WEB DESIGN AND DEVELOPMENT (VIRTUAL)

PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of web design and development.

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

ELIGIBILITY

Open to a team of two active SkillsUSA members enrolled in programs using Web design or web development as an occupational objective.

CLOTHING REQUIREMENTS

Class E: Contest specific — Business Casual

- 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 closed-toe dress shoes.

Contest Clothing Notes (Apply ONLY to Virtual Competitions):

- Official SkillsUSA Competition Clothing recommended but NOT required.
- Contestant clothing options include the following:
  - o Official Competition Clothing.
  - o Trade Appropriate Clothing.
  - o Professional Dress.
  - o Business Casual.
- Clothing must meet industry safety standards.
- No identification of the contestant, school or state is allowed on clothing.
- No offensive, vulgar or inappropriate images or text are allowed on contestants clothing.
- No shorts or sleeveless shirts are allowed.
- Skirts must be at least knee-length.

- Proper Personal Protective Equipment (PPE) must be worn by contestant to meet all state, local and school requirements due to COVID-19.
- Scoring deductions may only be given and/or disqualification of contestant if clothing safety standards are not met.

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

EQUIPMENT AND MATERIALS

Supplied by the contestant team:

1. Computer with high-speed internet capability and camera to use applications such as Zoom, Teams, etc. The minimum recommended internet bandwidth speeds for joining Zoom meetings, accessing on-demand curriculum and other online operations is 2.0 Mbps up and down. You can test your current internet speeds by following this link: www.speedtest.net. Allow the page to load and click on GO.
2. A secondary camera(s) may be required to provide judges with the ability to view contestants from different angles. Additional camera requirements will be located on the SkillsUSA website at http://updates.skillsusa.org.
3. A contest Proctor will be required to be on site to assist judges. A local industry expert is preferred to serve as the Proctor and shall not be an individual that has been involved with the training of the contestant(s). The Proctor will serve as the onsite "hands and eyes" for the judges. Proctor will follow instructions from the judges for safety and operations related to the competition. Proctor may be asked by judges to perform several tasks such as operating a portable camera to show specific components or steps, measure parts, or any task that will provide judges with information needed to assist in accurate scoring of the contestant's work or presentation. However, the Proctor shall not serve as a judge nor have any influence on contestant scores.
4. The contestant's instructor or advisor shall be on site to observe all competition

activities to ensure a safe and healthy competition experience for all participants. That instructor or advisor will not be allowed to interact or interfere with the competitor unless a safety issue arises that requires interaction. Any other support or interaction between the contestant and the instructor/advisor will result in disqualification.

5. All competitors must create a one-page résumé and submit an electronic copy to the technical committee chair at least seven (7) days in advance of the competition. Failure to do so will result in a 10-point penalty. Instructions for submission of the electronic résumé copy will be provided on the SkillsUSA website at http://updates.skillsusa.org.
6. Two multiple outlet surge protectors.
7. Sketch pad for storyboarding.
8. Computers with CD-RW drive or USB port and an Ethernet connection.
9. Hub and patch cables for interconnecting team computers.
10. Related web authoring and graphics software accompanied by proof of license.
11. Design and development tools necessary to build a complete website.

SCOPE OF THE CONTEST
The contest is defined by industry standards and set by the current industry technical committee.

Knowledge Performance
The contest consists of a written knowledge exam assessing the team's general knowledge of definitions, software, processes and procedures relevant to web design in such areas as: graphics, design, layout, programming, code and process.

This team event includes topics such as: programming (HTML, XHTML, JavaScript, client-side scripting), web graphics, website design (usability), website management, project management and Web multimedia. Legal issues surrounding the field of web design will also be considered a part of this contest.

Skill Performance
The contest includes a web design project and a written document providing an overview explaining how the web content supports a designated theme to assess web design and development skills.

Contest Guidelines
Web Design Project
1. The project requires a team of two: a web designer and web developer/webmaster. The team of two is to demonstrate how a developed project with an educational theme has been completed through the application of graphics, multimedia, design and layout.
2. Attention will be paid to the quality of code and the quality of the website development process.
3. The national technical committee will provide a template, which describes the site development process.
4. All entries to the contest must be created by the teams during the contest.
5. Teams will be issued a work order on Tuesday during the orientation meeting. Each team's website will be constructed at the contest site for evaluation and continual work on the day of the contest.
6. Specific schedules outlining equipment setup, storyboarding and specific judging criteria will be distributed during the orientation meeting on Tuesday.
7. All copyright laws are to be followed.
8. Violations will result in disqualification.
9. No hard or soft copy reference material such as HTML, CSS or JavaScript documentation will be permitted for use during the contest.

Explanation Document
1. Teams shall provide an overview document that shows how developed Web content supports the educational theme. Criteria include:
   a. Theme and content must be educational in nature.
   b. Content must support the theme.
   c. Quality of the site organization and navigation.
   d. Acceptable use of language and conventions: paragraph structure, grammar, spelling, punctuation, etc.
   e. Any multimedia elements used should contribute to the site content.

f. The site can be viewed in more than one browser on both Mac and Windows platforms.

g. Links are valid and all multimedia components load properly and within a reasonable period of time.

For further information and FAQ, visit: www.webdesigncontest.org.

Standards and Competencies

Note for Virtual Competitions: Contestants may not be required to perform all the standards and competencies listed in this section. However, contestants should be prepared to perform components in all areas. Prior to the competition, the technical committee may determine which standards and competencies contestants will be perform for the virtual contests. The technical committee will determine if additional information is needed for contestants prior to the competition. These changes will be posted on the SkillsUSA Championships contest update website at: http://updates.skillsusa.org.

WEB 1.0 — Use appropriate and thematic graphic elements that contribute to the understanding of concepts, ideas and relationships of the web design to related standards of Certified Web Designer Associate-apprentice.

1.1 Demonstrate a consistent and appropriate variation in the use of type sizes.
1.2 Demonstrate an appropriate use of colors.
1.3 Incorporate objects and background images.
1.4 Use color, graphics, navigation design and consistency from page to page
1.5 Identify the critical elements of web design.
1.6 Explain the use of copyright, intellectual property and trademark laws as related to web design.

WEB 2.0 — Illustrate the use of various multimedia tools in the web design and layout, which are clearly thought out, appropriately used and error-free to contribute to the best explanation of concepts, ideas and relationships to related standards of CWDSA-apprentice.

2.1 Use animated GIFs as a part of the final product.
2.2 Choose appropriate tools for supporting the development of the concepts, ideas and relationships.
2.3 Optimize the usage of graphic files and file management.
2.4 Incorporate electronic images, photo files and scanned images into the final product.
2.5 Incorporate a good blend of audio and video files.
2.6 Use hyperlinks and anchors.
2.7 Create a corporate identity and design.

WEB 3.0 — Design a website navigation that is well architected, easy to use and consistent throughout the site with considerations made to programming and compatibility to related standards of CWDSA-apprentice.

3.1 Demonstrate the use of contemporary web browsers.
3.2 Design a standards-based site that supports many common web browsers.
3.3 Ensure the capability of code structure and design.
3.4 Apply HTML, CSS and JavaScript to create a well crafted website.
3.5 Format and document the code.

WEB 4.0 — Create a process with incorporated strategies and organizational tools that help persons access the site at different levels to related standards of CWDSA-apprentice.

4.1 Design activities with a scaffolding of information from basic knowledge to higher-level thinking.
4.2 Contribute to the richness of the process
    4.2.1 Help others experience different perspectives.
    4.2.2 Share responsibilities in accomplishing a task.

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

Math Skills
• Organize and describe data using matrices.

Science Skills
None Identified

Language Arts Skills

- Provide information in conversations and group discussions.
- Provide information in oral presentations.
- Demonstrate use of such verbal communication skills as word choice, pitch, feeling, tone and voice.
- Demonstrate use of such nonverbal communication skills such as eye contact, posture and gestures using interviewing techniques to gain information.
- Analyze mass media messages.
- Demonstrate comprehension of a variety of informational texts.
- Use text structures to aid comprehension.
- Understand source, viewpoint and purpose of texts.
- Organize and synthesize information for use in written and oral presentations.
- Demonstrate knowledge of appropriate reference materials.
- Demonstrate narrative writing.
- Demonstrate expository writing.
- Demonstrate persuasive writing.
- Demonstrate informational writing.
- Edit writing for correct grammar, capitalization, punctuation, spelling, sentence structure and paragraphing.

Connections to National Standards

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

Math Standards

- Geometry.
- Measurement.
- Problem solving.
- Reasoning and proof.
- Communication.
- Connections.
- Representation.

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

Science Standards

- Understands the nature of scientific inquiry.
- Understands the scientific enterprise.

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

Language Arts Standards

- Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).
- Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
- Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
- Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss print and nonprint texts.
- Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
- Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
- Students develop an understanding of and respect for diversity in language use, patterns and dialects across cultures, ethnic groups, geographic regions and social roles.
- Students participate as knowledgeable, reflective, creative and critical members of a variety of literacy communities.

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

Source: IRA/NCTE Standards for the English Language Arts. To view the standards, visit: www.ncte.org/standards.