

**2017 MICHIGAN SKILLSUSA CHAMPIONSHIPS
TASK & MATERIALS LIST**

SKILL OR LEADERSHIP AREA: Internetworking

CONTEST LOCATION:

Grand Rapids Community College
Applied Technology Center (ATC)
151 Fountain NE
Grand Rapids, MI, US
(616) 234-GRCC
<http://www.grcc.edu/>

RESUME:

Each student must submit a one-page printed resume before the contest start at the contest site (present to contest coordinator, not judges). The resume is no longer submitted online. This is the only time that resumes can be turned in. Failure to do so will result in a 10 point penalty.

TASKS TO BE PERFORMED:

The contest will consist of three parts, TAC, CCNA test, and hands-on evaluations. The hands-on evaluation will consist of cable construction; punch down (wall jack); and Router and Switch configurations.

TAC Problem:

The purpose of the TAC problem is to test a contestant's ability to isolate and solve a customer problem on the telephone by asking questions.

CCNA Evaluation:

The purpose of the CCNA portion of the contest is to test a contestant's complete knowledge of internetworking. Questions from the written evaluation will be taken from the following general internetworking topic areas:

- OSI model and industry standards
- Network topologies
- IP addressing. Including subnet masks
- Networking components
- Basic network design
- Beginning router configurations
- Routed and routing protocols
- Advanced router configurations
- LAN switching theory and VLANs
- Advanced LAN and LAN switched design
- WAN theory and design
- WAN technology, PPP, Frame Relay, ISDN
- Network troubleshooting
- Wireless technology

Hands-On Evaluation:

The purpose of the hands-on component of the contest will be to test a contestant's ability to design, install, troubleshoot, and maintain internetworks. Given a set of networking equipment (cable, fiber, hubs/switches, routers, etc.), the contestants 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 contestants will be able to develop a useable network that meets or exceeds the documentation provided.

STUDENT MUST SUPPLY (Contestants will not be allowed to share laptop/tools):

- Resume – 1 page
- Safety glasses with eye shields or goggles. (Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)
- Copper cable terminating tools
- DB9 to RJ45 and console cable
- Cable tester
- Laptop computer with Ethernet connection, wireless, com port (USB with adaptor) and USB port
- Lunch

TECHNICAL COMMITTEE WILL SUPPLY:

- Computer workstation for written portion of contest
- V. 35 cables
- Cisco routers
- All other support or test equipment not specifically required for the contestant to furnish

CLOTHING REQUIREMENT (if different from National contest):

For Men:

- White polo shirt with black dress slacks
- Black socks
- Black leather shoes
- No marks that identify the student

For Women:

- White polo shirt with black dress slacks or skirt
- Black socks or black or clear seamless hose
- Black leather shoes
- No marks that identify the student

Scoring Sheet
INTERNETWORKING

Items Evaluated	Possible Points	Contestant Number
CABLING (Construction and testing of common workstation and MDF/IDF cabling)	250	
LAN / WAN Networking (Workstation, switch, basic router configuration and Advance router configuration)	250	
TAC - Professionalism (Isolate and solve customer problem over telephone)	250	
(Written test) CCNA Test	250	
Safety, Clothing Penalty and Resume (minus 0-10% of total points)		
Subtotal		
TOTAL	1000	