WEB DESIGN AND DEVELOPMENT

SkillsUSA Championships Technical Standards

PURPOSE

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

ELIGIBILITY (TEAM OF TWO)

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: Competition Specific — Business Casual

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

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

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

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

EQUIPMENT AND MATERIALS

1. Supplied by technical committee:
   a. Table space for two computers, two chairs and access to power
2. Supplied by the competitor team:
   a. Two multiple outlet surge protectors
   b. Sketch pad for storyboarding
   c. Computers with 5 gHz wifi and wifi 6 connection
   d. All coding will be done using a server-based environment supplied by Web Professionals Global.
   e. Design and development tools necessary to wireframe and document a complete website.
   f. All competitors must create a one-page resume to submit online. See "Resume Requirement" below for guidelines. Additionally, and as part of the competition, competitors will submit a hard copy of their resume at orientation.

RESUME REQUIREMENT

Competitors must create a one-page resume to submit online. SkillsUSA South Carolina competitors should submit their resume by the deadline published on the competition updates page of our website. Failure to submit a resume will result in a 10-point penalty.

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

Note: Check the Competition Guidelines and/or the updates page on the state website.

PROHIBITED DEVICES

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

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

SCOPE OF THE COMPETITION

The competition is defined by industry standards and set by the current industry technical committee.

KNOWLEDGE PERFORMANCE

The competition consists of a written exam assessing the team's general knowledge of definitions, software, processes, and procedures relevant to web design and development in such areas as: graphics, design, layout, programming, code and process. Competitors are also required to take the SkillsUSA Professional Development Test.

This team event includes topics such as: programming (HTML, JavaScript, CSS), web graphics, website design (usability), website management, project management, and Web accessibility. Legal issues surrounding the field of web design may also be considered a part of this competition.

SKILL PERFORMANCE

Competitors will receive a PDF document that provides an overview of a web design project to be completed as the skill performance assessment.

COMPETITION GUIDELINES

Web Design Project
1. The project requires a team of two: a web designer and web developer. The team of two is to develop a project using industry standard design and development techniques.
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 an online coding environment (no templates can be utilized).
4. All entries to the competition must be created by the teams during the competition.
5. Teams will be issued a work order during the orientation meeting. Each team's website will be constructed at the competition site for evaluation and continual work on the day of the competition.
6. Specific schedules outlining equipment setup, storyboarding, and specific judging criteria will be distributed during the orientation meeting.
7. All copyright laws are to be followed.
8. Violations will result in disqualification.
9. Competitors will have access via the Internet to any sites which they wish to reference during the competition.

STANDARDS AND COMPETENCIES

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 animation if appropriate 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 proper file management (folder structure).
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. You may be asked to 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.

WEB 5.0 — SkillsUSA Framework
The SkillsUSA Framework is used to pinpoint the Essential Elements found in Personal Skills, Workplace Skills, and Technical Skills Grounded in Academics. Students will be expected to display or explain how they used some of these Essential Elements. Please reference the graphic, as you may be scored on specific elements applied to your project. For more, visit: www.skillsusa.org/who-we-are/skillsusa-framework/.

COMMITTEE IDENTIFIED ACADEMIC SKILLS

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

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

Science Standards

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

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).