### **Clothing Requirement**

**Class D: Contest Specific — Blue Attire**

[Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **CRIMINAL JUSTICE**

#### **Contest Description**

Students who are preparing to be police officers or to work in other areas of criminal justice will compete in this competition. Typically this contest will utilize both written examination and practical exercises to evaluate the contestants' abilities and knowledge of the field. The contestants are scored on their knowledge and application of U.S. Constitutional Law, verbal communications skills, and their ability to handle an entry-level law enforcement position.

#### **Regional Competition**

The contest is defined by industry standards as identified by the SkillsUSA technical committee, which includes: Boone County Sheriff's Department (Missouri), Olathe Police Department (Kansas) and the Platte County Sheriff's Office (Missouri).

#### **Knowledge Performance**

The contest includes a written knowledge exam assessing knowledge of laws and processes related to criminal justice.

#### **Skills Performance**

The contest will include activities that simulate situations encountered by criminal justice professionals.

#### **Contest Guidelines**

1. Each contestant must work independently without assistance from instructors, other contestants or observers.
2. The judging criteria and points assigned will be determined by the difficulty of the tasks assigned.

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### **Materials Supplied by SkillsUSA CA**

All necessary materials for the contest

### **Student Materials List**

1. Small Pocket Notebook
2. Pens
3. Utility Belt (black)
4. Blue or red training gun
5. Handcuffs with case
6. Radio holder (no radio)
7. Flashlight with holder
8. 25' Tape Measure
9. Fingerprint kit
10. Camera (can use a cell phone)
11. Clipboard or Posse box for paperwork
12. Download forms and bring to the contest

[Recovery Log](#)

[Photo Log](#)

### **Clothing Requirements**

#### **Class D Clothing Specific Attire - Blue Attire**

[Clothing Classification](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### CULINARY ARTS

#### Contest Description

Contestants will demonstrate their knowledge and skills through the production of a meal and will encompass both hot and cold food preparation and presentation. The contestants will be rated on their organization, knife skills, cooking techniques, creative presentation, sanitation food safety techniques, and above all, the quality and flavor of their prepared items. The high school competitors will work from one menu with standardized recipes. The college/postsecondary students will work from a market basket format and write their own menu and recipes the night before the competition.

#### Knowledge Performance

The contest will include a written knowledge test that will require the use of culinary math. The test will include topics such as knowledge of standard weights and measures; the ability to convert recipes, yields, portion sizes, a.p.s. accurately; science; nutrition basics; environment health standards and practices; bacteria, viruses and food-borne illnesses; food science and technology; information technology; language and communications; English (SOL) reading; manuals/SOP; recipes; menus; résumé writing; speaking efficiently and listening carefully; and elementary culinary language-menu terminology.

#### Skill Performance

The contest will include a series of testing stations for the actual preparation of food and arrangement of food on plates or platters and dishes to serve to the customer.

#### Contest Guidelines

The skill performance portion of the contest will ask contestants to:

1. Demonstrate and apply food safety principles, procedures, HACCP and key practices for ensuring food safety
2. Coordinate *mise en place* and apply organizational skills

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#### Regional 2019-2020 Contest Catalog

3. Demonstrate and apply knowledge of proper cooking methods and techniques as required
4. Demonstrate and apply knowledge of proper cooking methods and techniques as required
5. Demonstrate and apply knowledge of proper cooking methods and techniques as required
6. Demonstrate and apply knowledge of proper cooking methods and techniques as required
7. Demonstrate knife skills and proper cutting techniques
8. Demonstrate and apply the proper use of equipment
9. Demonstrate and apply creative preparation, portioning and presentation of food items

#### **Materials Supplied by SkillsUSA CA**

1. (2) sauté pans per competitor
2. Cutting board per competitor
3. White plates for final product presentation
4. Small disposable bowls for judging knife skills (5 per competitor)
5. Tasting spoons for competitors and judges
6. Forks for judge's tasting
7. Food handler gloves

#### **Student Materials List**

1. Personal knife kit
2. Tongs
3. Whisk
4. Vegetable peeler
5. Potato masher
6. Measuring cups and teaspoons
7. Kitchen towels (min 4)
8. Oven mitts/potholders

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#### Regional 2019-2020 Contest Catalog

9. Meat thermometer
10. Kitchen timer—CELLPHONES WILL NOT BE PERMITTED AS TIMERS
11. Blue tape and sharpie to label items
12. Any other equipment you deem necessary

### **Clothing Requirement**

#### **Class G - Culinary Attire**

##### [Clothing Classifications](#)

Note: black, closed-toed, non-slip—NO TENNIS/ATHLETIC SHOES ALLOWED

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## CUSTOMER SERVICE

### Contest Description

The contest involves live role-playing situations. Contestants demonstrate their ability to perform customer service in both written and oral forms, including telephone and computer skills, communications, problem-solving, conflict resolution, and business etiquette.

### Regional Competition

- All contestants will report to the contest area at 8:00 am for the written test. Following the completion of the test, the customer service scenario portion of the contest will take place in a different room.
- After completing the written test, please remain in the contest area to ensure the competition moves along smoothly.
- Any contestant that does not report by the given time will be disqualified.
- All contestants must download the three possible scenarios prior to reporting to the contest area. The sooner you download the scenarios, the more time you have to prepare for your contest. At the time of the contest, keep in mind that any of the three scenarios may be administered, so prepare to present all three.

### Knowledge Performance

The contest involves a written knowledge test. Knowledge of the competencies outlined below will be assessed during the written knowledge test. Written assessments may also be given during the skill performance portion of the contest.

### Skill Performance

The contest involves live role-playing situations that demonstrate the ability to perform customer service skills selected from the following list of competencies as determined by the SkillsUSA Championships technical committee.

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### **Contest Guidelines**

1. Each contestant will be given the same scenario(s) and the same amount of time. The total time will be 15 to 20 minutes.
2. Contestants will be required to attend an orientation meeting where a written test will be given. At this meeting, contestants will draw for reporting times.
3. Contestants must report to the contest area 30 minutes prior to their scheduled reporting time to check in with contest officials and receive final instructions.
4. Contestants should expect to use all aspects of the skills listed in Standards and Competencies. A scenario will likely involve multiple situations occurring simultaneously (e.g., one customer may be engaged in a telephone conversation with the contestant while another customer is walking through the door for face-to-face interaction).
5. Judges will serve in the role of the customer(s).

### **Materials Supplied by SkillsUSA CA**

1. Workspace with table, chair, computer, telephone, and customer reception area
2. Flip chart and markers
3. Telephone log and telephone directory

### **Student Materials List**

1. Pencil and ballpoint pen
2. Paper (legal pad or spiral notebook)
3. Calculator (non-programmable)
4. All competitors must create a one-page résumé and submit a hard copy to the judge prior to the contest beginning. Failure to do so will result in a 10-point penalty.

### **Clothing Requirements**

[Class A: SkillsUSA Official Attire](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### CYBERSECURITY

#### **Contest Description**

The contest is defined by industry standards as determined from elements of the NIST Publication 800-181 CyberSecurity Workforce Framework Categories that include Securely Provision (SP), Operate and Maintain (OM), Protect and Defend (PR).

#### **Regional Competition**

Duration: 4 hours

##### **Event 1 - Digital Forensics**

The contestants are tasked with computer or network forensic activities associated with Incident Response Actions. Contestants will use appropriate measures to collect information from a variety of sources to identify, analyze and report cyber events that occur (or might occur) to protect information, information systems, and networks from cyber threats.

##### **Event 2 - Knowledge Test**

Contestants will answer as many questions as they can from a General Security knowledge test.

#### **Knowledge Performance**

Contestants will take an examination covering their knowledge of common electronic smart home subsystems as defined by the objectives of CompTIA's Security+ or ETA's ITS certifications. This involves knowledge of common cybersecurity tools, techniques, and practices. Questions cover key cybersecurity systems and devices, including those related to - personal computers, software, managed switches, enterprise routers, wireless access points, firewalls, pentesting tools, and digital/network forensic activities.

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## Regional 2019-2020 Contest Catalog

### **Skills Performance**

This portion of the contest will be a series of Provisioning, Testing, Deployment, Operational and Maintenance, and Protection and Defensive procedures with the end goals set by the technical committee.

The competition consists of several activities. Contestants must successfully complete assigned tasks. The tasks are designed to provide a variety of CyberSecurity challenges based on the recommended best practices of the industry. Identical tasks are used in high school and college/postsecondary categories.

### **Contest Guidelines**

The contest requires a team or tactical unit of two: Each will have to display equivalent subject matter expertise in all competency areas..

*For more information please visit [baycyber.net/skillsusa](http://baycyber.net/skillsusa) to prepare for the event.*

### **Materials Supplied by SkillsUSA CA**

Contest room with extra outlets

### **Student Materials List**

Each team of two MUST bring their own wifi-enabled laptop computers of any kind (Windows, Mac, Chromebook, Linux) in order to participate in the Cybersecurity competition at the Regional Competition and State Conference.

### **Clothing Requirements**

**Class E: Contest Specific - Business Casual**

[Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

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Regional 2019-2020 Contest Catalog

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### DENTAL ASSISTING

#### Contest Description

Contestants demonstrate procedures specified in the accreditation standards for Dental Assisting Education Programs of the Commission on Dental Accreditation. Students compete in chair-side assisting, preparation of dental materials, infection control, and emergency, laboratory and office procedures. Skills evaluated may include administrative, clinical, or laboratory dental areas.

#### Regional Competition

- Contestants will have 1.5-3 hours to complete the various components of the competition.
- Contestants will be rotated through different stations during the contest. These stations may include some or all of the following:
  1. Handwashing before gloving
  2. Placement and removal of personal protection equipment
  3. Proper brushing and flossing
  4. 3-minute x-ray mounting
  5. 7-minute job interview
  6. Written examination \*

#### Contest Guidelines

1. Contestants will be rated on personal appearance, the degree of work skills and speed used in the performance of the assigned task. The use of safety measures and the degree of effective personal interaction with the patient will also be rated, when appropriate.
2. All procedures for the simulations will be selected from the latest edition of *Modern Dental Assisting* (Torres and Ehrlich) by Elsevier Publishing. Contact your area representative for a desk copy of the textbook, student workbook, and online resources by calling 800-222-9570.

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3. The skills included in the contest will be selected from the Standards and Competencies listed in the Dental Assisting National Technical Standards and may involve total procedures or tasks that are a part of the procedures. To access the National Technical Standards, you will need to [login to your SkillsUSA account](#) and click on “Access Tech Standards” on the home page.

### **Knowledge Performance**





The contest will include a written knowledge exam assessing knowledge of dental foundations, communication skills, safety, infection control and asepsis (core and advanced), ethics/law, and employment skills.

### **Skill Performance**

- Placement and Removal of PPE (Competency 19-4, 19-5)
- Handwashing Before Gloving
- Proper Brushing and Flossing (Competency 15-2, Please note brushing competency is not in the MDA Workbook Table 15-5, FIG. 15-16 in MDA TEXTBOOK along with attached competency)
- 3-Minute X-ray Mounting (Competency 41-7)
- 7-Minute Job Interview  
(Evaluation Attached)

### **Written Examination:**

Students may be tested on their dental knowledge in various areas. Some of those areas may include:

-  Healthy Tooth
-  Oral Cavity
-  Overview of the Dentitions (**Chapter 11**)
-  Tooth Morphology (**Chapter 12**)

**NOTE:** Students are to study Chapter 11 & 12 ONLY THE MULTIPLE CHOICE questions from the MDA Workbook.

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## Materials Supplied by SkillsUSA CA

1. All instruments, equipment, and materials needed for the contest.










## Student Materials List

*Required Materials (These items WILL NOT be available at the competition):*

Examination gloves, mask, safety goggles, disposable gown, waxed or Gortex floss, and a #2 pencil. *(Failure to be prepared will result in a deduction from their overall score).*

Please note: Students **ARE NOT** allowed to share items as they are rotating through the contest simultaneously. **Please seal all the above items in a 1-gallon zip-lock bag.**

***(NOTE: -5 points deduction for each station involved)***

-  Students must sign in upon arrival to the contest site.
-  Advisors may not discuss the competition with the students during the contest. The the team will be disqualified if this occurs.
-  Any contestants that are not behaving in a professional manner may be disqualified. Profanity will not be tolerated.
-  **NO** electronics devices i.e. iPods, iPads, cell phones, etc. will be allowed into the competition area. *(Electronics may be permitted in the holding area as per discretion of the contest organizers).*
-  All contestants must stay in their holding area until they are escorted to their appropriate contest area.
-  All contestants must be SkillsUSA members and paid conference registrants.
-  Advisors **ARE NOT** allowed in the contest holding area.
-  Students must treat one another with respect regardless of their school affiliation.
-  Visitors and/or Advisors will be allowed to take pictures of the competition provided that they are not disrupting the competition or speaking to the competitors.  
***(Contestants may not take pictures of one another).***

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## **Resume Requirements**

Each student must present a Resume during their job interview. Failure to produce a resume will result in a 50 point deduction.

## **Clothing Requirements**

### **Class B: Healthcare Attire**

Students MUST BE in professional attire. (*Official SkillsUSA Uniform Only*). Please refer to the rubric for point deduction. See additional expectations below:

👤 Hair must be completely pulled back in a pony-tail or bun (*short hair must be pulled back*)

- 👤 Clothing cannot indicate which school the student is affiliated with
- 👤 No nail polish or artificial nails of any length
- 👤 Scrubs must be clean and pressed
- 👤 All piercings must be removed
- 👤 Clean white shoes required
- 👤 Tattoos must be covered

### **Regional Contest** - Evaluation

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

**<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>**

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Regional 2019-2020 Contest

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## **DIESEL EQUIPMENT**

### **Contest Description**

Contestants cycle through four to six stations testing and troubleshooting engines, electrical and electronics systems, powertrain systems including chassis, transmissions and carriers. Contestants also demonstrate skills in hydraulic systems, vehicle inspections, fundamental failure analysis, brake systems, air-conditioning systems and general shop skills. Contestants also take a written test.

### **Regional Competition**

Duration: 3 Hours

### **Contest Guidelines**

1. Contestants may be assigned problems or projects requiring as little as 20 minutes to perform or as long as three hours.
2. The following general shop safety rules will be followed:
  - Safety glasses must be worn at all times when in the work area. If the contestant is taking a written test or is in a job interview, safety glasses can be removed.
  - No loose clothing is permitted.
  - Long hair must be tied behind the head or netted.
  - Any liquid or grease spills must be cleaned up immediately and reported to the judge.
  - All injuries, no matter how slight, must be reported immediately to the judge.
3. In addition, contestants will be judged on general shop skills, problem-solving skills, shop safety and a written test. Points allowed will be assigned by the

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Regional 2019-2020 Contest  
technical committee based on the difficulty of the assigned task.

**This year's competition may cover the following areas:**

**1) Precision measuring**

- a. Outside micrometer, Metric & Standard
- b. Dial indicator
- c. Dial-bore Gauge
- d. Dial caliper
- e. Depth mic

**2) Live engine**

- a. Hook up Laptop computer to engine
- b. Run engine
- b. Read codes
- c. Read Fault guide

**3) Electrical**

- a. Battery connection, series, parallel
- b. Build a circuit
- c. Knowledge questions

**4) Hydraulics**

- a. Identification
- b. Schematics
- c. ISO diagrams
- d. Knowledge questions

**5) Failure analysis**

- a. Component failures: fatigue, ductal, brittle fractures
- b. SOS
- c. Knowledge questions.

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## Regional 2019-2020 Contest

### **6) Air brakes**

- a. Component Identification
- b. Knowledge questions
- c. Scan Tools & ABS diagnostic

### **7) Shop Skills**

- a. Fastener identification. b. Fastener torque values
- c. Torque performance test. d. Mechanical assembly

### **8) Resume**

### **9) ASE TYPE Test**

- a. 100 question ASE Type test

### **Knowledge Performance**

The contest will include a written knowledge exam to assess knowledge of principles, theories and procedures used in diesel equipment technology.

### **Skills Performance**

The contest will include a series of stations where students will service and repair large diesel engines, transmissions, drive trains, electrical systems, brakes, hydraulic systems and cab components used in farm equipment, trucks and construction equipment.

### **Materials Supplied by SkillsUSA CA**

All materials, tools and equipment needed for the contest

### **Student Materials List**

- Blue ink pens

Optional Items (highly recommended)

- Mechanic Gloves
- Nitrile Gloves

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#### Regional 2019-2020 Contest

- 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.

Cell Phones: During the competition cell phones must be off. If a competitor's phone: rings, buzzes, or whatever during the competition the competitor will be penalized 50 points period. If a competitor is caught using a cell phone (sending or receiving calls or texts) during the competition they will be disqualified, period, no exceptions.

#### CLOTHING REQUIREMENTS

Class D: Contest Specific - Automotive Blue Attire



Regional 2019-2020 Contest

1. 31.5	1. .985
2. 32.0	2. .987
3. 32.5	3. .989
4. 33.0	4. .991
5. 33.5	5. .994
6. 34.0	6. .996
7. 34.5	7. .998
8. 35.0	8. 1.000
9. 35.5	9. 1.002
10. 36.0	10. 1.004
11. 36.5	11. 1.006
12. 37.0	12. 1.009
13. 37.5	13. 1.011
14. 38.0	14. 1.013
15. 38.5	15. 1.015
16. 39.0	16. 1.017
17. 39.5	17. 1.020
18. 40.0	18. 1.022
19. 40.5	19. 1.024
20. 41.0	20. 1.026
21. 41.5	21. 1.028
22. 42.0	22. 1.031
23. 42.5	23. 1.033
24. 43.0	24. 1.035
25. 43.5	25. 1.037

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

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## Regional 2019-2020 Contest Catalog

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### DIGITAL CINEMA PRODUCTION

#### Contest Description

This contest is open to active SkillsUSA members enrolled in Career and Technical Education (CTE) in Filmmaking/Video Production programs. The competition will be divided into three portions: A notebook assignment to be completed in teams of two people, an interview with one or more judges and a short video (4.5 to 5 minutes) that will be shot and edited in advance of the Regional competition, meaning all work must be done prior to the contest. **This is not a live event.** No written exam on Digital Cinema industry standards will be given at the Regional level.

#### Important Notes for SkillsUSA CA Contestants

Please read the guidelines below for the Regional & State competitions and review the SkillsUSA requirements for student resumes. **SkillsUSA attire is required** and will be checked during interviews. Each team is responsible for bringing to the conference the team submission on a PC Formatted Flash-Drive marked with Team Number, all needed materials and personalized individual resumes for the project in a Team Number labeled 3-Ring Binder. **No production equipment is needed on site during this contest. This contest is completed in advance and delivered to the Regional conference.**

*The contest prompt will be provided prior to Regional competition.*

**FAILURE TO COMPLY WITH CONTEST RULES & GUIDELINES WILL RESULT IN DISQUALIFICATION.**

All winners of the competition at the Regional level will be required to review and follow all SkillsUSA CA contest rules and standards.

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## Regional 2019-2020 Contest Catalog

### **Documents**

[Contest Guidelines](#) - Regional (2020)

[Contest Considerations](#) Regional (2020)

[Contest Scoresheet](#)

[Contest Example Forms](#)

[Contest Prompt](#)

### **Clothing Requirements**

**Class E: Contest Specific - Business Casual**

**[CLOTHING REQUIREMENTS](#)**

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## Regional 2019-2020 Contest Catalog

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### **DRONE UNMANNED FLIGHT OPERATIONS**

#### **Contest Description**

The contest will be consistent with FAA-S-ACS-10A U.S. Department of Transportation Federal Aviation Administration Remote Pilot – Small Unmanned Aircraft Systems (Certification and Recurrent Knowledge Testing) Airman Certification Standards.

The contest will cover the competencies classified as Small Unmanned Aircraft Systems by the FAA.

#### **Regional Competition**

Duration: 2 Hours

#### **Skill Performance**

The contest will include a General knowledge commercial licensed uav pilots test of 35 questions.

#### **Knowledge Performance**

The contest will include a written knowledge test that assesses general knowledge of commercial licensed uav pilots. Definitions, knowledge, processes and procedures relevant to commercial licensed uav pilots will be assessed. Includes aspects of basic knowledge of unmanned aerial vehicles to assess ability to perform identified competencies in the field of commercial licensed uav pilots.

#### **Materials Supplied by SkillsUSA CA**

1. All necessary information and furnishings for judges and technical committees
2. Test Materials.

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## Regional 2019-2020 Contest Catalog

### Student Materials List

1. All competitors must create a one-page résumé and submit a hard copy to the judges

### Clothing Requirements

- Class E SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog For Public Review

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### EARLY CHILDHOOD EDUCATION

#### **Contest Description**

The purpose of the Regional competition is to evaluate a contestant's ability to plan and present appropriate activities for preschool-age children relating to a specific theme and demonstrate a general knowledge of quality childcare.

#### **Regional Competition:**

The following are the only portions of the contest being tested at the regional level.

#### **Book Reading**

- Contestants will demonstrate a book reading, use attention-getting techniques, and read the book to an imaginary group of children in front of the panel of judges.
- Students should perform their book reading as if they were working with a group of typically developing 4-year-old children. In other words, students should be mocking their book reading with imaginary children as opposed to showing the judges through a presentation.
- Contestants should provide their own book to read.

#### **Interview**

- The contestant will be given a 5-7 minute interview on early childhood education.
- The contestant will be asked three questions.
- The contestant will respond to a set of interview questions regarding knowledge of early childhood development, professionalism, and occupational leadership.

#### **Student Materials List**

1. Resume
2. Proper Skills Attire
3. Book to read for book reading presentation

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## Regional 2019-2020 Contest Catalog For Public Review

### **Clothing Requirements**

#### **Class E Contest Specific-Business Casual**

[Clothing Requirements](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### **ELECTRICAL CONSTRUCTION WIRING (formerly Residential Wiring)**

#### **Contest Description**

Contestants are required to complete a written test of questions formulated from the latest edition of the NEC, cabling system and wiring devices. Working from drawings and specification sheets, contestants are required to install an electrical system common with most residential projects. Judging is based on general workmanship, accuracy of layout and installation, and adherence to the current national Electrical Code and standard industry safe practices. Contestants knowledge of the materials used in the electrical industry will be tested when they are required to fill an order from a bill of material that will be used to complete the hands-on portion of this contest.

#### **Regional Competition**

Duration: for example 3 Hours

#### **CONTEST GUIDELINES:**

##### **Time limit**

Contestants will be stopped when time limits as specified on contest job sheet are up. Contestants may stop whenever they have completed a particular phase of the contest but must remain within contest area.

##### **Clean up**

The dismantling of the project will be considered the final sequence task of the contest.

##### **Knowledge Performance**

The contest criteria were drawn from the CTE Curriculum Standards for the Building Trades Industry with an emphasis in Residential Wiring. The contest will include a written test consisting of questions from the NEC and basic electrical wiring techniques.

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## Regional 2019-2020 Contest Catalog

### **Skill Performance**

The contest will assess accuracy, workmanship, the ability to read and interpret plans and the proper use of tools, equipment and materials. The core elements to be tested are:

1. **Planning and layout** – will include plan reading for placement of boxes and conductors required for devices. Contest includes a written test and a practical test.
2. **Materials** identification and assembly of boxes, conductors and devices.
3. **Tool handling and safety** demonstrated by the contestant.

### **Materials Supplied by SkillsUSA CA**

- All materials, as specified on the job sheet
- Job sheets and blueprints for each contestant

### **Student Materials List**

Each Contestant must turn in and typed resume

### **REQUIRED TOOLS AND MATERIALS FOR CONTEST**

Tool belt  
Safety Glasses  
2014 NEC Code Book  
Hammer  
25' Tape Measure (plus spare)  
Pencils  
Utility Knife  
Screwdrivers  
Speed Square  
Linemen Pliers  
Wire Strippers  
Diagonal Pliers  
Cordless Drill Driver  
Needle Nose Pliers

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## Regional 2019-2020 Contest Catalog

### Hammer

#### **Hand/ Power Tool Contest Pre-use Inspection Form**

Some portable power tools require a more thorough inspection. Check the manufacturer's recommendation for more advanced power tools.

**Before using hand tools inspect for the following:**

- o The outside of the tool is free of grease, oil and accumulated foreign matter
- o The tool has no visible cracks in jaws or handle
- o Blades or bits are not damaged, cracked, etc.
- o Handles are not cracked, damaged or loose from heads of hammers, axes mauls and other similar tools
- o Tips of screwdrivers, chisels or other similar tools show no excessive wear
- o Gripping surfaces pliers, wrenches or other similar tools are not worn
- o Tools such as chisels and punches do not have mushroomed heads
- o Cutting tools such as chisels and axes are sharp
- o Tool appears to be in generally good condition

**Before using portable power tools inspect for the following:**

- o The outside of the tool is free of grease, oil and accumulated foreign matter
- o Tool power-source shows no damage (cord, airline, battery, etc.)
- o Tool is double insulated and tool housing is not damaged
- o If not double insulated the equipped, electrical cord third prong (ground) is intact
- o All shields, guards or attachments required by OSHA or manufacturer are present
- o Rotating or moving parts of tool are guarded to prevent physical contact
- o Tool is not leaking fluid such as grease, oil etc.
- o Blades or bits are not damaged, cracked, etc.
- o Tool appears to be in generally good condition

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## Regional 2019-2020 Contest Catalog

o Proper PPE is available

### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### ELECTRONIC TECHNOLOGY

#### **Contest Description**

The contest is divided into five sections: customer service exam, written exam, soldering, breadboarding and troubleshooting. Contestants will demonstrate their knowledge of analog and digital circuitry; ability to troubleshoot electronic circuits; ability to construct and test experimental circuits; and, ability to design and select circuit components. All aspects of the competition tests contestants' abilities to use electronic equipment, record and organize data, and demonstrate proper safety practices.

#### **Regional Contest**

To complete the Electronics Technology tasks is 3 hours. It will include a written test and skill performance test.

#### **Knowledge Performance**

The contest includes one written knowledge test: a certified electronics technician exam and a customer service test.

#### **Skill Performance**

The skill performance portion of the contest will include construction and measurement of Voltage, Current and Resistance in series, parallel and series-parallel circuits. In the soldering section contestants should be able to

- a. Read and follow directions on schematic diagram, interpret circuit design drawings and build the circuit on a solderless breadboard.
- b. Solder various electronic components and properly use electronic components in accordance with their design specifications.

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## Regional 2019-2020 Contest Catalog

### Contest Requirements:

Open to active SkillsUSA students enrolled in a career and technical education (CTE) program with Electronics Technology as the occupational objective or Other Related Course Objective.

**All:** Safety glasses with side shields or goggles must be worn and provided by contestant. (Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)

**NO SAFETY GOGGLES WORN DURING SKILLS CONTEST WILL HAVE -10 PT DEDUCTION OFF SCORE CARD, and will not be able to compete at all the skill levels.**  
Eye protection not supplied by judges.

These regulations refer to clothing items that are pictured and described at: [www.skillsusa.org](http://www.skillsusa.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.

Contestant's Resumes will be submitted on day of orientation or before contest begins if requested by judges.

*Note:* Check the Contest Guidelines and/or the updates page on the SkillsUSA website: [www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

### Contest Guidelines

1. Contestants will be provided with the characteristics, parameters and information to accomplish the assigned tasks.
2. Time limit: 3 hours total.
  - a. Contestants will begin upon a signal from the timekeeper. Contestants must be responsible for time management skills during competitive events.
  - b. As soon as contestants have completed the assignment and are fully satisfied with the operation and quality of their work, they will signal the judge and stop their work. This signal will determine elapsed time and speed.

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### Regional 2019-2020 Contest Catalog

3. The completed projects will be tested by the judges for quality of work and operating specifications. Every effort will be provided to return projects to contestants via the Advisors at the end of the contest.

4. Judges may NOT provide technical assistance or give advice during an event.

5. Judges will ensure all materials have been issued prior to the start of an event.

6. Judges may assist with technical problems that interfere with an event.

7. No Cell phones or internet enabled device will be allowed during competition or orientation.

8. No replacement parts supplied by judges.

### **Equipment and Materials:**

#### **Supplied by the technical committee.**

All materials, supplies and job information needed to construct and test the designed circuit.

### **Student Materials List**

- Small pliers
- Wire cutters
- Wire stripper for no. 28 and no. 30.
- Gauge wire
- Solderless breadboard
- Small assorted screwdriver set (Phillips and slotted)
- 9V battery.
- 25 watt soldering iron and soldering holder
- 60/40 Solder
- Solder sponge
- Small Vice (optional)
- Solder wick and all assorted soldering supplies (Note: No soldering gun/butane gas soldering allowed)
- Multimeter capable of measuring Ohms, Volts and Current
- Calculators( can have scientific notation, but cannot be programmable)
- Writing utensils, note pads, magnifying glass for visual assistance, are the responsibility of the contestant.

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· Extra tools and equipment needed for soldering projects are supplied by the contestant

- One page Resume is required and all contestants will submit a hard copy to the technical committee chair and will be presented to the judges before the contest. Tool boxes to be inspected on Judges Discretion.

Contestants needing a personal break will not leave contest area unless escorted by a contest staff member.

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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### **EMERGENCY MEDICAL TECHNICIAN (EMT)**

#### **Contest Description**

The contest evaluates the contestants' ability to perform skills needed as an EMT. The contest uses simulated clinical scenarios mirroring the National Registry of EMTs (NREMT) psychomotor examinations and American Heart Association (AHA) basic life support CPR.

#### **Regional Competition**

Duration: 2-3 hours

#### **Knowledge Performance**

- The contest will include a 50 question multiple-choice written exam.
- Contestants are given 60 minutes to complete the exam.
- Exam questions are based on the National EMS Education Standards as interpreted and published by the American Academy of Orthopaedic Surgeons (AAOS) Emergency Care and Transportation of the Sick and Injured (latest edition), and the most current American Heart Association CPR/ECC guidelines.
- The scores of the two team members will be combined and averaged to create a composite score.
- Composite scores are used as a part of the final score for the contest.

#### **Skill Performance**

The skill performance will consist of 10 scenario-based skill stations allowing demonstration of emergency medical care. Scenarios are considered secret and professional ethics demands that competitors do not discuss scenarios until after the event has concluded.

##### **1. Patient Assessment – Trauma (10 minute maximum)**

This station is designed to test the team's ability to perform an assessment of a patient with a chief complaint of a traumatic problem and treat all conditions discovered. Contestant teams must conduct their

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assessment as they would in the field including communicating with the patient. Teams may remove the patient's clothing down to shorts or swimsuit if they feel it is necessary. As the assessment is conducted, contestants should verbalize everything they are assessing. Clinical information not obtainable by visual or physical inspection will be given to by the proctor after a contestant demonstrates how they would normally gain that information. Contestants will perform appropriate interventions, treatments, and reassessments of the patient. Contestants will then verbalize an appropriate transfer of patient care reports.

#### *2. Patient Assessment - Medical (10 minute maximum)*

This station is designed to test the team's ability to perform an assessment of a patient with a chief complaint of a medical problem and treat all conditions discovered. Contestant teams must conduct their assessment as they would in the field including communication with the patient. Teams may remove the patient's clothing down to shorts or swimsuit if they feel it is necessary. As the assessment is conducted, contestants should verbalize everything they are assessing. Clinical information not obtainable by visual or physical inspection will be given to by the proctor after a contestant demonstrates how they would normally gain that information. Contestants will perform appropriate interventions, treatments, and reassessments of the patient. Contestants will then verbalize an appropriate transfer of patient care reports.

#### *3. Bleeding Control / Shock Management (8-minute maximum)*

This skill is designed to evaluate the team's ability to treat a life-threatening arterial hemorrhage from an extremity and subsequent hypoperfusion. As teams progress through the scenario, they will be given various signs and symptoms appropriate for the patient's condition. Contestants will perform appropriate interventions and treatments and then verbalize when and how often they will do a reassessment of the patient.

#### *4. Cardiac Arrest Management with AED Use (8-minute maximum)*

Teams must immediately establish control of the scene and care of a patient experiencing a cardiac arrest. At the appropriate time, the patient's airway must be

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controlled and teams must ventilate the patient using adjunctive equipment. When prompted, the team will initiate the use of an AED, which will be supplied. Contestants will perform appropriate interventions, treatments, and reassessments of the patient and verbalize an appropriate transfer of patient care reports.

#### *5. Airway Management with Bag-Mask Ventilation (5-minute maximum)*

This is an isolated skills test comprised of three separate skills.

- As teams enter the station they will find an apneic patient with a palpable carotid pulse. There are no bystanders and artificial ventilation has not been initiated. Teams must initially assess the patient's airway and attempt to ventilate the patient using a bag-mask device (BVM), which will be supplied.
- Teams will then properly suction a patient's upper airway, measure and insert an oropharyngeal airway, and ventilate the patient for a minimum of 30 seconds prior to connecting to a supplementary oxygen source.
- As one team member is ventilating the patient, the second will be required to assemble an oxygen tank and a regulator, which will be supplied. The contestant will connect the BVM tubing while the teammate continues ventilation with supplemental oxygen administration.

Contestants will be evaluated on their ability to effectively manage the patient's airway, insertion of an adjunct, and ventilating a patient with appropriate volumes. It will also test the contestant's ability to correctly assemble the equipment needed to administer supplemental oxygen in the prehospital setting and continuously ventilate the patient both without and with supplemental oxygen

#### *6. Patient Spinal Immobilization – Supine (10-minute maximum)*

This skill is designed to evaluate the team's ability to immediately protect and immobilize the simulated patient's spine by using a rigid long spinal immobilization device. Teams will be advised that the scene survey and primary



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survey have been completed and no condition requiring further resuscitation efforts or urgent transportation is present.

The simulated patient will present lying on his/her back, arms straight down at his/her side, and feet together. Teams should not have to be concerned with distracters such as limb realignment, prone or other unusual positions.

Each team will be required to appropriately apply a rigid long spinal immobilization device on a supine patient and verbalize movement to an ambulance cot. An EMT Assistant will be provided and the team is responsible for the direction and subsequent actions of the EMT Assistant. Contestants will perform appropriate interventions and treatments and then verbalize when and how often they will do a reassessment of the patient. Teams are evaluated on their ability to protect and provide immediate immobilization of the spine

#### *7. Patient Spinal Immobilization – Seated (10-minute maximum)*

This skill is designed to evaluate the team's ability to provide spinal immobilization to a sedated patient in whom spinal instability is suspected. Teams will be required to immobilize an adult patient who is found seated with a suspected unstable spine injury using a short spine immobilization device. At least one (1) rigid wooden or plastic half-spine board and one (1) commercial vest-type immobilization device with all other associated immobilization equipment provided by the manufacturer will be provided.

Each team will be required to appropriately apply a half-spine immobilization device on a seated patient and verbalize movement of the simulated patient to a long backboard or ambulance cot. Contestants will perform appropriate interventions and treatments and then verbalize when and how often they will do a reassessment of the patient. Teams are evaluated on their ability to protect and provide immediate immobilization of the spine.



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##### 8. Extremity Injury / Joint Injury Immobilization (5-minute maximum)

This station is designed to test the ability to properly immobilize an extremity. The scene size-up and initial assessment have been completed and during the focused assessment, a closed, non-angulated injury of a bone or joint-related to the shoulder, arm, or lower leg was detected. Teams are required to treat only the specific, isolated extremity injury. Ongoing assessment of the patient's airway, breathing, and central circulation is not necessary. Contestants will perform appropriate interventions and treatments and then verbalize when and how often they will do a reassessment of the patient.

##### 9. Incident Management (6 minute maximum)

This station is designed to evaluate the participants' ability to conduct primary triage of victims of a mass casualty emergency. **Note: The term "mass casualty" is used to describe numbers of patients, and not a system response level.** This station is intended to evaluate the team's ability to work together sorting victims of a mass casualty incident rather than evaluating patient care. Thus, only very basic information about the conditions of patients is provided.

**This station can be performed either with volunteers acting as simulated patients or as a tabletop exercise.**

Teams will be given a scenario with an unknown number of victims. Using the principles of START Triage, teams will evaluate victims and assign them to one of the following four categories:

Walking wounded/minor (green)

Delayed (yellow)

Immediate (red)

Deceased/expectant (black)

##### *Option 1 (simulated patients):*

Each simulated patient will have a casualty card, providing limited information about the patient's injury(s). There will be enough information on each casualty card to allow team

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n members to triage each patient. Patients may not provide any additional information than what is noted on the casualty card.

- As the teams progress through the event, they will place triage tags on the simulated patients. Triage tags must clearly identify the START triage color category as determined.
- After four minutes, time is called. Teams will leave the scenario room immediately. It is not necessary to move or evacuate any simulated patients, and no additional patient care is required. Teams then have two minutes to complete a paper report, accounting for the number of victims determined for each category.

#### *Option 2 (tabletop)*

- Casualty cards will be spread out on a tabletop. Each card will have limited information about the victim and their injury(s). There will be enough information on each card to allow team members to triage each patient. Event staff may not provide any additional information than what is noted on the casualty card.
- As the teams progress through the event, they will place casualty cards in envelopes or mailboxes corresponding to a triage color category. Once a casualty card is placed, it may not be moved or removed.
- After four minutes, time is called. Teams will leave the scenario table immediately. Teams then have two minutes to complete a paper report, accounting for the number of victims determined for each category.

#### *10. Medication Administration (10 minute maximum)*

This station is designed to test the ability to recognize the indications, contraindications, and criteria for pharmacological interventions. Contestant teams will conduct an assessment of a patient with signs and symptoms that will require administration of one simulated medication found within the national EMT scope of practice:

- Albuterol sulfate; 90mcg; metered-dose inhaler

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- Aspirin; 81mg; oral administration
- Epinephrine; 0.3mg/ml; IM auto-injector
- Naloxone; 1mg/ml; IM/SC auto-injector
- Nitroglycerin; 0.04mg; sublingual tablet or spray
- Oral Glucose (d-glucose); max 15g; chewable tablet or oral gel

**Simulated medications will be provided for this scenario. Contestants may not bring or use any medication(s) from their own supply.** Clinical information not obtainable by visual or physical inspection will be given to by the proctor after a contestant demonstrates how they would normally gain that information. Contestants will perform appropriate interventions, treatments, and reassessments of the patient.

#### **Materials Supplied by SkillsUSA CA**

- CPR / AED training mannequins and equipment
- Airway mannequins and airway management supplies
- Medical oxygen tanks and oxygen delivery supplies
- Durable medical equipment (backboards, extrication devices)
- Medication administration training devices
- Splinting materials (i.e. cardboard splints)

#### **Student Materials List**

- Wristwatch capable of timing in seconds
- Pencil for written test
- Blue or black ink pen
- Clipboard
- Medical kit with disposable medical supplies (1 kit per team See table below for all equipment to have in the medical kit)

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### **Medical Kit that student must provide**

<ul style="list-style-type: none"><li>• 1 box (50) non-latex gloves</li><li>• 4 surgical masks</li><li>• 25 4"x 4" dressings (sterile or non-sterile)</li><li>• 3 rolls 1 1/2" fabric adhesive tape</li><li>• 4 abdominal pads (approx. 5"x 9")</li><li>• 1 trauma dressing (approx. 10" x 30")</li><li>• 1 penlight</li><li>• Stethoscope and B/P cuff (adult size cuff)</li><li>• Trauma shears and/or bandage scissors</li></ul>	<ul style="list-style-type: none"><li>• 2 pair safety goggles / eye protection</li><li>• 1 bag-mask device (BVM), (complete, adult size)</li><li>• 1 oral airway kit (at least sizes 2, 3, 4, 5, &amp; 6)</li><li>• 6 rolls conforming gauze (sterile or non-sterile)</li><li>• 2 occlusive dressings</li><li>• 2 hemostatic dressings</li><li>• 2 triangular bandages</li><li>• EMS or tactical emergency tourniquet</li><li>• Cell phone for calling for EMS assistance</li></ul>
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### **Clothing Classifications**

**Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:**  
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## Regional 2019-2020 Contest Catalog

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### EMPLOYMENT APPLICATION PROCESS

#### **Contest Description**

Tests the contestant's readiness in applying for employment and their understanding of the process. The competition includes completing an application and interviewing with the judges. Their resume and portfolio are used during their interviews.

#### **Eligibility**

Open to active SkillsUSA members enrolled in career and technical programs with entry-level job skills as the occupational objective. A letter from an appropriate school official on school letterhead stating that the contestant is classified under the provisions of Public Law 105-17, Individuals with Disabilities Education Act, 1997, is required for participation.

#### **Regional Competition**

Duration: 1 hour

#### **Scope of The Contest:**

The contest consists of four parts:

1. Preparation and submission of a résumé — six copies will be required, completed at home.
2. Preparation and submission of a portfolio — one copy will be required, completed at home.
3. Complete an application at contest time — 30 minutes allowed (the penalty for going over the 30-minute limit). The introduction portion is included in the 30-minute limit. Application will be completed in front of and timed by the Personnel Representative (judge). The Personnel Representative will evaluate the application and portfolio — see rating sheet.

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4. Participate in an in-depth interview with the judges, approximately 15 minutes. There will be two judges for the interview process. Judges will be given the application, three copies of the résumé and the portfolio for their review prior to the interview. After review of the résumé and portfolio, the judges will interview the contestant by asking a series of questions. The judges are allowed to use their own techniques for interviewing, but all contestants will be asked the same questions, which the judges will determine before the start of the contest. Typical questions that may be asked are:
  - A. What do you want to do for a job, your objective?
  - B. Why do you want to work in this field or at this job?
  - C. Why do you want to work for this company?
  - D. What qualifications and skills do you have to do this job?
  - E. What are some of your strengths?
  - F. Can you provide two of your successes in this type of skill?

#### **Preparation for the Interview**

In preparation for the interview portion, the contestants should:

1. Understand the importance of first impressions.
2. Practice proper introductions, including handshaking, clearly providing your name and purpose for being there.
3. Practice informal conversation including:
  - A. Stating your objectives
  - B. Providing information about yourself
  - C. Making yourself understood to the interviewer
  - D. Listening skills to be sure you understand the question
  - E. Learning to ask for clarification if necessary
  - F. Answering questions completely
4. Practice expressing your abilities confidently



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### **Preparation for Completing an Application:**

At home, contestants should practice completing various employment applications. Practice printing legibly using ink. Much of the information in an application includes the same information as in the résumé. Typical information requested includes:

1. Type of employment desired, what do you want to do, or what job are you seeking
2. Education and training
3. Memberships, clubs, community activity, school organizations
4. Work experience
5. References upon request

### **Student Materials List**

#### **Résumé:**

Prepare six copies of a one-page, typewritten résumé for submission at the time of the contest. Included in the résumé must be:

1. Name, address, telephone number
2. Career objective
3. Education/training
4. Work experience, listing present employment first, along with specific responsibilities
5. Accomplishments and awards earned
6. Memberships, clubs, community organizations
7. Indication of references available upon request

#### **Portfolio:**

- The portfolio is a hard copy collection (notebook or another type of binding, not required to be a SkillsUSA notebook) of a student's abilities and accomplishments.

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- The purpose of the portfolio is to provide another means for the employer to learn about the student (a potential employee).
- The portfolio should be created as a final product to be used in applying for future employment.

Items to include are:

1. Vocational skills, awards, accomplishments
2. Work experience
3. School, community and civic activities
4. Copies of awards, newspaper articles or other publicity
5. Any other items that reflect the student's abilities and accomplishments

#### **Organization for Portfolio:**

1. Title page — name, address, school, vocational goals or type of job desired
2. Table of contents
3. Vocational skills
4. Work experience
5. School, community and civic activities
6. Publicity
7. Other

Sample Employment Applications can be found online and it is suggested that contestants practice completing as many different applications as possible.

#### Clothing Requirements

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### **ENGINEERING TECHNOLOGY DESIGN**

#### **Contest Description**

A team of three students demonstrate their ability to design an innovative engineering project and present those ideas along with a display and live model. During the presentation, students are judged on their performance as a professional team, presentation of their project to a panel of judges from the engineering field, their storyboard presentation model, and the overall effect of the presentation.

#### **Regional Competition**

During the presentation, students are judged on their performance as a professional team, presentation of their project to a panel of judges from the engineering field, their storyboard presentation model, and the overall effect of the presentation. Presentation should take no less than 7 minutes and no more than 10 minutes.

You will be judged on the following areas:

- Prototype-Complete/Design/3D Model
- Prototype-Materials
- Prototype-Ergonomics
- Prototype-Analysis (Cosmos)
- Prototype-Aesthetics
- Presentation - Information
- Presentation - Clear Communication
- Presentation - Calculations
- Presentation - CAD Drawings/3D Models
- Presentation - Cost Analysis
- Storyboard - Gantt Chart
- Storyboard - Professionalism
- Storyboard - Physical Storyboard
- Q & A - Prototype/Process
- Q & A - General Knowledge
- Q & A - Professionalism

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- B & I - Marketability
- B & I - Involvement
- B & I - Resourcefulness
- B & I - Data & Information
- Overall Effect - Synergy Amongst Content
- Overall Effect - Accurate & Professional

Be sure that you have a physical model (prototype). During your presentation it is expected that you will demonstrate how or what your prototype does.

1. Resource for Gantt chart would include [www.gantt.com](http://www.gantt.com)
2. Resource for industrial review: Contact a local engineer or industry specific expert for the project you are designing and ask them to validate your project periodically while it's in progress as well as upon competition, this validation must be on company letterhead and included in your presentation materials.
3. During your engineering process include details on materials that you selected, ergonomics, manufacturing analysis, construction aesthetics and development of your prototype.
4. On the day of competition you will be expected as a team to solve a problem presented by the judges.

#### **Materials Supplied by SkillsUSA CA**

- One 30"x72" table
- One 10' extension cord
- One Six-Outlet Surge Protector
- One electrical 120 Volt (15 Amp) outlet
- Projector and Projector screen

#### **Student Materials List**

- Handouts
- All visual aids (Marketing materials)
- Résumés

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- Physical Project (Prototype)
- Presentation (PowerPoint, Laptop)
- Gantt Chart
- Storyboard

#### **Clothing Requirements**

- Class E SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### ENTREPRENEURSHIP

#### Contest Description

A team of four event testing students' knowledge in starting their own businesses by developing business plans that identify needed products or services in a local market. Emphasis is placed on financial planning and practicality of product/service. Teams give oral presentations based upon their written plans and the team must successfully answer questions by a team of judges in response to a typical problem encountered by entrepreneurs during their first year of business.

#### Regional Competition

Students will begin the process of creating a business. This will include:

- Handing in a partial business plan (including the title page as described in the national competencies),
- Determining the roles of the members, understanding what resources can keep them informed of current events (Wall Street Journal)
- Understanding the initial process that must be completed before creating the business.

At the regional level, students will not be required to present a business plan nor have a product/service to propose. However, students will be asked to present what type of business they are going into and provide information on why their company will succeed in today's market. (What demand will support their supply?)

The Entrepreneurship contest is a regional, state and national competition. It is open to students of all competencies. Contestants will work in a team setting to create a **FICTITIOUS BUSINESS** (Search "What Is a DBA?" on Google) in which they are responsible for building examples of projected success. Students will need to learn the essentials of economics and management strategies as well as the skill of being aware of all current events and marketing factors for your industry.

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This competition requires the CREATION of a new business, and not the plan of an already existing business. With this, students are expected to create realistic data and finance predictions. If a team is creating spoons that dogs can use to eat dry food, you can't expect the company to make over \$50 million within 2 months of operating a startup business.

Students will enter the room and begin setting up the room for their preference. Once the setup is complete, students will command the front of the room and face the judges to present their business. Students will present all appropriate material to the current competition and will be judged based on a point system. The team to score the most amount of points will move on to the next stage of the competition.

Students will be given:

- 5 mins to set up
- 5 min presentation
- Judge critique

**Judges will give a 5-minute warning at the state level, and a 2-minute warning at the regional level.**

### **Grading and Scores:**

At the regional level, participants will be graded on their EXECUTIVE SUMMARY & COMPANY DESCRIPTION. Participants will also be required to submit a résumé which will be handed to the judges before/during/after the initial setup period.

### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- One 30"x72" table
- One 10' extension cord
- One Six-Outlet Surge Protector
- One electrical 120 Volt (15 Amp) outlet
- Projector screen

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### Student Materials List

- Handouts
- PROJECTOR
- Computers (Or other technologies)
- Business Cards
- All visual aids
- Résumés

### Clothing Requirements

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### ESTHETICIAN

#### Contest Description

This contest is designed to evaluate the contestant's preparation and knowledge in the areas of sanitation, proper setup and disassembly of services provided, professionalism in the workplace, and proper techniques in basic facial and makeup application. It is open to all students enrolled in programs with cosmetology or esthetics as the occupational objective.

#### Regional Competition

Contest time will be no more than 2 hours (not including written test)

- Written test
- Oral Exam- 10 minutes
- Basic Facial- 1 hour
- Beauty Daytime Makeup- 45 minutes
- Communication Skills (Oral Test) Contestants will deliver a 2-3 minutes oral presentation on the contestant's interpretation and/or approach to the yearly theme, "**Champions At Work: I'm Ready**" for the fantasy makeup.

*Students may be tested in all or some of the following areas:*

- An oral skin consultation
  - Skin analysis
  - Suggested facial treatments
- Beauty makeup product knowledge prior to application.
- A written exam covering the fundamentals of skincare
- Sanitation
- A day time make-up application.

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### Contest Guidelines

- Any specialty items must be provided by the student.
- Students must have their own kit and are not allowed to share general supplies.
- Students are required to turn in a résumé to the regional judge.

### Skills Performance

Their technical skills will be tested in:

#### *Facial Cleansing and Massage*

- Demonstration of facial cleansing and manipulations.
- The contestant will demonstrate knowledge in different massage movements, using proper touch, rhythm, and continuous contact.
- Students will be judged in sanitary and contamination precautions
- Demonstration and knowledge of massage movements such as effleurage, petrissage, tapotement, friction, and vibration would be required:
  - a. Preparation
  - b. Sanitary removal of creams/lotions
  - c. Demonstration of facial cleansing
  - d. Demonstration of facial manipulations
  - e. Removal of massage cream
  - f. Application of astringent/toner
  - g. Clean-up and organization of contestant's station

#### *Basic Facial*

- Contestants must be able to perform a basic facial on the model as a continuation of the previous procedure.
- Tools assembled and station prepared
- Demonstration of knowledge and sanitary procedures:
  - a. Exfoliation of the face – application, manipulation, removal.
  - b. Steaming the face – preparation, towel temperature, application, lifting.
  - c. Facial mask – preparation, application, removal.
  - d. Toner/astringent application

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#### Regional 2019-2020 Contest Catalog

- e. Moisturizer Application
- f. Clean up and organize the station

#### ***Fantasy Make-up***

- Contestants will turn in a one-page typewritten written description of the Fantasy Makeup theme interpretation and 8 X 10 photograph of the Fantasy Makeup at the contestant orientation.
- Contestants will perform a fantasy make-up application on a live model including all necessary pre- and post-service procedures:
  - a. Proper application of products
  - b. Creativity and balance must be shown
  - c. Props could be applied after the completion of the time for the make-up application when the judge direct the contestants and give them the instructions.

*All cosmetics used for the performance of the practical portion of the contest MUST be in original packaging and sealed.*

#### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- Tables or benches for facials
- Chairs
- Access to sinks/water
- First Aid Kit
- Blood spill kit

#### **Student Materials List**

- Portable kit organizer (to transport items for the contest)
- All items necessary for daytime makeup application
- Spatulas
- Cotton swabs
- Fan and mask brushes
- Cotton 4x4 pads or sponges
- Tissues

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### Regional 2019-2020 Contest Catalog

- Mascara wand
- Makeup brushes
- All applicators must be disposable or sanitized
- Eyelashes
- Adhesives
- Tweezers
- Scissors and necessary application tools with alcohol wipes and sanitizers
- Minimum of (6) clean white towels with no holes or stains (For beauty portion you may use set-up sheets or paper towels.
- Headband
- Stainless steel bowl for water(1 ½ quart minimum)
- Cape for makeup application
- Sheet for proper draping
- Plastic Bag for sanitation
- Latex-free gloves (at least 2 pair)
- Paper towels or tissue (can be travel size)
- Decontamination supplies for hands, equipment, and implements

### Models

Contestants will supply their own model, tools, and supplies for all areas of this contest.

- Models hair must be pulled back from the face with a white or black headband
- Must have a clean cosmetic-free face
- Must not wear earrings, facial piercings or necklaces.

### Clothing Requirements

#### **Class E Contest Specific- Business Casual**

#### **Clothing Classifications**

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Regional 2019-2020 Contest Catalog

*Contest procedures may be judged in a few areas of the process; it would be decided prior to the competition without notice.*

*Competition could be switched to a demonstration only if there is a low number of participants*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### EXTEMPORANEOUS SPEAKING

#### Contest Description

Contestants will compete individually. The contestant will create a speech, no more than 3 - 5 minutes in length using the prompt given by the technical committee chair during the competition. Contestants will have five minutes to determine the content and organize their speeches.

#### Regional Competition

Contestants enter the preparation area one at a time where they are given a speech topic. They are judged on voice, mechanics, platform deportment, organization, and effectiveness.

#### Judging Categories

Opening	150 points
Voice	100 points
Speech Delivery	400 points
Closing	150 points
Effectiveness	200 points

#### Materials Supplied by SkillsUSA CA

- Reference materials: SkillsUSA
  - Leadership Handbook, Webster's New Collegiate Dictionary
  - Bartlett's Familiar Quotations and Roget's
  - Thesaurus
- Sealed envelopes with topics
- 3 x 5 Blank Index Cards
- Stopwatch (1 per Judge)
- Timecards

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## Regional 2019-2020 Contest Catalog

### Student Materials List

- Pencil or pen
- Resume
- Skills Official Dress

### Clothing Requirement

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### FIREFIGHTING

#### Contest Description

The Firefighting contest evaluates the contestant's preparation for firefighting careers through hands-on skill demonstrations and both written and oral presentations.

#### Regional Competition

- Areas tested include safety, breathing apparatus, fire streams ladders, ropes, knots and hoses, fire control, ventilation, emergency medical care and rescue, and protecting fire cause evidence. Contestants are evaluated using standards established by the National Fire Protection Association (NFPA).

The firefighting contest will consist of as many of the following elements as it pertains to the capability of the contest coordinators:

- Written exam
- Oral professional assessment
- Don structural firefighting PPE
- Ropes and knots common to fire fighting situations
- CPAT agility course
- 24' extension ladder raise (possible element for tie-breaker)

#### Knowledge Performance

Questions are taken from IFSTA Essentials

#### Oral Professional Assessment

- Miscellaneous topics from 'How to Smoke Your Firefighter Interview
- Explain the principles of heat, heat transfer and fire
- Explain the relationships between heat and fire
- Identify commonly referenced NFPA standards
- Describe each of the components of PPE
- Explain the use and care of PPE

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#### Regional 2019-2020 Contest Catalog

- Describe the proper use of common firefighting equipment
- State general safety rules and principles
- Locate safety standards for firefighting
- State general firefighting procedures

#### **Donning PPE**

Don structural personal protective equipment within 60 seconds - Don pants and boots. Don protective hood. Don coat. Don helmet, adjust chin strap. Ensure that all fasteners, snaps, buckles, etc., are fastened. Don gloves.

*Safety infractions: 2 point deduction for each infraction*

- Head
- Collar
- Chin Strap Bunker Gear
- 5 point deduction for over the 60 sec. time limit
- Max score 25 points

#### **Tying Ropes and Knots / Tool Raise**

*Tie ropes and knots used in firefighting situations*

Tie any of the following knots in succession in a prescribed amount of time:

- Half Hitch
- Clove Hitch (Closed)
- Clove Hitch (Open)
- Bowline
- Figure-eight or Flemish knot
- Figure Eight on a bight
- Figure Eight Bend or Flemish Bend or Figure 8 Follow through
- Becket Bend or Sheet Bend
- Girth Hitch or Larks Head. (25 points)

***5 point deduction for over the time limit***

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#### Regional 2019-2020 Contest Catalog

*Perform one of the following within 30 second time limit: Pass or Fail (25 points)*

- Hoisting of an ax
- Hoisting of a pike pole
- Max score 50 points

***5 point deduction for over the 30-sec time limit***

#### **CPAT Events**

*Stair Climb* – Wear total of 75 lbs of weight. Climb 6 flights of stairs and back down crossing the finish line.

Warnings: 1 point deduction for each infraction:

- Grasping the handrail
- Stepping off the Stairmaster
- Safety infractions: 2 point deduction for each infraction
- Slipping from the Stairmaster
- Removal of any PPE

*Max score 85 points*

*Hose Drag* - Extending uncharged hose line including around obstacles.

Grab the nozzle attached to 200ft of inch and 3/4 hose. Drag the hose 75FT to a pre-positioned Drum, make a 90-degree turn around the drum and continue to the finish line. You now will drop to one knees and pull the hose an additional 50 ft. as marked on the hose line using the hand over hand method. The mark on the hose line must pass the finish line. This is the only event you can run and only during dragging the hose.

Warnings: 1 point deduction for stepping outside marked boundaries

Safety infractions: 2 point deduction for each infraction

- Slipping and falling
- Max score 85 points
- Removal of any PPE

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## Regional 2019-2020 Contest Catalog

Max score 85 points

**3. Equipment Carry** – You will remove 2 tools from their place and set them on the ground. Simultaneously pick up both tools one in right hand the other your left hand and carry them 75 ft. around the drum and back to the starting point. Place both tools on the ground then pick up one tool at a time and place them back were you initially got them.

Warnings: 1 point deduction for each infraction

- Stepping outside marked boundaries

Safety infractions: 2 point deduction for each infraction

- Slipping and falling
- Removal of any PPE

Max score 85 points

**Ladder Raise and Extension** – Walk to the end of a 24ft ladder and walk it up rung by rung until it is against the structure. Move to the second 24 ft. ladder. Extend the fly by using the hand over hand method until it is fully extended and lower the fly section hand over hand not allowing the rope to slip through your hands.

Warnings: 1 point deduction for missing a rung

Safety infractions: 2 point deduction for each infraction:

- Losing control of or dropping the ladder
- Removal of any PPE

Max score 85 points



Regional 2019-2020 Contest Catalog

*Forcible Entry* – Use a ten lb. sledgehammer to strike a designated target 10 times.

Warnings: 1 point deduction for stepping outside marked boundaries

Safety infractions: 2 point deduction for each infraction:

- Losing control of sledgehammer
- Removal of any PPE

Max score 85 points

*Search* – Crawl through a designated area 64 ft. long over and under obstacles with visibility decreased

Warnings: 1 point deduction for disorientation/exiting from the entrance

Safety infractions: 2 point deduction for each infraction:

- Slipping and falling
- Removal of any PPE

Max score 85 points

*Rescue* – Grasp a 150-pound manikin and drag it 35 ft. around a prepositioned drum go around the drum and back to the start point. The entire manikin needs to be across the finish line.

Warnings: 1 point deduction for grasping the barrel

Safety infractions: 2 point deduction for each infraction

- Slipping and falling

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### Regional 2019-2020 Contest Catalog

- Removal of any PPE

Max score 85 points

**Ceiling Breach/Pull** – Using a Pike Pole you will place the tip of the Pole on a designated mark and push up 10 times moving the mark fully up and down

Warnings: 1 point deduction for stepping outside of marked boundaries

Safety infractions: 2 point deduction for each infraction

- Dropping the pike pole
- Slipping and falling

Max score 85 points

Below is the breakdown for times/points for the timed CPAT skills:

- |                  |           |
|------------------|-----------|
| • 00:00 – 10:20  | 70 points |
| • 10:21 – 10:40  | 65 points |
| • 10:41 – 11:00  | 60 points |
| • 11:01 – 11:20  | 55 points |
| • 11:21 – 11:40  | 50 points |
| • 11:41 – 12:00  | 45 points |
| • 12:01 – 13:00  | 40 points |
| • 13:01 – 14:00  | 35 points |
| • 14:01 – 15:00  | 30 points |
| • 15:01 and over | 25 points |

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## Regional 2019-2020 Contest Catalog

### *24' Extension Ladder Raise*

This Skills Test will demonstrate how quickly the candidate can correctly move into place and safely raise a 24' fire service extension ladder. This is a timed event that will focus on accuracy and safety. After raising the ladder correctly for time, the candidate will safely lower the ladder from the building. Time starts when the candidate wearing full PPE, minus SCBA, touches the ladder. The candidate will use commands and raise the ladder safely, and extend and secure the fly-section of the ladder. The candidate will return the ladder safely to its original position on the ground.

Safety infractions: 2 point deduction for each infraction

- Losing control of or dropping the ladder
- Removal of any PPE

Max score/points: Tiebreaker

### **Contest Scorecard**

<i>Items Evaluated</i>	<i>Possible Points</i>
• Donning Structural PPE Ensemble	25 points
• Ropes and Knots / Tool Raise	50 points
• Stairmaster	85 points
• Hose Drag	85 points
• Equipment Carry	85 points
• Ladder Raise	85 points
• Forcible Entry	85 points
• Search Event	85 points
• Rescue Event	85 points
• Breach and Pull	85 points
• CPAT Time	70 points

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#### Regional 2019-2020 Contest Catalog

- Written Exam 150 points
- Oral Professional Assessment 25 points

Sub Total 1,000

- Resume Penalty
- Clothing Penalty

#### *Skill Performance: 8 Events – Adopted from CPAT Needs*

- 50 LB Vest
- 25 LB (High rise pack) during stair climb
- 2-Chain Saw/K12 Rescue saw
- 150-pound manikin/Drag
- 2-24ft ladders
- Chalk, tape, and cones to mark the course
- 6-55 gal drums
- 200 ft. 1 3/4 Hose
- 10 lb. Sledgehammer
- Pike Pole
- 64 ft. of tables/salvage covers

#### **Materials Supplied by SkillsUSA CA**

##### *Skill Performance: Ropes and Knots with Tool Raise Needs*

- 12-six foot sections of 10mm Prusik Cord 1-Pike Pole or Rubbish Hook
- 1-Pick Head Axe
- 2-Drop Bags with 50' of 10mm Prusik Cord

#### **Student Materials List**

1. Completed Resume
2. Competitors are required to provide full NFPA-approved structural gear including coat, pants, helmet, firefighting gloves, leather or rubber (steel toe/shank/shin guard) boots, and Nomex hood.

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#### Regional 2019-2020 Contest Catalog

**All department/school names must be removed/covered prior to the competition. Failure to do so may result in a clothing penalty.**

#### **Clothing Requirements**

Official SkillsUSA lite blue work shirt, navy pants, black leather shoes

[Clothing Requirements](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog For Public Review

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### **FIRST AID/CPR**

#### **Contest Description**

Evaluates a contestant's ability to perform procedures or take appropriate action based on scenarios presented related to CPR (Adult/AED, 2 man system, child and infant CPR) first aid medical emergencies.

#### **Regional Competition**

Duration: for example 2-3 Hours

#### **Knowledge Performance**

There is a multiple choice written exam.

#### **Skills Performance**

Skills scenarios focused on adult, child and infant CPR and first aid skills including injuries to muscles, bones and joints, bleeding and wound care, and burn care.

All skills are judged on nationally accepted standards identified by The American Red Cross, The American Heart Association, The American Safety and Health Institute and The National Safety Council.

### **Burns to Upper Extremity**

#### **Standards and Competencies**

CPR 11.0 — Burn Care 11.1 Demonstrate care for first-, second- and third-degree burns

#### **Purpose**

This scenario provides the contestant with an opportunity to assess and treat a patient with 2nd and 3rd degree burns of upper extremities.

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## Regional 2019-2020 Contest Catalog For Public Review

### Equipment

1 Patient moulage for burns to left extremity, including fingers.  
First Aid kit with materials to care for burns.

### Scenario

While hiking on a remote trail you notice a group setting up camp and building a large campfire, a short time later you hear screams. An adult has slipped and fallen into the fire, he/she has been extinguished by friends.

The patient is alert and oriented but screaming in severe pain  
BP: 120/84, P: 80, R: 16

**Contestant** \_\_\_\_\_

**Judge** \_\_\_\_\_

**Score** \_\_\_\_\_

### Scenario: Burns to Upper Extremity

#### Scenario

While hiking on a remote trail you notice a group setting up camp and building a large campfire, a short time later you hear screams. An adult has slipped and fell into the fire, he/she has been extinguished by friends.

The patient is alert and oriented but screaming in severe pain  
BP: 120/84, P: 80, R: 16

	Points Possible	Points Awarded
Check for Scene Safety	20	

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### Regional 2019-2020 Contest Catalog For Public Review

Puts on PPE / BSI	20	
Calls or directs bystander to call 911	20	
Removes clothing and jewelry at an effected point as necessary	20	
Stops the burn by cooling with water for at least 10 minutes or by applying burn gel	20	
Loosely covers the burn with a non-stick sterile dressing, ensuring padding between fingers	20	
Treat for shock, watches for airway complications	20	
Provided comfort care and built rapport with a patient	20	
Provided report to arriving EMS personnel	20	
Skills Total:	180	-----
Score:	-----	

### Cardiac Arrest Management / AED

#### Standards and Competencies

CPR 2.0 — CPR with AED for Adult

2.1 Demonstrate skills in performing CPR with AED including the two-man system.

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## Regional 2019-2020 Contest Catalog For Public Review

### **Purpose**

This scenario provides the contestant with an opportunity to assess and treat a patient who has sustained a sudden cardiac arrest.

### **Equipment**

- 1 Bystander trained in CPR
- 1 Mannequin with CPR feedback device
- 1 AED Trainer
- 1 Cell phone for calling 9-1-1
- Basic First Aid Kit
- Barrier Device for each contestant

### **Scenario**

You are at the movie theater snack bar when you witness an adult male collapse. Everyone is staring in disbelief and his partner is screaming for someone to help him.

### **Facilitator Notes:**

- The scene is safe
- The patient is not responsive
- No breathing or pulse found
- The bystander is trained in “hands-only” CPR and cannot give breaths or use the AED.
- The bystander must count compressions out loud, pausing at 30 to allow the contestant to give breaths
- If, after a 10-second pause no breaths are given by the contestant, a bystander will continue CPR and counting out compressions (1-30).
- AED pads must be placed correctly by the contestant.

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## Regional 2019-2020 Contest Catalog For Public Review

**Contestant** \_\_\_\_\_

**Judge** \_\_\_\_\_

**Score** \_\_\_\_\_

### **Cardiac Arrest Management /AED**

	<b>Points Possible</b>	<b>Points Awarded</b>
<b>Check for Scene Safety</b>	20	
<b>Puts on PPE / BSI</b>	13	
<b>Checks patient responsiveness</b>	13	
<b>Calls or directs bystander to call 9-1-1 and get an AED</b>	11	
<b>Checks breathing and pulse for at least 5 seconds and no more than 10 seconds</b>	16	
<b>Gives high quality CPR</b>	-----	-----
<i>Proper hand placement on sternum</i>	13	
<i>Adequate compression rate: 100-120 BPM</i>	13	
<i>Allows chest to completely recoil</i>	13	

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### Regional 2019-2020 Contest Catalog For Public Review

<b>Continues high-quality CPR for <u>at least 75 seconds</u></b>	-----	-----
<i>Proper hand placement on the sternum</i>	13	
<i>Adequate compression rate: 100-120 BPM</i>	13	
<i>Allows the chest to completely recoil</i>	13	
<b>*** Bystander arrives with an AED and verifies that 9-1-1 was called ***</b>	-----	-----
<b>Contestant</b> directs bystander to start compressions	10	
<b>Contestant</b> turns on AED and places pads in the proper position	13	
<b>Contestant</b> clears patient and bystander, allowing AED to analyze the patient	10	
When AED is ready, <b>Contestant</b> verifies bystanders care clear, then delivers a shock	10	
<b>Contestant</b> directs bystanders to continue high-quality compressions.	10	
<b>The contestant</b> gives 2 breaths with a pocket mask in less than 10 seconds, with adequate volume to cause the chest to rise.	10	
Skill Total:	214	-----
<b>Score:</b>	-----	

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## Regional 2019-2020 Contest Catalog For Public Review

### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- One 30"x72" table
- Test Packet
- Supplies/Equipment to perform skills scenarios provided by the contest coordinator

### **Student Materials List**

- #2 pencil
- Resume
- Copies of CPR and First Aid Certifications
- Approved barrier device or face mask

### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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# GRAPHIC COMMUNICATIONS

### Contest Description

Competitors will demonstrate their skills in Graphic Communication in the following areas. Prepress Workflow, Production Layout, Production Planning, and take a written knowledge test.

### Regional Competition

#### Contest Limitations

- No Internet use allowed
- **Competitors must provide their own computer with current Adobe Creative Suite software.**
- Competitors must use only the images/text provided.

*Production Layout* - Competitors will be given specifications to create a print-ready design project. All files will be provided, and it will be judged according to how well the project matches the specifications.

*Prepress Workflow* – Competitors will troubleshoot a digital file. The file will be in Adobe InDesign format. Competitors should have the skill to create a preflight profile and correct typical errors such as color mode, image resolution, overset text, missing fonts, folds, bleeds, etc

*Production Planning* - Competitors will be given a production planning test in which will ask competitors to calculate paper quantity, paper cost, impression counts, and labor costs for a specific print job.

**Special Note:** Regional competitions in Graphic Communications may take place in a functioning computer lab, where computers will be provided for competitors. These guidelines assume that competitors will provide their own computers and software which will be the case at the state competition. Please adjust accordingly. (Computers are provided at the national contest.)

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## Regional 2019-2020 Contest Catalog

### **Knowledge Performance**

- Students will take a short, written, multiple-choice test of general graphic communication questions modeled after PrintED / SkillsUSA National Technical Standards.
- They will take a production planning math test where they will calculate impressions, labor costs, and paper needs, etc. (A sample of the production planning project is shown below)

### **Skills Performance**

- Students will demonstrate prepress workflow by correcting an InDesign file in preparation for print production.
- Students will be given a page layout project and work through a logical process to create a print-ready project.
- Students will use their own computers and appropriate licensed software. If students are using trial software or newly-installed software, please test it to make sure it works prior to the contest.

### **Materials Supplied by SkillsUSA CA**

- Table with power available for each competitor
- Handouts and contest materials
- Graphics and files for each competitor

### **Student Materials List**

- Computer with software installed and functioning. Adobe CC InDesign must be installed and functioning to complete the Production Layout and Prepress Workflow portions of the contest. (IDML files will be provided for backward compatibility)
- Resume
- Calculator
- Pencil and paper

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## Regional 2019-2020 Contest Catalog

### Clothing Requirements

- Class E SkillsUSA Attire
- [Clothing Classifications](#)

**Sample Production Planning Project:** This is an example of the types of problems to be calculated. The parameters will change in the competition.

The quantity of 200,000 4.25" x 5.5" postcard to be printed two-color (2/0) on 110# Index Bristol (23 x 35 parent size) 500 sheets per carton, \$90.00 per 1,000. Your press prints 5,000 impressions per hour. Press time is \$80.00 per hour. Your press sheet size is 11" x 17".

1. How many press sheets can be cut from the parent size sheet?
2. How many full size sheets are needed to print this job, not including spoilage/make ready?
3. How many full size sheets are needed for this job with 5% spoilage/make ready?
4. How many cartons must be purchased (round up to the nearest carton)?
5. How much will the cartons cost (not including tax)?
6. How long will it take to run this job?
7. How much will the labor cost to run this job?
8. How many times will the press sheet run thru the press?
9. Can this be printed in an 8-hour shift?
10. What is the total cost for running this job (not including tax)?

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### **GRAPHIC IMAGING SUBLIMATION**

#### **Contest Description**

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of printing industry.

Open to active SkillsUSA students enrolled in a career and technical education program with Graphic Imaging Sublimation as the occupational objective or Other Related Course Objective.

#### **Regional Competition**

To complete a given amount of Graphic Imaging Sublimation tasks in a given amount of time, in addition to completing a written exam. Timed elements are Written Exam, 25 minutes, Skills Performance, 20 minutes.

#### **Knowledge Performance**

The contest includes one written knowledge test for Graphic Imaging Sublimation.

#### **Skill Performance**

- The skill performance portion of the contest will include dress appropriately
- Participate in a mock job interview.
- Print a graphic on a mug using a mug press or using a wrap and a convection oven.
- Print on a mouse pad and/or license plate.

#### **Contest Guidelines**

1. Contestants will be provided with the characteristics, parameters, and information to accomplish the assigned tasks
2. Contestants will begin upon a signal from the timekeeper.
3. As soon as contestants have completed the assignment and are fully satisfied with the operation and quality of their work, they will signal the judge and stop their work.

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4. This signal will determine the elapsed time and speed.
5. The completed projects will be tested/checked by the judges for the quality of work and operating specifications.

### **Materials Supplied by SkillsUSA CA**

All materials, supplies and job information needed to construct and test the designed projects of a mug and a mouse pad.

### **Student Materials List**

1. Gloves
2. Other hand tools as desired, subject to the approval of the technical committee
3. Measuring Tape or rulers
4. 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.
5. Writing utensils, notepads, are the responsibility of the contestant
6. Toolboxes to be inspected on Judge's discretion.

**Note:** Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

### **Clothing Requirements**

- Class E SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
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## Regional 2019-2020 Contest Catalog For Public Review

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### HEALTH KNOWLEDGE BOWL

#### Contest Description

Test teams of four students on their collective knowledge of health occupations. Teams are judged on speed and accuracy answering questions in nine categories:

- (1) Academic Foundations
- (2) Communication
- (3) Systems
- (4) Employability Skills
- (5) Legal Responsibility
- (6) Ethics
- (7) Safety Practices
- (8) Teamwork
- (9) Health Maintenance.

#### Regional Competition

A team event to test Knowledge of contestants that are preparing for employment in the health occupations field to recognize outstanding students for excellence and professionalism

#### Materials Supplied by SkillsUSA CA

- Sample questions available for download from the same site which these guidelines were obtained
- Timer
- Bell

#### Student Materials List

- 60 sheets of 8 1/2"x11" white blank paper
- 8 1/2"x11" blank colored paper for use as scrap paper
- Pens, pencils and black marking pens (four to six of each)
- All competitors must create a one-page

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Regional 2019-2020 Contest Catalog For Public Review

- Résumé and submit a hard copy to the technical committee chair at orientation. Failure to do so will result in a 10-point penalty.

**Clothing Requirements**

[www.skillsusastore.org](http://www.skillsusastore.org)

**Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### HEALTH OCCUPATIONAL PROFESSIONAL PORTFOLIO

#### **Contest Description**

The Health Occupations Professional Portfolio contest recognizes students for their successful development of a professional portfolio. The competition evaluates the ability of the students to present themselves to a prospective employer. The contestants will show the use of the portfolio uses effective communication skills in presenting. The contest consists of two parts: a portfolio notebook and a live presentation by the contestant.

#### **Regional Competition**

Evaluates the ability for a student to develop a professional portfolio and to present himself or herself to an employer using effective communication skills and written content.

#### **Knowledge Performance**

The knowledge performance portion of this contest is the creation of a professional portfolio with title page, table of contents and six required sections in a specific order.

#### **Skill Performance**

The contest includes a live presentation by the contestant designed to evaluate the ability of an individual to present himself or herself to an employer using effective communication skills.

#### **Contest Guidelines**

##### ***Notebook***

Each contestant is required to submit an official SkillsUSA three-ring, 1-inch loose-leaf binder (available from [www.skillsusastore.org](http://www.skillsusastore.org) or 800-401-1560). Photographs, news articles, illustrations and other informative material may be included to support and enhance written evidence of the contestant's participation in activities as described in

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the notebook. Pages must be limited to 25 (50 surfaces). Divider pages **do not** count toward the maximum number of pages allowed.

***The notebook must include the following, presented in the order given:***

- Title Page — include the name of contestant, name of the school, grade, training program and a picture of the contestant
- Table of Contents with page numbers
- Components of an Employment Portfolio

### **1. Résumé and Career Objectives**

Prepare a current résumé. The student should include a written statement, describing his or her career objective and plans to achieve that objective and competencies that have been mastered. All competitors must also submit a hard copy of the résumé to the technical committee chair at orientation. Failure to do so will result in a 10-point penalty.

### **2. References**

Letters of reference from teachers, mentors, supervisors, employers or others who can verify the student's skill ability (limit of three references).

### **3. Awards and Recognition**

Include copies of certificates, documentation of leadership activities, news articles and supporting material to serve as proof of the student's achievements. Reflect the highest level of achievement.

### **4. Work Sample Documentation**

Summary of worksite experiences pertaining to health occupations. Students should distinguish project documentation that is a result of school-based learning versus work-based learning. Work experience can be supported by photographs as appropriate.

### **5. Community Service**

List of activities conducted that provided a benefit to the community. This section

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should demonstrate excellence and professionalism in the area of community service.

## **6. Membership and Affiliations**

List of organizations and community groups in which the student is actively involved.

### ***Presentation***

Students should be prepared to make a five- to a seven-minute oral presentation on their portfolio to the judges. Contestants should anticipate answering questions from the judges. Students are strongly encouraged to use current multimedia technology. This could include (but is not limited to) video, audio or computer-generated presentations in software such as PowerPoint. A computer, projector that the contestant will provide. A screen will be provided If you plan to use this equipment, make sure to have the presentation on a flash or jump drive.

### ***Judging***

Notebooks will be submitted on Tuesday of the National Leadership and Skills Conference during orientation. The notebooks will be returned to the contestant at the end of the live presentation. The judges will be permitted to have the notebooks during the presentation. Contestants must report to the contest area at the designated time with all equipment necessary for their presentation. Students will be required to stay until they are dismissed by the judges.

## **Materials Supplied by SkillsUSA CA**

Area to place portfolio for Review  
Screen

### **Student Materials List**

- #2 pencil
- Portfolio
- Computer
- Projector

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### **Clothing Requirements**

#### **Clothing Classifications**

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## Regional 2019-2020 Contest Catalog

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### **HUMANOID ROBOTIC TECHNOLOGY (Demonstration)**

#### **Contest Description**

This event will evaluate students' programming knowledge using a humanoid robotics platform. A team of two contestants will be evaluated on their ability to develop, document, execute, and deploy a computer program for a humanoid robot to complete a series of tasks. This challenge will recognize outstanding students for excellence and professionalism in the fields of Human-Robot Interaction (HRI), Computer Science, Computer Programming, and Robotics.

#### **Eligibility**

Open to active SkillsUSA members enrolled in programs with computer programming as the occupational objective and/or associated with Human-Robot Interaction, Computer Science, Computer programming, or Robotics.

#### **Regional Competition**

The contest will consist of the following parts:

- A. Knowledge Performance
  - 1. A reflective paper
  - 2. A presentation
  - 3. An exam
- B. Skill Performance
- C. On Site Programming Challenge

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Each component of the event is described below.

### **Knowledge Performance**

#### ***Notebook:***

The purpose of the notebook is for the contestants to write a reflective paper that outlines an innovative way a humanoid robot could be implemented into everyday life in the future. The paper should contain ideas and recommendations on how others could implement the idea as well as repercussions an implementation such as this may cause. The notebook must be brought to the contestant orientation meeting. The format listed below must be followed:

- A. The notebook must be an official SkillsUSA three-ring binder (two inch #101-2410 from e-group)
- B. The notebook must not contain more than 20 pages (40 surfaces)  
Note: A surface is only that material which can be pasted or glued to a notebook page. Any pockets, foldout pages, individual materials contained in plastic sleeves, multiples pages, or similar features will count as additional surfaces and will be subject to penalty, except where specifically stated otherwise. Pages must be plasticized without affecting the scores.
- C. The notebook should be organized in the following format:
  - 1. *Title Page* – The title page must include the name of the project, chapter name, school address, and the names of the presenting team members.
  - 2. *Introduction* – The introduction should provide a brief and concise description or overview of your idea in one page or less.

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3. **Table of Contents** – The table of contents should indicate page numbers. All surfaces should be numbered, and the information should be organized according to the following appropriate sections:
  - a. Section I (Objectives) – Objectives should be specific
  - b. Section II (Impact) – Describe what you feel the impact would be after integration of a humanoid robot into everyday human life.
  - c. Section III (Benefits) – Explain how your ideas would benefit society.
  - d. Section IV (Repercussions) – Explain any repercussions your idea would have on society, if any.

#### **Presentation:**

The purpose of the presentation is to provide the judges with an understanding of your idea, how the idea was decided upon, and thoughts or recommendations of how others could implement your idea.

- A. Presentation is a minimum of 5-7 minutes
- B. Time Penalty: 5 points are deducted for each 30 seconds (or fraction) under the five minutes or for each 30 seconds (or fraction) over the ten minutes. Time is started when the presentation begins.
- C. Both members of the team must participate in the presentation.

#### **Skills Performance**

##### **On Site Programming:**

Using NAO Choreographe software, students will program the NAO robot to perform a series of tasks provided to them by the technical team. The programming component

will test students' skills using a variety of robotic sensors, such as movement, vision, and color recognition.

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Below is a list of some potential tasks the robot will need to complete:

- A. The robot will need to demonstrate controlled balance, locate an object, pick it up, and bring it back to the starting point.
- B. The robot will need to identify a specific object out of three (based on recognition, color, or Naomark), retrieve the specified object, move it to a shelf, and return to the starting point.
- C. The robot will need to identify three unique objects, put a specified object in a trash can, move one specified object to a shelf, bring one specified object back to a specified location, place that object in the outstretched hand of one of the contestants, and then return to the starting point.

In each of the scenarios above, the robot will need to explain to the audience what it is doing while it is performing each task

### Scoring Based on the following:

Standard	Possible Points
Presentation	85 Points
Challenge 1 - Dialog	55 Points
Challenge 2 - Animation	110 Points
Challenge 2 - Performance and Balance	110 Points

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**Prior to programming the NAO robot to complete a given assignment, the contestants will develop a written flowchart that outlines the program flow. Once the flow chart has been approved by the committee, the contestants will then continue with programming their robot for the assigned task.**

### **Materials Supplied by SkillsUSA CA**

1. 110 volt outlet
2. Timer
3. Items robot will retrieve

### **Student Materials List**

1. A PC laptop and charger that meets the following minimum specifications:
  - a. 2.1 GHz CPU (dual or quad-core recommended)
  - b. 3GB of free disk space
  - c. 2GM RAM
  - d. Graphics Open GL capable graphics adapter with at least 1GB of RAM is required (recent nVidia or ATI graphics adapter is recommended)
  - e. OS Windows 7 or 8.1 or XP
  - f. USB port
  - g. Admin rights (or admin password) to load competition software on laptop
2. Notecards, if desired
3. 25 ft. tape measure
4. Pencils
5. Calculator
6. All competitors must create a one-page resume and submit a hard copy to the technical committee chair at orientation. Failure to do so will result in a 10-point penalty.
- 7.. NAO Robot – any version is acceptable, but all robots are subject to inspection

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8. Computer with necessary charger
9. USB port and cables
10. Your NAO Robot may use a wireless connection if preferred, but because of unforeseen difficulties, it is recommended that you bring an Ethernet cable for connection between laptop and robot.
11. Any items needed for demonstration
12. Engineering notebook

### Clothing Classifications

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## Regional 2019-2020 Contest Catalog

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### HVACR

#### Contest Description

This contest is defined by industry standards as set by the Air-Conditioning and Refrigeration Institute and the North American Technician Excellence (NATE) organization. The contest is divided into two parts: a written exam and a series of testing stations designed to assess knowledge in HVACR industry standards.

#### Regional Competition

Duration: 4 hours

The contestants may be tested in the following areas:

1. Written exam
2. Brazing skills
3. Refrigerant component service
4. Air measurement and troubleshooting
5. Refrigerant recovery
6. Electrical troubleshooting.

Various industry equipment may include:

1. Ice machines
2. Refrigerated display cases
3. Small package HVAC units
4. Furnaces
5. Split system air conditioning units.

#### Knowledge Performance

The contest will include a written knowledge exam assessing knowledge of HVACR industry standards.

#### Skill Performance

The contest includes a series of testing stations designed to assess skills identified by industry HVACR standards. Industry equipment used during the workstations portion of

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the contest may include but is not limited to: ice machines, refrigerated display cases, small package HVAC units, furnaces and split-system air conditioning and/or heat pump units.

#### **Materials Supplied by SkillsUSA CA**

- All heating, refrigeration and air conditioning units necessary for the problem
- Power supply for units
- Test equipment
- All tools and supplies to complete the contest
- All necessary information and material for judges and technical committee.

#### **Student Materials List**

- Safety goggles
- Hand-held, non-programmable calculator for the contestant meeting as well as for the contest. **Cellphone calculators are not permitted.**
- All competitors must create a one-page résumé and submit a hard copy to the judges prior to the start of the contest.

#### **Clothing Requirements:**

##### **Class C**

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### INDUSTRIAL MOTOR CONTROL

#### Contest Description

Students demonstrate their knowledge of electrical principles, equipment and industry codes and standards as it relates to the design and installation of motor control systems. Students demonstrate their skills and abilities in applying that knowledge by properly installing motor control equipment and associated enclosures, raceways, pilot devices and circuitry in accordance with accepted industry practice and National Electric Code requirements.

#### Regional Competition

Duration: 3 hours

#### SCOPE OF THE COMPETITION:

##### Knowledge Performance

The contest criteria were drawn from the SkillsUSA Championships technical committee criteria and CTE Curriculum Standards for Industrial Motor Controls. The contest will include a written test consisting of the motor control industry questions and motor control wiring problems.

##### Skill Performance

The contest will assess accuracy, workmanship, the ability to read and interpret drawings and the proper use of tools, equipment and materials. The core elements to be tested are:

1. **Planning and layout** – will include plan reading for placement of boxes and conductors required for devices. Contest includes a written test and a practical test.
2. **Materials** identification and assembly of boxes, conductors and devices.

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### 3. Tool handling and safety demonstrated by the contestant.

#### Resume

Each Contestant must turn in a copy of a typed resume to the judge.

#### SAFETY REQUIREMENTS:

##### Safety Statement:

*Each contestant is responsible for bringing the proper PPE to wear while participation in the contest. Safety glasses, hard hat, hearing protection, work boots and appropriate dress must be worn at all times when in the competition area. Each contestant must turn in a signed SkillsUSA Safety Form to the competition chairman on the day of the competition.*

#### CONTEST GUIDELINES:

- *Time Limit*  
Contestants will be stopped when time limits as specified on contest job sheet are up. Contestants may stop whenever they have completed a particular phase of the contest but must remain within contest area.
- *Clean up*  
The dismantling of the project will be considered the final sequence task of the contest.

#### REQUIRED TOOLS AND MATERIALS FOR CONTEST BY STUDENT:

- Tool Belt/Bag
- VOM Meter (or equivalent)
- Hardhat
- Safety Glasses
- 2014 NEC Code Book (Not Handbook)
- Hammer

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- 25' Tape Measure (plus spare)
- Pencils
- Utility Knife
- 4 in 1 Screwdriver or individuals will be acceptable
- Small Termination Screwdrivers
- Linemen Pliers
- Wire Strippers
- Diagonal Pliers
- 1/2" EMT Bender
- Cordless Drill Driver with various bits
- Needle Nose Pliers
- Torpedo Level

#### **Materials Supplied by SkillsUSA CA**

- All materials, as specified on the job sheet
- Job sheets and blueprints for each contestant

#### **Student Materials List**

Each Contestant must turn in and typed resume to the judges.

**JUDGING CRITERIA:** Please refer to *SkillsUSA Championships Technical Standards*.

#### **Clothing Requirements**

**Clothing Classifications : Class C**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### INFORMATION TECHNOLOGY SERVICES

#### **Contest Description**

Contestants compete in modules designed to test their knowledge as an IT service professional. The contest will challenge contestants to correct end-user computing issues, configure and secure networks, manage virtual machines, navigate and modify Windows registry, deploy operating systems, leverage troubleshooting software and tools, identify virus and malware origins, work with mobile devices, and proficiently use command-line interfaces. Additionally, contestants are evaluated on their interpersonal skills (such as communication, teamwork, and honesty). In the national contest, contestants take an official CompTIA A+ Certification exam and receive their certification if they pass.

Open to active SkillsUSA members enrolled in programs focused on computer maintenance technology, computer networking, and security, or information technology services.

#### **Regional Competition**

Duration: 2-4 hours

The networking design problem tests a contestant's ability to design functionality, scalability, adaptability and manageability of an internetworking system.

There will be 4 components to the contest:

1. Cable Making
2. TAC Call
3. Router Configuration
4. Exam

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### **Contest Guidelines**

The contests will have several hands-on skill scenarios that demonstrate a contestant's entry-level employment skills selected from the list of competencies as determined by the SkillsUSA Championships technical committee. Scenarios may include but are not limited to the following:

- Diagnose and service client issues with their relation to network interaction
- Diagnose and resolve operating system and startup problems
- Demonstrate ability to use utility software, drives and other peripherals
- Demonstrate knowledge and functions of components within a computer
- Install, configure and demonstrate proper operations of devices including desktop, laptop, tablets, and mobile devices
- Demonstrate ability to create, manage and operate virtual machines
- Demonstrate the ability to remotely connect to and manage customer endpoints
- Demonstrate a working knowledge of information technology employment policies and observance of security best practices

### **Knowledge Performance**

This portion of the contest will be a computer-based knowledge exam. Competencies evaluated on the written exam are congruent with those evaluated on the 1001 and 1002 versions of the CompTIA A+ Certification exam.

### **Skill Performance**

This portion of the contest will be a module through which each contestant will complete tasks with the client, server or end-user computing issues.

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### Contest Scoring

- Winners will be determined on the basis of their total scores
- Penalties will be assessed for failure to follow a judge's or modules instructions

### Materials Supplied by SkillsUSA CA

#### Student Materials List

- Laptop with the latest version of Packet Tracer installed (downloadable from NetAcadsite)
- Patch cable to attach to the contest network
- 6 (or more) Cat 5 ends for the Cable Making contest
- Appropriate tools for termination, testing, and safety (may be shared between team members)
- Punchdown block (may be shared between team members; no more than 4 members per punch-down block)

***Note: If a student is not in a Cisco Networking Academy, they need to let the contest organizer know ASAP, as this impacts the contest.***

***Note: No Internet access will be available in the contest hall! (Contestants may not share laptops)***

### Clothing Requirements

Class C: Business Casual

[Clothing Classifications](#)

***Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:***  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

Also, please see [baycyber.net/skillusa](http://baycyber.net/skillusa) for more information.

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

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### INTERACTIVE VIDEO GAME DESIGN

#### **Contest Description**

Teams must produce an original, high-quality prototype or sample of an interactive multimedia application or video game during the school year immediately preceding the contest deadline. Their production should include concept art and/or storyboards, the sample or prototype itself, an executive overview of the project, and a printed resume for each team member. At the regional level, the contestants will present the development of that project.

#### **Regional Competition**

Duration: 3 hours

#### **Contest Guidelines:**

At the regional level, contestants will be scored on a pitch bible/production guide for their project. It will show the planning, concept art, storyboard and element rationale. Concept art is sample artwork of program elements such as character artwork, user interface design and any elements to be included in a later working model. The pitch bible/production guide should not exceed three 11" x 17" sheets or six 8.5" x 11" sheets. Contestants will also make a single-sided, one page 8.5" x 11" summary that explains the program's purpose, target-audience demographics and market potential.

Contestants will be provided a 6' table to display their pitch bible/production guide and any supporting materials. Judges will examine the pitch bible/production guide and summary before and during a 5 minute presentation. The presentation should be an overview of the entire project.

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## Regional 2019-2020 Contest Catalog

### Materials Supplied by SkillsUSA CA

- Space for team prototypes
- Each team will be allotted a minimum of either one six-foot (6') or one half of an eight-foot (8') conference table, based on availability, and two chairs to share among team members
- A 110-volt electrical outlet
- Written knowledge exam and pencils

**Note:** No Internet access will be provided or allowed during the competition.

### Student Materials List

- Storyboard and pitch bible/production guide presentation materials

**Note:** All contestants will present a hard copy of a resume to the judges before the competition.

### Clothing Requirements

**Clothing Classifications: Class E**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

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## Regional 2019-2020 Contest Catalog

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### **INTERNET OF THINGS AND SMART HOME (FORMERLY RESIDENTIAL SYSTEMS INSTALLATION & MAINTENANCE)**

#### **Contest Description**

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of home technology integration.

#### **Regional Competition:**

#### **Knowledge Performance**

The contest includes a written knowledge exam to assess knowledge of residential electronics installation and maintenance including smart house technologies.

#### **Skill Performance**

The purpose of the hands-on component of the contest will be to assess the ability of the contestant to install, maintain and troubleshoot a variety of devices encountered in a residential setting.

**Contest Limit :** To complete a given amount of home integration technology tasks in a given amount of time, in addition to completing a written exam.

#### **Contest Requirements:**

#### **ELIGIBILITY**

Open to active SkillsUSA students enrolled in a career and technical education program with home technology integration as the occupational objective.

#### **CLOTHING REQUIREMENT**

**Class C: Business Casual**

[Clothing Classifications](#)

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### Regional 2019-2020 Contest Catalog

All: Safety glasses with side shields or goggles. (Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)

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

### Materials Supplied by SkillsUSA CA

List all the items that a student is expected to provide.

Supplied by the technical committee:

- Mock wall,
- LCD flat screen ,
- Wireless router,
- Different player components
- Other home theatre components
- Other various connectors

### Student Materials List

- a. Personal eye protection
- b. Multimeter
- c. Telephone buttset
- d. Toner
- e. Signal generation
- f. Cable tester
- g. Laptop computer
- h. Coax crimpers
- i. RJ11/RG 45 crimpers
- j. Coax compression tool (F)

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#### Regional 2019-2020 Contest Catalog

- k. Coax stripper
- l. High gauge wire strippers (20-25 AWG)
- m. Diagonal cutters
- n. Needle-nose pliers
- o. 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 50-point penalty.

*Note:* Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

**Contest Guidelines** (Certifications identified within this document will be updated – ongoing)

1. The installation will be tested to industry standards.
2. The home technology integration project must be completed within the given time and certified for use.
3. Equipment and tools needed to install the appropriate connectivity for the project will be provided as indicated in the equipment list.
4. Skills that are to be evaluated are outlined in the competencies provided by the contest technical committee. Standards are congruent with those established.
5. Two written industry exams will be given, one will be a certification exam, the second will be related to basic Customer Service Specialist exam (which tests soft skills and work readiness), having a passing score of 75 percent. The other will require a passing score of 70 percent. Both written exams will be administered at the orientation meeting. The hands-on skills performance portion of the contest will require a passing rate of 85 percent.

*Note:* Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### INTERNETWORKING

#### Contest Description

The contest consists of three main parts: networking design, general networking knowledge and hands-on evaluations. The networking design problem tests a contestant's ability to design functionality, scalability, adaptability and manageability of an internetworking system.

#### Regional Competition

Duration: 3 hours

There will be 4 components to the contest:

- Cable Making
- TAC Call
- Router Configuration
- Exam

#### Knowledge Performance

The online written portion tests the student's complete knowledge of internetworking concepts.

**Written Exam** — The student must answer questions related to CCNA-level networking.

#### Skills Performance

The contest may include but is not limited to the following assessments:

The hands-on component demonstrates the abilities of the contestant to make cables, troubleshoot network systems, configure routers, switches, and servers, to deliver customer service in a technical assistance center environment.

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## Regional 2019-2020 Contest Catalog

**Design problem** — The network design problem, as formulated by the national technical committee, assesses a student's ability to design functionality, scalability, adaptability and manageability of an internetworking system. The problem is built into each activity the competitor does in the three days of the contest. Competitors may not see a specific topic design, but they are being scored on how their knowledge of network design makes the tasks easier for them.

**Hands-on evaluation** — The hands-on evaluation component of the contest tests a student's ability to professionally design, install and maintain internetworks. Given a set of networking equipment (cable, fiber, hubs/switches routers, etc.), the student must, in a finite amount of time, install or repair a network and demonstrate that the installation properly runs internet applications.

Given a logical topology and network requirements, the students will be able to develop a usable network that meets or exceeds the documentation provided. The vision and context is that client companies would request a demonstration booth that runs a particular internet application, and the student, given equipment and tools, would provide the appropriate connectivity for the application to run successfully.

### Technical Assistance Call

The student must solve a networking problem while on the phone with a customer. This is a simulation of working in a Technical Assistance Center.

### Materials Supplied by SkillsUSA CA

- Computer workstation for the written portion of the contest
- Cisco routers, switches and equipment not listed as supplied by the contestant

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## Regional 2019-2020 Contest Catalog

### Student Materials List

- Laptop with the latest version of Packet Tracer installed (downloadable from NetAcad site).

*Note: No Internet access will be available in the contest hall! (Contestants may not share laptops)*

- Patch cable to attach to the contest network

*Note: If a student is not in a Cisco Networking Academy, they need to let the contest organizer know ASAP, as this impacts the contest.*

- 6 (or more) Cat 5 ends for the Cable Making contest
- Appropriate tools for termination, testing, and safety (may be shared between team members)
- Punchdown block (may be shared between team members; no more than 4 members per punch-down block)

### Clothing Requirements

#### Class C: Contest Specific - Business Casual

#### Clothing Classifications

Also, please see [baycyber.net/skillusa](http://baycyber.net/skillusa) for more information.

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### INTRODUCTION TO ADVERTISING DESIGN

#### **Contest Description**

The Introductory Advertising Design contest is a state competition that will be an "on-demand" (hands-on) contest. Contestants will work individually to design a logo for a fictitious company and one-three page layouts based on a given scenario (business cards, letterhead, or envelopes).

#### **Eligibility:**

Intro to Advertising Design is a California only contest and is open to active SkillsUSA California members enrolled in their first year of career or technical program with entry-level job skills as the occupational objective. Returning students should continue on with the next level by registering for Advertising Design.

Technical Standard: Intro to Advertising Design is based on the technical standards of Advertising Design. Please refer to the Advertising Design Technical Standards.

#### **Regional Competition**

Competitions will start promptly. 2.5 hours will be provided. Any hardware/software issues will eat into the competitor's project time.

1. Contest Orientation
2. Written Exam
3. Project
4. Judging

**Set Up** - Competitors will meet in a designated area to set up computers. If you are using trial or newly installed copies of the software, please practice with prior to set-up to make sure it works properly. Power will be provided, however, please bring a power strip if necessary.

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### Regional 2019-2020 Contest Catalog

**Project Briefing** - Competitors will be given a project brief from their “Creative Director” and will be given the opportunity to obtain clarification on expectations.

**Project End | Judging Begins** - Competitors will leave computers on and open to the working files for their projects. The password must be left in case the computer switches to sleep mode. **Projects will not be graded if they cannot be viewed during the judging.**

### Knowledge Performance

#### Written Exam

Allow 30 minutes.

- design principles
- fonts & color theory
- software-specific techniques
- file saving & extensions
- marketing & advertising principles

### Skills Performance

#### Logo

- appropriate look & feel for client/brand - composition & balance
- appropriate font
- appropriate color(s)
- thumbnails are differentiated and show thought

#### Advertisement

- Appropriate look & feel for client/brand - composition & balance
- Appropriate fonts
- Appropriate colors
- Strategic use of the logo
- Thumbnails are differentiated and show thought

### Sample Project #1

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## Regional 2019-2020 Contest Catalog

Logo manipulation

### **Sample Project #2**

8.5" x 5.5" magazine print ad

Must be print-ready PDF in CMYK color mode @ 300dpi + bleed & crops

### **Materials Supplied by SkillsUSA CA**

- Required Content (copy + imagery) for Project
- Appropriate Work Space (including extension cord and surge protector)
- Timekeeper

### **Student Materials List**

- The competitor must bring a computer with licensed software (unless the facility provides computers, consult with your regional coordinator)

*It is the contestant's responsibility to ensure hardware and software are in working order.*

- The competitor must use provided images during competition

*The Internet may NOT be used at any time on any device.*

- The competitor must bring paper and colored pencils

### **Clothing Requirements**

- Class E SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines for Advertising and Design and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### INTRODUCTION TO DRAFTING (A and B)

#### **Contest Description**

The problem will include a written test, a hand sketch, and drawings EITHER computer generated or board drafted. *If board drafting, please bring all necessary equipment.* The contest tests the contestants' problem solving abilities, not simply their CAD skills.

#### **Regional Competition**

Duration: 2 hours

The contest will assess skill performances by providing a hand sketch and computer-generated problem that may be solved either board drafting or CAD.

INSTRUCTORS-please coordinate with your District's Information Technology Services regarding software licensing. Many District's IT store software licenses on a remote server that cannot be accessed when computers are removed from the District's network. This has been a common and stressful problem in years past when students arrive to set up their computers and cannot open or use their software program. We highly recommend setting up District computers offline prior to traveling to the Conference to verify software is accessible outside of the District network.

#### **Knowledge/Skill Performance**

The contest will include a written exam that assesses technical drafting general knowledge (see standards and competencies). The contestants are assessed on their ability to create 3D models and extract properly scaled 2D views from those models for placement and annotation.

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## Regional 2019-2020 Contest Catalog

### **Contest Guidelines**

1. The contestants are required to create a working drawing
2. Contestant-supplied computer aided drafting and design software is used.
3. The contestants work independently. No assistance may be given by other contestants, instructors, advisors or observers.
4. All contestants start, break for lunch, and finish at the same time. No one is allowed to work during lunch or past the contest conclusion. If contestants are waiting to print after the contest conclusion, they are allowed to print one drawing only.
5. Contestants will store all their drawings in PDF format on supplied flash drives for printing.
6. Contestants' drawings are judged relative to pre-established criteria for each drawing in the drawing portfolio. The total contest points include points from the written exam and drawings.

### **Materials Supplied by SkillsUSA CA**

1. Flat table space approximately 24"x72"
2. Chair
3. Two 110-volt electric outlets
4. Flash drive
5. Printer/plotter
6. Paper

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## Regional 2019-2020 Contest Catalog

### Student Materials List

1. **Personal computer and software**, students may use any software to complete their contest if computers are not supplied at the host site.
2. Students using manual drafting tools are required to provide all their drafting equipment and vellum for the competition (3 sheets of 11 x 17). Vellums may have pre-printed title blocks on them but all references to school name, location, or student names must be deleted.
3. Computer-aided drafting software that is able to create 3D models
4. 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.

### Clothing Requirements

#### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

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## Regional 2019-2020 Contest Catalog

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### INTRODUCTION TO WOODWORKING

#### **Contest Description**

Contestants will build a beginning woodworking level project that may require the use of stationary power tools such as the table saw or power miter box under the contest coordinator's supervision. The project may also include the use of portable power tools such as a portable electric drill and a jigsaw. Hand tools will also be required to complete the project. Contestants are required to bring the tools listed to the contest. All materials and stationary tools will be provided.

#### **Regional Competition**

Duration: 2-4 hours

The Introduction to Woodworking contest is a state contest only. It is open to all first-year high school or middle school construction or woodworking students.

Contestants will build a beginning woodworking level project that may require the use of stationary power tools such as a power miter box, sanders or drill press under the contest coordinator's supervision. The project may also include the use of portable power tools such as a portable electric drill and a jigsaw. Hand tools will also be required to complete the project. Contestants are required to bring the tools listed to the contest. All materials and stationary tools will be provided.

A measured drawing, tool list, scoring sheet, sample written test, and Introductory Woodworking technical standards have been provided for your convenience.

#### **Knowledge Performance**

Process #1 (Written Test and Material Layout):

A written test will be administered and will make up 10% of the total score.

Contestants will complete a written (safety and math) test, a ruler test, and complete a material layout sheet.

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## Regional 2019-2020 Contest Catalog

### Skills Performance

Process #2 (Tool Box construction): This Tool Box will be made from #2 pine prepared to a thickness of 3/4". The material has been ripped to width for you, but you will need to cut each piece to length using a power miter saw that has been provided. The handle holes will be drilled and you will shape them using your coping saw, the jigsaw provided (with the aid of the template) and possibly finished with a disk sander. The rest of the box will be glued and nailed together using supplied glue and the 22 - 1 1/2" finish nails. The handle will be attached with 4- #8 screws, 2" long. Please take the extra time to pre-drill for screws and set all nails and patch over them with wood putty. Attention to all surfaces should result in flat and smooth sanded surfaces making sure to soften all corners and sharp edges.

### Materials Supplied by SkillsUSA CA

1. Tablesaw
2. Combo blade (used only for ripping and cross-cutting by organizers)
3. Power miter saw
4. Drill press with forstner bit, 2"
5. Jigsaws (optional for students - minimum 1 per 2 students)
6. Scissors 3-4 pair for students to cut curve template
7. First aid kit recommended
8. Verification gauges for judges to use for checking projects (based on a curved template). Use 1/4" hardboard material or similar.
9. #2 Common Pine, 3/4" x 11-1/2" x 16' - 6 to 7 boards (yield: 4 pcs per board)
10. 1 1/2" finish nails (22 per student)
11. #8 Screws, 2" long (4 per student)
12. Wood glue two-pint bottles (shared)
13. Wood Filler Natural Color (DAP Plastic Wood or similar) two 4oz. Cans (shared)

### Facility Requirements for Contest (provided by Organizers; based on 20 contestants)

- Workbenches/tables
- Chairs

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## Regional 2019-2020 Contest Catalog

### Student Materials List

1. Resume Requirement: students must present a resume on the day of competition in order to compete.
2. Safety glasses
3. Earplugs
4. Clawhammer
5. Measuring tape,(12foot)
6. Square or tri-square
7. 2 #2 pencils,(sharpened)
8. 1/16" nail set
9. Any drill with 3/32" and 3/16" drill bits
10. Backsaw or Dovetail Saw
11. Miter box
12. Coping saw with extra blades \*very important
13. Clamps (6" or 12") 2 ea. Minimum (C, F or quick action) m. sanding block
14. Compass or divider
15. 3 pieces of sandpaper (80, 120 & 220 grit) (minimum)
16. 1" Putty Knife
17. Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)
18. Earplugs
19. Hats are ok (all logos must be taped or covered)
20. No loose clothing, ties or jewelry
21. Hair must be tied up.

### RECOMMENDED

- BlockPlane(sharpened low angle suggested) r. 10" half-round bastard file w/handle
- Calculator
- scissors
- 180 grit Sandpaper

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## Regional 2019-2020 Contest Catalog

### **OPTIONAL**

- Nailapron
- Utility knife
- 2 sharpened Chisels (approximately 1/2") y. 1/32", 3/32" nail sets
- Cabinet scraper

### **Clothing Requirements**

- **Class C SkillsUSA Attire**
- [Clothing Classifications](#)

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## Regional 2019-2020 Contest Catalog

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### **JOB APPLICATION**

#### **Contest Description**

Basic overview of the competencies that will be evaluated

#### **Regional Competition**

Duration: for example 2-3 Hours

#### **Materials Supplied by SkillsUSA CA**

List all the items that a student is expected to provide.

#### **Student Materials List**

List all the items that a student is expected to provide.

#### **Clothing Requirements**

##### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **JOB INTERVIEW**

#### **Contest Description**

Divided into three phases: completion of employment applications; preliminary interviews with the receptionist; and, in-depth interviews. Contestants are evaluated on their understanding of employment procedures faced in applying for positions in the occupational areas for which they are training.

#### **Regional Competition**

The contest consists of three parts:

1. Receptionist's preliminary evaluation.
2. Completion of an employment application.
3. In-depth interview.

#### **Materials Supplied by SkillsUSA CA**

- Judges
- Employment Application Forms
- Timer
- (1) Stop Watch
- (2) 6' Table (linen draped)
- Receptionist
- (4) Chairs
- Electrical Outlet

#### **Student Materials List**

- Résumés

#### **Clothing Requirements**

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

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### JOB SKILLS DEMO A & DEMO O

#### **Contest Description**

Contestants are to give a 5-7 minute oral presentation that demonstrates an entry-level skill used in the occupational area in which they are enrolled. Contestants are to explain and demonstrate a career objective in an occupational area that is currently one of the contest areas of SkillsUSA.

Please see the official SkillsUSA Job Skills Demonstration A Technical Standards for approved visual aids and other contest restrictions and requirements.

#### **Regional Competition**

Duration: 10 minutes per contestant

- Timekeeper
- Performance space that contains a 6' ft table and one duplex (two plugins) 110 volt (15 amp) electrical outlet

#### **Knowledge Performance**

There is no written exam for this contest.

#### **Skill Performance**

The contest requires the demonstration of a performance of an occupational skill within the chosen career pathway accompanied by a clear explanation of the topic through the use of experiments, displays or practical operations.

#### **Contest Guidelines**

1. An actual technical skill must be performed as opposed to an illustrated talk.
2. Notecards and other reference materials are not permitted.
3. *Any skill may be demonstrated, provided it is a skill related to the occupational program of the contestant.*

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#### Regional 2019-2020 Contest Catalog

4. The demonstration shall be at least five minutes in length but shall not exceed seven minutes.  
*Penalty:* Five points will be deducted for every 30 seconds or fraction thereof under five minutes or for every 30 seconds or fraction thereof over seven minutes.
5. Time limit: Time will be started when the demonstration begins. The timekeeper will signal the speaker at five minutes, six minutes, and six minutes 30 seconds.
6. Contestants will be allowed three minutes to set up the demonstration and three minutes to clear the demonstration room. *Penalty:* Five points will be deducted for every 30 seconds or fraction thereof over the three-minute allowance.
7. A performance space of 8'x12' will be provided that contains a 30"x96" table and one duplex (two plug-ins) 110-volt (15 amp) electrical outlet.
8. Any visual or auditory aids (signs, charts, transparencies, slides, diagrams, tapes, CDs) are to be prepared by contestants. Professionally prepared visuals and audio materials may not be used. No open flames, no combustible or hazardous chemical compounds, no fluids containing pathogens or toxic chemicals, and no pressurized containers will be allowed.
9. The contestant will not mention his or her name, school, city or state.
10. The demonstration is an individual performance; however, assistants may be used to set up and dismantle the demonstration. Models or assistants may be used in the demonstration but will not say or do anything that assists the demonstration other than serving as a model as needed for a facial, clothing design demonstration, etc.
11. Basic safety practices related to the skill performed must be followed. Safety violations will be subject to penalties of one to 10 points. Judges may interrupt the demonstration for serious violations.





## Regional 2019-2020 Contest Catalog

### Student Materials List

- All materials and equipment needed for the demonstration to be completed two times, once for the preliminaries and again for the finals, if required.
- Resume to be turned in to judges prior to the start of competition.

### Observer Rules

- No observers will be allowed to talk or gesture to contestants.
- Judges may disqualify contestants who receive assistance from the observer.
- No videos, pictures or note-taking in the room. All electronics must be turned off, or contestants will be disqualified.
- No observer may enter or exit while the contestant is presenting
- No observing is allowed by any Job Skill Demonstration contestant in either the preliminary or final round.
- Any judge, timekeeper or doorkeeper has the right to ask an observer to leave if they are being a distraction for any contestant.

### Clothing Requirement

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog For Public Review

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### **MAINTENANCE LIGHT REPAIR (High School Only)**

#### **Contest Description**

The contest will be consistent with the auto maintenance and light repair task list outlined in guidelines published by the National Institute for Automotive Service Excellence (ASE) and the ASE Education Foundation at: [www.aseeducationfoundation.org](http://www.aseeducationfoundation.org). Contestants will demonstrate their ability to perform jobs or skills selected from the standards mentioned above as determined by the SkillsUSA Championships technical committee.

#### **Regional Competition**

This contest will last 3 hours and will be limited to 10-15 minutes per station

#### **Contest Description:**

The contest will test students on knowledge an entry level apprentice should know and will reflect what a student will encounter at the state level.. The length of the stations will be determined by the amount of contestants. Region competitions **should** **may** include approximately 6 of the following stations. There will be:

- Written Test
- Electronic Service Information
- Electrical Testing
- Scan Tool
- Parts/Tool Identification
- Safety
- Job Interview
- Steering and Suspension
- Brakes
- Starting and Charging Systems

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## Regional 2019-2020 Contest Catalog For Public Review

- Transmissions

### **Knowledge Performance**

The contest will include a written knowledge test given by ASE, and will consist of 50 questions covering all skill areas found in the ASE Education Foundation Maintenance and Light Repair Program Standards and the Official ASE Study Guide — Auto Maintenance and Light Repair (G1) test. The test for this contest will be comprised of maintenance and repair content from these skill areas: engine repair, automatic transmission/transaxle, manual drivetrain and axles, suspension and steering, brakes, electrical/electronic steering, heating and air conditioning and engine performance.

### **Skill Performance**

The contest will include a series of workstations. Workstations consist of a vehicle and/or simulators, components, service publications, and interpersonal skills stations (such as Customer Service and Job Interview).

### **Materials Supplied by SkillsUSA CA**

All necessary tools and equipment for the contest

All necessary service publications for the contestants

### **Student Materials List**

- Safety Glasses
- Writing Utensil
- Resume

### **Clothing Requirements**

#### **[Clothing Classifications](#)**

***All stations and content are subject to change***

***Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:***

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

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Regional 2019-2020 Contest Catalog For Public Review

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### MAJOR APPLIANCE & REFRIGERATION TECHNOLOGY

#### Contest Description

Contestants rotate from station to station diagnosing common service issues on refrigerators, washers, dryers, ranges, microwave ovens and dishwashers. Contestants also demonstrate their ability to braze by assembling a copper and steel tubing project per a schematic provided. The Contestants customer satisfaction and employability skills will also be evaluated using, interviews, job applications and various types of assessments. There is also a major appliance technology general knowledge learning exercise.

#### Regional Competition

Duration: 3 hours

#### Materials Supplied by Site/SkillsUSA CA

- Contest Appliance
- Contest specialized tools

#### Student Materials List

1. Tool box, tool bag, or tool case
2. Assortment of sets of hand screwdrivers (e.g., flat Phillips, Roberts, torx head screwdrivers).
3. Nut drivers, standard SAE and metric
4. Assortment or sets of pliers (e.g., common, needle nose, channel lock, diagonal, arc joint.
5. 1/4" drive socket set, standard SAE and metric sockets.
6. 10-12 oz hammer
7. Adjustable wrenches, assorted sizes (e.g., 4", 6", 8").
8. Allen wrenches, standard SAE and metric, assorted sizes

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#### Regional 2019-2020 Contest Catalog

9. Assortment or sets of open-end and box-end wrenches, standard SAE and metric
10. Flashlight
11. Pocket thermometer
12. Volt-Ohm meter with standard probes and mini electronic probes
13. Amperage meter, probe or clamp-on style. Can be integrated with a Volt-Ohm meter
14. Gloves (optional)
15. All competitors must create a one-page resume and submit a hard copy to the judges.

**Note:** *The tools listed above are a minimal suggestion. The contestant may bring additional tools at their discretion. No electric or battery-powered tools are allowed.*

#### **Knowledge Performance**

The contest will include three written knowledge assessments that assess knowledge:

1. Technical assessment: Installing, servicing and repairing household appliances
2. Customer Relations assessment
3. Employability assessment

#### **Skills Performance**

The contest includes a series of stations where contestants will demonstrate the ability to perform jobs and skills selected from the following list of standards and competencies as determined by the SkillsUSA Championships technical committee.

#### **Contest Guidelines**

1. The contest will assess a participant's skills while practicing accuracy, good workmanship, speed and the safe use of tools and test equipment.
2. All industry standard and safety practices will be followed and assessed as a part of this contest.

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## Regional 2019-2020 Contest Catalog

### **Clothing Requirements**

#### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### MARINE SERVICE TECHNOLOGY

#### Contest Description

The contest is defined by industry standards as established by the American Boat and Yacht Council (ABYC) and industry manufacturers involved in the event. Check the SkillsUSA national website [www.skillsusa.org](http://www.skillsusa.org) for updates.

#### Regional Competition

Duration: for example 2 Hours

#### Contest Guidelines

1. Contestants will be evaluated on safe work practices, cleanliness, organizational skills, accuracy, speed, completion of assigned tasks, worksheets and paperwork.
2. Judging criteria and points assigned will be determined by the difficulty of the tasks assigned.

#### Knowledge Performance

No written test will be given.

#### Skills Performance

The contest includes stations assessing skills in:

1. Two- and four-cycle engines
2. Outboard and sterndrive applications

In addition, proficiency must be demonstrated in:

1. Marine application electrical/ignition systems
2. Fuel systems
3. Cooling systems
4. Lubrication systems

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#### Regional 2019-2020 Contest Catalog

5. Drive/transmission systems
6. Boat and trailer rigging and repair.

### **Materials Supplied by SkillsUSA CA**

#### **Student/Site Materials List**

All competitors must create a one-page résumé and submit a hard copy to the contest judge.

- All necessary engines, engine parts, work benches, test stands, gasoline and oil, and specialized tools
- Industry manuals, including service and repair instruction manuals

#### **Clothing Requirements**

##### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### MASONRY

#### Contest Description

Contestants are expected to construct a composite brick and block project in a 4-hour period that tests their ability to meet industry standards in quality. In addition to a written exam, students will be judged on a number of criteria to determine the winners. The contest project will include components of the most frequently used details in masonry construction.

#### Regional Competition

Duration: 3 hours

#### SCOPE OF THE COMPETITION

Please refer to the *SkillsUSA Championships Technical Standards*. The contest is defined by industry standards as determined by the SkillsUSA National Technical Committee. [Contest Descriptions](#)

#### Knowledge Performance

The contest will include a written knowledge exam assessing mastery of the knowledge of brick masonry techniques including but not limited to: safety; identification and usage of hand tools, power tools, measuring tools and equipment; and blueprint reading.

#### Skill Performance

The contest will include a skills performance demonstration that will assess the ability of the contestant to safely construct a composite brick and block project.

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## Regional 2019-2020 Contest Catalog

### **SAFETY REQUIREMENTS:**

Safety Form for Tools and Materials:

#### ***Safety Statement:***

*Each contestant is responsible for bringing the proper PPE to wear while participating in the contest. Safety glasses, hard hat, hearing protection, work boots, and appropriate dress must be worn at all times when in the competition area. Each contestant must turn in a signed SkillsUSA Safety Form to the competition chairman on the day of the competition.*

***NOTE:*** *Work may be performed on an uneven surface.*

*Contestants will use block laid on their side to a level surface. The first course will not be judged.*

### **Materials Supplied by SkillsUSA CA**

- Mortar Board and Stand
- Mortar mixing implements

### **Student Materials List**

- Workboots
- Safety glasses or goggles
- Pencils (sharpened)
- Brick Trowel
- 18" x 24" Framing Square
- Brick Hammer
- S-Jointer or Barrel Jointer
- Brush
- Two 6' Folding Rules (1 Modular, 1 Brick Spacing) Tape Measure
- Brick Set Chisel
- Block Set Chisel
- 1/4" or 3/8" Tuck Pointer
- 24" Level, 42" Level, 48" Level
- Two Line Twigs

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### Regional 2019-2020 Contest Catalog

- Utility Knife
- Small Torpedo Level
- Two Wooden Line Blocks
- 6' Piece of Masons Line

### **Clothing Requirements**

**Class C: Contest specific - Manufacturing/Construction Khaki Attire**

### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **MEDICAL ASSISTING**

#### **Contest Description**

Contestants are tested on their skills in clinical and administrative settings. They are judged on speed, the use of correct safety measures and their ability to interact personally with a patient. The students are also judged on general office skills, communication skills, patient education, knowledge of anatomy and physiology, terminology, instrument identification, and equipment, as well as on a variety of clinic procedures and techniques. Contestants need to be able to assess a situation in a short period of time and perform a skill required for that situation within the given time limit. Spelling counts for all testing and documentation.

#### **Regional Competition**

Duration: 2-3 hours

- Patient identification & Communication skills
- CPR/AED
- Vital Signs
- Medication Administration

#### **Knowledge Performance**

Multiple choice and fill in the blank written test. (1 hour)

#### **Skills Performance**

Hands-on skills testing consisting of 2 to 3 skills stations of skills needed for certification and employment as stated in the Technical Standards (completed in 10 minutes)

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## Regional 2019-2020 Contest Catalog

### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- Three 30"x72" table
- Test Packet
- Supplies/equipment for skills testing

### **Student Materials List**

- #2 pencil
- Black pen
- Watch
- Stethoscope
- Resume

### **Clothing Requirements**

#### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### MEDICAL MATH

#### Contest Description

Contestants demonstrate their knowledge of general math concepts used in the healthcare fields. They complete a written test that may include the use of ratio/proportion, dosage calculation, metric and household equivalents, Roman numerals, abbreviations, and general math including percentages and other medical math-related problems.

#### Regional Competition

Evaluates the ability to understand and solve mathematical problems commonly used in the various health care settings.

#### Regional Competition

There will be a written test consisting of measurements, conversions, ratio and proportions, and dosage calculations.

#### Suggested References

“Standardized Medical Abbreviations”, listed in the Medical Math National Technical Standards. To access the National Technical Standards, you will need to [login to your SkillsUSA account](#) and click on “Access Tech Standards” on the home page.

#### Materials Supplied by SkillsUSA CA

- Test problems and instructions
- Scratch paper
- Timekeeper
- One 30”x72” table

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### **Student Materials List**

- No. 2 pencil
- Basic hand-held calculator
- Graphing or scientific calculators, phones, smartwatches, or anything with fraction keys are not permitted
- All competitors must create a one-page résumé and submit a hard copy to the judges prior to competition. Failure to do so will result in a 10-point penalty.

### **Clothing Requirements**

#### [Class B: Healthcare Attire](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### MEDICAL TERMINOLOGY

#### **Contest Description**

Contestants will be evaluated on their knowledge of medical terminology and abbreviations used in health occupation fields. This contest is open to SkillsUSA members currently enrolled in programs that include medical terminology as a component.

#### **Regional Competition**

A written test consisting of word roots, prefixes, suffixes, and medical abbreviations.

#### **Knowledge Performance**

The contest will include a written medical terminology knowledge test. Content for the test is based on the Core Standards from the National Health Care Core Skills Standards Project.

#### **Skills Performance**

Contestants will demonstrate their knowledge of medical word roots, prefixes, suffixes, medical word building, and medical abbreviations by successfully answering the questions.

#### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- Test Packet

#### **Student Materials List**

- No. 2 pencil
- All competitors must create a one-page resume and submit a hard copy to the judge at the time of the competition. Failure to do so will result in a 10-point penalty.

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## Regional 2019-2020 Contest Catalog

### **Clothing Requirements**

#### **Class B: Healthcare Attire**

**[www.skillsusastore.org](http://www.skillsusastore.org)**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### MOBILE ELECTRONICS INSTALLATION

#### Contest Description

This event tests contestant's abilities to perform standard installation practices used by certified, professional mobile electronics installers. These skills have been established through the certification objectives and items created for the Basic MECP certification by the Consumer Electronics Association. This event includes a written examination covering the Basic MECP certification, a professional interview and five hands-on applications that include taking electrical measurements, installing consumer electronics equipment in a mobile environment, soldering, working with relay circuits and troubleshooting electronic circuitry.

#### Regional Competition

Duration: 3 hours

#### Knowledge Performance

The written test is based on the Mobile Electronics Certified Professional Basic Installation Technician exam produced by the Consumer Electronics Association (CEA). See [www.mecp.com](http://www.mecp.com).

#### Skill Performance

The event includes a professional interview and five hands-on applications that include taking electrical measurements, installing consumer electronic equipment in a mobile environment, soldering, working with relay circuits and troubleshooting electronic circuitry.

1. The scope of the contest will be consistent with the industry standards outlined in the competencies listed for the Mobile Electronics Certified Professional Basic Installation Technician exam produced by the Consumer Electronics Association (CEA). See [www.mecp.com](http://www.mecp.com). Following are the major skills areas:

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## Regional 2019-2020 Contest Catalog

### **Section 1 — Basic and Advanced Electrical**

- Electrical laws and formulas for the mobile electronics environment
- Electrical components
- Basic electrical troubleshooting
- Filters
- Relays, batteries and cable
- Semiconductors
- Automotive, electrical and charging systems
- Troubleshooting

### **Section 2 — Mobile Electronics Installation Knowledge and Techniques**

- Basic installation practices
- Noise troubleshooting
- Battery troubleshooting
- Meters and test equipment
- General installation and equipment
- Shop safety
- Troubleshooting guide

### **Section 3 — Introduction to Autosound, Security, Wireless**

- Introduction to audio — autosound basics
- Introduction to security
- Wireless communications: The basics of installation
- Navigation basics
- Satellite radio
- The current MECP Basic Mobile Electronics Installer competency standards are available on the Web at: [www.mecp.com](http://www.mecp.com).

2. Contestants will demonstrate their ability to perform jobs or skills selected from the competencies listed below as determined by the SkillsUSA Championships technical committee.

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## Regional 2019-2020 Contest Catalog

**3. Installing, Diagnosing and Servicing:** This section of the competition consists of several test-station activities. Contestants must successfully complete assigned tasks at each station. The tasks are designed to provide a variety of challenges based on the MECP recommended practices. Approximately 45 minutes are allowed at each station.

### **Materials Supplied by SkillsUSA CA**

Necessary materials, schematics and equipment needed for the contest

#### **Student Materials List**

- Pencils
- Safety glasses
- Calculator
- Soldering iron
- Wire strippers
- Wire crimpers (Kline type)
- Digital Multiimeter (DMM)
- Resume

### **Clothing Requirements**

#### **Clothing Classifications**

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### MOBILE ROBOTICS

#### Contest Description

Contestants will create, design, build and program a robot with autonomous and driver control features in order to participate in the current game. (National Contest is located [here](#)) **Bring Assembled Robot using only parts from the list provided in this packet.**

#### Regional Competition

Duration: 2-4 hours

Create, design, program, and build a robot to the specifications listed in the attached packet.

Some Regional and State SkillsUSA competitions are held in smaller venues and are only four hours long. Because of this, the state director and his or her technical committee may choose to substitute or change the Mobile Robotics challenge in a variety of ways. It is up to the state to determine how they would like to change the contest to better suit their needs. Here are some suggestions:

- Omit the math problem
- Omit an engineering change order
- Increase the number of rounds per team
- Omit the assembly period (allow teams to bring pre-assembled and ready to compete robots to the event)
- Use PIC microcontroller and crystals instead of Cortex microcontrollers and VEXnet
- Modify the competition scoring matrix or BOM to align with other changes for their state.

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## Regional 2019-2020 Contest Catalog

- Please check with your SkillsUSA State Director and the associated Technical Committee for information regarding any modifications to the event as described in this document. State Competitions are allowed to modify the rules of this competition to fit their specific state requirements.

For more information on how to run or find resources for a Mobile Robotics Competition in your state, please contact the Mobile Robotics National Technical Chair, Trevor Pope at [Tpope@Intelitek.com](mailto:Tpope@Intelitek.com).

### **Materials Supplied by SkillsUSA CA**

Contest Manager

One 30"x72" table

One electrical 120 Volt (15 Amp) outlet

### **Student Materials List**

- Résumés
- Engineering Notebook
- Safety glasses
- Optional: Dremel rotary tool with appropriate attachments (safety glasses required)
- Drill and drill bits
- Aircraft Snip for cutting VEX metal
- Phillips screwdrivers
- Metal File
- Pliers
- Allen wrench set (English)
- A laptop with licensed VEX programming software (for the Cortex microcontroller) and presentation software.
- Power strip and extension cord

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#### Regional 2019-2020 Contest Catalog

- Tape measure and/or ruler
- Calculator (standard, scientific or graphing)
- Graph paper, pens, pencils, tape, electrical tape, markers and scissors
- Multi-meter
- Replacement batteries and **only** VEX chargers - All 7.2V robot batteries must be made by VEX Robotics. 9V and AAA can be manufactured by any vendor
- Non aerosol grease or graphite

***Note: ONLY the above listed items will be allowed in the contest area during the competition***

#### **Rules specific to this contest:**

Teams may only have their computer that is being used for their programming and presentation. No Internet or WiFi connections permitted in the pit and contest area. This includes tethering to a phone or hotspot. Cell phones are not permitted in the pit and competition area. This causes interference of field control and will cause disqualification of the offending team and removal from the contest area. Official Contest Dress male and female: White SkillsUSA polo and black slacks, black socks, black leather shoes, black belt.

#### **Clothing Requirements**

##### **Clothing Classifications**

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

***Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:***  
**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

**<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>**

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

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### MOTORCYCLE SERVICE TECHNOLOGY

#### Contest Description

Contestants perform tasks representative of those encountered in a dealership's service department. Technical skills include performing scheduled maintenance tasks; use of service, electrical diagnostic and parts manuals; electrical diagnostics; precision measurement; brake service; chassis/suspension service; fuel delivery system inspection and repair; transmission and drive systems; powertrain systems; on Harley-Davidson motorcycles. Judges will look for organized work habits, and correct use of reference materials. The ability to follow directions and good technical skills.

#### Regional Competition

Duration: 3 hours

#### Contest Guidelines

1. Contestants will be tested on a variety of motorcycles, ATVs and scooters commonly found in the United States using both metric and American threads/wrenches.
2. Contestants will be judged on accuracy, proper use of tools and equipment and safety practices. Rating sheets will reflect each specific skill requirements as determined by the national technical committee.
3. The contest is divided into two parts: a written exam and a series of skill-related tests designed to assess skills selected from the following lists of competencies as determined by the SkillsUSA Championships technical committee. The stations include both hands-on and written work

#### Possible Competition Stations:

**1: Written Test** - Contestants will be tested through a multiple choice exam covering motorcycle systems including fuel induction, 2 and 4 stroke engine theory, power delivery, suspension, frame geometry, and electrical systems.

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## Regional 2019-2020 Contest Catalog

**2: Precision Measurement** - A hands on and written station where contestants will be tested on their ability to correctly use precision measuring tools to measure various engine components to calculate clearances in order to determine necessary repairs. Equipment: Standard and metric micrometers, Vernier caliper, feeler gauge, dial bore gauge and/or telescoping gauge.

### **Supplied by SkillsUSA CA**

All necessary tools, equipment, supplies and publications for the contest

### **Student Materials List**

1. Portfolio
2. Safety glasses
3. Pen and Pencil
4. Vernier caliper
5. Feeler gauge
6. Dial bore gauge
7. Telescoping gauge

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### **Class D: Contest Specific - Automotive Blue Attire**

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### NAIL CARE

#### Contest Description

This contest is designed to show off the contestant's preparation and knowledge in the field of nail care, sanitation, proper setup and disassembly of services provided, professionalism in the workplace, and proper techniques in artificial nail application and nail care services. It is open to all students enrolled in programs with manicuring as the occupational objective.

#### Regional Competition

Contest procedures may be judged in all or some areas of the process; it will be decided prior to the competition without notice.

*Note: Competition may be switched to a demonstration only if the required amount of participants is not met.*

#### Knowledge Performance

Contestants will be asked to give an oral presentation and service demonstration. The oral presentation will be used to demonstrate customer service skills through a simulated consultation work scenario.

#### Models

***\*Students must bring a model to perform the services required at the competition.***

1. Models should NOT arrive at the contest with any kind of artificial enhancements previously applied.
2. All contestants must bring a model for the competition.
3. Contestants are not permitted to touch their models before the competition begins or between segments.
4. The *only* conversation allowed is the contestant requesting the model to reposition her hand or arm. Communication with observers, judges and other

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#### Regional 2019-2020 Contest Catalog

contestants is prohibited during the contest. If you have a question, raise your hand and a committee member will help you.

5. All segments of work must be completed in the specified time during competition. (i.e., during the light-cured gel segment, no work may be completed or started on the sculptured, nail art or polish application.)
6. No eating, drinking, smoking or gum chewing is allowed during the competition.
7. All contestants and models must be escorted to the bathroom by a SkillsUSA Nail Care Contest Volunteer. Bathroom breaks will take place after judging segments.
8. Penalty points may be taken for the following:
  - a. Leaving competition area before completion of the model (applies to both contestant and model) without proper escort.
  - b. Unauthorized use of a product that is not allowed.
  - c. Only odorless and sealed products will be allowed.

#### **Contest Guidelines**

Communication Skills “Oral Presentation” (3-5 minutes – 100 possible points):

1. Contestants will perform a client consultation on a basic manicure and describe the service and any add-on service, as well as the results of the service to the client (“model”).
2. There will be a full simulated consultation for a nail service.
3. Students must be able to communicate with the client on what is desired for the finished look.
4. Students should be able to explain to the judge how they will achieve the finished look by incorporating a nail service technique to achieve a specific type of nail.
5. The scenario will be given the day of the contest.
6. The student must be prepared for any type of nail extension technique.

This includes but not limited to:

  - a. Sculptured nails
  - b. Gel nails
  - c. Overlay nails
  - d. Temporary nail tips.

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## Regional 2019-2020 Contest Catalog

Contestants must simulate a phone conversation with a client. They will be judged on *customer service and professionalism*.

Contestants will demonstrate their ability to communicate with clients professionally and friendly.

### *Consultation Scenario*

- a. Full simulated consultation for a nail service.
- b. Students will need to introduce themselves to the client
- c. Use client's name
- d. Verify client information
- e. Offer other salon services
- f. Ask the client if they have any questions
- g. Friendly, helpful and sincere.

### **Acrylic sculptured nails (Five) – (1 hour – 250 points)**

1. Demonstration and description of sanitary procedures shown during the services.
2. No extensions or nail ornaments allowed, no electric files allowed.
3. Contestants must use an odor-less or fast setting acrylic.
4. All five fingers of the model's *right* hand are to be sculpted with acrylic using forms (tips are prohibited), in a two-tone/French Manicure (pink & white) technique. Two or more colors of acrylic must be used.

### **Nail tip, wrap, and Gel Nail Application (1 hour – 250 Points)**

1. All the nails should be done on the *left* hand of the model.
2. Contestants must be able to create five artificial nail extensions with the use of:
  - Natural plastic nail tips
  - Light cured gel nails on three nails
  - Fiberglass and resin on two nails as an overlay.
3. No extensions or nail ornaments allowed.

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#### Regional 2019-2020 Contest Catalog

4. Electric files are not allowed.
5. Contestants must bring the lamp of their choice to cure the gel.

#### **Polish and Flat Nail Art Application (1 hour. – 300 Possible Points)**

1. Red polish may *NOT* be applied prior to arrival.
2. Two coats of dark red crème Lacquer/Polish is to be applied to the model's right hand.
3. Nail Art is to be applied to all five fingers of the model's left hand. A specific theme is to be carried through on all five fingers.
4. Each student must create a theme of his or her choice to be created during the competition.
5. Contestants must have written and submitted a description of the theme they intend to create at orientation. Descriptions of themes should be typewritten, may be decorated and must be contained in a plastic sheet protector.
6. *ONLY* flat art is allowed. Diagrams of the nail art you intend to create can be used, however, they are limited to the finished product and may not be step-by-step instructions.
7. Once all judging is complete, props may be used to enhance art during the parade of models. All nail art must be created using polish, nail lacquer and or paint *ONLY*!!
8. No embellishments are allowed: rhinestones, dried flowers, glitter, etc.
9. Cleanliness, coverage, creativity, theme, and color coordination will be judged.

#### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- First Aid Kit
- Blood spill kit
- Outlets for power
- Manicure tables
- Chairs for contestants and models

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### Student Materials List

- CLEAN AND DISINFECTED supplies and implements.
- 2 Safety glasses (one for the competitor and one for model)
- White terry towels
- Hand sanitizer
- Paper towels
- Water dispenser
- Disinfectant container
- Disinfectant- Liquid and wipes
- All items needed to perform 5 sculptured acrylic nails (odorless acrylic, nail forms, white, clear, and pink powder, monomer, a sable brush, nail files and buffers, NO ELECTRIC FILE)
- All items needed to perform gel nails including lamp, nail tips, and nail wrap with resin.
- Red nail polish, base and topcoat
- All items necessary to complete a flat-paint nail art application (NO NAIL ART ACCESSORIES, only paint, polish, and tools to create design are allowed)
- Portable kit organizer
- Manicuring lamp and extension cord

### Clothing Requirements

#### **Class E: Contest specific - Business Casual**

#### [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### **NURSE ASSISTING**

#### **Contest Description**

Students will demonstrate knowledge and skill in performing personal care, encouraging patient independence, assisting with ambulation, and performing other routine tasks, including standard infection control procedures used in basic nurse assisting. Students will demonstrate knowledge and abilities in CPR, and the measurement of vital signs. Contestants will be familiar with basic anatomy, communications skills, legal/ethical issues, and employment skills.

#### **Regional Competition**

Evaluation of contestant's preparation for employment and professionalism in the field of nurse assisting. The contest will assess student's knowledge of skills such as transferring patients, asepsis, vital signs, catheter care, intake and output necessary for employment as noted in technical skills requirements

#### **Knowledge Performance**

The contest includes a written knowledge exam assessing areas that include, but are not limited to, functions of body parts, basic human needs pertaining to client care, nutrition, observation and assessment, employability skills, safety, communication, infection control, ethics, basic mathematical operations, malpractice and liability issues, and medical terms and abbreviations.

#### **Skills Performance**

1 to 3 technical skills to be completed in a 10 minute period and an assessment of proficiency in the areas of activities of daily living, personal care, CPR, employability assessment, observation and communication skills.



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### Materials Supplied by SkillsUSA CA

- Timekeeper
- Two 30"x72" table
- Test Packet
- Supplies/equipment for skills testing provided by contest coordinator

### Student Materials List

- #2 pencil
- Black pen
- Watch
- Stethoscope
- Gait Belt
- Resume

### Clothing Requirements

#### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **OCCUPATIONAL HEALTH SAFETY (SINGLE & DOUBLE)**

#### **Contest Description**

A chapter's team of 3 demonstrates the safety and health endeavors of their respective technical program by putting together a scrapbook that highlights important programs, activities and events related to their school's health and safety program. The competition encourages chapters to be active in all phases of SkillsUSA. The health and safety activities of the chapters are evaluated on the planning and organization of four projects and the final outcome of those projects. Students are interviewed and scrapbooks are scored by a panel of judges based on the quality and content of the books and on the candidates' presentation during the interview process.

#### **State and Regional Competition:**

Evaluation of a chapter's safety activities as presented in the official SkillsUSA scrapbook. Project categories may include shop/laboratory health and safety survey, machine and equipment safety, workplace inspection and specialized health and safety project.

Information submitted in the scrapbook should include: project planning, scope of activities, committee minutes, results achieved. Contestants will be scored on the layout/presentation and interview pertaining to the project.

#### **Knowledge Performance**

There is no written knowledge exam for this contest.

#### **Skills Performance**

The contest will consist of an evaluation of a chapter's safety activities as presented in the official SkillsUSA scrapbook.

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### Contest Limit

Maximum of 75 pages, using official SkillsUSA scrapbook paper. Both surfaces of the 75 sheets may be filled for a maximum of 150 surfaces. No electronic presentation devices are allowed.

### Contest Guidelines

1. Awards will be presented in two categories: single and multiple chapter.

Note: A school may enter both categories of competition. All activities documented in the entry must reflect only the efforts of the students and advisor[s] of the section[s]. You may not take credit for school functions or projects conducted outside of SkillsUSA sponsorship.

- a. *"Single chapter"* refers to a SkillsUSA chapter that represents one occupational area regardless of the number of members. Multiple-teacher departments with the same vocational classification will be recognized as a single chapter. (For example, a three- teacher cosmetology department would be entered as a single chapter; an Auto Service Technology I and Auto Service Technology II program would be a single chapter.) All work-based learning or coop/cooperative programs in a school will be considered one chapter.
- b. *"Multiple chapter"* refers to an entry that represents more than one occupational program. (Example: a cosmetology program and a graphic arts program completing an entry together would be a multiple section.) There must be at least one member from each program on the Health and Safety Committee.
- c. A single- or multiple-chapter entry must complete all categories in the contest.

2. The entry will:

- a. Contain verification, proof or evidence of the activities represented. All articles and materials must be dated.

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- b. Be in an official SkillsUSA scrapbook from the SkillsUSA Store catalog. A 20- point deduction will result from the use of any other type of scrapbook or notebook.

*Note:* Different pages may be substituted for pages supplied in the official SkillsUSA scrapbook, or the pages may be covered; however, both front and back covers must be used without alteration. Ten points will be deducted for alteration.

- c. Contain no more than 75 sheets of paper the size of the official SkillsUSA scrapbook paper. Both surfaces of the 75 sheets may be filled for a maximum of 150 surfaces.
- d. Penalty: Five points per surface (10 points per sheet of paper) will be deducted for exceeding this maximum.

*Note:* A surface is only that material which can be pasted or glued to the basic scrapbook paper. Any pockets, foldout pages, multiple pages to similar features will count as additional surfaces and will be subject to penalty, except where specifically stated otherwise. Laminated pages are not allowed, as they are difficult to judge and make the books too thick. Books with laminated/plasticized pages will receive a 100-point penalty.

*Note:* For books over 2 inches thick, it is suggested that bolts be used. Binder post screws tend to break in thick books.

- 3. The contest will consist of four health and/or safety projects conducted by a special Health and Safety Committee.

*Note:* The committee cannot be referred to as the OSHA Committee.

“OSHA” can only refer to the Occupational Health and Safety Administration.

- 4. The Health and Safety Committee must have a minimum of three members. Once the Health and Safety Committee is appointed by the chapter president, the committee must document at least one regular meeting a month during the school year with Health and Safety Committee minutes that show the progress of the committee and its projects.

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#### Regional 2019-2020 Contest Catalog

5. The entry will verify all activities from the time the Health and Safety Committee first meets, until all projects are completed. A single project may cover an entire school year, or it may be a short-term project. All articles and materials must be dated. All projects must be conducted within SkillsUSA sponsorship.

6. All photographs, news articles, announcements, official letters and other evidence that substantiate a project must be dated. Points will be awarded only for committee activities that were accomplished during the year in which a chapter enters. Use of news articles, pictures or other materials dated or acquired prior to that year may result in a points deduction.

7. The entry will be organized in the following sequence:

- a. Title Page
  1. Name of school
  2. Name of state
  3. Names of the Health and Safety Committee members
  4. Names of all occupational programs involved in the Health and Safety Committee
  5. High school or postsecondary chapter
- b. Table of contents with page numbers: The project category (see Project Categories section) or each project must be clearly identified in the table of contents. All pages of the notebook must be numbered including blank pages.
- c. Calendar of events of all chapter activities including dates of Health and Safety Committee meetings
- d. Introduction
  1. A description of how and why your chapter(s) decided that health and/or safety was to be included in the SkillsUSA chapter's yearly program of work
  2. Documentation as to how the specific areas of health and/or safety were selected for emphasis
- e. Minutes of all official chapter business meetings that set the stage and gave direction or supported your projects

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*Note:* There are minutes of the SkillsUSA chapter that should include committee reports of the Health and Safety Committee. They are not Health and Safety Committee minutes.

- f. Four health and/or safety projects

### **Project Categories**

There must be a total of four occupational health and/or safety projects, which must be selected from the five categories listed below. Two projects may be selected from one category with at least three different categories used. Failure to cover at least three categories will result in disqualification. Each project must begin with a cover page that clearly identifies the project category selected from the five project categories.

#### **1. *Shop/Laboratory Health and Safety Survey***

The survey form in the technical standards may be used, or a customized survey prepared to fit a chapter's specific needs may be used. If a customized survey is used, it must be of industry quality. The survey may be the one used by a local industry.

- a. Describe all aspects of implementing the survey, including planning, conducting the survey, subsequent action and final reporting.
- b. Describe any action taken as a result of identifying possible hazards as shown on the survey. Corrective action should be part of any survey.
- c. A separate survey and description must be completed for each occupational area covered.

**2. *Machine and Equipment Safety*** Describe in detail the safety instruction provided in a selected shop/laboratory regarding the operation of all power machines and equipment as well as general safety instruction. Included in the description must be documentation of dates of all instructor classroom safety demonstrations, copies of classroom safety rules, listing of safety-related audiovisual materials shown in class and other pertinent information.

#### **3. *Workplace Inspection***

- a. Visit a workplace to learn firsthand the degree of health and safety measures provided by an employer to the employees or customers.

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- b. Compare the health and safety concepts taught in the classroom to those encountered in the workplace.
- c. Describe in detail the planning, site visit and general observations regarding health and safety practiced at the workplace.
- 4. *Specialized Health and Safety Project*
  - a. Develop a health and/or safety project chosen from the following categories.
    - Document all activities involved in the project.
    - 1. 10-hour OSHA Industry Credentialing (CareerSafe)
    - 2. Safety in lifting and moving heavy objects
    - 3. Heat stress
    - 4. Occupational respiratory protection
    - 5. Indoor air pollution safety
    - 6. Personal protective equipment/Industrial protective clothing
    - 7. Occupational vehicle driving
    - 8. Plant/school building safety

#### 5. *Other Industrial or Occupational Health and Safety Project*

Other industrial or occupational health and safety concerns as identified by the chapter safety committee. The focus of any such project must be on industrial or occupational health and safety.

### **Project Criteria**

Each project should be documented in such a way that it would tell a complete story if removed from the notebook. The documentation must cover the following items.

#### 1. *Project Planning*

Describe how interest was generated within your chapter for the specific safety project. Why was the project selected, or what was the need? Describe the steps the Health and Safety Committee followed to plan the project.

#### 2. *Scope of Activities*

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Identify the committee members and all others who actually participated in the project. The amount of work and time that goes into a project will be considered when evaluating the project. All photographs, news articles, announcements, official letters and other evidence that substantiates the project should be included and dated.

#### 3. *Committee Minutes*

All Health and Safety Committee minutes related to the project should be included in each project. Minutes must follow the style set forth in the "Finalized Form of the Minutes" section in Robert's Rules of Order. Only include committee minutes if the document discussion and planning of the specific project in which they are included. Duplicate minutes that discuss more than one project should appear in each project. One meeting each month is required once the Health and Safety Committee is appointed. Each project does not have to be discussed at each committee meeting. Minutes must be dated and signed.

#### 4. *Results Achieved*

Describe and document the full impact than the project had on individuals, schools, businesses, industry and the community in general as appropriate to the project. Report positive and negative (if any) outcomes of the project. Include any data collected.

#### 5. *Layout/Presentation*

Neatness, clarity, organization and presentation of material will be evaluated. Errors in spelling, punctuation and grammar will result in a reduction of points.

#### 6. *Interview*

Up to three students on the Health and Safety Committee whose names appear on the title page of the notebook will be interviewed by a panel of judges. The contestant(s) will be asked questions pertaining to the projects. Each student must submit a one-page, typewritten r sum  to the national technical committee when the notebook is submitted.



## Regional 2019-2020 Contest Catalog

### Materials Supplied by SkillsUSA CA

- Timekeeper
- StopWatch
- Three 30"x72" table

### Student Materials List

- Occupational health and safety scrapbook  
*(Use of any electronic presentation devices to include laptops or tablets is strictly prohibited and will result in disqualification)*
- Resume

### Clothing Requirements

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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### OPENING & CLOSING CEREMONIES

#### Contest Description

Contestants will compete as a team of seven and give an oral presentation, reciting from memory, the opening ceremonies and closing ceremonies of the SkillsUSA organization as specified in the official SkillsUSA Opening and Closing Ceremonies Technical Standards.

Teams are encouraged to practice and prepare on a weekly basis focusing on script memorization, the timing of actions, complete setup and all other requirements as specified in the national technical standards.

#### Scoring Guidelines:

Judging Categories	Points
Room Setup	40
Personal Grooming	56
Team Entrance	28
Presidents Parts (All)	96
Invocation	16
Group Seating (All)	48
Emblem Presentations (All)	352
Group Standing	48

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<b>Coordinated Team Activity</b>	56
<b>Pledge of Allegiance</b>	112
<b>Secretary</b>	8
<b>SkillsUSA Pledge</b>	112
<b>Team Exit</b>	28

#### **Judging Penalties:**

1. Non-Official Dress
2. No Resume
3. Team Member Penalty

#### **Materials Supplied by SkillsUSA CA**

1. Official SkillsUSA emblem
2. Easel for emblem
3. U.S. flag
4. Gavel and sound block
5. Speaker's stand (lectern)
6. Two draped tables 8 feet long and 30 inches wide
7. Six chairs
8. Copy of SkillsUSA Championships Technical Standards for each judge
9. All necessary information and furnishings for judges and technical committee

#### **Student Materials List**

1. Resume
2. SkillsUSA Official Dress

#### **Clothing Requirement**

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

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### OUTSTANDING CHAPTER

#### **Contest Description**

This is a team event with 3 team members. The Outstanding Chapter consists of activities members have been involved with during the school year. Activities consist of chapter meetings, leadership training, publicity, community service projects, professional development, a program of work, awards, local and state competition, and other selected chapter activities. Each activity is documented according to the guidelines and submitted in a scrapbook for judging. One student representative is interviewed during the competition.

#### **Regional Competition**

Contestants compile a notebook showcasing the activities members from their school have been involved in during the current school year. These activities should include:

1. Chapter Meetings
2. Leadership Training
3. Publicity
4. Community Service Projects
5. Professional Development
6. Program of Work
7. Awards
8. Local & State Competitions
9. Other Chapter Activities

Contestants must document each activity in a scrapbook for judging. The scrapbook submitted must be to contest guidelines as stated in the official technical standards for the competition. Please see the official SkillsUSA Outstanding Chapter Technical Standards for more details.

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## Regional 2019-2020 Contest Catalog

### Scoring Guidelines

<u>Categories</u>	<u>Points</u>
Chapter Membership	30
Official SkillsUSA Equipment	20
SkillsUSA Program of Work	30
Leadership Training	75
Professionalism	70
Social Activities	20
SkillsUSA Publicity	70
Awards & Recognition	50
Local SkillsUSA Championships	100
Professional Development Program	40
Community Activities	210
Business & Industry Relations	150
Appearance & Layout	25
Secretary/Treasurer Notebook	25
Interview	85

### Judging Penalties:

1. Non-Official Dress
2. No Resume
3. Notebook Materials Missing

### Materials Supplied by SkillsUSA CA

List all the items that a student is expected to provide.

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## Regional 2019-2020 Contest Catalog

### Student Materials List

1. Resume
2. SkillsUSA Official Dress
3. Notebook

### Clothing Requirements

- **Class A SkillsUSA Attire**
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### PHOTOGRAPHY

#### Contest Description

Competitors will demonstrate their skills in photography in the following areas: written test, an on-site photo shoot, and an interview including their 2 mounted prints and resume.

#### Regional Competition

3.0 hours maximum

- Photography written knowledge test
- 2 mounted prints, a minimum size of 11" x 14" mounted or matted on 16" x 20" board
- Interview using 2 mounted prints and resume.

#### *On-site photoshoot:*

- One-hour photoshoot based on an assignment given the morning of the event
- One-hour to edit and submit four photos from the shoot plus 1 composite.

#### Knowledge Performance

Students will take a multiple-choice test on general photography knowledge.

#### Skills Performance

**Field Shoot:** Students will be given a theme. They will have 2 hours to capture photographs on site that are representative of the assigned theme using their own DSLR and gear. Gear could include: reflectors, flash, lenses, tripods, etc. At the conclusion of the 2 hour on site shoot, students will be allotted 1 hour to select and edit their four best images applying minor adjustments (IE: cropping, exposure, levels, white balance).

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### Regional 2019-2020 Contest Catalog

**Digital Manipulation:** A single image will be generated using the four images from the field assignment. This single image will be a conceptual design/fine art piece. They will be expected to use their imagination, creativity, and editing skills to manipulate and layer the images into a single composite. The composite must be 8" x 10" @ 300 dpi.

**Interview:** Competitors will be judged in an interview (80 pts) with an industry professional using their resume and 2 mounted prints.

### \*Scoring

Contestants will be scored on; Field Assignment (150 pts), written test (100 pts), troubleshooting digital image (60 pts), print competition (150 pts), job interview (80 pts), photo challenge (60 pts) and clothing (-50)

### Materials Supplied by SkillsUSA CA

- Table with power available for each competitor's computer.
- Handouts
- Judges

### Student Materials List

- Computer with software installed and functioning.
- Cabling required for all equipment
- Resumé and 2 mounted prints
- DSLR or mirrorless digital camera
- Flash drive
- Tripod / additional equipment as needed
- Card reader and media

### Clothing Requirements

#### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

**Note:** Check the Contest Guidelines and/or the updates page on the SkillsUSA website:

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

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### **PIN DESIGN (State only)**

#### **Contest Description**

Contestants are to present their artwork for the pin design and give a 5-7 minute oral presentation explaining how their design accurately represents the state and what qualities it possesses and why another SkillsUSA member would want to wear it.

#### **Regional Competition**

Contestants are encouraged to use visual aids such as PowerPoint or notebooks. (Please see the official SkillsUSA Pin Design Technical Standards for approved visual aids and other contest restrictions and requirements.)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

#### **Materials Supplied by SkillsUSA CA**

List all the items that a student is expected to provide.

#### **Student Materials List**

1. Resume
2. SkillsUSA Official Dress
3. Rendering of Pin (All entries should be submitted with two versions of the art on a single page.

The larger version is for judging. The smaller version is to show what the actual pin will look like. The larger version must be approximately 7 inches wide x 7 inches high. The smaller version should be approximately 1 inch x 1 inch. Both versions should be identical.)

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## Regional 2019-2020 Contest Catalog

### Scoring Guidelines

Items Evaluated	Points
Pin Drawing to Size	50
Colors Pleasing	50
Pin's Professional Appearance	150
Preliminary Research	75
How Pin Represents State	50
Process Followed in Design	75
Pin's Unique Qualities/Copyright	50
Potential Appeal to Members	100
Verbal Techniques & Poise	75
Introduction & Ending	50
Self-Confidence	50
Response to Questions	225

### Judging Penalties

Contestants can be penalized for:

1. Non-Official Dress
2. Presentation Time (Over/Under)
3. Rule Violation
4. No Resume

### Clothing Requirements

#### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### PLUMBING

#### Contest Description

Contestants "rough-in" hot and cold water lines with copper tubing and "rough-in" sanitary drainage, waste and vent lines. Water pipes are pressure tested on completed projects. Professional plumbers and pipefitters judge the contestants on the basis of accuracy, workmanship, proper selection and use of tools and supplies, and proper safety procedures.

#### Regional Competition

Duration: for example 3 Hours

#### Scope of the Competition:

##### Knowledge Performance

The contest will include a written knowledge exam assessing knowledge of the industry standards. The contest criteria were drawn from the CTE Curriculum Standards for the Building Trades.

##### Skills Performance

The contest will assess accuracy, workmanship, the ability to read and interpret plans and the proper use of tools, equipment and materials. The core elements to be tested are:

1. **Planning and layout** – will include plan reading for placement of waste and water lines. Contest includes a plumbing materials identification test as well as the hands-on Performance.
2. **Materials** - Identification of materials, fittings and sizing information.
3. **Tool handling and safety** - demonstrated by the contestant.

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## Regional 2019-2020 Contest Catalog

### Contest Guidelines

#### Time Limit

Contestants will be stopped when time limits as specified on contest job sheet are up. Contestants may stop whenever they have completed a particular phase of the contest but must remain within contest area.

#### Clean up

The dismantling of the project will be considered the final sequence task of the contest.

#### Judging Criteria:

Please refer to SkillsUSA Championships Technical Standards.

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

#### Safety Requirements:

Safety Statement:

***Each contestant is responsible for bringing the proper PPE to wear while participation in the contest. Safety glasses, hard hat, hearing protection, work boots and appropriate dress must be worn at all times when in the competition area. Each contestant must turn in a signed SkillsUSA Safety Form to the competition chairman on the day of the competition.***

### Student Materials List

#### **TOOLS AND MATERIALS REQUIRED FOR CONTEST**

1. Tool belt

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### Regional 2019-2020 Contest Catalog

2. Safety Glasses
3. Copper tubing cutter with reamer
4. Striker
5. Arc joint pliers (channel lock type)
6. 8" or 10" adjustable wrench
7. Set of assorted slotted and Phillips screwdrivers
8. Torpedo level
9. Hammer
10. 25' Tape Measure
11. Plastic pipe reamer or suitable
12. Knife
13. Copper cleaning tool (inside and outside)
14. Pencils
15. Utility Knife
16. Torque wrench for no-hub clamps
17. 5/16" nut driver
18. Hacksaw
19. 3/8" drive socket set
20. Cordless Drill Driver

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.

### **Materials Supplied by SkillsUSA CA**

All materials, as specified on the job sheet Job sheets and blueprints for each contestant

### **Clothing Requirements**

#### **Clothing Classifications**

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

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## Regional 2019-2020 Contest Catalog

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## Regional 2019-2020 Contest Catalog

### **Safety Form for Tools and Materials SkillsUSA California – Plumbing Competition**

The SkillsUSA California Regional Plumbing Competition will involve the use of equipment and materials in completing the task within the competition. It is absolutely necessary that complete operating instructions and safety for the use of equipment and materials have been given to the contestant in their training program in the local school division as stated in the National SkillsUSA National Standards before the contestant competes. This includes the proper safety instruction in the use of the tools listed in the scope of the contest and the use of protective equipment while using the tools and materials. Safety glasses are required.

By the affixing of my signature below, I certify that my student, who is entering the Plumbing, has had proper operating and safety instruction in the use of the power tools, equipment and materials.

\_\_\_\_\_ (Signature of Instructor/Advisor)

\_\_\_\_\_ (SkillsUSA California Chapter)

By the affixing of my signature below, I certify that I \_\_\_\_\_ (Contestant Number) have used the hand and power tools, equipment and materials to be used in the Plumbing Competition and that I understand the correct operating procedures and safety precautions for the use of this power tool, equipment and materials.

\_\_\_\_\_ (Signature of Student)

\_\_\_\_\_ (Date)

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### Regional 2019-2020 Contest Catalog

THIS FORM MUST BE SIGNED AND TURNED IN TO THE COMPETITION CHAIRMAN ON THE DAY OF THE COMPETITION. FAILURE TO TURN IN THIS FORM WILL RESULT IN THE STUDENT NOT BEING ALLOWED TO COMPETE.

### **Hand/ Power Tool Contest Pre-use Inspection Form**

Some portable power tools require a more thorough inspection. Check the manufacturer's recommendation for more advanced power tools.

#### **Before using hand tools inspect for the following:**

- The outside of the tool is free of grease, oil and accumulated foreign matter
- The tool has no visible cracks in jaws or handle
- Blades or bits are not damaged, cracked, etc.
- Handles are not cracked, damaged or loose from heads of hammers, axes mauls and other similar tools Tips of screwdrivers, chisels or other similar tools show no excessive wear
- Gripping surfaces pliers, wrenches or other similar tools are not worn
- Tools such as chisels and punches do not have mushroomed heads
- Cutting tools such as chisels and axes are sharp
- Tool appears to be in generally good condition

#### **Before using portable power tools inspect for the following:**

- The outside of the tool is free of grease, oil and accumulated foreign matter
- Tool power-source shows no damage (cord, airline, battery, etc.)
- Tool is double insulated and tool housing is not damaged
- If not double insulated the equipped, electrical cord third prong (ground) is intact
- All shields, guards or attachments required by OSHA or manufacturer are present
- Rotating or moving parts of tool are guarded to prevent physical contact
- Tool is not leaking fluid such as grease, oil, etc.

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### Regional 2019-2020 Contest Catalog

- Blades or bits are not damaged, cracked, etc.
- Tool appears to be in generally good condition
- Proper PPE is available

## **SKILLSUSA California Hand/ Power Tool Contest Pre-use Inspection Form**

Contestants #:

Contestants Signature:

Advisors Name:

Advisor's Signature:

### **Instructions:**

1. The contestant will use this form to document the use inspection of each power and hand tool that will be used for the SKILLS Regional and State building trades competitions.
2. Each hand and power tool must be inspected prior to competition using the stated inspection criteria above or owner's manuals. All tools must receive a pass (P), improvement needed (I), Fail (F) marking. All tools must receive a passing marking to be used in the competition. All marking and measuring tools will receive an NA.
3. Any corrective steps taken must be noted in the notes section next to the item. Examples of corrective actions include: cleaning, repairs needed, removed, tagged out of service.
  - a. Contestant's advisors must also print and sign they have reviewed the tools prior to competition.
  - b. Forms will be collected at the beginning of the competition.
  - c. Any contestant/ team that does not submit form will be required to complete inspection prior to start of competition.

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## Regional 2019-2020 Contest Catalog

*All contestants will be subject to random tool safety inspections throughout the competition.*

Item

P – Pass

I – Improvement Needed

F – Fail Inspection

NA – Not Applicable

Notes for corrective measures:

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## Regional 2019-2020 Contest Catalog

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### **POWER EQUIPMENT TECHNOLOGY**

#### **Contest Description**

This competition tests the student's abilities in the areas of diagnostics, testing and repair pertaining to small engine/power equipment. The work stations are based on what a repair technician would encounter on a daily basis. This includes 2 and 4 stroke engines, electrical, hydraulic systems, troubleshooting and customer service.

#### **Regional Competition**

Duration: 3 hours

The contest will test students on knowledge an entry level apprentice should know and will reflect what a student will encounter at the national level. Region competitions should include approximately 6 of the following stations. There will be:

- Written tests
- Tool ID
- Engine parts ID
- Electrical
- Precision Measurements
- Shop and Parts Manual
- Actual PET engine application Identification and testing
- Engine Valve Adjust

Students will have approximately 15-20 minutes per station and will be scored on how much of the station they complete and the accuracy of the answers.

#### **Materials Supplied by SkillsUSA CA**

All major contest material will be provided to the students (tools, drills, engines, manuals, etc...). They will be standard industry tools (Fluke, Snap-on, Mitutoyo, etc...).

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## Regional 2019-2020 Contest Catalog

### Student Materials List

- Safety Glasses
- Writing Utensil
- Resume

If a student desires, they may bring tools that they are more familiar with:

- DVOM(A digital volt/ohm meter capable of measuring resistance, ac voltage and dc voltage
- Torque wrenches(both Foot Lb and Inch Lb)
- Precision measuring tools(CAN NOT be digital and is the students responsibility to ensure calibration and accuracy)

All tools brought will be inspected and are subject to rejection if a judge feels the tool has been tampered with, is in poor working order or has the potential to damage the work station. Because of this, students should be versed in the use and operation of all tools so if it is deemed that the tools they brought are considered inadequate they can still perform the work station

**All stations and content are subject to change**

### Clothing Requirements

**Class D: Contest Specific — Blue Attire**

#### [Clothing Classifications](#)

Official Contestant clothing see [SkillsUSA store](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### **PRACTICAL NURSING**

#### **Contest Description**

Evaluation of contestant's preparation for employment and professionalism in the field of practical nursing. The contest will assess student's knowledge of basic anatomy, asepsis, patient safety, physical assessment, medication administration, patient education, and Vital signs.

#### **Regional Competition**

Multiple choice and fill in the blank written test. Hands-on skills testing in the following areas:

- Blood pressure and pulse
- Pour the desired amount of medication into a med cup (liquid or pills)
- Measure output from a container that shows measurement (they need to read a specific amount)

#### **Knowledge Performance**

The contest will include a written knowledge test assessing knowledge of medical terminology, body structure and function, nutrition, medications, and nursing care. Practical nursing requires the application of all levels of cognitive ability.

#### **Skills Performance**

The contest will assess the fundamentals of the clinical problem-solving process, caring, communication, and documentation. All skills demonstrated will be based on nationally accepted accreditation and certification standards. Contestants, as part of the demonstration, should voluntarily express pertinent information. Situations or case studies

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## Regional 2019-2020 Contest Catalog

### **Materials Supplied by SkillsUSA CA**

- Timekeeper
- Three 30"x72" table
- Test Packet
- Supplies/equipment for skills testing
- Colored water (to simulate medication)

### **Student Materials List**

- #2 pencil
- Black pen
- Watch
- Stethoscope
- 30ml/1oz liquid measuring medicine cup
- Resume

### **Clothing Requirements**

#### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### PREPARED SPEECH

#### Contest Description

Requires students to deliver a speech five to seven minutes in length on a common theme established by National SkillsUSA early in the school year. Contestants are evaluated on their ability to present thoughts relating to a central theme clearly and effectively, and on voice, mechanics, and platform deportment.

#### Regional Competition

Contestants will compete as an individual. The contestant will create a speech, no more than 5 - 7 minutes in length using the current theme for SkillsUSA. The current theme for the 2019-2020 year is: ***"I'M READY"***

#### Scoring Guidelines

<i>Categories</i>	<i>Points</i>
Opening	150
Speech Delivery	400
Voice	100
Closing	150
Effectiveness	200

#### Judging Penalties

1. Non-official dress
2. No resume
3. Time penalty

#### Materials Supplied by SkillsUSA CA

- Stopwatch
- Timecards

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### **Student Materials List**

- Resume
- Official Dress

### **Clothing Requirements**

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

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### PRINCIPLES OF ENGINEERING TECHNOLOGY

#### **Contest Description**

Evaluation of the contestant's preparation for employment and professionalism in the field of Principle of Engineering Tech. Contest will assess student's knowledge of basic Engineering Principles.

#### **Regional Competition**

Duration: 10-15 minutes

1. Present a technical demonstration of (a) chosen principle(s) of technology. Demonstrate the principle(s) in theory and/or application, and leave the judges with a clear comprehension of the subject unit or sub-unit from principles of technology.
2. Answer questions and discuss the application of the principle(s) with the judges.
3. Any technical concept may be demonstrated, provided it is related to physics, can be referenced to the course curriculum and incorporates basic principles of applied physics. If any hazardous or caustic materials are used, contestants must bring the associated Material Safety Data Sheet(s) (MSDS) to the contestant meeting and present five copies along with the five copies of the discussion paper for committee review.
4. Discussion paper – Contestant must provide a discussion paper in accordance with current Technical Standards.

*\*This represents a digest of the original standards for this contest. Complete standards can be found in the SkillsUSA National Standards.*



## Regional 2019-2020 Contest Catalog

### **Knowledge Performance**

There is no written knowledge test for this contest. Instead, a paper will be prepared and presented in this contest.

### **Skill Performance**

The second portion of the contest is a technical demonstration where the knowledge, underlying theories, and applications of the chosen principle(s) in action and application will be demonstrated.

### **Contest Guidelines**

1. Present a technical demonstration of (a) chosen principle(s) of technology. Demonstrate the principle(s) in theory and/or application and leave the judges with a clear comprehension of the subject unit or sub-unit from principles of technology.
2. Answer questions and discuss the application of the principle(s) with the judges
3. Any technical concept may be demonstrated, provided it is related to physics, can be referenced to the course curriculum, and incorporates basic principles of applied physics. If any hazardous or caustic materials are used, the contestants must bring the associated Material Safety Data Sheet(s) (MSDS) to the contestant meeting and present five copies along with the five copies of the discussion paper for committee review.
4. The recitation of curriculum experiments is not, in and unto itself, sufficient to meet the requirements of the contest. Thorough research and in-depth treatment of the subject matter will be required to comply with the requirements of the contest and to be competitive. Imagination and innovation will be expected by the judges.
5. Any visual aids (signs, charts, transparencies, slides, diagrams) are to be prepared by the contestants. Professionally prepared visual materials are not

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permitted. No sound device of any kind may be used to transmit or amplify audible words unless they are integral to the technical demonstration itself. No compressed air, gas or flammable liquid may be used.

6. The contestant will use his or her contestant number only and will not mention his or her school, city or state.
7. The Principles of Engineering contest is an individual performance event. However, others can assist to set up and/or tear down the demonstration. Only students can be used as models or props in the demonstration.
8. Discussion paper — The contestant will prepare and present to the contest chair five copies of a discussion paper in accordance with the following requirements.
  - a. The discussion paper shall include subjects (such as background, history, development, explanation of the theory, applications, examples, methods of demonstration or benefits) to be addressed to the extent appropriate to present a clear explanation and demonstrate the contestant's understanding of the subject.
  - b. The discussion paper must be typed, one-and-a-half- or double-spaced in 10- or 12-point type, must have 1-inch margins on all sides and must be four to eight pages long. Each page (except the cover) is to have a one-up page number at the bottom of the page. *The cover page will not be counted in the page count; however, all tables, graphs, pictures and illustrations will be counted.*

*A cover page is required and must include the following: "(current year) Principles of Engineering Contest," and the title of the technical demonstration and blanks for date, time and contestant number in the upper right-hand corner. The contestant number shall be placed in the upper right-hand corner of each page before handing in the paper.*

- c. *The discussion paper shall conform to the following format:*
      - i. *Title — short, descriptive title for the technical demonstration, centered near the top of the page.*

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Regional 2019-2020 Contest Catalog

- ii. *Introduction — a descriptive introduction to the technical demonstration principle(s) involved, objectives of the demonstration and reason(s) for the choice.*
- iii. *Discussion — as a minimum, include a detailed discussion of the following subject areas:*
  - 1. *The history and background of the principle(s) involved*
  - 2. *A description of the principle(s) involved and an explanation of the scientific theories embodied in the principle(s)*
  - 3. *The technical demonstration to be given: how it will be conducted, what will be shown and how it relates to the subject matter*
  - 4. *Practical applications of the principle (or principles) involved, including past, present and/or future*
  - 5. *Provide examples of demonstrations of the principle(s) that are possible or in existence, but are not practical for the contest*
  - 6. *Cite the particular unit and/or sub-unit in Principles of Technology curriculum that is the basis for this technical demonstration*
- iv. *Summary — present a concluding discussion of the principle(s) to be demonstrated, what the demonstration will have achieved, relevance to the practical world and any concluding remarks or conclusions.*

*d. A bibliography shall be included with the discussion paper to properly credit reference sources. Footnotes are required in the text to credit specific references. All bibliography and footnote information shall be included at the end of the paper. Formatting is at the discretion of the contestant; however, complete credit and reference data is mandatory. Page numbers such as “B1” will be used for the bibliography and footnote section but will not be included in the page count.*



Regional 2019-2020 Contest Catalog

9. *Technical demonstration — The contestant shall prepare and present a technical demonstration to a panel of judges in accordance with the following requirements. The purpose of the technical demonstration is for the contestants to demonstrate thorough knowledge and awareness of the history, underlying theories, descriptive knowledge and applications of the chosen principle(s) in action and application. The contestants shall be prepared to present their demonstrations three times. Exhibition of the contestants' demonstrations to the general public will be required, but not scored.*
10. *Contestants will be allowed five minutes to set up the demonstration and five minutes to clear the demonstration room. Penalty: Five points will be deducted for each 30 seconds or fraction thereof over the five- minute setup or clearing times.*

*Each presentation of the technical demonstration to the judges shall be at least 10 minutes in length and shall not exceed 15 minutes in length. Penalty: Five points will be deducted for each 30 seconds or fraction thereof under 10 minutes or over 15 minutes in length. The timekeeper will indicate elapsed time of the demonstration at the 10-, 13- and 15-minute points.*
11. *Setup time will begin when the contestant indicates readiness to set up by handing to the lead judge a 3"x5" card containing the title of the technical demonstration and the contestant number. The demonstration time will begin when the contestant indicates readiness and will stop when the contestant indicates that the technical demonstration has ended. The tear-down time will be timed from the end of the question and answer period until the contestant indicates completion to the lead judge.*
12. *A question and answer period will be allowed at the conclusion of each demonstration to permit the contest judges to query the contestants and further evaluate the contestants' understanding of the demonstrated principle. Questions by the judges may cover any aspect of a contestant's chosen principle(s) as presented in the discussion paper or technical demonstration. **This question and answer period is not to exceed 10 minutes in length.***



## Regional 2019-2020 Contest Catalog

### **Materials Supplied by SkillsUSA CA**

1. Timekeeper
2. Three 30" x 72" tables

### **Student Materials List**

1. *Gloves*
2. *Safety Glasses*
3. *Resume*
4. *Discussion Paper, 4 to 8 eight pages long*
5. *Illustration/Project*

### **Clothing Requirements**

#### **Class A: SkillsUSA Attire**

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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## Regional 2019-2020 Contest Catalog

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### PROMOTIONAL BULLETIN BOARD

#### **Contest Description**

This is a team contest of three. Judges bulletin board displays created by SkillsUSA chapters based on the annual SkillsUSA theme. The bulletin boards promote SkillsUSA, career and technical education in general, and related occupational information. An accompanying notebook documents the development and construction of the bulletin board. An oral presentation explains the process, purpose and educational value

#### **Regional Competition**

Contestants are to create a board display based on the annual SkillsUSA Theme. The board should promote SkillsUSA, career and technical education (in general), and related occupational information. The current theme is "Champions at work: I'm Ready" Contestants must also turn in a notebook with the necessary documents as required by the official SkillsUSA Promotional Bulletin Board Technical Standards.

Contestants should prepare an oral presentation that explains the processes used as well as the purpose and educational value of the display.

#### **Knowledge Performance**

There is no written knowledge test required for this contest.

#### **Skills Performance**

The contest requires the development of a promotional bulletin board *using the SkillsUSA national theme*, and it may also include the promotion of local SkillsUSA chapter activities or technical, skilled and service occupations, including health occupations. The skill also will be evaluated through an interview.

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### Contest Guidelines

*SkillsUSA headquarters establishes the theme for the Promotional Bulletin Board contest and announces it to the state associations by Sept. 1 for the following school year. To verify the correct national theme, go to [www.skillsusa.org/competitions/skillsusa-championships/theme](http://www.skillsusa.org/competitions/skillsusa-championships/theme)*

### Student Materials List

1. Resume
2. SkillsUSA Official Dress
3. Bulletin Board
4. Notebook

### Scoring Guidelines

<i>Judging Categories</i>	<i>Points</i>
● Bulletin Board	400
● Interview	410
● Notebook	140
● Resume	50

### Judging Penalties

- Non-Official Dress
- Incorrect Poster Size
- Bulletin Board Frame
- Self-Supporting
- Mounting Board and Support
- Fastening
- Resume (exceeds one page)
- Audio-Visual/Moving Part

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- Exceeds Cost
- Interview/PresentationTime

### **Clothing Requirements**

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### QUIZ BOWL

#### **Contest Description**

Contestants will compete as a team of five responding to questions in all areas related to academic knowledge, professional development, and current events. Teams will compete against other teams of five in multiple rounds, (Preliminary Rounds), before advancing to the finals. (Final Round) Each round is 100 questions with each question being worth 1 point.

The number of preliminary rounds is determined by the number of teams competing, as well as space and equipment available.

#### **Knowledge Performance**

A written test will be administered to all team members, including alternates.

#### **Skills Performance**

Teams will demonstrate communication skills, teamwork, problem-solving and time-management skills by determining and presenting the answer to each question clearly within the five-second time frame.

#### **Scoring Guidelines**

Quiz Round	800 points
Written Test	200 points

#### **Judging Penalties**

Non-Official Dress  
No Resume

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### **Materials Supplied by SkillsUSA CA**

- One table for each team plus a table for the apparatus and scorekeeper and sufficient tables for the judges
- Chairs for all participants, committee and judges
- Podium
- Quiz Bowl apparatus
- Audience chairs
- Sufficient score sheets and pencils for judges
- Paper for the team members
- Calculators for contest officials

### **Student Materials List**

- Resume
- SkillsUSA Official Dress

### **Clothing Requirements**

- Class A SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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## Regional 2019-2020 Contest Catalog

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### RELATED TECHNICAL MATH

#### Contest Description

On a written test, contestants demonstrate skills required to solve mathematical problems commonly found in the skilled trades and the professional and technical occupations. Skills demonstrated include:

- Addition, subtraction, multiplication, and division of whole numbers, fractions, and decimals
- Applied word problems
- Percentages
- Ratio proportions
- Averages
- Area, volume, metric measures, and traditional (imperial) measures
- Trigonometry

#### Regional Competition

The duration of this competition is 2 hours.

#### Knowledge Performance

A written knowledge test will be required. A sound knowledge of geometry, algebra, trigonometry, and basic statistics will prepare the students to exhibit their problem-solving skills for this part of the contest.

#### Skills Performance

There is no skill performance component of this contest.

#### Contest Guidelines

1. The written knowledge test comprises 50 problems applicable to any career and technical field. It covers applications of the fundamental operations of whole

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## Regional 2019-2020 Contest Catalog

2. numbers, fractions, and decimals; including applications of percentages, ratio, and proportion, averages, areas, and volumes.
3. The written knowledge test will provide the student the opportunity to demonstrate his or her problem-solving skills, not just mathematical ability.
4. Students have two hours to complete the problems and check their answers.
5. Hand-held calculators may be used. Competitors need nothing more than a simple scientific calculator that can be purchased for about \$10–\$15. A graphing calculator is not necessary. The test is based on real-world mathematical applications and reasoning - not theoretical mathematics.
6. Phones are not permitted for use, even as calculators.
7. No bonus will be given for early completion of the written knowledge test.

### **Clothing Requirements**

- Class A: SkillsUSA Official Attire

[Clothing Requirements](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### **RESTAURANT SERVICE**

#### **Contest Description**

Contestants will demonstrate their ability to serve customers, take orders, serve food and beverages in proper order, and calculate the bill.

#### **Regional Competition**

Duration: 2 Hours

#### **Knowledge Performance**

The contest includes a written knowledge test consisting of approximately 15 true/false and multiple-choice questions assessing food safety and sanitation, service styles, and techniques. The test will be given at orientation and will be created from the information in Remarkable Service, 3rd edition.

#### **Skill Performance**

The contest will focus on guest service and guest relations in the dining room and “front of the house” skills of guest hospitality and food and beverage services.

#### **Contest Guidelines**

1. Contestants should be prepared to perform the duties of a dining room server, as well as seating host/hostess.
2. Actual food from a kitchen may or may not be used, depending on the facility.
3. Contestants will be judged on personal appearance, tableside manner, professionalism, ease with guests, courtesy, general knowledge, and technical and verbal skills.

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### Regional 2019-2020 Contest Catalog

4. Judging will be in separate increments: grooming/uniform, napkin folds, table setup and service, host and greeting, tableside service, check calculations, and presentation.
5. Eight unique napkin folds with name card for each fold.
6. One tableside presentation will occur during the competition. Can be held as part of the service or stand-alone competition station.
7. For postsecondary, a basic wine knowledge to include proper glass and wine service will be included.
8. Menu knowledge and possible chef's special will also be evaluated.

#### **Materials Supplied by SkillsUSA CA**

1. Chairs, tables, flatware, trays, table settings, cloths, and napkins
2. Calculator
3. Guest checks and check presentation folders
4. Menus and description of the daily chef's featured dishes
5. Food and beverage items. Pictures of items will be provided for competitors to use as mock food.

#### **Student Materials List**

1. One ink pen (blue or black)
2. No. 2 pencil for written test
3. Table crumbers are part of a waiter's/waitress' uniform (wine tool for post-secondary)
4. All competitors must create a one-page resume and submit a hard copy to the judge prior to the competition beginning. Failure to do so will result in a 10-point penalty.

#### **Clothing Requirement**

##### **Class H: Contest Specific - Restaurant Service**

#### [Clothing Requirements 2020](#)

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### **SkillsUSA Italian Café Menu**

#### **Appetizers \$9.95**

##### *Bruschetta*

Fresh tomatoes diced and tossed with red onion, sun-dried tomatoes and basil, served on toasted bread

##### *Fried Mozzarella*

Mozzarella sticks served with marinara sauce

##### *Fried Calamari*

Breaded or cooked to order, served with fresh lemon and marinara sauce

#### **Salads \$9.95**

##### *Classic Italian (serves 3-4 people)*

Romaine lettuce, tomatoes, black olives with creamy garlic dressing

##### *Antipasto*

Iceberg lettuce garnished with meats, cheese, tomatoes, black olives, pepperoncinis, green bell peppers and classic Italian dressing

#### **Pizzas \$14.95**

##### *Margherita*

Fresh pizza made with tomatoes, garlic and basil

##### *Pepperoni*

Fresh pizza made with red sauce, topped with mozzarella and pepperoni

##### *Supreme*

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Sliced pepperoni, sliced salami, ground sausage, mushrooms, black olives, onions, and bell peppers.

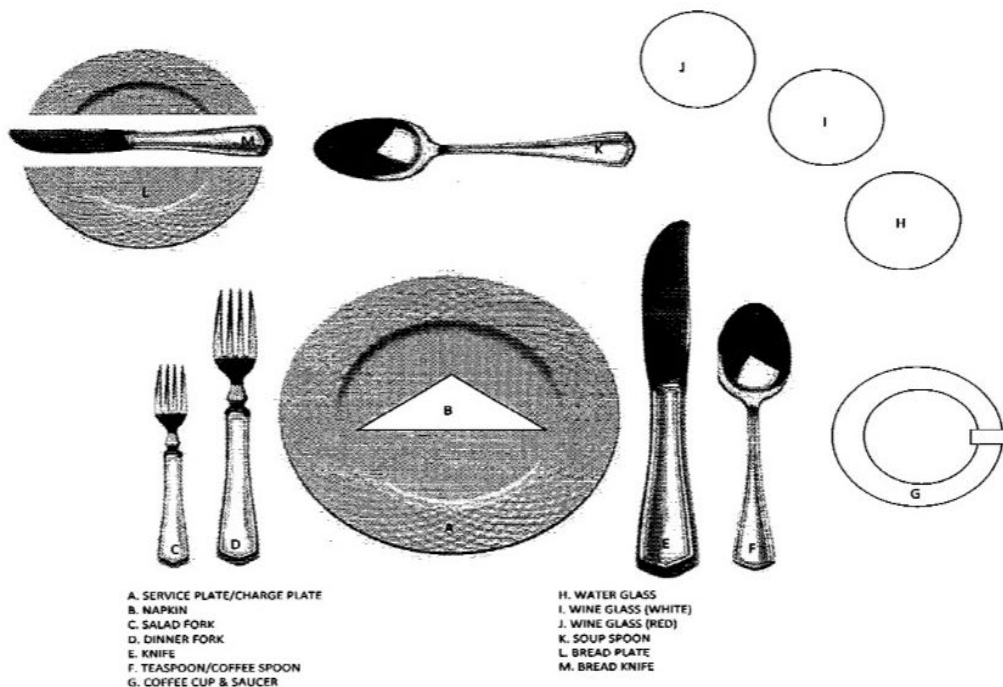
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## Regional 2019-2020 Contest Catalog

### Table Layout



*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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### ROBOTICS AUTOMATION TECHNOLOGY

#### **Contest Description**

This contest challenges two-person teams to demonstrate the operation of a five-axis servo-robot along with a set of sensors and motorized devices to resolve a simulated production process problem. Teams set up and demonstrate the operation of a robotic work cell from a word problem. Contestants are required to create a flow chart and sequence of operation. Teams are also judged on efficiency, speed and teamwork.

#### **Regional Competition**

Refer to General Regulations and Robotics and Automation Technology, Page of the current SkillsUSA Championships Technical Standards.

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

*Teams of two should be able to demonstrate the following:*

1. Ability to use a robotic arm with at least 4 axes.
2. Ability to program the software to use with the robotic arm.
3. Provide documentation of the design process (including flowchart) and programming involved with the robotic arm demonstration.
4. Ability to communicate with the judge(s) and answer questions about the documentation, programming, and use of the robotic arm.
5. Provide judge(s) with ONE copy of each participant's resume.

#### **Notes:**

1. Even though students may bring a robotic arm with them, it is not required. This is due to transportation issues and competitive balance (each team may have a different robotic arm). If a robotic arm is not able to be brought to the contest, then an



### Regional 2019-2020 Contest Catalog

original video (not uploaded to a social media site) should be able to be shown to the judges.

2. Each team will have a total of 15 minutes for their presentation, including judges' questions.

### **Knowledge Performance**

The contest will include a written exam and oral presentation assessing competitors' knowledge of the principles of robotics, automation technology, and safety practices.

### **Skill Performance**

Students will work in teams of two from the same school to create a robotic work cell.

### **Materials Supplied by SkillsUSA CA**

Necessary equipment to construct the work cell that is designed by the technical committee for the contest task.

### **Student Materials List**

Necessary equipment:

1. Computer
2. Wire cutters/diagonals 3" to 6"
3. Screwdrivers (3" to 6" blade length)
4. Common set to include 1/8", 1/4" and 3/8" minimum
5. Phillips set to include No. 0, No. 1 and No. 2 minimum
6. Longnose/needle nose pliers 3" to 6"
7. Wire strippers
8. Hookup wire, 20–24 AWG, red, black yellow, blue and green (other colors may be substituted), 150' each color
9. Allen wrenches, set to include 5mm, 3mm and 7/64" minimum
10. Multimeter with leads

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- 11. Two pencils (sharpened)
- 12. 6" or 12" ruler
- 13. Power screwdriver or drill with screwdriver bits to mount fixtures to work surface
- 14. 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.

#### **Clothing Requirements**

**Class E: Contest specific - Manufacturing/Construction Khaki Attire**

**[Clothing Classifications](#)**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

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### **ROBOTICS: URBAN SEARCH & RESCUE (Demonstration)**

#### **Contest Description**

To evaluate team members' skills and preparation for employment in fields related to and including robotics, engineering, automation, manufacturing, electronics, and emergency services. To recognize outstanding performance by participants in scenarios that require problem solving and teamwork in a real-world situation.

Eligibility: The RoboRescue Challenge is open to active SkillsUSA members who are associated with Computer Science, Computer Programming, or Robotics.

#### **Regional Competition**

Duration: 2 hours

#### **Knowledge Performance**

This portion of the contest will entail a knowledge exam. Competencies evaluated on the written portion will be general principles used in robotics. There will be a 30-minute limit for the written test.

#### **Skill Performance**

A two-member team builds its robot and arm mechanism prior to the competition and then, during the competition, remotely operates the robot, which should be capable of locating, grabbing and moving simulated ordinances on the challenge course. This remotely operated vehicle (ROV) must traverse the course, locate the ordinances, secure them and properly dispose of them. Each team will perform one round of competition consisting of a time-limited mission to locate and dispose of two ordinances.

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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### **Materials Supplied by SkillsUSA CA**

1. Challenge field: Simulated neighborhood
2. Field elements: components of a residential area and obstacles to traverse, open, and manipulate in order to locate and dispose of simulated explosive ordinances
3. A command center area equipped with a table, two chairs, and a video monitor
4. General workspace for each team designated as a “pit” area, including one table, two chairs, and access to a 120-volt electrical supply

### **Student Materials List**

1. Safety equipment — eye protection is required at all times in the contest area
2. Laptop computer (optional) for technical presentation purposes only. Laptop not used for robot operation.
3. Video monitor and cable connectors
4. Fully assembled, tested, and operational ordnance disposal robot conforming to the guidelines and parts restrictions listed in this document (see “Urban Search and Rescue Challenge Kit Bill of Materials” in Appendix)
5. Team number affixed to robot
6. Presentation software for oral presentation to judges (optional)
7. CAD/CAM software for blueprint design (optional)
8. Completed Engineering Notebook
9. Pens, pencils, and paper

**Note:** Technical drawing/blueprint of robot drive chassis must be included in notebook

### **Tools:**

1. Allen wrench set (English)
2. Clamping vise
3. Metal tin snips
4. Power strip
5. Calculator

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6. Tape measure
7. Hammer
8. Metal file
9. Flat-head and Phillips-head screwdrivers
10. Wire strippers (one set)
11. Wire cutters/snips (one set)
12. Roll of electrical tape
13. 4" nylon wire ties (25 pack)
14. Multimeter
15. Multi-nut pliers
16. Metal-cutting hacksaw (manual)
17. Cordless drill with charger
18. Set of standard drill bits
19. Pliers (needle nose or regular)
20. Set of box wrenches
21. 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



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Items Evaluated	Possible Points
Robot Drive Chassis and Tech Drafting	200
Arm Mechanism	150
Engineering Technician Notebook	150
Technical Presentation	150
Challenge Field Skills	250
Resume	10
Clothing	50
	960 Possible Points

### Clothing Requirements

#### Class E: Contest specific - Business Casual

#### [Clothing Classifications](#)

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
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## Regional 2019-2020 Contest Catalog

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### SCREEN PRINTING TECHNOLOGY

#### **Contest Description**

Contestants are tested on their ability to prepare screens, register a multi-color design on a manual four-color one station rotary press, and print a multi-color design on a manual six color four-station rotary press. Contestants also complete a written technical knowledge test and participate in an oral professional assessment.

#### **Regional Competition**

Duration: 2-4 hours

#### **Knowledge Performance**

The knowledge contest will include a written exam assessing the general knowledge of screen printing technology processes. Written portions may be included during the skills portion of the contest. Knowledge of terms and principles used in screen printing processes will be required for the skill demonstration portion of the contest.

#### **Skills Performance**

The skills contest will include a demonstration of individual skills in producing screen-printed products using equipment and technologies meeting screen printing industry standards. Some (not all) of the skills to be demonstrated are: screen tensioning, screen coating, stencil exposure/washout, image registration, garment printing, screen reclaiming and quality assessment of completed screen printing.

#### **Contest Guidelines**

1. The competition will assess student participants' knowledge and skills of screen printing technology at nine testing stations:
  - a. Demonstrate the fundamentals of screen preparation and tensioning
  - b. Coat and dry screens with a direct photosensitive emulsion

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#### Regional 2019-2020 Contest Catalog

- c. Create screens (stencils) with film positive registration, exposure/washout procedures
- d. Register screens on a rotary screen printing press, and proof the design
- e. Print textiles while demonstration production procedures that meet industry standards
- f. Reclaim screens
- g. Solve a quality control problem by assessing the printing quality of a garment production sample
- h. Take a written technical knowledge test
- i. Submit a résumé to an interviewer and participate in an oral professional assessment
- j. For equipment specifications, check [updates.skillsusa.org](http://updates.skillsusa.org).
- k. As soon as the contestants have completed an assigned job and have fulfilled all the requirements presented at the testing station, they should notify the judge. The scorekeeper and judge will gather the contestant's product or worksheet for evaluation and scoring.

#### **Materials Supplied by SkillsUSA CA**

All equipment and materials used during the performance test.

#### **Student Materials List**

Resume

#### **Clothing Requirements**

- Class E SkillsUSA Attire
- [Clothing Classifications](#)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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### **SHEET METAL**

#### **Contest Description**

Contestants are tested on their ability to perform such jobs as connecting sheet metal pieces with drive cleats, spot welding and riveting. Skills tested may include, but are not limited to, straight duct, transition fitting and 45-degree entry tap fitting. Professional sheet metal workers judge contestants on the use of hand tools, correctness of layout and shop safety procedures. Contestants will be judged on accuracy, completeness, and craftsmanship.

#### **Regional Competition**

Duration: 3 Hours

#### **Knowledge Performance**

The contest will include a written knowledge exam assessing the areas of (but not limited to) shop safety procedures and sheet metal fabrication and installation.

#### **Skill Performance**

The contest will assess the ability to complete a sheet metal project involving a 26-gauge to 18-gauge galvanized or mild steel sheets on the basis of using hand tools, correctness of layout and shop safety procedures.

#### **Contest Guidelines**

1. Contestants will be judged on their ability to perform such jobs as connecting sheet metal pieces with drive cleats, spot welding and riveting.
2. Skills tested may include straight duct, transition fitting and 45-degree entry tap fitting.

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3. Contestants will be given a job sheet explaining the job to be completed and the required time limits.
4. All layouts will be checked by the judges prior to cutting.
5. Contestants are not allowed to bring layout books to the contest.

### **Materials Supplied by SkillsUSA CA**

All necessary equipment, tools, materials and work benches

#### **Student Materials List**

1. Tool box
2. One each: Aviation M1, Aviation M2, Aviation M3 and combination or pattern tinner's snips
3. 8" sheet metal worker's vice grips
4. 8" or 10" regular vice grips
5. 12" combination square with glass level
6. 24" flat steel square
7. 8" combination pliers
8. One each: 6" and 12" straight-leg sprint dividers
9. Flexible steel tape measure
10. Scratch awl
11. Screwdriver set (minimum one slotted and one Phillips)
12. One each: ball peen, setting and riveting hammers
13. Wood, leather or rubber mallet
14. Two hand groovers, one for 1/4" grooved lock, one for 5/16" grooved lock
15. 36" straightedge
16. Pop rivet gun
17. Two wooden pencils
18. Drive cleat turner
19. Handheld calculator for written test

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20. Additional tools as desired, subject to approval of the technical committee
21. Center punch
22. One pound rivet set
23. Marking pen
24. Small trammel points
25. Scratch gauges
26. 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.

#### **Clothing Requirements**

- **Class I: Contest Specific**

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>

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### **TEAM ENGINEERING CHALLENGE (MS Only)**

#### **Contest Description**

Contestants will demonstrate excellence and professionalism in the areas of creative and critical thinking skills and the decision making process, to solve a problem. The contest will require creativity, innovation, teamwork, and problem solving skills. Students will be judged on adherence to requirements, design development, implementation, and presentation of development. Scoring is based on time management, interviews including sales/style, problem solving and teamwork, prototyping and construction, and solution performance.

#### **Eligibility**

This contest is open to active SkillsUSA members enrolled in a middle school chapter (grades six-eight). A team consists of three students from the same local chapter. Teams must qualify from their local state conference.

#### **Regional Competition**

Duration: Approx 2 hours

#### **All Teams**

Orientation	10 mins
Design	15 mins
Design Pitch	05 min (per team)
Construction and Use	30 mins
Results Pitch	10 min (per team)

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### Scope of the Contest

1. Contestants will be identified by number only.
2. The technical committee will provide each team with the problem and the contest supplies at the time of the pre-contest briefing.
4. Each team's solution will be constructed on site.
  - a. Construction is only allowed in the contest area and during the contest times as presented in the pre-contest briefing
5. Once time has been called per section, all teams may not continue in this section (Example: Construction and time, No team shall continue building once time has been called or the team will be disqualified)

### OBSERVER RULE

- **Observers will be allowed to watch the match in a designated space away from contestants providing space is available.**
- **No talking or gesturing will be permitted from or to any observer.**
- **The event chair or moderator may remove observers and/or close the event to observers for cause.**
- **Teams will be disqualified if an observer intervenes during any time of the competition from beginning to end**

### Materials Supplied by SkillsUSA CA

- Facilitator
- Timekeeper
- Tables for each team
- Materials for the project
- All tools, materials and supplies necessary to solve the contest problem (e.g., hacksaw, glue guns, cordless drill, etc.)
- All necessary information and furnishings for judges and technical committee

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### **Supplied by the Student:**

- Paper
- Pencil
- Pen
- 12" Ruler
- 3 Pairs of Scissors
- 3 Pairs of Safety Goggles
- Drawing equipment (team's choice, e.g., ruler, straight edge, t-square, triangle, scale, pencils, pens, compass, etc.)
- Exacto knife or equivalent
- Coloring/writing utensils (markers, crayons, colored pencils, etc.).
- Paint is not allowed
- Students are not allowed materials that will add to their prototype, e.g., tape

### **Clothing Requirements**

#### **Clothing Classifications**

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

**<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>**

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## Regional 2019-2020 Contest Catalog

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### TEAM WORKS

#### Contest Description

The contest includes a team project assessing the ability to analyze a project drawing, write an action plan, professionally present the team project, and perform skills in residential carpentry, plumbing, electrical wiring and masonry

#### Regional Competition

Duration: for example 3 Hours

#### Contest Guidelines

- *Project Drawings* – Each team will be given the project drawing at the contest orientation meeting. The drawings are not allowed to leave the competition area for any reason.
- *Time Limit* – contestants will be stopped when time limits as specified on contest job sheet are up. Contestants may stop whenever they have completed the contest but must remain within contest area.
- *Clean up* – the dismantling of the project will be considered the final sequence task of the contest.

Note: If desired, contestants may choose to use hand saws without penalties.

**JUDGING CRITERIA:** Please refer to *SkillsUSA Championships Technical Standards*.

#### SAFETY REQUIREMENT:

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 a portable power saw. They also certify that the contestant's saw has been thoroughly inspected and are in safe working condition. Further they agree that

#### SAFETY STATEMENT:

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***Each contestant is responsible for bringing the proper PPE to wear while participation in the contest. Safety glasses, hard hat, hearing protection, work boots and appropriate dress must be worn at all times when in the competition area. Each contestant must turn in a signed SkillsUSA Safety Form to the competition chairman on the day of the competition.***

### **Student Materials List**

½" Electrical Drill  
14.1oz Propane Fuel Cylinder  
2 - 25' power cord (UL approved grounded)  
2 ½" hole saw bit  
25' Tape Measure (plus extra)  
4- in – 1 screwdriver or equivalent  
4 In Flux Brush  
Brick Jointer  
Brick trowel  
Brush  
Carpenters square  
Cat's paw  
Chalk line  
Clamps  
Cleaning brush  
Combination square  
Cordless drill and/or impact driver and driver with bits  
Diagonal pliers  
Drywall saw  
Dust pan  
Finish hammer  
Framing Hammer  
Hacksaw

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Lead-Free Solder Wire  
Level  
Linemen pliers  
Mason Line  
Mason line block  
Needle nose pliers  
One 8 pt. crosscut saw (10 pt. or 12 pt. optional)  
Pencils (sharpened)  
Plumb bob  
Power circular saw (with new blade)  
Push broom  
Reamer  
Reciprocating Saw  
Safety glasses or goggles  
Saw Horses  
Self-Cleaning Soldering Paste  
Self-Igniting Torch Head  
Speed square  
Stair gauges (optional)  
Tin snips or aviation snips  
Tool Belt  
Torpedo level  
Tubing cutter  
Utility knife  
Vice Grip "C" Clamps  
Wire strippers  
Wrecking bar

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## **Safety Form for Tools and Materials**

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## **SkillsUSA California - Teamworks Competition**

The SkillsUSA California Teamworks Competition will involve the use of equipment and materials in completing the task within the competition. It is absolutely necessary that complete operating instructions and safety for the use of equipment and materials have been given to the contestant in their training program in the local school division as stated in the National SkillsUSA National Standards before he competes. This includes the proper safety instruction in the use of the tools listed in the scope of the contest and the use of protective equipment while using the tools and materials. Safety glasses are required.

By the affixing of my signature below, I certify that my student, who is entering the Teamworks Competition, has had proper operating and safety instruction in the use of the power tools, equipment and materials.

---

(Signature of Instructor/Advisor)

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(SkillsUSA California Chapter)

By the affixing of my signature below, I certify that I have used the power tools, equipment and materials to be used in the Teamworks Competition and that I understand the correct operating procedures and safety precautions for the use of this power tool, equipment and materials.

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(Signature of Student)

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(Date)

THIS FORM MUST BE SIGNED AND TURNED IN TO THE COMPETITION CHAIRMAN ON THE DAY OF THE COMPETITION. FAILURE TO TURN IN THIS FORM WILL RESULT IN THE STUDENT NOT BEING ALLOWED TO COMPETE.

### **Materials Supplied by SkillsUSA CA**

1. All building materials necessary for construction of the project.
2. Shovels, hoes, mixing bins

### **Clothing Requirements**

#### **Clothing Classifications**

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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### TECHNICAL COMPUTER APPLICATIONS

#### **Contest Description**

Contestants will be expected to demonstrate installation, configuration and use of Windows, Mac OSX and Linux Professional Operating Systems and one or more integrated office suite packages including email, word processing, spreadsheet applications, database applications, web page development, money management applications, presentations applications, internet browser applications, etc. The use of Open source software such as OpenOffice will be preferable. Microsoft Office and other integrated office suites could be used. The utilization of instant messaging, collaboration and social networking software will be required during the contest. Contestants will be expected to perform in teams while demonstrating individual technical skills. The contest will include an oral presentation demonstrating the student's ability to communicate with others, a hands-on skills demonstration, and a one hour time allotted written examination.

#### **Regional Competition**

Duration: 3 hours

#### **Knowledge Performance**

A written exam will be given that covers the installation and operation of the software, hardware and cabling plus general computer support knowledge. Topics also include information as related to the Internet, networking and data sharing.

#### **Skill Performance**

A series of demonstrations will be performed during the skill performance portion of this contest. The competencies outlined by the contest technical committee will be used as the foundation for this assessment. Contestants should be familiar with using a

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Windows- based, open source and/or Macintosh operating system. All work must be done independently.

### **Materials Supplied by SkillsUSA CA**

Power strip

Network storage and networking equipment to connect to an Ethernet network.

### **Student Materials List**

- A. Computer with the following minimum specifications:
  - 1. Computer/laptop manufactured within the last 18 months
  - 2. NIC card for a wired Ethernet connection
  - 3. Full administrative rights with all user passwords disabled or uninstalled
  - 4. Software suite accessibility, including a minimum of word processing, spreadsheet, database presentation software.
- B. 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.
- C. Any changes to the hardware or software requirements will be announced annually in the SkillsUSA Championships update at: [updates.skillsusa.org](http://updates.skillsusa.org).
- D. No cellphones or PDAs will be allowed during the contest.

### **Clothing Requirements**

- Class E SkillsUSA Attire

### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](http://SkillsUSAstore.com)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest Catalog

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### Technical Design

#### Contest Description

The problem includes a written test, a hand sketch, and drawings EITHER computer generated or board drafted. *If board drafting, please bring all necessary equipment.* The contest tests the contestants' problem solving abilities, not simply their CAD skills.

#### Regional Competition

Duration: 3 Hours

The contest will assess skill performances by providing a hand sketch and computer-generated problem that may be solved either board drafting or CAD.

INSTRUCTORS-please coordinate with your District's Information Technology Services regarding software licensing. Many District's IT store software licenses on a remote server that cannot be accessed when computers are removed from the District's network. This has been a common and stressful problem in years past when students arrive to set up their computers and cannot open or use their software program. We highly recommend setting up District computers offline prior to traveling to the Conference to verify software is accessible outside of the District network.

#### Knowledge/Skill Performance

The contest will include a written exam that assesses technical drafting general knowledge (see standards and competencies). The contestants are assessed on their ability to create 3D models and extract properly scaled 2D views from those models for placement and annotation.



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### **Contest Guidelines**

1. The contestants are required to create part and assembly drawings of a mechanical product. The number of drawings will vary depending on the product. The drawing portfolio may vary between five to 10 drawings.
2. Contestant-supplied computer aided drafting and design software is used.
3. The contestants work independently. No assistance may be given by other contestants, instructors, advisors or observers.
4. All contestants start, break for lunch, and finish at the same time. No one is allowed to work during lunch or past the contest conclusion. If contestants are waiting to print after the contest conclusion, they are allowed to print one drawing only.
5. Contestants will store all their drawings in PDF format on supplied flash drives for printing.
6. Contestants' drawings are judged relative to pre-established criteria for each drawing in the drawing portfolio. The total contest points include points from the written exam and drawings.

### **Materials Supplied by SkillsUSA CA**

1. Flat table space approximately 24"x72"
2. Chair
3. Two 110-volt electric outlets
4. Flash drive
5. Printer/plotter
6. Paper

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### Student Materials List

1. **Personal computer and software**, students may use any software to complete their contest if computers are not supplied at the host site.
2. Students using manual drafting tools are required to provide all their drafting equipment and vellum for the competition (3 sheets of 11 x 17). Vellums may have pre-printed title blocks on them but all references to school name, location, or student names must be deleted.
3. Computer-aided drafting software that is able to create 3D models
4. *Machinery's Handbook* or and three additional published reference books
5. 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.

### Clothing Requirements

#### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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### TECHNICAL DRAFTING

#### **Contest Description**

The contest will focus on the solution of industry-developed problems by applying appropriate technical drafting skills and tools including computer-aided drafting (CAD).

#### **Regional Competition**

Duration: 3 hours

The contest will focus on the application of appropriate entry-level technical drafting skills to solve visualization and presentation problems of a mechanical nature as designed by the national technical committee.

#### **Knowledge/Skill Performance**

The contest will include a written exam that assesses technical drafting general knowledge (see standards and competencies). The contestants are assessed on their ability to create 3D models and extract properly scaled 2D views from those models for placement and annotation.

#### **Contest Guidelines**

1. The contestants are required to create part and assembly drawings of a mechanical product. The number of drawings will vary depending on the product. The drawing portfolio may vary between five to 10 drawings.
2. Contestant-supplied computer aided drafting and design software is used.
3. The contestants work independently. No assistance may be given by other contestants, instructors, advisors or observers.

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4. All contestants start, break for lunch, and finish at the same time. No one is allowed to work during lunch or past the contest conclusion. If contestants are waiting to print after the contest conclusion, they are allowed to print one drawing only.
5. Contestants will store all their drawings in PDF format on supplied flash drives for printing.
6. Contestants' drawings are judged relative to pre-established criteria for each drawing in the drawing portfolio. The total contest points include points from the written exam and drawings.

#### Materials Supplied by SkillsUSA CA

1. Flat table space approximately 24"x72"
2. Chair
3. Two 110-volt electric outlets
4. Flash drive
5. Printer/plotter
6. Paper

#### Student Materials List

1. ***Personal computer and software***, students may use any software to complete their contest if computers are not supplied at the host site.
2. Students using manual drafting tools are required to provide all their drafting equipment and vellum for the competition (3 sheets of 11 x 17). Vellums may have pre-printed title blocks on them but all references to school name, location, or student names must be deleted.
3. Computer-aided drafting software that is able to create 3D models
4. ***Machinery's Handbook*** or and three additional published reference books
5. 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.

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### **Clothing Requirements**

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

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# TELECOMMUNICATIONS CABLING

### Contest Description

For students interested in voice and data network cabling and installation. This competition tests to worldwide industry standards for data and voice connections, physical and logical networks and signal transmission. Contestants demonstrate skills in reading network design documentation, parts list set-up and purchase, pulling and mounting cable, choosing wiring closets, patch panel installation and termination, installing jacks and cable testing. Both CAT 5/6e and fiber optics cable are presented. The contest stresses safety and working effectively in group environments as well as customer service skills.

### Regional Competition

Duration: 3 hours

### Description:

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of telecommunications cabling, Voice Data Video and Structured Cabling Systems.

### How this applies to real world

- Tasks and test questions meet qualifications for California State Certification for VDV (Voice Data Video). Which is the required certifications needed to work in the Telecommunication Industry in the state of California.
- Tasks and test questions are an introduction to becoming a Low Voltage Systems licensed, C7 contractor. Which would allow you to bid and perform work. Allows you to work with contractors, builders and homeowners for specialized low voltage systems throughout the state.

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### Competition:

1. Complete a 30 question, written exam. [Time Limit 1.5 hrs.] *(Allowed to use 2017 NEC)*
2. Complete a series of Telecommunication Cabling tasks, in a given amount of time. [Times vary per task]

### Contest Performance:

***See Technical standards for more information on Telecommunications Cabling***

#### Knowledge Performance

- o The contest includes a written knowledge exam to assess knowledge of structured cabling systems. Content is based on the current National Electric Code 2017 and Low Voltage Industry standards.

#### Skill Performance

- o The purpose of the hands-on component of the contest will be to evaluate the ability to install, terminate and manage telecommunications cabling, and Fiber Optics, related to the Low Voltage Industry.

### Contest Requirements:

#### ELIGIBILITY

Open to active SkillsUSA students enrolled in a career and technical education program with telecommunications cabling (systems connectivity) as the occupational objective.

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

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800-401-1560 or 703-956-3723. ***All above requirements are based upon the National SkillsUSA Telecommunication Technical Standards***

### **Equipment and Materials List:**

#### **Materials Supplied by SkillsUSA CA**

1. Mock wall, cable ladder, equipment racks, cable, patch panels, telecommunications outlets, termination blocks and modular plugs
2. Other various connectors and Equipment
3. Fiber Optics cable and connectors
4. **[FIBER VIDEO FOR MECHANICAL SPLICE CONNECTOR](#)** (*copy and paste ink*)

#### **Student Materials List**

- A. 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 50-point penalty.
- B. NEC Code Book 2017
- C. Personal eye protection
- D. Hard hat and gloves
- E. Volt Ohmmeter (needed to test resistance/continuity),
- F. Wire map Cable tester (4 pair tester and Coax tester or combo tester)
- G. Tone Generator and probe
- H. 8 pin modular plug crimping tool and punch down tool

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#### Regional 2019-2020 Contest Catalog

- I. Cable splice prep tool for F-style compression connector using RG 6/59 Cable
- J. F-style coax compression tool
- K. Compression tool to terminate BNC and RCA connectors (RG 6/59)
- L. Electrician's scissors
- M. Cable cutters/stripping tool
- N. Other cable/wire preparation and installation/termination tools (mini screwdrivers, splicers, cutters)
- O. Probe-pics
- P. 66 or 110 Block Punch down tool
- Q. Electrical tape
- R. Cable labeling device
- S. Fish tape

**Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:**

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

#### **Contest Rules & Guidelines:**

1. Contestants perform the work individually
2. No 'outside' help from teachers, instructors, coaches, family members, friends, colleagues, messengers or other contestants during competition.

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### Regional 2019-2020 Contest Catalog

**\*Digital communication devices are not allowed in the competition area and will also be subject to disqualification if seen used.**

3. Contestants are required to stay in their work areas until released from competition area after judging is completed. Leaving competition area without any judge's knowledge, will be subject to disqualification from competition. (Waiting areas may be provided for contestants. This is subject to change and will depend on the decision of judges present)
4. All work performed shall be done in a workmanship like manner current to BICSI telecommunications standards and National Electric Code (2017).
5. All work performed is timed and judged on work submitted.
6. The cabling project must be completed within the given time and certified for use.
7. Contestants installation will be inspected as submitted and tested for proper functionality and operability.
8. Contestants are required to clean their work areas and any spaces where they may have contributed debris.

### **Clothing Requirements**

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions>

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## Regional 2019-2020 Contest Catalog For Public Review

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### TELEVISION (VIDEO) PRODUCTION

#### Contest Description

This contest is open to active SkillsUSA members enrolled in Career and Technical Education (CTE) Video Production programs. Teams of two contestants are required to plan and shoot a video exactly 1 minute in length on location to convey the contest "theme" of the event. Editing is done with special emphasis on professional production of the video by industry standards, quality of audio and video, and adequate conveyance of the contest "theme" to the viewer. Contest entrants are required to have an individually personalized resume. A short written test on Television (Video) knowledge and Team Interview will be given at the State level.

#### Regional Competition

Duration: 2-4 hours

#### Description

This contest is open to active SkillsUSA members enrolled in Career and Technical Education (CTE) Video Production programs. Teams of two contestants are required to plan and shoot a video exactly 1 minute in length to convey the contest "theme" of the event. Editing is done with special emphasis on professional production of the video by industry standards, quality of audio and video, and adequate conveyance of the contest "theme" to the viewer. Contest entrants are required to have an individually personalized resume. No written test on Television (Video) knowledge will be given at the Regional level. **This is NOT a live event.**

#### Important Notes for SkillsUSA CA Contestants

Please read the guidelines below for the Regional & State competitions and review the SkillsUSA requirements for student resumes. **SkillsUSA attire is required** and will be checked during interviews. Each team is responsible for bringing to the conference the team submission on a PC Formatted Flash-Drive marked with Team Number, all

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### Regional 2019-2020 Contest Catalog For Public Review

needed materials and personalized individual resumes for their submissions in a Team Number labeled 3-Ring Binder. **No production equipment is needed on site during this contest. This contest is completed in advance and delivered to the Regional conference.**

**FAILURE TO COMPLY WITH CONTEST RULES & GUIDELINES WILL RESULT IN DISQUALIFICATION.**

***“SkillsUSA: Making Nothing but Pros”***

#### **MISSION**

*Explain in exactly :60 seconds why 50 years of SkillsUSA here in California has created top notch professional industry leaders throughout the country*

#### **AUDIENCE**

*Students, alumni, industry professionals, businessmen, sponsors, teachers, advisors and anyone looking to find out why SkillsUSA California is the key to countless career success stories*

All winners of the competition at the Regional level will be required to review and follow all SkillsUSA CA contest rules and standards.

#### **PRODUCTION CONSIDERATIONS for TV (VIDEO) PRODUCTIONS**

- Your team is tasked with creating exactly a 1 minute production entry that incorporates the prompt in some meaningful and creative way. Your interpretation of the prompt and the production you create is completely up to you
- Judges will be looking first and foremost at how successful you are at telling a compelling story with your project. Neatness and good technical standards are important as well
- Do not interfere with location employees or conference activities
- You must ask permission to record in non-public, contest and populated areas

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- Do not block sidewalks, parking lots or streets for your project
- Be Safety Conscious (traffic, equipment, heat, fluids, etc.)
- All music used must be royalty-free, created by you or licensed to you or your school. Receipts/paperwork detailing licensing agreements are absolutely required in the contest Team Number labeled 3-Ring Binder upon final delivery. Forms available through the Internet
- A Talent Release Form is absolutely required for every performer involved in any aspect of your production. Forms available through the Internet
- **No professional actors, voice talents, TV/Radio/Film/Video and/or Broadcast personnel may be used in the making of any Arts project. Teams may use any volunteer (unpaid, amateur) actors they wish, including adults. HOWEVER, Advisors/Teachers will only be allowed to act on camera and not provide any assistance with the content or creation of the project beyond their on-screen role. Team members may act in their own production if they wish. Interviews of outside people for realism are allowed provided the above rules are followed**
- For the safety of competitors and the general public, teams may not make use of moving vehicles in their production. This also includes no dangerous physical stunts that could cause serious bodily harm
- Teams may use their own wardrobe and props within the bounds of good taste and state conference appropriateness
- NO weapons (even toy/props) including but not limited to guns, knives, swords, bows & arrows, bombs, whips, fire, axes, etc.
- No inappropriate language or subject matter including but not limited to cursing, gang affiliations, drugs, alcohol, sex, etc.
- Please use the sample scorecard to see how technical and editorial aspects of the project will be scored
- Slates are **mandatory** and located ahead of production content. The slate will be no longer than 5 seconds in duration followed by 5 seconds of Black/Silence. Slates and End Credits **are excluded** from the total running time
- Please check your final submission to insure it plays out correctly without any errors

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### Regional 2019-2020 Contest Catalog For Public Review

All contest submission files are made on an 8G minimum Team Number labeled Non-Returnable USB **PC Formatted** Flash Drive. Nothing else but a finished contest entry and related files are allowed on the drive. All Flash Drives **must be marked with your Team Number** and placed in the Non-Returnable labeled 3-Ring Binder **with your Team Number**. The 3-Ring Binder will also contain all materials required by the contest Guidelines and individual resumes

**FAILURE TO COMPLY WITH CONTEST RULES & GUIDELINES WILL RESULT IN DISQUALIFICATION.**

#### **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)
6. All teams will submit projects on a SkillsUSA provided USB thumb drive or as a computer file using a CODEC specified during the contest.

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Regional 2019-2020 Contest Catalog For Public Review  
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.

## **Clothing Requirements**

### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

**<https://www.skillsusa.org/competitions/skillsusa-championships/contest-descriptions/>**

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## Regional 2019-2020 Contest Catalog

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### **T-SHIRT DESIGN**

#### **Contest Description**

The contest is designed to assess the ability of the competitor to design and produce a drawing of that design, as well as give a presentation.

#### **Regional Competition**

The contest consists of two parts:

1. Evaluation of the T-shirt design
2. Oral presentation and question-and-answer session. All contestants will be asked the same questions determined by the judges before the start of the contest.

#### **Knowledge Performance**

There will be no skill-related written test.

#### **Skill Performance**

The contest is designed to assess the ability of the competitor to design and produce a drawing of that design, as well as give a presentation regarding all aspects of his or her creation of the design.

Contestants are to present their artwork for the t-shirt design and give a 5-7 minute oral presentation explaining how their design accurately represents the state and what qualities it possesses and why another SkillsUSA member would want to wear it.

Contestants are encouraged to use visual aids such as PowerPoint or notebooks. (Please see the official SkillsUSA T-Shirt Design Technical Standards for approved visual aids and other contest restrictions and requirements.)

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## Regional 2019-2020 Contest Catalog

### Scoring Guidelines:

Judging Categories	Points
Artwork Size	75
Colors Used	75
Professional Appearance	150
Preliminary Research	100
Process Followed in Design	75
State Representation	75
Unique Qualities	75
Appeal to Members	150
Voice & Poise	75
Introduction & Ending	75
Confidence in Design & Presentation	75

### Judging Penalties:

*Contestants can be penalized for:*

- Non-Official Dress
- Presentation Time (Over/Under)
- Rule Violation
- No Resume

### Materials Supplied by SkillsUSA CA

- Timekeeper and judges
- All necessary information for the judges and technical committee
- Data projector

### Student Materials List

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#### Regional 2019-2020 Contest Catalog

- Rendering of the T-shirt design
- Supporting materials for the interview portion of the contest
- Resume

### **Clothing Requirements**

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

**[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)**

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## Regional 2019-2020 Contest Catalog

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### WEB DESIGN

#### Contest Description

The Web Design Regional Contest will have contestants demonstrate their understanding of web page design and development. **Teams of 2** will complete a web design project focusing on usability and accessibility, with at least one challenge related to scripting. Each challenge must be documented, clearly demonstrating the skills as outlined in the SkillsUSA Championships Technical Standards. This contest requires that contestants design and code a web page from scratch that fulfills the requirements designated by the prompt below.

#### Regional Competition

Duration: 3 hours.

The Web Design Project **will** be created on the day of the competition.

#### Regional Prompt:

User Interface is one of the most important aspects of the developing world. Now, it's your time to design a potentially prominent social media site. Teams must develop a text-based social media platform, such as Twitter. Satisfactory User Interface is necessary to gain users and for those who do not know what User Interface is, it is the aspects of a website, app, or other visual platform that comply with the convenience and visual appreciation of the design and layout. You must have a functional nav-bar with a minimum of one page on the site, and an appropriate design and layout. Remember to include documentation and labeling of your code.



## Regional 2019-2020 Contest Catalog

### Regional Rules and General Information:

1. No pre-generated code or graphics. This website is to be made **completely** from scratch.
2. Javascript **is** required.
3. No pre-generated code or graphics.
4. No drag and drop features that generate code.
5. No hard or soft copies of web design material.
6. No outside libraries.
7. No programs/software that require the Internet.
8. No Lorem Ipsum. All text must be written, and put some effort.
9. Come dressed and prepared.
10. Printed resumes are required
11. Everything **must** be made from scratch **unless** images are provided.

### Materials Required by Contestants:

1. Computer equipment with related web authoring and graphics software
  - a. Charger
2. Sketch pad for storyboarding
3. Design and development tools necessary to build a complete website

### Clothing Requirements

Class E: Contest specific — Business Casual

### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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Regional 2019-2020 Contest Catalog

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Regional 2019-2020 Contest

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## **WELDING FABRICATION**

### **Contest Description**

A team competition that requires a team of three students from each school to use their welding and fabrication skills to build a designed project from the given material. Each team is required to be skilled in the following welding and cutting processes: SMAW, GTAW, GMAW, FCAW and OFC. The students are also required to be proficient in using the common tools of a workshop. A project will be constructed by the students using supplied prints or drawings.

### **Regional Competition**

Duration: 3 hours

### **Knowledge Performance**

The contest will include a written knowledge exam that assesses the practical knowledge of welding, including safety, measurement and blueprint reading. Other common fabrication operations will also be assessed such as saw operation, drilling, grinding and material handling.

### **Skill Performance**

The skill performance assessment includes the completion of a metal project and a demonstration of the ability to weld carbon steel, aluminum or stainless steel project in various positions using a variety of filler metals. Contestants will be involved in the completion of a metal project that involves various manufacturing methods.

### **Contest Guidelines**

1. Contestants must correctly use the welding equipment during the contest. The contest chairman and contest coordinator may stop contestants at any section of the contest if they deem a contestant's manner to be hazardous to either him- or

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### Regional 2019-2020 Contest

herself or others. Such stoppage shall disqualify the participant for that section of the contest. If the contestant is warned a second time, he or she will be disqualified as a contest participant.

2. While the contest is in progress, there shall be no communication between the contestants or between other teams or anyone else, except as directed by a judge, contest coordinator or contest chair. It is expected that team members will communicate to each other.
3. Time limits will be established on the contest procedure sheets for all segments of the test.
4. Evaluation of the completed project will be judged visually. Nondestructive and/or destructive tests may be used to complete the project evaluation.
5. Welding and cutting operation instructions will be specified in drawings and procedure sheets provided to the contestants.
6. Welding equipment used in the contest may be obtained from a variety of manufacturers and may include transformers, rectifiers and/or inverters.
7. Filler metals will be compatible with the metals being welded and will be detailed on the contest procedure sheet. Instructions to the contestants will define more specifically the filler metals that may be used.
8. Welds will be evaluated visually using a rating system as established by the SkillsUSA technical committee. Nondestructive and/or destructive tests may be used to complete the project evaluation.
9. Final judging of the welded projects will be evaluated according to the difficulty of the assigned task and by using the following visual inspection criteria:  
dimensional accuracy, including distortion; conformity to drawing requirements, including determination of whether all welds have been completed and whether the finished welds conform to the required size and contour; and visual examination of the welds for cracks, undercut, overlap, crater fill, spatter, arc strikes, porosity, convexity and reinforcement.



Regional 2019-2020 Contest

### **Materials Supplied by SkillsUSA CA**

- All necessary welding equipment and materials
- All drawings and procedures
- Power tools needed for the competition

### **Student Materials List**

- Hearing/ear protection
- Welding helmet with appropriate filter plate/lens and protective cover plate/lens in a flip or slide front. Auto darkening shields are permissible.
- Spare spatter and filter lenses/plates for arc welding helmet and oxy-acetylene goggles.
- Pocket calculator
- Led pencil and/or ballpoint pen
- Soapstone with holder
- Scribe with magnet
- Combination square set
- Fillet weld gauge
- Center punch
- Chipping hammer with or without wire brush
- Stainless steel wire brush
- Hand grinders
- Resume

### **Clothing Requirements**

Class I: Contest Specific - Khaki Welding/Welding Fabrication

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

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## Regional 2019-2020 Contest

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Regional 2019-2020 Contest

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## **WELDING MIG (GMAW)**

### **Contest Description**

Competitors receive contest drawings and a set of welding procedure specifications. All drawings, welding symbols, and welding terms conform to the latest edition of the American Welding Society standards. Through a series of stations, contestants are tested on various aspects of welding: measuring weld replicas, using weld measuring gauges.

### **Regional Competition**

#### **Knowledge Performance**

The contest will include a written knowledge exam that assesses the practical knowledge of welding, including safety, measurement and blueprint reading.

#### **Skill Performance**

The skill performance assessment includes the completion of a steel project in various positions using a variety of filler metals.

### **Contest Guidelines**

1. Contestants must correctly use the welding equipment during the contest. The contest chairperson and contest coordinator may stop a contestant in any section of the contest if they deem a contestant's manner to be hazardous to either themselves or others. Such stoppage shall disqualify the participant.
2. While the contest is in progress, there shall be no communication between the contestants or between the contestants and anyone else, except as directed by a judge, contest coordinator or contest chair.

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#### Regional 2019-2020 Contest

3. Time limits will be established on the contest procedure sheets for all segments of the test.
4. Welding and cutting operation instructions will be specified in drawings and procedure sheets provided to the contestants.
5. Welding equipment used in the contest may be obtained from a variety of manufacturers and may include transformers, rectifiers and/or inverters.
6. Filler metals will be compatible with the metals being welded and will be detailed on the contest procedure sheet. Instructions to the contestants will define more specifically the filler metals that may be used.
7. Welds will be evaluated visually utilizing a rating system as established by the SkillsUSA technical committee. Nondestructive and/or destructive tests may be used to complete the project evaluation.
8. Final judging of the welded projects will be evaluated according to the difficulty of the assigned task and by utilizing the following visual inspection criteria:  
dimensional accuracy, including distortion; conformity to drawing requirements, including determination of whether all welds have been completed and whether the finished welds conform to the required size and contour; and visual examination of the welds for cracks, undercut, overlap, crater fill, spatter, arc strikes, porosity, convexity and reinforcement.

#### Note:

Each station will require the student to read instructions and to wear proper safety equipment provided by the student.

#### **Materials Supplied by SkillsUSA CA**

1. SMAW Machines
2. Consumables – As needed by contestants
3. Materials – See attached blueprint

#### **Student Materials List**

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### Regional 2019-2020 Contest

1. All PPEs required by OSHA
2. Welding Helmet
3. Chipping Hammer
4. Wire Brush
5. Pliers
6. Soapstone/Marker
7. Measuring Device

### **Clothing Requirements**

Class I: Contest Specific - Khaki Welding/Welding Fabrication

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

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## Regional 2019-2020 Contest

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Regional 2019-2020 Contest

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## **WELDING OXY-ACETYLENE**

### **Contest Description**

Competitors receive contest drawings and a set of welding procedure specifications. All drawings, welding symbols, and welding terms conform to the latest edition of the American Welding Society standards. Through a series of stations, contestants are tested on various aspects of welding: measuring weld replicas, using weld measuring gauges.

### **Regional Competition**

The scope of the contest is defined by industry standards as identified by the Alabama Power Co., American Welding Society, Emmert Welding and Manufacturing Co. Inc., Hobart Institute of Welding Technology, Honeywell Engines and Systems, ITW Hobart Brothers Co., Lincoln Electric Co., Linweld Inc., Miller Electric Manufacturing Co. Inc., Smith Equipment Co., Welding Education and Consulting, and Eugene G. Hornberger LLC. All drawings, welding symbols and welding terms conform to the latest edition of the American Welding Society (AWS) standards.

### **Mandatory Project**

Students will receive their project at the regional competition

### **Knowledge Performance**

The contest will include a written knowledge exam that assesses the practical knowledge of welding, including safety, measurement and blueprint reading.

### **Skill Performance**

The skill performance assessment includes the completion of a steel project.

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## Regional 2019-2020 Contest

### Contest Guidelines

1. Contestants must correctly use the welding equipment during the contest. The contest chairman and contest coordinator may stop a contestant on any section of the contest if they deem a contestant's manner to be hazardous to either themselves or others. Such stoppage shall disqualify the participant.
2. While the contest is in progress, there shall be no communication between the contestants or between the contestants and anyone else, except as directed by a judge, contest coordinator or contest chair.
3. Time limits will be established on the contest procedure sheets for all segments of the test.
4. Welding and cutting operation instructions will be specified in drawings and procedure sheets provided to the contestants.
5. Welding equipment used in the contest may be obtained from a variety of manufacturers and may include transformers, rectifiers and/or inverters.
6. Filler metals will be compatible with the metals being welded and will be detailed on the contest procedure sheet. Instructions to the contestants will define more specifically the filler metals that may be used.
7. Welds will be evaluated visually utilizing a rating system as established by the SkillsUSA technical committee. Nondestructive and/or destructive tests may be used to complete the project evaluation.
8. Final judging of the welded projects will be evaluated according to the difficulty of the assigned task and by utilizing the following visual inspection criteria: dimensional accuracy, including distortion; conformity to drawing requirements, including determination of whether all welds have been completed and whether the finished welds conform to the required size and contour; and visual examination of the welds for cracks, undercut, overlap, crater fill, spatter, arc strikes, porosity, convexity and reinforcement.

### Materials Supplied by SkillsUSA CA

- SMAW Machines oxy-fuel apparatus
- Consumables – As needed by contestants

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## Regional 2019-2020 Contest

### Student Materials List

- All PPEs required by OSHA
- Welding Helmet
- Chipping Hammer
- Wire Brush
- Pliers
- Soapstone/Marker
- Measuring Device
- Resume
- *Each station will require the student to read instructions and to wear proper safety equipment provided by the student.*

### Clothing Requirements

Class I: Contest Specific - Khaki Welding/Welding Fabrication

#### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

**Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:**

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## Regional 2019-2020 Contest

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## Regional 2019-2020 Contest

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# WELDING

### Contest Description

Competitors receive contest drawings and a set of welding procedure specifications. All drawings, welding symbols, and welding terms conform to the latest edition of the American Welding Society standards. Through a series of stations, contestants are tested on various aspects of welding: measuring weld replicas, using weld measuring gauges; laying out a plate and using oxy-acetylene equipment to cut several holes that are checked for accuracy and quality; Gas Metal Arc Welding (GMAW) on steel making welds in various positions using short circuiting transfer; Flux Cored Arc Welding (FCAW) using a shielding gas, making welds in various positions and, using a combination machine capable of providing the correct welding current for shielded metal arc (SMAW) and gas tungsten arc welding (GTAW). Competitors complete the steel project and weld an aluminum project in various positions using a variety of filler metals.

### Regional Competition

Duration: 3 hours

The scope of the contest is defined by industry standards as identified by the American Welding Society, Emmert Welding and Manufacturing Co. Inc., Honeywell Engines and Systems, ITW Hobart Brothers Co., The Lincoln Electric Co., Matheson Tri-Gas Inc., Miller Electric Co. Inc., and the International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers. All drawings, welding symbols and welding terms conform to the latest edition of the American Welding Society (AWS) standards.

### Knowledge Performance

The contest includes a written knowledge exam that assesses welding and associated topics including safety, math for welders and print reading.

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## Regional 2019-2020 Contest

### **Skill Performance**

The skill performance assessment may include: steel project(s), aluminum project(s), stainless steel project(s) in various positions using a variety of filler metals. Contestants will be involved in a series of stations testing various aspects of welding.

Each region is to have all students perform the same requirements in the contest as agreed to by the Region Coordinators.

### **Mandatory Project**

Student will receive the blueprint the day of the regional competition

### **Material and Equipment Provided by Each Contestant:**

- All PPEs required by OSHA
- Welding Helmet
- Chipping Hammer
- Wire Brush
- Pliers
- Soapstone/Marker
- Measuring Device

### **Material and Equipment Provided by SkillsUSA Regions:**

- GMAW Machines
- GTAW Machines
- FCAW Machines
- OAW Torch
- Consumables
  - E6010 (1/8") SMAW
  - E7018 (1/8") SMAW
  - ER70S-6 .035 GMAW

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#### Regional 2019-2020 Contest

- E71T-M .045 FCAW
- ER4043 (3/32") GTAW

#### **Note:**

Each station will require the student to read instructions and to wear proper safety equipment provided by the student.

#### **Clothing Requirements**

Class I: Contest Specific - Khaki Welding/Welding Fabrication

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)*

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## Regional 2019-2020 Contest

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Regional 2019-2020 Contest

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## **WELDING SCULPTURE**

### **Contest Description**

Contestants demonstrate their ability to design and produce a sculpture of that design, as well as give a presentation regarding all aspects of his/her creation of the design. Previously welded sculptures created for regional and state competitions will be displayed for the national competition. A notebook is required displaying evidence of original work. Each participant is interviewed regarding aspects of design and creation of the piece. There will be no live welding on site.

### **Regional Competition**

The contest consists of three parts:

1. Evaluation of the Sculpture
2. Notebook
3. Interview, (All contestants will be asked the same questions, to be determined by the judges, before the start of the contest).

### **Skill Performance**

The contest is designed to assess the ability of the competitor to design and produce a sculpture of that design, as well as answer questions in a brief interview related to all aspects of his or her creation of the design.

### **Mandatory Project:**

There will be no live welding on site. Sculptures should be created during the 2019-2020 academic year. The EXACT sculpture created for the regional competition MUST be used for the state and national competitions if a student advances to each step. (You may NOT create a new sculpture OR modify the original piece.) Sculptures

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#### Regional 2019-2020 Contest

will be evaluated on workmanship & design. A notebook will also be required displaying evidence of original work. Each participant will be interviewed regarding aspects of design and creation of the piece. Competitors are responsible for the transport of their sculptures.

#### **Contest Guidelines:**

Materials used must be ferrous or nonferrous metals. The sculpture must be an original and creative work of the student. Sculptures may be welded, brazed, or soldered, depending on the material used. Projects are to be left unpainted, including primers and other coatings. (Exception: **sculptures may be clear coated.**) All copyright laws must be followed in the creation of the design. The sculpture must be one continuous piece, not multiple pieces unconnected. The sculpture cannot exceed the maximum size of 18" tall x 12" width 18" long and cannot exceed a weight of 100 lbs.

**Notebook** – A 3-ring binder must be placed with the sculpture prior to judging. It must contain pictures and supporting evidence, such as receipts, verification letter from a school administrator and other items as necessary.

CHECK THE NATIONAL SKILLSUSA WEBSITE FOR DETAILS and INFORMATION.

**Interview** – The student will participate in a 3 to 5 minute interview. Questions from the judges will be related (but not limited) to sculpture creation, inspiration, materials, processes and workmanship.

**Note:** NO MODIFICATIONS MAY BE MADE TO SCULPTURES AFTER REGIONAL / STATE CONTESTS, EXCEPT POLISIGN AND CLEAR COAT.

#### **Knowledge Performance**

There will be a skill-related written test to evaluate student knowledge of basic welding and cutting processes. General questions about GMAW, GTAW, SMAW, PAC and OFC will be included on this test.

#### **Materials Supplied by SkillsUSA CA**

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#### Regional 2019-2020 Contest

- All necessary information for the judges
- One 4' table

#### **Student Materials List**

- Resume
- Student-designed and produced sculpture
- Note to serve as a professional portfolio

#### **Clothing Requirements**

Class I: Contest Specific - Khaki Welding/Welding Fabrication

#### **Clothing Classifications**

*Official Contestant clothing see [SkillsUSA store](#) (Logo not required)*

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*

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## Regional 2019-2020 Contest

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## Regional 2019-2020 Contest

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### **WELDING SHIELDED METAL ARC (SMAC)**

#### **Contest Description**

Competitors receive contest drawings and a set of welding procedure specifications. All drawings, welding symbols, and welding terms conform to the latest edition of the American Welding Society standards. Through a series of stations, contestants are tested on various aspects of welding: measuring weld replicas, using weld measuring gauges.

#### **Regional Competition**

The scope of the contest is defined by industry standards as identified by the Alabama Power Co., American Welding Society, Emmert Welding and Manufacturing Co. Inc., Hobart Institute of Welding Technology, Honeywell Engines and Systems, ITW Hobart Brothers Co., Lincoln Electric Co., Linweld Inc., Miller Electric Manufacturing Co. Inc., Smith Equipment Co., Welding Education and Consulting, and Eugene G. Hornberger LLC. All drawings, welding symbols and welding terms conform to the latest edition of the American Welding Society (AWS) standards.

#### **Knowledge Performance**

The contest will include a written knowledge exam that assesses the practical knowledge of welding, including safety, measurement and blueprint reading.

#### **Skill Performance**

The skill performance assessment includes the completion of a steel project.

#### **Contest Guidelines**

1. Contestants must correctly use the welding equipment during the contest. The contest chairman and contest coordinator may stop a contestant at any section of

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#### Regional 2019-2020 Contest

the contest if they deem a contestant's manner to be hazardous to either themselves or others. Such stoppage shall disqualify the participant.

2. While the contest is in progress, there shall be no communication between the contestants or between the contestants and anyone else, except as directed by a judge, contest coordinator or contest chair.
3. Time limits will be established on the contest procedure sheets for all segments of the test.
4. Welding and cutting operation instructions will be specified in drawings and procedure sheets provided to the contestants.
5. Welding equipment used in the contest may be obtained from a variety of manufacturers and may include transformers, rectifiers and/or inverters.
6. Filler metals will be compatible with the metals being welded and will be detailed on the contest procedure sheet. Instructions to the contestants will define more specifically the filler metals that may be used.
7. Welds will be evaluated visually utilizing a rating system as established by the SkillsUSA technical committee. Nondestructive and/or destructive tests may be used to complete the project evaluation.
8. Final judging of the welded projects will be evaluated according to the difficulty of the assigned task and by utilizing the following visual inspection criteria:  
dimensional accuracy, including distortion; conformity to drawing requirements, including determination of whether all welds have been completed and whether the finished welds conform to the required size and contour; and visual examination of the welds for cracks, undercut, overlap, crater fill, spatter, arc strikes, porosity, convexity and reinforcement.

#### **Materials Supplied by SkillsUSA CA**

- SMAW Machines
- Consumables – As needed by contestants

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## Regional 2019-2020 Contest

### Student Materials List

- All PPEs required by OSHA
- Welding Helmet
- Chipping Hammer
- Wire Brush
- Pliers
- Soapstone/Marker
- Measuring Device
- Resume

*Each station will require the student to read instructions and to wear proper safety equipment provided by the student.*

### Clothing Requirements

Class I: Contest Specific - Khaki Welding/Welding Fabrication

### Clothing Classifications

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:  
[www.skillsusa.org/compete/updates.shtml](http://www.skillsusa.org/compete/updates.shtml)

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Regional 2019-2020 Contest

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Regional 2019-2020 Contest

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## **WELDING TIG (GTAW)**

### **Contest Description**

Competitors receive contest drawings and a set of welding procedure specifications. All drawings, welding symbols, and welding terms conform to the latest edition of the American Welding Society standards. Through a series of stations, contestants are tested on various aspects of welding: measuring weld replicas, using weld measuring gauges.

### **Regional Competition**

The scope of the contest is defined by industry standards as identified by the Alabama Power Co., American Welding Society, Emmert Welding and Manufacturing Co. Inc., Hobart Institute of Welding Technology, Honeywell Engines and Systems, ITW Hobart Brothers Co., Lincoln Electric Co., Linweld Inc., Miller Electric Manufacturing Co. Inc., Smith Equipment Co., Welding Education and Consulting, and Eugene G. Hornberger LLC. All drawings, welding symbols and welding terms conform to the latest edition of the American Welding Society (AWS) standards.

### **Knowledge Performance**

The contest will include a written knowledge exam that assesses the practical knowledge of welding, including safety, measurement and blueprint reading.

### **Skill Performance**

The skill performance assessment includes the completion of a steel project.

### **Contest Guidelines**

1. Contestants must correctly use the welding equipment during the contest. The contest chairman and contest coordinator may stop a contestant at any section of

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#### Regional 2019-2020 Contest

the contest if they deem a contestant's manner to be hazardous to either themselves or others. Such stoppage shall disqualify the participant.

2. While the contest is in progress, there shall be no communication between the contestants or between the contestants and anyone else, except as directed by a judge, contest coordinator or contest chair.
3. Time limits will be established on the contest procedure sheets for all segments of the test.
4. Welding and cutting operation instructions will be specified in drawings and procedure sheets provided to the contestants.
5. Welding equipment used in the contest may be obtained from a variety of manufacturers and may include transformers, rectifiers and/or inverters.
6. Filler metals will be compatible with the metals being welded and will be detailed on the contest procedure sheet. Instructions to the contestants will define more specifically the filler metals that may be used.
7. Welds will be evaluated visually utilizing a rating system as established by the SkillsUSA technical committee. Nondestructive and/or destructive tests may be used to complete the project evaluation.
8. Final judging of the welded projects will be evaluated according to the difficulty of the assigned task and by utilizing the following visual inspection criteria:  
dimensional accuracy, including distortion; conformity to drawing requirements, including determination of whether all welds have been completed and whether the finished welds conform to the required size and contour; and visual examination of the welds for cracks, undercut, overlap, crater fill, spatter, arc strikes, porosity, convexity and reinforcement.

#### **Materials Supplied by SkillsUSA CA**

- SMAW Machines
- Consumables – As needed by contestants

#### **Student Materials List**

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## Regional 2019-2020 Contest

- All PPEs required by OSHA
- Welding Helmet
- Chipping Hammer
- Wire Brush
- Pliers
- Soapstone/Marker
- Measuring Device
- Resume

*Each station will require the student to read instructions and to wear proper safety equipment provided by the student.*

### **Clothing Requirements**

Class I: Contest Specific - Khaki Welding/Welding Fabrication

### **Clothing Classifications**

Official Contestant clothing see [SkillsUSA store](#) (Logo not required)

*Note: Check the Contest Guidelines and/or the updates page on the SkillsUSA website:*  
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