

2023 Oklahoma SkillsUSA Cybersecurity Competition Memo

This is a team event consisting of two contestants, each from the same category such as Secondary or Postsecondary. Contestants are required to be in official contest attire. The contest Chairperson will be discussing expectations of each team and giving them a contest schedule of events for the competition day during the check-in process on the day of competition. Each contestant will be required to bring his or her printed one page resume that meets contest resume guidelines. It will be presented to the judges upon entry to the contest area. A deduction will be applied to the team's overall score if a resume for each contestant is not submitted to the Judges. Equipment checks will be performed upon entry to the contest area to ensure that all contestants are able to access the WiFi network for Internet connectivity. This will be required to access certain portions of the competition. Each team member will need to bring a laptop for the competition. Each team member will be required to bring a laptop meeting the following requirements:

Laptop Requirements for each contestant:

| | |
|--------------------|-----------------------------------------------------------------------------|
| Memory: | 8GB RAM |
| Storage: | HDD/SSD with at least 100 GB of free storage space |
| Network: | IEEE 802.11n capable or better WiFi NIC |
| CPU: | Intel or AMD 64-Bit Processor with Multi-Core and Virtualization Capability |
| Operating System: | Windows 10 or 11 (64-Bit) |
| Required Software: | VMWare Workstation Player Version 17 Cisco Packet Tracer Version 8.2 |

Suggested Software: Virtual Machine using Kali Linux or Parrot OS for use in CTF portion of event. Any additional Software you feel might help you in the CTF event.

Clothing Requirement:

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|--------|-------------------------------------------------|
| Shirt: | Official SkillsUSA White Polo Shirt (Tucked In) |
| Pants: | Black Dress Slacks |
| Belt: | Black Dress Belt |
| Socks: | Black Dress Socks |
| Shoes: | Black Dress Shoes |

Resume Requirement:

| | |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Personal Information: | Name, Address, City, State, Zip, Phone, Email |
| Skills: | Six Total, at least two skills from each of three sections of the SkillsUSA Framework (i.e. Personal, Workplace, & Technical) |
| Education: | High School and Technology Center |
| Employment: | Work or at least one Volunteer Activity if no work experience |
| Activities/Awards/Honors: | List at least SkillsUSA Membership and OK State Conference |
| References: | At least list "References Available Upon Request" (Note: Limit Resume to one page only) |

Written testing for most contests will be held ONLINE through your schools' Testing Liaison. Testing will be open beginning March 15, 2023. The deadline for taking the on-line tests is Friday, April 7th, 2023. No provisions are being made for make-up testing on-site. No substitutions will be allowed this year after April 7th, 2023. See the State SkillsUSA Director's Memo for the policy on substitutions and late registrations.

The written tests will be comprised of two separate tests listed below:

Oklahoma SkillsUSA Professional Development Exam

Oklahoma SkillsUSA Cybersecurity Exam (comprised of CompTIA Security+ questions)

Cybersecurity Professional Activities Presentation Topics:

- 1) Cover Password Policy based upon NIST standards
- 2) Cover an Acceptable Use Policy based upon industry best practices
- 3) Cover restrictions for use of personal digital devices such as phone/tables/laptops/USB drives within company environment
- 4) Cover data usage/storage/privacy/intellectual property policies while using company assets according to best industry practices
- 5) Cover appropriate email best practices regarding malware/phishing/social engineering threats to company assets according to best industry practices
- 6) Cover login procedures used in office and remote work environments based upon industry best practices for initial login/breaks/end of day, carefully consider remote concerns
- 7) Cover WiFi usage used in office and remote work environments based upon industry best practices with careful consideration for remote connectivity
- 8) Cover backup procedures necessary for protection of company data and email with careful consideration for disaster recovery situations

Guidelines for Professional Activities Presentations:

Each team will need to pick two of the above topics. Each team member will be required to present a unique 5-10 minute training session with the judges as if the judges are new hires at a company for which each member is a Cyber Security Professional. Your job is to make sure each new employee understands the policy for which you have chosen to cover. This is a simulation of the on-boarding process used with new employees at your company during the first week of employment. You are allowed to use your laptop if you wish to help in your presentation of the policy. You are allowed to use printed hand-outs if you wish to support your presentation to the judges. Penalties will be incurred for presentation time that is below or above allocated time.

Competition will begin on Monday, April 24, 2022 at 8:00AM at the Tulsa Tech Riverside Campus in the aircraft hanger. Each contestant must present the contest chairperson with their resume and for a check of their SkillsUSA attire. Students will break for lunch at 11:00AM and return at 12 noon, at which time they will resume competition. All contestants will be provided with a box lunch. Competition should be complete with a debrief by 3:00PM. There will be former National SkillsUSA Champions on hand as judges in this event to give pointers and advice for those potentially going on to Nationals.

Cyber Security Competition Scoring Rubric:

Station 1: Exams (Note: Done online at school prior to State Conference)

- Skill Related Exam (CompTIA Security+ type questions)
- SkillsUSA Professional Development Exam

Station 2: Professional Activities & Forensic/Pentesting Activities

- Team Presentations (Note: See above topic listing)
- Capture the Flag Activities (Web Exploits, Enumeration, Encoding, Hashing, GIT, Cracking, Ciphers, Netcat, & Reverse Engineering)

Station 3: Network Systems Hardening

- Endpoint Security (Windows 10 VM)
- Server Security (Ubuntu Linux VM)

Station 4: Local Network Device Security

- Enterprise Router Security (Cisco Packet Tracer)
- Managed Switch Security (Cisco Packet Tracer)

Station 5: Network Boundary & Wireless Security

- Network Boundary Security (Cisco Packet Tracer)
- Wireless and Mobile Device Security (Cisco Packet Tracer)