

2016 STATE TECHNICAL STANDARDS

FOR USE AT THE 2016
MASSACHUSETTS SKILLSUSA CHAMPIONSHIPS



CONTACT INFORMATION

Host Sites:

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Joseph P. Keefe Technical HS

*Host Site for Graphic Communications and Screen Print Technology

Site Coordinator:

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SkillsUSA Championships Director:

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Executive Director:

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SPECIAL NOTICE

THE FOLLOWING CONTESTS WILL USE NATIONAL RULES. YOU CAN FIND THE REQUIREMENTS AND TECHNICAL STANDARDS FOR THE FOLLOWING CONTESTS IN THE NATIONAL SKILLSUSA CHAMPIONSHIPS TECHNICAL STANDARDS 2015-2016:

- ACTION SKILLS
- AMERICAN SPIRIT AWARD
- **CAREER PATHWAYS SHOWCASE**
- **CHAPTER BUSINESS PROCEDURE**
- CHAPTER DISPLAY
- COMMUNITY SERVICE
- **CUSTOMER SERVICE**
- **EMPLOYMENT APPLICATION SKILLS**
- ENGINEERING TECHNOLOGY
- ENTREPRENEURSHIP

*Business plan (6 copies) must be sent to the state office by April 7, 2016

- **■** Esthetics (By Invitation)
- **■** EXTEMPORANEOUS SPEECH
- HEALTH KNOWLEDGE BOWL
- Humanoid Robotics (By invitation)
- JOB INTERVIEW
- JOB SKILL DEMONSTRATION A
- JOB SKILL DEMONSTRATION (OPEN)
- OCCUPATIONAL HEALTH & SAFETY
- OPEN & CLOSING CEREMONIES
- OUTSTANDING CHAPTER
- **Mobile Robotics Technology**
- PREPARED SPEECH
- PRINCIPLES OF TECHNOLOGY
- PROMOTIONAL BULLETIN BOARD DISPLAY
- RELATED TECHNICAL MATH
- Urban Search & Rescue



SPECIAL NOTE ABOUT RESUMES:

All contests will require competitors to bring a one-page, typewritten resume and submit to the state technical committees at the competition on Friday, April 29, 2016.

Résumés are not required for the briefing meetings on Thursday evening.

IMPORTANT NOTES

1. The SkillsUSA competition theme for the 2015-16 school year is:

SkillsUSA: Champions at Work Connecting You to Career Success

The topic to be addressed by contestants in the Chapter Display, Prepared Speech and Promotional Bulletin Board competitions is how our theme, SkillsUSA: Champions at Work, addresses the SkillsUSA national program of work in the area of professional development.

Within this topic, contestants might illustrate or discuss any of the following:

- Why is ensuring career success for every member of SkillsUSA important to the economic health and stability of our nation?
- Describe how the mission of SkillsUSA to empower its members to become world-class workers, leaders and responsible American citizens guarantees career success.
- How has the vision of career success changed over the decades?
- Describe the skills and attitudes that business and industry are demanding of students for career success.
- What elements of SkillsUSA ensure that members experience career success?
- How has the definition of career success changed for the current generation of students from their grandparents' generation?
- What does career success look like in the 21st century?
- In the next 10 years, what skills are needed to fill the job-market skills gap, and how do SkillsUSA members ensure career success through their SkillsUSA involvement?
- What are the connections that SkillsUSA has built to ensure career success for its members?
- How has SkillsUSA adapted over the years to provide members with the skills needed for career success?
- How has your involvement in SkillsUSA ensured that you will be connected to career success?
- Career success involves much more than mere dollars; describe the elements of experiencing true career success.
- Which SkillsUSA programs ensure that members are developing *personal* skills that are needed for career success? Program examples may include those that improve the following: integrity, self-motivation, work ethic, professionalism and responsibility.
- Which SkillsUSA programs ensure that members are developing *workplace* skills that are needed for career success? Program examples may include those that improve the following skills: communication, decision making, teamwork, cultural sensitivity and leadership.

Which SkillsUSA programs ensure that members are developing *technical* skills that are needed for career success? Program examples may include those that improve the following skills: technical literacy, job-specific tasks, service to the community, ongoing professional development and an awareness of safety and health issues.

2. Tee-shirt requirement: For every contest that has a clothing requirement specifying "SkillsUSA Massachusetts Tee shirt," the tee shirts will be distributed to chapter advisors during registration. Every participant at the conference will receive a conference tee shirt.





3. Insuring Success: Make sure every contestant reviews their contest(s); scope, tooling requirements, clothing requirements, etc., as there are penalties in place for non-compliance in every competition.

BUILDING TRADES A

EVENTS:

INDUSTRIAL MOTOR CONTROLS
ELECTRICAL CONSTRUCTION WIRING
MAJOR APPLIANCE TECHNOLOGY
MASONRY

SERIES DIRECTOR: KEN PEREIRA

CONTACT INFORMATION:

PLYMOUTH SOUTH HIGH SCHOOL 490 LONG POND RD. PLYMOUTH, MA 02360

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INDUSTRIAL MOTOR CONTROL CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Requirements and Scope of Contest

Scope of Contest:

National Skills - Industrial Motor Control

Contestants will be given job sheets with schematic diagrams and accompanying requirements for wiring an industrial motor control installation. All work must conform to the specifications of the latest edition of the National Electrical Code as of January prior to the SkillsUSA Championships. Contestants will demonstrate their ability to perform jobs or skills selected from the list of competencies as determined by the SkillsUSA Championships Technical Committee. These will include: safety, use of tools and equipment, calculations, trade information, install raceways and enclosures, install and connect switches, buttons and lights. You will also be required to complete wiring or ladder diagrams, troubleshoot a control fault using a multi meter, and a written test referencing the current NEC code.

State Skills - Industrial Motor Control

All aspects of the contest will focus around industrial motor control and include some of the aspects of the National Event. The project will use a variety of wiring methods and be mounted on a simulated finished wall. It may include a disconnect switch, a controller or starter, and various automatic or manual controls. These items may be connected to a trough using short offset nipples. The project will evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of industrial motor controls.

Tool Requirements: *One-page type-written resume required for every contestant

½" EMT benderDiagonal pliersSide cuttersLong-nose pliersPump pliersWire strippers

Knife Assorted flat blade & Phillips

Measuring tape

Hacksaw

Claw hammer Electrical tape and connectors

Torpedo level Multimeter
Crimping tools Fuse pullers
Scratch Awl Roto-splitter

Supplies for drawing ladder diagrams (pencil, straightedge, etc.)
Calculator (NO electrical specific calculators)
Latest edition of MA Code Book (NO code handbooks allowed)

(Note: NO electrical screwdrivers or cordless drills allowed)

Clothing Requirements:

Work pants (NO jeans)

SkillsUSA Massachusetts T-Shirt

Leather work boots (NO sneakers)

Safety glasses

Hard hat NO cell phones or pagers allowed

MAJOR APPLIANCE TECHNOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

Using eight appliances with a bugged failure, the students will be observed to see if they;

- Use customer relations skills to interact with a "customer".
- Have and use all safety equipment.
- Show proper respect for the customer and the product and surroundings.
- Inspect the failed appliance using the facts they receive from us (the customer) validate the complaint.
- Determine probable cause, if any, and consider if electrical, mechanical or both has failed.
- Use a multi-meter to test for voltage, continuity and resistance.
- Use a wiring diagram to trace circuits.
- Use mechanical skills to access components for testing.
- Show proper use of basic hand tools.
- Use their senses to determine product failure.
- Return product to same condition as found.
- Explain failure and corrective actions to the "customer" in detail using proper verbiage.
- Review resume with a "hiring manager".
- Score appropriately on diagnosis, times to service, explanation of failure and repair, resume.

Tool Requirements: *One-page type-written resume required for every contestant

Screwdrivers
Only socket needed will be 1/4"
VOM
1/4" & 5/16" nut driver
Small putty knife
Vice Grips
Voltage/ohm Meter or Amp Meter w/ohms
Wire cutters
Wire Stripper
Pliers Regular and needle nose

Clothing Requirements:

Work pants (No Jeans) Work shoes **(NO sneakers)** Safety glasses SkillsUSA Massachusetts T-shirt NO cell phones or pagers allowed

MASONRY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Masonry

While production is very important, quality workmanship is vital. The students will be expected to construct a composite brick & block project in a six-hour period that will test their ability to meet industry standards in quality. In addition to a written exam, the critical eye of journeyman judges will be the deciding factor in determining the winners. The contest project will include components of the most frequently used details in residential construction.

State Skills - Masonry

The contest will involve brick and block composite wall construction. Participants in this contest will be judged on their ability to follow correct masonry design and procedures. All contestants will be assessed on neatness, safety, production, manipulation, and adherence to masonry construction building standards. All contestants must dismantle their projects after the judges have finished scoring. All contestants must stay and clean the entire building site as required by the event manager. Any student not participating in site clean up will lose points on his/her final score.

Tool Requirements: *One-page type-written resume required for every contestant

Tool bag Brick spacing rule

Flat jointer ½" Brush

4' Level 2 - Line blocks with line

Trowel Pencil 2' Level 2 - Line pins

Brick hammer 2' framing Square

Modular rule Convex jointer ½" x 5/8" Brick set

Clothing Requirements:

Work pants (no jeans)

SkillsUSA Massachusetts T-shirt

Work boots (no sneakers)

Safety Glasses

Hard hat NO cell phones or pagers allowed

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MASONRY SCORE SHEET

Skills USA Score Sheet	Points	<u>Frameworks</u>
Correct Design	10	2.A.2,3,5 - 2.G.2 - 2.I.1,2 - 2.L.1 - 2.O.2
Block Height	15	2.F.2
Level	15	2.C.6, 2.J.5,6
Plumb	15	2.C.6, 2.J.5,6
Range	15	2.C.6, 2.J.5,6
Brick Height	15	2.F.2
Level	15	2.C.6, 2.I.1,2
Plumb	15	2.C.6, 2.I.1,2
Range	15	2.C.6, 2.I.1,2
Modular Spacing	10	2.F.2
Square	10	2.L.3
Full and Uniform Joints	10	industry standard
Neatness	10	2.B.2
Production	10	work volume
Manipulation	15	proper tool use, masonry techniques
Joint Finish	10	2.K.1
Safety	15	1.B.4,10
Masonry Reinforcement	10	2.P.3

Total 230

Clothing Penalty 0 to 10 pts.
Clean up Penalty 0 to 15 pts.

ELECTRICAL CONSTRUCTION WIRING CONTEST

Requirements and Scope of Contest

Scope of Contest:

National Skills - Electrical Construction Wiring

Contestants in residential wiring are tested on their ability to install wiring in a residence or light commercial installation, working from drawings and specifications sheets. Professional electricians judge the contestants on the basis of general workmanship, accuracy of layout and installation, adherence to National Electrical Code and safety. The test consists of two parts--conduit bending and the simulated wiring of two or more rooms of a typical residence. *The wiring will be judged according to standard residential and commercial wiring practices, and the current edition of the National Electrical Code.*

State Skills - Electrical Construction Wiring

All aspects of the contest will center on residential or light commercial installations. The project will be wired in a simulated wall sections, either studs or finished wall. Students may be asked to trouble shoot an existing circuit using a multimeter and repair/replace problems with devices. The project may consist of the following methods: Romex, BX, EMT, Conduit, Wiremold, PVC, ENT, Bell Wire, Cat 5, and Cat 6 Cabling. Contestant projects will be judged on workmanship, accuracy, speed, adherence to the current Massachusetts Electrical Code, and other requirements as applied to the project.

1 - Key hole saw

1 - Diagonal pliers

1 - Roll electrical tape

1 - Needle nose pliers

1 - 8' - 12' Measuring tape1 - Electricians knife

1 - Scratch awl

1 - Side cutters

1 - Torpedo level

1 – Multimeter

1 - Hacksaw

Tool Requirements: *One-page type-written resume required for every contestant

1 - 1/2" EMT bender

1 -Corded Electrical drill 3/8" or 1/2" chuck

1 - 25' Extension cord

1 - Roto splits

1 - 3/4" - 7/8" Auger bit

1 - Empty nail apron

1 - Tool box w/lock

1 - Wire strippers

1 - Arc joint pliers

1 - Claw hammer

Assorted wood chisels 14" to 1"

Assorted flat blade and Phillips screwdrivers

¾" Spade bit

1 - Current Massachusetts Code Book (NO Code handbooks allowed)

1 - Scientific calculator (NO electrical specific calculators)

(Note: NO electrical screwdrivers, cordless drills, or wood blocks for measuring.)

Clothing Requirements:

Work pants (NO jeans)

Leather work boots (NO sneakers)

Hard hat

SkillsUSA Massachusetts T-shirt

Safety glasses

NO cell phones or pagers allowed

BUILDING TRADES B

EVENTS:
CABINETMAKING
CARPENTRY

HEATING, VENTILATION, AIR CONDITIONING & REF. PLUMBING

SERIES DIRECTOR:
JOHN KOLISS

CONTACT INFORMATION:

BAY PATH RVTHS 57 MUGGETT HILL ROAD CHARLTON, MA. 01507 508.248.5971

EMAIL: 0137@baypath.tec.ma.us



CABINETMAKING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Cabinetmaking

Contestants are required to build a small cabinet from materials and drawings supplied. They are expected to read the drawings, lay out and cut the parts, using a table saw, laminate trimmer, hand drill, hinge boring machine and various hand tools. The parts are to be accurately assembled, sanded and adjusted to tolerances as specified by the judges.

State Skills - Cabinetmaking

The event will include 10-12 of the following:

- 1. Mortise in a butt hinge
- Layout and band saw a valance
- 3. Blind dado
- 4. Spline joint
- 5. Spline flat miter joint
- 6. Haunched mortise and tenon
- 7. Drawer Corner joint (DBL DADO)
- 8. Pocket hole
- 9. Pocket hole dado
- 10. Cope joint

- 11. Flat miter and doweled
- 12. Turn a round tapered leg
- 13. Drawer Front dovetail
- 14. Machine dovetail
- 15. Plastic laminating
- 16. Square tapered leg jig and leg (4 sides)
- 17. Layout and cut a cabriole leg
- 18. Layout rod
- 19. Mortise and tenon table leg and rail
- 20. Bridle joint

- 21. Set up a knife and collar on the shaper
- 22. Turn a leg with beads, coves, and half rounds
- 23. Through dovetail
- 24. Biscuit joinery
- 25. Cabinet carcass assembly
- 26. Assemble & install doors
- 27. Layout and install door & draw hardware
- 28. Assemble & install drawers
- 29. Mechanical draw slides

Tool Requirements: *One-page type-written resume required for every contestant

Contestant tool check off form must be completed, signed and turned in with resume

Tape measure or rule Utility knife with blades

Protractor Dovetail saw Back saw

Combination square
Set of dividers or compass
Coping saw with extra blade

Hammer Plastic mallet

Set of wood chisels (1/4", 3/8", ½", 3/4", 1") (Chisels

must be ground and sharpened)

Sliding T bevel

#1, #2, #3 Phillips screwdrivers

2 - pencils, sharpened

3/16, 1/4 slotted screwdrivers

Power drill 3/8 or ½ (cordless or corded)

Drill index 1/16 to 3/8 x 1/16

"collet routerBiscuit jointerpt. Wood glue

1 qt. Nontoxic contact cement

Nail Set

Laminate tools flat mill file, plastic laminate roller, electric trimmer, flush cutter, bevel cutter,

2 – contact cement application brushes

edge banding trimmer 6" machinist scale

Phillips screwdriver bit for drill

Clothing Requirements:

SkillsUSA Massachusetts T-shirt

Work pants

Safety glasses - MUST BE WORN AT ALL TIMES

Leather work boots

NO cell phones or pagers allowed

MEMORANDUM

то:	Cabinetmaking School Advisor				
FROM:	Cabinetmaking Event Manager				
DATE:	March 31, 2016				
RE:	Safety and Proficiency				
contestant	nplete this information for each contestal must present to the Event Manager a co students will be allowed to compete.				
This letter	is to confirm that		is enr	olled in the	
	king program at			School and has	
satisfactori	lly passed all general and specific shop sa	afety ru	les and has demonstrated proficienc	y on all parts,	
controls, sa	afety tests on each of the following piece	es of ma	achinery (check all as appropriate).		
☐ Joir ☐ Sur ☐ Ban ☐ Sha ☐ Chis ☐ Ten ☐ Dril ☐ Edg ☐ Sto	face Planer nd Saw per sel Mortiser noner		Disc Sander Spindle Sander Lathe Radial Arm Saw Router Portable Hand Saws Power Drill Other - Please List:		
Signed (Stu	ident)				
Signed (Ad	visor)				
Signed (Ad	ministrator)				

This document, completed and containing all required signatures MUST be presented to the Event Manager on Friday, April 29, 2016 BEFORE being allowed to use machinery in the contest area.

CARPENTRY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

The contestants are required to complete a project specifically designed to test overall carpentry skills, which include framing, exterior trim, and stair building. They are judged on the basis of accuracy, ability to read and interpret blueprints, workmanship, and the proper use of tools and equipment.

Tool Requirements: *One-page type-written resume required for every contestant

- 1 3' OSHA approved step ladder
- 1 Claw hammer, (16-22 oz. smooth face)
- 1 Circular Saw
- 1 Hand Saw
- 1 1 Tool Belt
- 1 Flat Bar
- 1 Combination square or speed square
- 1 Framing square (stair stops optional)
- 1 Set of wood chisels (1/4" -1")
- 1 Pair Tin snips
- 1 Ruler or tape measure
- 1 25' Extension cord (UL approved, grounded)
- 1 Keyhole saw
- 1 Cordless Drill

(bits will be provided)

- 2 Sharpened pencils
- 1 Tool box
- 1 Block plane
- 1 Cats paw/Nail claw
- 1 Phillips and flathead screwdriver
- 1 Utility knife with extra blades
- 1 Chalk line

Nail sets (1/32, 2/32 and 3/32

- 1 24" or 30" level
- 1 Pair slip joint pliers
- 1 Combination wood rasp and file

Clothing Requirements:

Work pants (no baggy/torn pants) Leather work boots (NO sneakers) Safety glasses (worn at all times) Hard Hat SkillsUSA Massachusetts T-shirt NO cell phones or pagers allowed

AIR CONDITIONING & REFRIGERATION - HVACR CONTEST

Scope of Contest:

National Skills - Air Conditioning and Refrigeration

Contestants are tested on their ability to perform such jobs as troubleshooting, recommending service and repair, and brazing. They are judged on the basis of their use of tools and test equipment, speed, accuracy, and safety.

State Skills - Air Conditioning and Refrigeration

- 1. Soft soldering, brazing, flaring, and copper tubing procedures.
- 2. Diagnosing electrical problems in heating and cooling units.
- 3. Knowledge of refrigeration systems, associated components and operating characteristics.
- 4. Observance of refrigeration safety.

Tool Requirements: *One-page type-written resume required for every contestant

Pen/Pencil Reg. & Phillips screwdriver
Tape/ ruler Flaring block and yoke
Flint spark lighter 1/4, 3/8, ½, 5/8 swaging tools

Tubing Cutter Refrigeration service valve ratchet
Reamer Simpson VOM MODEL 260 or similar

10" adjustable wrench

Refrigerant manifold gauge set

Wire Stripper

Pliors (Water Rump)

Wire Cutter

Pliers (Water Pump) Wire Cutter
Hammer (Ball Peen) Temperature and Pressure Chart

Tubing bender ¼"-3/8" Gloves Lockout locks or tags

B Type acetylene <u>set-up</u> with hose, handle and tips suitable for soft soldering and brazing Please mark all torch kits so that they can be identified

ABSOLUTELY NO B TANKS OR TANKS OF ANY KIND SHOULD BE BROUGHT. WE WILL PROVIDE THEM.

*** IMPORTANT NOTE***

IF A SCHOOL IS SENDING MORE THAN ONE STUDENT AND THERE ARE PROBLEMS SECURING TOOLS FOR EACH PARTICIPANT (SUCH AS ACETYLENE TANK SET-UPS), THE JUDGES WILL TRY TO SCHEDULE STUDENTS FROM THAT SCHOOL SO THAT THEY ARE NOT DOING THE SAME TASK AT THE SAME TIME.

HOWEVER, THE JUDGES WILL TAKE NO RESPONSIBILITY FOR INCONVENIENCE, DELAYS, OR OTHER PROBLEMS THAT THIS COULD LEAD TO.

Clothing Requirements:

Work pants SkillsUSA Massachusetts T-shirt

Work shoes (Absolutely NO sneakers allowed) Safety glasses

NO cell phones or pagers allowed Hair must be kept up so as not to pose a

safety hazard!

PLUMBING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Plumbing

Using supplied materials, contestants are required to "rough in" water, drain and vent piping. Installations are judged on accuracy to specified measurements. The completed projects are pressure tested on the water pipes. Professional plumbers judge the contestants on the basis of accuracy, workmanship, proper selection and use of tools and supplies, and proper safety practices.

*One-page type-written resume required for every contestant

Tool Requirements:

Toolbox with the tools needed to assemble PVC, copper tubing and a no hub project. Be sure to include the two different sizes of Torque Wrenches or nut driver for Huskey and Annaco 4000 clamps.

Water pump pliers

4 in 1 Screwdriver

Straight tin snips 9" Torpedo level

Cordless drill

Utility knife

Scratcher

Clean rags

10" Adjustable wrench

10" and 12" pipe wrenches

Claw Hammer

Toolbox with the tools needed to assemble PVC, copper tubing and a no hub project. Be sure to include the two different sizes of Torque Wrenches or nut driver for Huskey and Annaco 4000 clamps.

Reamer Ruler/tape measure

Steel wool Pencils Huskey 3/8" Torque wrench

Chaulk

5/16" Torque wrench Ridgid #15

Soap stone PVC saw Hack saw with spare blades

***Only the tools listed here will be allowed. Tools will be laid out prior to beginning the competition.

More tools or less (missing) tools, minus 2 points per tool.

The Following Items Will Be Supplied:

Torches PVC Glue
Clip Board PVC Primer
Ratchet type cast iron cutters Sand cloth

Flux Scissors type cast iron cutter

Solder Propane

Clothing Requirements:

Work pants Work boots *(NO sneakers)*Work gloves Safety glasses

SkillsUSA Massachusetts T-shirt NO cell phones or pagers allowed

BUILDING TRADES C

EVENT: TEAMWORKS

SERIES DIRECTOR:
KEN PACHECO

CONTACT INFORMATION:

Director of Community Maintenance
Fall River Department of Public Works
1 Government Center
Fall River, MA 02722

EMAIL: kpacheco@fallriverma.org



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TEAMWORKS CONTEST

The Team:

Teamwork is vital for every successful project. The competition will challenge each team to plan and execute a complex structure to completion. Each school will supply an adequate labor force to complete the assignment.

The Challenge:

Your task will be to build a structure per the plans and material supplied. You are to work as a team but each trade will be responsible for their own work. [For example: A plumber may hold a board for a carpenter but the carpenter must cut it and install it.]

The Plan:

"PLAN your work- then WORK your plan."

ON WEDNESDAY EVENING. APRIL 29, 2016 AT 6:30PM DINNER WILL BE PROVIDED COMPLIMENTS OF AMERESCO FOR ALL CONTESTANTS AND ADVISORS. The competition will start at 8:00pm on Wednesday, April 29th with the interview & resume portion of the competition. The hands-on portion of the competition will begin at 8:30 am on Thursday, April 30th. ON APRIL 30TH IN THE MORNING, ALL TEAMS SHOULD ARRIVE AT THE BEST WESTERN ROYAL PLAZA HOTEL AT 6:30 AM. FOR THE TEAMWORKS BREAKFAST. After breakfast, all teams will report to the tent where all the trades will meet and plan how they will identify the sequence of the project. Teams are required to be housed at their conference hotel on Wednesday evening. Please be sure the Chapter Advisor has made the appropriate notation on the Rooming List of TeamWorks Advisors and Students.

Caution:

This is an aggressive undertaking so time management is very important. Schedule your trades so they will be able to complete their tasks without interfering with others. Early construction of the initial trades should start during the planning time.

Assessment:

A team of judges will monitor and assess the projects. They will evaluate the quality of the work, the cohesiveness of the team and the completion of the project.

NOTEBOOKS OR REFERENCE MATERIAL WILL NOT BE ALLOWED IN THE WORK AREAS. ONLY CODE BOOKS ARE AUTHORIZED.

TEAMWORKS PLUMBING REQUIREMENTS

Tools Required: *One-page type-written resume required for every contestant

- Standard plumbing tool box

- Right angle drill with required bits

- Sawzall

- 1 Qt. Cement

- 1 Qt. Cleaner

- 1 lead free solder

- 1 Roll of sand cloth

- 1 Plumbers putty

- Safety equipment as required

- Screw gun

- 2 Rolls Teflon Tape

- 1 Can of Pipe Dope - sealant

- 1 Flux with brushes

- 1 ½" Fitting brushes

PROPANE TANK WILL NOT BE SUPPLIED

TEAMS NEED TO BRING THEIR OWN! IT WILL NOT BE ALLOWED IN THE HOTELS SO IT MUST BE STORED AT THE JOB SITE!

In addition to the tools and equipment listed, the plumbing contestant in TeamWorks may also bring appropriate test equipment as listed below:

Test Equipment to be brought by contestant:

- (3) 3'' test plugs
- (1) 4" test plugs
- (1) 1 ½" ABS or PVC x female adapter
- (1) 1 ½" x ½" black bushing
- (1) 1/2" x black tee
- (1) ½" IPS ball valve
- (1) ½" x ¼" black bushing
- (1) 1/4" male x Schrader valve
- (1) 0-30 psi gauge
- (1) 0-300 psi gauge
- (2) 2" test plugs
- (3) 1 1/2" test plugs

TEAMWORKS MASONRY REQUIREMENTS

Tools Required: *One-page type-written resume required for every contestant

- Standard masonry tool box
- Masonry saw (skill saw with masonry blade)
- Wheelbarrow

- Safety equipment as required
- Extension Cord
- Mortar pan

TEAMWORKS CARPENTRY REQUIREMENTS

Tools Required: *One-page type-written resume required for every contestant

- Standard carpentry toolbox with hand tools
- Saw horses
- Extension cords
- Sabre saw

- Safety equipment as required
- Skill saw
- Drywall screw gun
- Miter box

TEAMWORKS ELECTRICAL REQUIREMENTS

Tools Required: *One-page type-written resume required for every contestant

- Standard electrical toolbox
- Right angle drill with bits
- Extension cord

- Safety equipment as required
- Screw gun
- Metal Stud Punch (optional)

TEAMWORKS CLOTHING REQUIREMENTS

(Attention Team Members)

- Work pants
- Leather work boots (NO Sneakers)
- Safety glasses
- Hard hat

- Work shirt (long sleeve) weather
- Work jacket/sweatshirt weather
- Skills USA Massachusetts T-shirt
- NO cell phone or pagers allowed

TEAMWORKS WILL TAKE PLACE OUTSIDE, IN A TENT, AT THE BEST WESTERN ROYAL PLAZA TRADE CENTER. BE PREPARED FOR ALL WEATHER CONDITIONS.



TeamWorks JOB INTERVIEW

PURPOSE To evaluate the contestant's understanding of project interview procedures that they may face in applying for positions/project in the occupational areas for which they are training.

GENERAL REGULATIONS Contestant's entering this contest must follow all rules listed below as well as the "General Regulations" of the Massachusetts Skills Championships. The "General Regulations" can be found in a separate file under that name. You will be held accountable for knowing and following all rules and guidelines of the Massachusetts Skills Championships.

CLOTHING REQUIREMENT Refer to the SkillsUSA Championships Technical Standards requirements.

OBSERVER RULE No observers will be permitted to view the contest in progress.

EQUIPMENT AND MATERIALS

- 1. Supplied by Interview Committee
- a. Blank Building Permit
- 2. Supplied by the contestant
- a. Three copies each of a one-page typewritten personal resume, to be presented during the interview.
- b. OSHA Job Safety Manual.
- c. An ink pen for completing the Building Permit.

SCOPE OF CONTEST

- 1. Contestants should prepare for the interview contest by developing the following skills:
- a. Demonstrate confident handshake, proper greeting and personal introduction.
- Know the aspects of making positive first impressions.
- Demonstrate good grooming in dress and personal hygiene.
- Demonstrate confidence and positive personal image.
- Develop listening skills and show sincere interest.
- Pronounce words in a clear and understandable manner .
- . Know their personal qualities and how to "sell themselves".
- Know the sources of information about a prospective employer.
- Effectively vary voice in pitch, tone, tempo and volume.
- b. Prepare a personal resume.
- Answer questions and carry a conversation pertaining to resume and trade.
- c. Prepare an OSHA Safety Plan.
- Answer questions and carry a conversation pertaining to this plan.
- 2. The interview will be divided into five phases:
- a. Introduction
- b. Work Presentation
- c. Resumes
- d. Questions
- e. Permit/Safety

- 3. The contestant must submit three (3) copies of the personal resume (limited to one page typewritten or word-processed). The following information must be contained in the resume:
- a. Name, any (fictitious) address, phone number and email may be added.
- b. Career objective.
- c. Education and training.
- d. Work experience beginning with present employment listing specific responsibilities.
- e. Memberships, major accomplishments, awards earned, etc.
- 4. When called from the holding area, the contestant will approach directly into the Interview Room as though applying for a job in the occupational area for which she or he is training.
- 5. Upon evaluation of the resume, the judges will present the rating sheet and the three copies of the personal resume back to team.
- 6. All contestants will be asked identical questions. Judges are encouraged to use their own interview techniques. Such questions might include the following but will be determined by the judges:
- a. Questions directly out of from the Massachusetts Building Code?
- b. Occupational Safety Questions?
- c. Questions from the National Electrical Code?
- d. Personal Short and Long range goals?
- 7. Contestants will be handed a building permit application at the conclusion of the interview. Contestants will be required to fill out this permit once they return to their work zone. The building permit application MUST be completed with an ink pen prior to the commencement of any craftsmanship work. Once approved, a building permit will be issued to that team. The team is required to post this permit.

INTERVIEW TIME

Contestants will be required to manage their interview time per the posted schedule. Please locate the posted inter\iiew board for your teams' time. Remember points will be subtracted for tardness. INTERVIEW ROOM ARRANGEMENT The Interview Room will be furnished with table(s) and chairs for the contestants and two or three judges from the interviewing committee. INTERVIEW PROCESS

- 1. The Team Leader shall lead the team into the Interview Room and direct each member to his or . her respective chair.
- 2. With all team members standing in front of chair, the Team Leader shall commence with the team introduction.
- 3. While standing and looking directly at the Judges, the Team Leader shall state the following (Example):
- a. Proper Salutation (Hello and Good Morning), my name is ___ (first name only) and I am the team leader and I'm also the Electrician (specified trade) for Team# I will now ask the team members to introduce themselves and their trade.
- b. TEAM MEMBERS: Proper Salutation (Hello and Good Morning), my name is (first name only) and I'm the Plumber for Team# $_$ $_$
- c. (All members shall introduce themselves to the Judges as identified above).
- d. Upon completion of each individual introduction,. each team member shall hand a copy of his or her resume to each Judge.

SkillsUSA Massachusetts JOB INTERVIEW RATING SHEET

Introduction Points Earned Remarks Introduction/ Interview Time 20 Proper Clothing 15 Team Leadership 15 TOTAL 50

Members Role(s) 20 Proposed Team Work 15 Trade Knowledge 15 TOTAL 50

Resume n. ~arned Remarks Completeness of Detail 20 Neatness 15 Volume 15 TOTAL 50

Answer Accuracy 20
Presentation (eye contact) 15
Knowledge 15
TOTAL 50
Completed Properly/Posted 20
Safety Manual 15
PPE (head, ears, eyes, feet) 15
TOTAL 50

Introduction 50 Work Presentation so Resume 50 Questions 50 Permit/Safety 50 TOTAL 250

Skills USA MASSACHUSETTS Training Purposes ONLY Building Permit Application

I. APPLICANT I TEAM Number

II. TYPE AND USE OF BUILDING Please indicate by circling all that apply_ PURPOSE FOR PERMIT New Building Addition Alteration Repair

USAGE CATEGORY Residential Business Automotive Industrial

III. BUILDING CHARACTERISTICS Please indicate by circling all that apply

Frame | Masonry | Wood Structural Steel | other Type of Heating Fuel | Construction Size X | Area

Are any of the following included in the work? Please indicate by circling all that apply Electrical Plumbing Private Water Oil Storage Fire Suppression Air Conditioning Public Water Heating Septic System Gas Fitting Fire Detection Hazard Abatement

IV: CONTRACTOR

Team Number Construction Supervisors License# Home improvement Contractor Registration #

VII: ARCHITECT, ENGINEER OR DESIGNER

Name I Address ·

JoAnn Bentlex_Architect 209 Bedford Street Suite 404,_Fall River,_ MA 02720 Phone# I Facsimile # E mail 508-674-7600 508-674-7603 jbentleyarchitect@verizon.net

VIII: READ CAREFULLY BEFORE SIGNING:

The undersigned applicant certifies that he/she is the legal owner of the property OR has been authorized to act as an agent of the owner with their full knowledge and consent. The applicant certifies that they have read, examined and truthfully completed this application in its entirety, that the proposed work and submitted plans are subject to the provisions of the Massachusetts Building Code (780 CMR) and other applicable laws and ordinances of the city and state to which the work is being performed and that any permit issued as a result of this application will be subject to the statements contained in the application and all codes, laws and ordinances. This application was designed for Skills USA project training purposes.

Name of Team Leader (print) | Signature of Team Leader BUILDING INSPECTION SIGN-OFF SHEET

NOTE: Project should not proceed without the appropriate sign-offs. Flooring Systems Deck/Stairs-Walls, Plumbing Rough Electrical Rough

COMMERCIAL DESIGN A

EVENTS:

ADVERTISING DESIGN
DIGITAL CINEMA (Television Video) PRODUCTION
PHOTOGRAPHY

SERIES DIRECTOR:
BECKY LARSON

CONTACT INFORMATION:

BAY PATH RVTHS 57 MUGGETT HILL ROAD CHARLTON, MA. 01507 508.248.5971

EMAIL: rlarson@baypath.net



ADVERTISING DESIGN CONTEST

Requirements and Scope of Contest

Scope of Contest:

Contestants are tested on their technical skills as well as their creative aptitude. To test their technical ability, the competitors complete a problem that tests many of the technical aspects they would encounter in the completion of a mechanical/color separation. This is done using traditional manual skills. The Competitors also complete a mechanical layout problem using a computer. The computer platform is Macintosh G4. The creative portion of the contest involves the working out of an assignment through the development of a rough sketch, final sketches, drawing and illustration, and the final layout and development of a product.

Competitors will be tested for their artistic skills with emphasis on design, color sense, typography usage, and production skills. Particular focus will also be on accuracy and neatness, not necessarily speed. The Advertising Design Competition will consist of two areas: Mechanical and Layout Design. Judging will be based on any or all of the following:

- 1. Mechanical completeness, accuracy and neatness
- 2. Design Creativity, completeness, imagination and presentation
- 3. Apply basic drawing techniques to advertising design
- 4. Understand and apply color as used in advertising design
- 5. Prepare layouts
- 6. Design, specify and apply typography to design
- 7. Demonstrate two and three-dimensional concepts for advertising design
- 8. Prepare art and copy for reproduction
- 9. Specify printer's instructions for multi-color work, generate art, design and copy using electronic equipment and appropriate software

Software: Adobe CS 6 – which includes InDesign, Photoshop, and Illustrator.

Tool Requirements: *One-page type-written resume required for every contestant

Pencils and erasers Colored pencils
X-acto knife and blades Markers - colored

Scales and rulers - picas and inches Paper Adhesive(s) - one coat rubber cement, tape, glue stick, etc.

Note: Additional materials are acceptable but not necessary. They may be brought to the contest at the discretion of the artist. All other materials will be supplied by the Committee.

Clothing Requirements:

Official SkillsUSA Dress (reference National Technical Standards or the Leadership Handbook) blazer (optional) or Businesslike attire. **NO cell phones or pagers allowed.**

Failure to comply with clothing requirements will result in a clothing penalty.

PHOTOGRAPHY CONTEST

Part 1: Print Competition

Students are required **TO BRING WITH THEM** and submit **2 prints** that will be scored by a panel of professional judges. Particular attention will be given to:

- a. the technical & artistic aspects of the image
- b. the overall impact
- c. minimum 11x14 or 154 sq in. image area mounted to 16 x 20
- d. black or white matting

NOTE: This is a Photography competition and not Graphic Design. Any image presented that goes far beyond the capabilities of traditional film photography in terms of manipulation will loose points. In short, if you can produce the image using film, negative retouching & print spotting, then the image is acceptable. Over use of multiple images, text, liquify tool, etc., is not encouraged.

Part 2: Field Assignment

(NOTE: Students supply Digital SLR & accessories)

Students will go on assignment and capture images that relate to a "theme". Students must demonstrate their ability to stay within the parameters with respect to:

- a. Location
- b. Theme
- c. Time limit
- d. Technical and artistic proficiency

(Field Assignment Time to completion: 1 hour)

Part 3: Portrait Studio (studio equipment supplied by SkillsUSA)

Students will be tested on their knowledge of the portrait studio including:

- a. lighting patterns (standard)
- b. lighting ratios
- c. understanding of hand-held light meters
- d. camera settings
- e. cropping

Part 4: Digital Editing

Students will be required to complete a digital image manipulation project using their school or personal computer and available version of Adobe Photoshop.

Part 5: Trouble Shooting Digital Images

Students must correctly identify common problems in the processing/printing of digital images (i.e. blooming, jpeg artifacts, noise, color fringing, etc...)

OVERALL POINT STRUCTURE

TOTAL:	1000 points
Part 5: Troubleshooting	(200 points)
Part 4: Digital Editing	(200 points)
Part 3: Portrait Studio	(200 points)
Part 2: Field Assignment	(200 points)
Part 1: Print Competition	(200 points)

CONTESTANTS REQUIRED ITEMS

- 1. One-page type-written resumé required for every contestant
- 2. Two prints for contest submission
- 3. Digital SLR,
- 4. Memory Cards (1GB min)
- 5. extra camera batteries (charged)
- 6. On-camera Flash & light meters (helpful but not mandatory)
- 7. Camera's USB cable or Memory card adapter for downloading images to computer.
- 8. Computer loaded with school's available version of Adobe Photoshop
- 9. Jump Drive

CLOTHING REQURIEMENTS

Official SkillsUSA Dress (reference the National Technical Standards 2013-2014 or the SkillsUSA Leadership Handbook)

Blazer (optional) or Businesslike attire.

Failure to comply with the requirements will result in clothing or resumé penalty. NO cell phones or pagers allowed.



DIGITAL CINEMA (Television Video) PRODUCTION CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

CLOTHING REQUIREMENTS: Official SkillsUSA dress or professional business attire.

*One-page type-written resumé required for every contestant

The contest will include a video assignment to be created on site 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 theme: SkillsUSA, 50 Years of Champions at Work
- 2. Contestants are to work on site to capture and 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 on-site recording and editing. Taping, but not editing, may begin upon arrival to Skills events on Thursday evening, but no sooner. Taping may continue until advised by the event manger as to an end time.
- 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

SUPPLIED BY THE STATE TECHNICAL COMMITTEE

• Classroom space with one outlet accessible for each team & one USB thumb drive per team

SUPPLIED BY THE CONTESTANTS

- All competitors must submit a one-page resumé, failure to do so will result in a 50-point penalty
- For each piece of music used, a written copyright permission letter from the copyright holder must be submitted with entry. A blanket letter from a music library may be used. Any entry containing music not properly licensed will result in point penalties.
- A camera and computer system capable of recording video and outputting video

Aspect Ratios: 4:3 (4x3) or 16:9 (16x9)

Frame Rates: 24fps, 29.97fps, or 30fps.

Scanning: Progressive or Interlaced

Resolution: 480 (SD) formats, and 720,1080 (HD) formats are acceptable up to 30fps.

- Videos will be exported as files and transferred to USB thumb drive media for submission.
- Audio and video must be in the same file; we cannot accept submissions with separate audio and video files.
- One nonlinear editing system (multiple computers are not allowed)
- Microphone (wired and/or wireless)
- Two or more batteries and power supply/charger for camera
- Certify that the equipment has been thoroughly inspected and is in safe working condition
- 20' AC extension cord with multiple outlet power strip
- Camera support system (tripod, monopod, shoulder mount, steadicam, etc. are all allowed)
- Headphone splitters, if desired, must be supplied by contestants
- Submissions must be one of the following: Quicktime (.mov) file, it must be compressed using either the H.264 or MPEG-2 codec H.264, MPEG-2

Digital Cinema (Television Video) Production Score Sheet

Criteria	a		Point Value
1. Scrip	ot		100
·	1a.	Script organization	20
	1b.	Script consistent tone	20
	1c.	Script answers major questions	20
	1d.	Script appropriate for audience	20
	1e.	Script appropriate ending	20
2. Cam	era T	echnique	150
	2a.	Camera's basic shots	25
	2b.	Video variety of basic shots	25
	2c.	Non-basic shots	25
	2d.	Locations and props to "frame" shots	25
	2e.	Camera lens was focused	25
	2f.	Proper use of equipment	25
3. Editi	ng		210
	3a.	Edits are clean	30
	3b.	Edit style and pacing is appropriate	30
	3c.	Timing of the edits is appropriate	30
	3d.	Edits avoid any continuity problems	30
	3e.	B-Roll footage effectively integrated	30
	3f.	Graphic elements are appropriate	30
	3g.	Text titles are readable and used	30
4. Mus	ic / S	ound	65
	4a.	Audio levels are consistent	20
	4b.	Music selections are appropriate	15
	4c.	Music matches the edits	15
	4d	Music is mixed with narration	15

Score Sheet (continued)

Criteria	Point Value	
5. Special Effects		65
5a.	Special effects are appropriate	20
5b.	Special effects add value	15
5c.	Special effects are creative	15
5d.	Special effects are integrated	15
6. Team Presentation		200
6a.	Ability to work as a team	50
6b.	Demonstrate problem solving	50
6c.	Demonstrated professional attitude	50
6d.	Spoke clearly, communicated well	50
7. Overall Impressions and Interview		210
7a.	Effective integration of all elements	60
7b.	Message was effectively communicate	d 50
7c.	Video was creative, engaging	50
7d.	Demonstrated it was their work	50

Total 1000

COMMERCIAL DESIGN B

EVENTS:

ADDITIVE MANUFACTURING (Limited Demonstration – By Invitation only)

ARCHITECTURAL DRAFTING

TECHNICAL DRAFTING

3D VISUALIZATION & ANIMATION

SERIES DIRECTOR:
MARK LYONS

CONTACT INFORMATION:

EMAIL: mark.lyons@3ds.com



COMMERCIAL DESIGN B

EVENTS:

3D VISUALIZATION & ANIMATION ADDITIVE MANUFACTURING ARCHITECTURAL DRAFTING TECHNICAL DRAFTING

SERIES DIRECTOR:

MARK LYONS LYONS SHARE ENTERPRISE 10 FORREST RD WESTFORD, MA 01886

CONTACT INFORMATION:

EMAIL: MLYONS@3HTI.COM



ADDITIVE MANUFACTURING

Purpose

To evaluate each team's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of Digital and Additive Manufacturing.

Additive manufacturing embraces a wide range of materials and derivative processes building parts suitable for end-use service. The virtually unlimited design freedom enabled by additive manufacturing allows the creation of shapes and the integration of feature and function that previously required subassemblies. Employment opportunities for creative individuals are growing while industry adopts AM methods. Ready access to workstations and service providers makes the Internet a growing marketplace for public AM gadgets.

Clothing Requirements

Official SkillsUSA Dress (reference National Technical Standards or the Leadership Handbook) blazer (optional) or Businesslike attire.

Self Presentation Requirements:

You must supply a competed resume outlining your education, experience and skill set within 1 double-sided page. Resumes will be judged on effectiveness and clarity.

Failure to comply with the requirements will result in clothing or resume penalty.

NO cell phones or pagers allowed.

If you have any questions contact:

MARK LYONS LYONS SHARE ENTERPRISE 10 FORREST RD WESTFORD, MA 01886 EMAIL: MLYONS@3HTI.COM

Eligibility

Open to active SkillsUSA students if they are enrolled in Computer Aided Design classes, design classes, manufacturing, etc.

Equipment and Materials

- 1. Supplied by the technical committee:
 - a. All additive manufacturing equipment and material
- 2. Supplied by the contestant:
 - a. Each team must register a single VALID email address by sending and email FROM THAT ADDRESS to Mark Lyons at mlyons@3HTi.com.
 - b. Contestants will then receive instructions on uploading their files.
 - c. Computer system (Laptop) with a computer design system capable of rendering files in STL format
 - d. USB Drive for transferring STL file
 - e. Any tools required to provide a finished part
 - f. 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.

Scope of the Contest

Skill Performance

This contest will be a team-oriented event. Teams will consist of two contestants for the same school in the same division. This contest includes two elements to evaluate teams for employment in additive manufacturing fields.

The first element, to prepare in advance of the competition, will be a design a functional prototype for a pneumatic cylinder that will be used for an invention determined by students.

Design considerations:

- Model should demonstrate realistic behavior and basic functionality (Does not need to be air tight)
- Model should fit within a volume of 1"x 1"x 5"
- Model should be printed in an assembly

Build time must be no greater than 5 hours and 30 minutes. Login information for software to virtually estimate print time will be made available to registered contestants. Moving parts that rotate freely must be part of the design. The design will show the benefits of additive manufacturing by incorporating complex geometric features.

Process considerations:

- 1. Self-supporting angles are 45 degrees.
- 2. More support means longer build time because the machine takes time to switch from model to support on each layer.
- 3. Air gap for freedom of movement in parts ≥ 0.023 ".
- 4. How the file is oriented to be built will affect the amount of support material being built and the overall time of the build.
- 5. The processing software has 3 different internal fill patterns that will affect material usage and time of build.
- 6. See http://www.stratasys.com/3d-printers/technologies/fdm-technology/faqs for additional information about the printers.

For the second element, completed onsite at the SkillsUSA competition, teams will receive a challenge to perform within a set timeframe involving a design change. Each team member will be required to participate in the design change to demonstrate design program competencies.

The printed design and design change in software will be presented to judge along with engineering notebook. Engineering notebook will demonstrate design history and intent of both original design and design change.

Contest Guidelines

- 1) In advance of the competition, the student team is asked to design a device that performs useful work and produces a product of value. Student designers are asked to go beyond "just parts" to utilize additive manufacturing (AM) for the creation of a machine. The result will be a functional mechanism or assembly with moving parts. The geometry of the design must be defined within a three-dimensional (3D), computer design system capable of rendering files in STL format. Contestants must be register an email for contest to gain upload only access for the file. File name must be the school name and if it is from high school or postsecondary. Example, "MinutemanHS" for Minuteman High School or "MinutemanC" for Minuteman College.
- 2) While onsite at the SkillsUSA competition, teams will have a set amount of time to perform finishing work on their printed designs.
- 3) While onsite at the SkillsUSA competition, the student will receive a challenge involving a design change to perform within a set timeframe. This will be judged immediately and be part of the final scoring to determine ultimate success in completing the two challenges. After the modification, the finalized part will be manufactured onsite utilizing the additive manufacturing process.
- 4) Each team will present to the judge(s) the following:
 - a) A finished, printed design
 - b) An STL file(s) of your design with onsite change
 - c) Engineering notebook
 - d) A one-page summary stating why your design is suited for additive manufacturing is to be turned in at the contest orientation.
 - i) Include the benefits your design would bring to the customer.
 - ii) Include contest number.
 - iii) Computer generated image of design.

Standards and Competencies

ADMFG 1.0 – Design, sketch and plan machine work to U.S. National CAD Standards

- 1.1 Create CAD file for manufacturing using standard CAD terminology and standard practice
- 1.2 Initiate manufacturing documentation process
- 1.3 Export a CAD file to .stl format
- 1.4 Process Engineering Change Orders

ADMFG 2.0 - Perform and inspect part(s) using a Total Quality Management process

- 2.1 Verify part(s) to provided standards
- 2.2 Verify part(s) to ECO standards
- 2.3 Document process of verification and inspection

ADMFG 3.0 – Demonstrate safety practices in a working situation to the related duty tasks of the National Institute for Metalworking Skills (NIMS) Duties and Standards

- 3.1 Carry out assigned responsibilities while adhering to safe practices in accordance with OSHA requirements and guidelines
- 3.2 Document safety activities as required

ADMFG 4.0 – Provide an accurate quotation given an automated manufacturing technology simulated scenario

4.1 Solve various solutions to the process that is involved in quoting a job in a rapid prototyping environment

ARCHITECTURAL DRAFTING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

National Skills - Architectural Drafting

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 necessary equipment. The contest tests the contestants' problem solving abilities, not simply their CAD skills.

State Skills – Architectural Drafting

Today's industry requires proficiency in both manual and electronic output of technical documents. It is therefore the scope and intent of the contest to test the student's proficiency in their electronic (CAD) skills, as well as their manual ability to produce a drawing (sketching).

NOTES:

- 1. EACH CONTESTANT WILL BE REQUIRED TO SUBMIT A ONE -PAGE, TYPEWRITTEN RESMUE HARD COPY ONLY.
- 2. EACH COPETITOR IS RESPONSIBLE FOR BRINGING THEIR OWN COMPUTER EQUIPMENT WITH THEIR SOFTWARE OF CHOICE INSTALLED AND RUNNING.
- 3. IF THE COMPUTER OF CHOICE IS A WORKSTATION, THIS EQUIPMENT MUST BE SET UP ON THURSDAY APRIL 28.
- 4. ALL COMPUTERS WILL HAVE ADOBE PDF PRINTER DRIVER INSTALLED.
- 5. DO NOT BRING YOUR OWN PRINTER. ALL FILES WILL BE PRINTED TO PDF FORMAT AND HARD COPIES WILL BE MADE FROM THESE FILES.

Tool Requirements: *One-page type-written resume required for every contestant

Computer and CAD software installed and running.

1 cubic foot of reference material

Graph paper

Architect's scale

Erasers

Hand held calculator

Pencils (mechanical)

Clothing Requirements:

Official SkillsUSA Dress (reference National Technical Standards or the Leadership Handbook) blazer (optional) or Businesslike attire.

Self Presentation Requirements:

You must supply a competed resume outlining your education, experience and skill set within 1 double-sided page. Resumes will be judged on effectiveness and clarity.

Failure to comply with the requirements will result in clothing or resume penalty.

NO cell phones or pagers allowed.

If you have any questions dealing with either the Technical or Architectural Drafting contest, please feel free to contact me. This is open to both Teachers and Contestants.

MARK LYONS LYONS SHARE ENTERPRISE 10 FORREST RD WESTFORD, MA 01886 EMAIL: MLYONS@3HTI.COM

TECHNICAL DRAFTING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Technical Drafting

This contest evaluates contestant's preparation for employment and recognizes outstanding students for excellence and professionalism in the field of technical drafting. The contest will focus on the solution of industry-developed problems by applying appropriate technical drafting skills and tools including computer-aided drafting (CAD).

State Skills - Technical Drafting

Today's industry requires proficiency in both manual and electronic output of technical documents. It is therefore the scope and intent of the contest to test the student's proficiency in their electronic (CAD) skills, as well as their manual ability to produce a drawing (sketching).

NOTES:

- 1. EACH CONTESTANT WILL BE REQUIRED TO SUBMIT A ONE -PAGE, TYPEWRITTEN RESMUE HARD COPY ONLY.
- 2. EACH COMPETITOR IS RESPONSIBLE FOR BRINGING THEIR OWN COMPUTER EQUIPMENT WITH THEIR SOFTWARE OF CHOICE INSTALLED AND RUNNING.
- 3. IF THE COMPUTER OF CHOICE IS A WORKSTATION, THIS EQUIPMENT MUST BE SET UP ON THURSDAY APRIL 28.
- 4. ALL COMPUTERS WILL HAVE ADOBE PDF PRINTER DRIVER INSTALLED.
- 5. DO NOT BRING YOUR OWN PRINTER. ALL FILES WILL BE PRINTED TO PDF FORMAT AND HARD COPIES WILL BE MADE FROM THESE FILES.

Tool Requirements: *One-page type-written resume required for every contestant

Computer and CAD software installed and running 1 cubic foot of reference material Graph paper Engineer's scale Erasers Hand held calculator Pencils (mechanical)

Clothing Requirements:

Official SkillsUSA Dress (reference National Technical Standards or the Leadership Handbook) blazer (optional) or Businesslike attire.

Self Presentation Requirements:

You must supply a competed resume outlining your education, experience and skill set within 1 double-sided page. Resumes will be judged on effectiveness and clarity.

Failure to comply with the requirements will result in clothing or resume penalty.

NO cell phones or pagers allowed.

If you have any questions dealing with either the Technical or Architectural Drafting contest, please feel free to contact me. This is open to both Teachers and Contestants.

MARK LYONS LYONS SHARE ENTERPRISE 10 FORREST RD WESTFORD, MA 01886 EMAIL: MLYONS@3HTI.COM

MEMORANDUM

TO: Competitors of the Architectural Drafting and Technical Drafting Contest

FROM: Mark Lyons, Series Director

DATE: March 31, 2016

Congratulations for making it through the District Contest!

IMPORTANT! Each competitor WILL be responsible for bringing their own computer equipment AND software. If you are bringing a workstation rather than a laptop, you must contact the series director and arrange to have it set up on THURSDAY April 28th during regular school hours.

Contestants may use any brand or type of personal computer from any source. Software must be pre-loaded and configured. Test the system carefully prior to competition. Make sure your computer is able to write to a USB storage device. **Be sure to test your computer to ensure it will print to a PDF**. Limited on-site technical assistance will be available on contest day.

NOTES:

- 1. EACH CONTESTANT WILL BE REQUIRED TO SUBMIT A ONE -PAGE, TYPEWRITTEN RESMUE HARD COPY ONLY.
- 2. EACH COMPETITOR IS RESPONSIBLE FOR BRINGING THEIR OWN COMPUTER EQUIPMENT WITH THEIR SOFTWARE OF CHOICE INSTALLED AND RUNNING.
- 3. IF THE COMPUTER OF CHOICE IS A WORKSTATION, THIS EQUIPMENT MUST BE SET UP ON THURSDAY APRIL 28.
- 4. ALL COMPUTERS MUST HAVE A PDF PRINTER DRIVER INSTALLED.
- 5. DO NOT BRING YOUR OWN PRINTER. ALL FILES WILL BE PRINTED TO PDF FORMAT AND HARD COPIES WILL BE MADE FROM THESE FILES.

If you have any questions regarding the Architectural or Technical Drafting contest, please feel free to contact me. This is open to both Teachers and Contestants.

MARK LYONS LYONS SHARE ENTERPRISE 10 FORREST RD WESTFORD, MA 01886 EMAIL: MLYONS@3HTI.COM

3D VISUALIZATION AND ANIMATION CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

Contestants are tested on their production skills as well as their technical understanding of 3D Visualization and Animation. Testing of production skills and quality is administered through a practical examination wherein the contestants will, from scratch: design, build, animate, texture, and render an object to be presented at the time of competition. Testing of technical acumen will be administered through a multiple-choice test.

Judging of the practical examination is based on the following criteria:

- 1. Planning, Storyboards, Methodology and Execution
- 2. Animation quality and Believable Motion
- 3. Rendering, Textures and Lighting
- 4. Design and modeling
- 5. Final Presentation

Contestants are required to plan an action sequence that must be storyboarded. Once the action sequence is defined contestants are required to then animate the pre-defined object to that storyboard sequence. The action sequence must consist of two parts: 1) a slow and visually fluid movement and 2) a fast and powerful movement.

Software, Hardware and Tool Requirements:

ATTENTION! ATTENTION! ATTENTION! ATTENTION!

This year, our contest will not have a sponsor for workstations! All team MUST have their own workstations!!

Software Requirements:

- 1. 3D Software: Here are examples of acceptable 3D Animation programs.
 - a. Maya, 3DS Max, LightWave, XSI, Houdini, Cinema 4D
 - b. Contestants are permitted to use more than one of the above to complete tasks.
- 2. 2D Image Editing Software: Photoshop or Equivalent
- 3. Examples of acceptable image sequence compositing programs are Adobe After Effects, Adobe Premiere, or equivalent.

Hardware Requirements:

- Contestants may use any brand or type of personal computer from any source.
 Software must be pre-loaded and configured. The computer hardware must meet or exceed the minimum recommended system requirements from the manufacturer of the software of choice. We strongly recommend that the minimum requirements are exceeded.
- 2. User may use the following components with their systems: Wacom tablet, double monitors and Cintiq Pens.
- 3. Each contestant is allowed only one power outlet from the wall. Be prepared to bring a power strip.
- 4. Your computer must be able to write to a USB storage device.
- 5. Test the system carefully prior to competition. Make sure you can save to a USB storage device. Limited on-site technical assistance will be available on contest day.

Tool Requirements: *One-page type-written resume required for every contestant

- 1. Pencils and erasers
- 2. Storyboard paper with NTSC CCIR 601 storyboard frames.
- 3. Contestants may bring published reference books and software manuals. Reference materials may not take up more than 1/2 cubic foot of space per team member (total of 1 cubic foot).

Clothing Requirements:

Official SkillsUSA Dress (reference National Technical Standards or the Leadership Handbook) blazer (optional) or Businesslike attire.

Self Presentation Requirements:

You must supply a competed resume outlining your education, experience and skill set within 1 double-sided page. Resumes will be judged on effectiveness and clarity.

Failure to comply with the requirements will result in clothing or resume penalty.

NO cell phones or pagers allowed.

MEMORANDUM

TO: Competitors of the 3D Visualization and Animation Contest

FROM: Mark Lyons, Series Director

DATE: March 31, 2016

Congratulations for making it through the District Contest!

ATTENTION! ATTENTION! ATTENTION! ATTENTION!

This year, our contest will not have a sponsor for workstations! All team MUST have their own workstations!!

We strongly recommend that the minimum requirements are exceeded. $% \label{eq:comment} % \l$

NOTES:

- 1. EACH CONTESTANT WILL BE REQUIRED TO SUBMIT A ONE -PAGE, TYPEWRITTEN RESMUE HARD COPY ONLY.
- 2. EACH COMPETITOR BRING THEIR OWN COMPUTERS
- 3. IF THE COMPUTER OF CHOICE IS A WORKSTATION, THIS EQUIPMENT MUST BE SET UP ON THURSDAY APRIL 28.
- 4. THE COMPETITION COMMITTEE WILL PROVIDE A CLEAN USB STORAGE DEVICE, TO BE USED ONLY WHEN SUBMITTING FINAL WORK.

If you have any questions regarding the 3D Visualization and Animation contest, please feel free to contact me. This is open to both Teachers and Contestants.

MARK LYONS LYONS SHARE ENTERPRISE 10 FORREST RD WESTFORD, MA 01886 EMAIL: MLYONS@3HTI.COM

COMMERCIAL DESIGN C

EVENTS:

GRAPHIC COMMUNICATIONS (contest will be at JP Keefe Tech)
PAINTING & DESIGN TECHNOLOGY (demonstration contest by invitation
only-contest will be held at JP Keefe Tech)
SCREEN PRINT TECHNOLOGY (contest will be at JP Keefe Tech)

SERIES DIRECTOR:
RICK ALLAIN

CONTACT INFORMATION:

JP Keefe Technical High School 750 Winter Street Framingham, MA 01702 rallain@jpkeefehs.org



GRAPHIC COMMUNICATIONS CONTEST

Requirements and Scope of Contest

Scope of Contest:

National Skills - Graphics Communication

The contest consists of four parts. The contestant is judged on the following: estimating; bindery operations; offset duplication; and final art using a desktop computer and software system.

State Skills - Graphic Communication

Contestants will demonstrate their ability to perform selected tasks from the following list of competencies. The Technical Committee may select any or all tasks from the following list.

- 1. Handle orders (billing, estimation, work orders, etc.)
- 2. Produce composition (specify, set, and proof copy)
- 3. Layout and composition (rough layouts, finished copy and type specs)
- 4. Operate a Duplicator and complete the required work
- 5. Calculate/Perform cutting and bindery operations

Tool Requirements: *One-page type-written resume required for every contestant

Pencil with eraser Blue pen

Ruler/line Gauge

Calculators may be used but not a requirement.

Clothing Requirements:

Suitable work pants (NO ripped or torn jeans)
Safety shoes (No sneakers)
Safety glasses

SkillsUSA Massachusetts T-shirt NO cell phones or pagers allowed

Failure to comply with the requirements will result in a safety violation and the contestant may be removed from the contest or a clothing penalty.

Safety:

NO loose/long hair
NO loose clothing
NO jewelry
(ie., dangling earrings, necklaces, rings,
watches

Operating Equipment:

A.B. Dick 9985
Ryobi 3302
Heidelberg Printmaster 46-2
Challenge 305 Paper Cutter
Baumfolder 714
Baumfolder 2020

Apple IMac OSX Adobe Suite CS 5.5

Adobe Software: includes InDesign, Photoshop, and Illustrator.

PHOTOGRAPHY CONTEST

Part 1: Print Competition

Students are required **TO BRING WITH THEM** and submit **2 prints** that will be scored by a panel of professional judges. Particular attention will be given to:

- e. the technical & artistic aspects of the image
- f. the overall impact
- g. minimum 11x14 or 154 sq in. image area mounted to 16 x 20
- h. black or white matting

NOTE: This is a Photography competition and not Graphic Design. Any image presented that goes far beyond the capabilities of traditional film photography in terms of manipulation will loose points. In short, if you can produce the image using film, negative retouching & print spotting, then the image is acceptable. Over use of multiple images, text, liquify tool, etc... is not encouraged.

Part 2: Field Assignment

(NOTE: Students supply Digital SLR & accessories)

Students will go on assignment and capture images that relate to a "theme". Students must demonstrate their ability to stay within the parameters with respect to:

- e. Location
- f. Theme
- g. Time limit
- h. Technical and artistic proficiency

(Field Assignment Time to completion: 1 hour)

Part 3: Portrait Studio (studio equipment supplied by SkillsUSA)

Students will be tested on their knowledge of the portrait studio including:

- a. lighting patterns (standard)
- b. lighting ratios
- c. understanding of hand-held light meters
- d. camera settings
- e. cropping

Part 4: Digital Editing

Students will be required to complete a digital image manipulation project using their school or personal computer and available version of Adobe Photoshop.

Part 5: Trouble Shooting Digital Images

Students must correctly identify common problems in the processing/printing of digital images (i.e. blooming, jpeg artifacts, noise, color fringing, etc...)

OVERALL POINT STRUCTURE

TOTAL:	1000 points
Part 5: Troubleshooting	(200 points)
Part 4: Digital Editing	(200 points)
Part 3: Portrait Studio	(200 points)
Part 2: Field Assignment	(200 points)
Part 1: Print Competition	(200 points)

CONTESTANTS REQUIRED ITEMS

- 1. One-page type-written resumé required for every contestant
- 2. Two prints for contest submission
- 3. Digital SLR,
- 4. Memory Cards (1GB min)
- 5. extra camera batteries (charged)
- 6. On-camera Flash & light meters (helpful but not mandatory)
- 7. Camera's USB cable or Memory card adapter for downloading images to computer.
- 8. Computer loaded with school's available version of Adobe Photoshop
- 9. Jump Drive

CLOTHING REQURIEMENTS

Official SkillsUSA Dress (reference the National Technical Standards 2013-2014 or the SkillsUSA Leadership Handbook)

Blazer (optional) or Businesslike attire.

Failure to comply with the requirements will result in clothing or resumé penalty. NO cell phones or pagers allowed.



SCREEN PRINT TECHNOLOGY CONTEST

Part 1: Screen Inspection

Students are required to examine three screens for defects to determine if each screen is suitable for use:

- screen frame is free of damage
- screen is free of cuts, splits or punctures
- stencil is free of holes that could leak ink
- screen mesh is not clogged in the image area

Part 2: Screen Coating

Students are required to coat a screen with emulsion

- select and prepare emulsion
- coat screen with emulsion
- evaluate screen for acceptable tolerances
- place coated screen in a screen dryer



Students are required to expose a screen and properly process the Image to prepare for printing, which includes:

- inspect the black film positive (provided) for dirt and marks
- select a screen coated with emulsion from screen dryer
- inspect and protect screen from excess light
- center the black film positive within screen frame
- secure the black film positive to the screen
- place screen and black film positive on an exposure unit
- expose screen
- remove black film positive
- washout the unexposed emulsion on a screen to create an image stencil
- remove excess water and dry screen

Part 4: Screen Blockout

Students are required to demonstrate proper blockout techniques

- apply blockout fillers and tape to cover the appropriate non-image areas
- inspect all non-image areas for complete blockout application

Part 5: Image Registration

Students are required to properly register three screens (provided)

- place screens on the press and course register the image
- apply adhesive to shirt boards for proper adhesion
- check rag for proper adhesion
- inspect contact side of screens for excess ink, test screen off contact
- print test image on rag to check for proper registration
- adjust registration as needed to align for proper registration
- print proof image on two rags and dry each one



Part 6: Screen Reclaiming

Students are required to properly reclaim a screen

- remove excess ink from the screen
- remove blockout filler and tape from the screen
- apply emulsion remover
- use scrub brush where needed

Part 7: Image Printing

Students are required to properly produce two printed shirts

- apply adhesive to shirt boards for proper adhesion
- check rag for proper adhesion
- inspect contact side of screens for excess ink, test screen off contact
- check ink supply on each screen
- check registration of all screens
- print image on shirts and properly dry each one with the dryer

OVERALL POINT STRUCTURE

Parts 1-6: Hands-On Demonstrations...... (600 points)
Part 7: Image Printing....... (400 points)
TOTAL: 1000 points

Not all Parts 1-6 will be offered and points will be adjusted accordingly to total 1000 points.

CONTESTANTS REQUIRED ITEMS

- 1. One-page type-written resumé required for every contestant
- 2. Safety Glasses with side guards, for screen reclaiming
- 3. Ear protection and latex gloves, for screen reclaiming
- 4. Ruler, 3 rags and permanent marker
- 5. Optional: Smock or apron, optical devices

CLOTHING REQURIEMENTS

Official SkillsUSA State T-shirt and workpants (not jeans) with footwear appropriate for the industry (not sneakers).

Failure to comply with the requirements will result in clothing or resumé penalty.

NO cell phones or pagers allowed.

NO cell phones or pagers allowed.

Painting and Design **Technology**

PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of painting and design technology. First, refer to General Regulations, Page 9.

CLOTHING REQUIREMENT

Official SkillsUSA work shirt and

Painter's pants; black, brown or tan leather work shoes; and 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. 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.

ELIGIBILITY

Open to active SkillsUSA members enrolled in programs with painting and design technology as the occupational objective.

EQUIPMENT AND MATERIALS

1. Supplied by the technical committee: Basic equipment of a painting and design laboratory

4' X 8" sheets of drywall 2" X 4" drywall frames

Wood trim

Wood baseboard Wallcovering **Drywall screws** Joint compound Spackle (compound)

Fine-grit sandpaper (100 - 120-grit silicon

Painter's putty Paintable caulking Roller covers with appropriate naps

Paper drywall tape

Primer Ladders Wall size Sponge

5 Gallon Buckets

Paste

Paste Brush or roller

Sponge & bucket of clean water

Straight edge Wall paint Trim paint

Broom and dustpan

2. Supplied by the student Safety glasses or goggles Respirator or face mask

Ear protectors Can opener

Hand sanding block

Screwdriver

Putty knife (carbide)

Drop cloths **Buckets** Rags

Hawk or mud pan 4" - 6" broad knife

10" joint knife or trowel

Caulking gun Extension pole Sanding pad

Brushes, 2-inch, and 1 ó-inch (optional) Angled sash brushes, 1 ó-inch, and 2-inch

(optional)

Roller pan

7" Roller handle

Razor knife with snap off blade

Level

Smoothing brush or plastic smoother

Tape Measure

4" - 6" Putty knife and or straight edge

A pencil

m. Hard copy of résumé.

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.

Note: Your contest may also require a hard copy of your résumé as part of the actual contest. Check the Contest Guidelines and/or the updates page on the SkillsUSA website:

www.skillsusa.org/compete/updates.shtml

SCOPE OF THE CONTEST

The contest will include a written knowledge test that assesses knowledge of painting and design including, but not limited to, drywall finishing, surface preparation, interior paint finishing, wallcovering, interior design, and sign design.

Skill Performance

The contest will assess accuracy, workmanship, And the proper use of tools and equipment.

Contestants may be required to , baseboard moldings

and window trim.

Contest Guidelines

- 1. The contest will assess the ability to perform jobs or skills selected from the following list of competencies as determined by the SkillsUSA Championships technical committee.
- 2. Contestants will be rated on personal appearance, the degree of work skills and speed used in the performance of the assigned task.

Competencies

P&D 1.0 — Demonstrate personal, shop and job site safety practices and procedures.

- 1.1 Demonstrate safe dress and use of relevant safety gear and personal protective equipment (PPE), including (where appropriate) wrist rests, adjustable workspaces and equipment, gloves, boots, earplugs, eye protection, and breathing apparatus.
- 1.2 Use appropriate safe body mechanics, including proper lifting techniques and ergonomics.
- 1.3 Demonstrate the safe use, storage, and maintenance of every piece of equipment in the lab, shop, and classroom.
- 1.4 Demonstrate proper workspace cleaning procedures.
- 1.5 Employ ladder safety practices and procedures.

- P&D 2.0 Pepare surfaces to receive finishes, and apply coatings and finishes to various surfaces.
- 2.1 Identify preparation tools & materials.
- 2.2 Identify surface substrates in construction.
- 2.3 Evaluate surface conditions of substrates.
- 2.4 Recognize and correct various coating failures.
- 2.5 Demonstrate proper use of tools and materials for protecting surfaces.
- 2.6 Demonstrate general preparations for various substrates.
- 2.7 Apply caulking, fillers, and patching materials to substrates.
- 2.8 Demonstrate finish application methods using brushes and rollers.
- 2.9 Demonstrate proper clean-up of adjacent surfaces.
- 2.10 Paint various architectural surfaces.
- 2.11 Demonstrate methods of clean-up and disposal of paints.
- P&D 3.0 Apply drywall Finish to a level 4 standard.
- 3.1 Explain concepts fundamental to drywall finishing.
- 3.2 Identify and describe drywall finishing tools.
- 3.3 Identify and describe materials used in drywall finishing.
- 3.4 Demonstrate practices related to drywall finishing.
- 3.5 Repair and patch damaged drywall. Finish drywall using finishing tools.
- P&D 4.0 Use an understanding of interior design to create a presentation board
- 4.1 Draw an interior space to mathematically accurate scale (mechanically drawn or using computer aided design software) using correct architecture symbols and drafting skills.
- 4.2 Demonstrate space planning skills required to design a residential or commercial space using computer-aided interior design software.
- 4.3 Create a presentation board containing a floor plan, color schemes, textiles, and furniture samples.
- P&D 5.0 Prepare and apply Wallcoverings to wall surface.
- 5.1 Set up a work area with wallcoverings and the tools used to install them.
- 5.2 Apply wallcoverings using proper

techniques.

P&D 6.0 — Create a sign layout, computer cut vinyl graphics and apply them to a sign surface.

- 6.1 Demonstrate computer based layout & design.
- 6.2 Create a sign layout using appropriate fonts and colors selection.
- 6.3 Apply vinyl lettering to various substrates Committee Identified Academic Skills The technical committee has identified that the following academic skills are embedded in this contest.

Math Skills

- Use fractions to solve practical problems
- Use proportions and ratios to solve practical problems
- Find surface area and perimeter of two dimensional objects
- Apply transformations (rotate or turn, reflect or flip, translate or slide, and dilate or scale) to geometric figures
- Construct two-dimensional layout
- Make comparisons, predictions and inferences about special design.
- Solve practical problems involving complementary, supplementary and congruent angles
- Solve problems involving symmetry and transformation

Science Skills

- Use knowledge of electromagnetic color spectrum and color wheel to develop harmonious color schemes.
- Demonstrate an understanding of chemical curing rates to sequence tasks.
- Use knowledge of computers, plotters and peripheral hardware.

Language Arts Skills

- Provide information in conversations and in group discussions
- Provide information in oral presentations
- Demonstrate use of such nonverbal communication skills as eye contact, posture and gestures using interviewing techniques to gain information
- Demonstrate comprehension of a variety of informational texts
- Use text structures to aid comprehension

- Identify words and phrases that signal an author's organizational pattern to aid comprehension
- Understand source, viewpoint, and purpose of texts

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

Math Standards

- Numbers and operations
- Geometry
- Measurement
- Data analysis and probability
- Problem Solving
- Communication
- Connections
- Representation

Source: NCTM Principles and Standards for School

Mathematics. To view high school standards, visit:

standards.nctm.org/document/chapter7/index.ht m.

Select "Standards" from menu.

Science Standards

- Understands the sources and properties of Energy.
- Describe the characteristics of electromagnetic radiation and give examples of its impact on life and Earth's systems.

Source: McREL compendium of national science standards. To

view and search the compendium, visit: www.mcrel.org/standards-benchmarks.

- 220 Sponsored by Goodheart-Willcox Publisher Language Arts Standards
- 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 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 Source: IRA/NCTE Standards for the English Language Arts.

Freshman Events

EVENTS:

CAREER CHOICE COMMENTARY EXPLORATORY PROJECT DEMONSTRATION STICKER DESIGN (Demonstration contest-by invitation only)

SERIES DIRECTOR: CAROL HARTNETT

BLUE HILLS REGIONAL TECHNICAL SCHOOL

800 RANDOLPH STREET CANTON, MASS. 02021-1398 PHONE 781-828-5800

EMAIL: chartnett@bluehills.org



CAREER CHOICE COMMENTARY CONTEST Freshman Only

Purpose:

To evaluate each contestant's ability to prepare and present clearly and effectively a series of thoughts relating to his or her Freshman Exploratory experience.

Clothing Requirement: Official SkillsUSA Dress

Eligibility:

This contest is open to active SkillsUSA members currently enrolled in the Freshman Exploratory.

Observer Rule:

Observers will be allowed to hear the speeches in the presentation room provided space is available. No talking or gesturing will be permitted. No observers will be allowed in the assembly area. No member of the audience will be permitted to enter or leave the demonstration room while a contestant is speaking. Members of the audience will not be allowed to use cameras, video recorders or tape recorders.

Equipment and Materials:

Supplied by the technical committee:

- a. Stopwatch
- b. Time Cards

Supplied by the contestant:

- a. Note cards (if desired by the contestant)
- b. All competitors must create a one-page resume, typed and bring the resume with them to the contest.

Arrangement of Rooms:

The commentary presentation room will be furnished with a podium, two tables, each with chairs for judges, timekeeper and room monitor.

SCOPE OF CONTEST:

Knowledge Performance:

There is no written exam for this contest.

Skill Performance:

This contest assesses basic public speaking skills through the delivery of a **three to five minute commentary**.

Contest Guidelines:

- 1. The topic for the Career Choice Commentary is based on the Freshman Exploratory experience. Within this topic, contestants might illustrate or discuss any of the following:
 - How the Exploratory program helped the contestant to evaluate and choose a trade area to pursue.
 - How the Exploratory program taught the contestant to value different talents/skills and to appreciate the talents they have as well as the talents of others.
 - How the Exploratory program experience promotes decision-making and problem solving by teaching students to process all perspectives in a respectful and productive manner.
 - How the Exploratory program helped to broaden the awareness of the contestant to foster an open-minded approach to learning.
 - How the contestant made the decision to pursue the particular trade they have chosen and how that decision aligns with their life goals.
- 2. The commentary will be three to five minutes in length. **Penalty**: five points will be deducted for each thirty seconds or fraction thereof under three minutes or for each thirty seconds or fraction thereof over five minutes.
- 3. Time will be started when the commentary begins. The timer will signal the speaker at three minutes, four minutes and four minutes thirty seconds.
- 4. Visual aids & props are not permitted.
- 5. Note cards are permitted.
- 6. The contestant will not mention his or her name, school or city.
- 7. Contestants must submit one typewritten copy of the commentary to the technical committee at the briefing meeting on Thursday evening. It should include school name, contestant's name, and commentary title.

Judging Guidelines:

- 1. The following criteria will be used to judge the commentary:
- a. Opening has a strong, clear opening
- b. Voice voice is well modulated and controlled and carries the rhythm of the speech
- c. Platform deportment speaker is poised and demonstrates good control of movement
- d. Organization commentary is well organized and the organization can be easily followed
- e. Mechanics proper grammar is used and diction is clear
- f. Closing closing provides a clear and solid conclusion and summary of the thoughts
- g. Effectiveness assigned topic is covered, is clear and achieved
- h. Timing commentary falls with the three to five minute contest requirement
- i. Clothing clothing meets the contest requirements.

EXPLORATORY PROJECT DEMONSTRATION CONTEST Freshman Only

Purpose:

To evaluate each contestant's ability to demonstrate and explain the steps involved in creating the contestant's favorite project from the freshman Exploratory experience. *The actual finished project from Exploratory must also be presented*.

Clothing Requirement:

Contestants may wear SkillsUSA Official Dress or official attire for the occupational area of the demonstration.

Eligibility:

This contest is open to active SkillsUSA members currently enrolled in the Freshman Exploratory. Exploratory may be completed before participating in the competition but contestant must still be in their Freshman year of their CTE experience.

Equipment and Materials:

Supplied by the technical committee:

- a. Timekeeper
- b. Performance space

Supplied by the contestant:

- a. All materials and equipment needed for the demonstration to be completed two times, once for the preliminaries and again for the finals if required.
- b. All competitors must create a one-page resume, typed and bring the resume with them to the contest.

SCOPE OF CONTEST:

Knowledge Performance: There is no written exam for this contest.

Skill Performance:

The contest requires the demonstration of the steps involved in creating their project sample. The contestant must bring the finished project with them, but may bring additional components to demonstrate the creation of the finished project. The demonstration shall be accompanied by a clear explanation of the project and why this particular project was chosen.

Contest Guidelines:

- 1. An actual technical skill must be performed as opposed to an illustrated talk.
- 2. Note cards and other reference materials are permitted.
- 3. Any Freshman exploratory project may be demonstrated.
- 4. The demonstration shall be at least three minutes in length but shall not exceed five minutes.

Penalty: Five points will be deducted for each 30 seconds under three minutes or fraction thereof over five minutes.

Contest Guidelines:

- 5. Time will be started when the demonstration begins. The timekeeper will signal the speaker at three minutes, four minutes, and four minutes thirty seconds.
- 6. Contestants will be allowed **5 minutes to set up** the demonstration and **five minutes to clear** the demonstration room. Five points will be deducted for each thirty seconds or fraction thereof over the five-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 electrical outlet.
- 8. Any visual or auditory aids (signs, charts, transparencies, slides, diagrams, CD's) are to be prepared by contestants. Professionally prepared visuals and audio 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 or city.
- 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 to serve 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 ten points. Judges may interrupt the demonstration for serious violations.

STICKER DESIGN (FRESHMAN ONLY) BY INVITATION ONLY

PURPOSE

To evaluate a contestant's creative, technical and oral presentation skills and to recognize outstanding students for excellence and professionalism.

CLOTHING REQUIREMENT

For men: Official blazer, jacket or sweater; black dress slacks; white dress shirt; plain black tie with no pattern or SkillsUSA black tie; black socks and black shoes.

For women: Official blazer, jacket or sweater; black dress slacks or knee-length skirt with businesslike white, collarless blouse or white blouse with small, plain collar that may not extend onto the lapels of the blazer; black sheer or skin-tone seamless hose and black dress shoes.

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 800-401-1560 or 703-956-3723.

ELIGIBILITY

Open to active SkillsUSA members enrolled freshman exploratory programs.

EQUIPMENT AND MATERIALS

- 1. Supplied by the technical committee:
- a. Timekeeper and judges
- b. All necessary information for the judges and technical committee
- c. Projector and screen
- d. 8.5"x11" document/photo frame
- 2. Supplied by the contestant:
- a. Rendering of sticker design
- b. All competitors must create a one-page résumé and submit it at the contest site.
- c. Means of presentation: Computer, tablet, notebook, poster or other media of your choice if desired to make your

presentation to the judges. Contestant must supply his or her own adaptor connection for the projector. Digital presentation is not required.

SCOPE OF THE CONTEST

The contest consists of two parts:

- 1. Evaluation of the sticker design
- 2. Oral presentation and questions and answers session. All contestants will be asked the same questions, which judges will determine 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.

Contest Guidelines

- 1. All entries must be rendered in color (full color or two color).
- 2. Entries can be created in a design software package such as Illustrator, Photoshop or other comparable software. Entries may also be hand-drawn, painted or rendered in colored pencils or markers.
- 3. All entries should be submitted with two versions of the art on a single 8.5"x11" page.

The sticker design will be restricted to 2" (2 1/2" for oval) preformatted lables: Avery Lables - Product #80510 or similar, which gives contestants 3 options of sticker shape: Square, round, and oval. All sticker designs must be presented as one of the above 3 shapes and all stickers cannot exceed 2" maximum (2 1/2" at its largest dimention for oval)

Deductions will be taken for every 1/8" over or under 7" and every 1/16" over or under 2" (2 1/2" at its largest dimention for oval) on your artwork designs. Both designs should be identical. Wording on the sticker must reference the name of the school. Your contest number for the state conference must be placed on the back of your submitted artwork.

- 4. The SkillsUSA emblem or SkillsUSA logo should appear on the sticker.
- 5. All copyright laws must be followed in the creation of the design.
- 6. Contestants will deliver a three- to fiveminute presentation regarding their design.

Talking points should include:

a. How he or she came up with the design of the sticker

- b. The process in which he or she designed the sticker
- c. Why he or she feels it represents their school
- d. What are its unique qualities
- e. Why other students/advisors would want to have it
- 7. After your presentation, the judges will ask questions related to Sticker Design, and SkillsUSA at your school.
- 8. A space will be provided for you to make a poster (not used for judging) to promote your sticker design/school to the public, for viewing at the state conference. Your board should be a single poster board.

HEALTH OCCUPATIONS A

EVENTS:

MEDICAL ASSISTANT
NURSE ASSISTANT
PRACTICAL NURSING

SERIES DIRECTOR: TARA LANE

CONTACT INFORMATION:

Tri-County RTHS
147 Pond Street

Franklin, MA

PHONE: 781-864-6537 EMAIL: lane@tri-county.tc



Health Knowledge Bowl MEMORANDUM

TO: Health Occupations Knowledge Bowl Contest School Advisor FROM: Health Occupations Knowledge Bowl Contest Event Manager

DATE: March 15, 2016

This is a memo to all schools that will have a team competing in the Health Occupations Knowledge Bowl Contest at the State SkillsUSA Conference. Following are some clarifications to the **technical standards (2015-2016), which EVERY school's SkillsUSA advisor received.** Remember that this is a multidisciplinary health knowledge contest; so do not exclusively focus on your vocational shop.

- 1. Scope of the Contest: The state contest will reflect the standards adopted by the National Technical Committee. Please go the SKILLS USA web site and print up the contest description for HEALTH KNOWLEDGE BOWL. Scope of Contest information reads: "Core standards from the National Health Care Core Skill Standard Project make up the categories from which Questions are developed for the Health Knowledge Bowl contest."
- 2. Standards and Competencies: The categories from which questions will be developed have been clarified in the technical standards for 2015-2016. Please read. The content of the contest is under Standards and Competencies. Included in the BOWL 3.0 Standard is the Current Event topic. There will be four Current Event questions (2 per Half). Questions will be chosen from the <u>HEALTH SECTION</u> of the USA TODAY newspaper, dated from December 1, 2015 to April 15, 2016.
- 3. RESOURCE TEXT BOOKS: The only references used for determining the questions is: USA TODAY (NEWSPAPER); DIVERSIFIED HEALTH OCCUPATIONS; HEALTH CAREERS TODAY; AND HEALTH CARE SCIENCE TECHNOLOGY; CAREER FOUNDATIONS (CURRENT EDITION TEXTBOOKS).

For the State Contest, the postsecondary teams' questions will be the same questions as the secondary teams' questions. Although both secondary and post-secondary teams are completing simultaneously at the state level, please remember that there is one national slot for each education level.

- 4. Each contestant will be required to submit a one-page, typewritten résumé and submit it to the state technical committee. The résumé will be collected Friday at the competition site. There will be a point deduction of 5 points for each team member that does not submit a résumé. This point deduction will be taken off the total final score. Each Team: is responsible to arrive with the required supplies: Thick Black markers, pencils, 75 sheets of white paper, and 30 sheets of colored paper for scrap. Any team that does not have the required supplies will not be allowed to participate in the contest.
- **5. CAREFULLY REVIEW THE "SCORING" SECTION OF THE NEW TECHNICAL STANDARDS (see below).** Please be aware of the game rule that requires each team to identify a "captain". The captain will be the team member who stands with the teams answer.

SCORING

- a. Each team will begin each quarter with 0 points.
- b. A team may choose to answer the question or not answer the question.
- c. If the team does not answer the question (signified by remaining seated) it will neither gain nor lose points.
- d. If a team chooses to answer and is correct, it will be awarded 1 point. If a team chooses to answer and is incorrect, 1 point will be deducted.
- e. The judges will make the scores visible to all teams before the start of each quarter.
- f. Contestants may use calculators to assist with medical math questions.
- g. Score discrepancies must be addressed by the team captain prior to the next question.
- h. A written test will be administered during the contestant. This test will be completed as a team. The score from the written test will not be announced but will be added to the final total score.
- i. The winning team is that team which has accumulated the highest total points (total score plus written test score, less clothing penalties).
- j. In the event of a tie, the tie will be broken as follows:
 - 1. First tiebreaker: The team with the highest written test score.
 - 2. Second tiebreaker: The compiled score of team members on the Professional Development Program (PDP) test.
- **7. Clothing Requirements:** For the State Contest, contestants need to be in a SkillsUSA Blazer, Windbreaker or sweater with accompanying official dress. Last year points were lost for inappropriate shirts and blouses, and for females not wearing appropriate stockings and shoes. Male contestants are required to wear a white dress shirt and tie, per national guidelines. Points will be deducted for attire that does not comply with the national standard. Each team member will be evaluated on the day of the contest. Please remember that for the National Contest contestants will need to wear the Official red blazer or windbreaker with accompanying official dress.
- **8. Judges:** We will follow the national contest standard, 3 to 4 impartial judges will be utilized.
- **9.** For new advisors there are sample questions on the national 2015 SKILLSUSA Championships "Contest Projects" CD-ROM...which was given to EVERY school's advisor.
- **10. Observer rules** will be enforced according to national standards. No observers will be allowed to talk or gesture to the contestants. In accordance with the National standards no recording devices will be permitted to be used during the contest unless approved by the State management team. There will be no recording of questions or topics allowed during the contest, this includes note taking by anyone present. Cell phone and other electronic communication equipment use are prohibited within the ballroom where the contest will be held.

PRACTICAL NURSING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Practical Nursing

Students competing in the Practical Nursing contest are required to demonstrate knowledge and skill in performing patient care procedures representative of the general areas of competence required in a practical nursing program, including CPR. These include the ability to use and identify equipment; manipulate medical materials in the taking of vital

signs, patient assessment, infection control, sterile technique, medication administration, proper delegation and appropriate scope and practice.

State Skills -Practical Nursing

Contestants should be familiar with all the Standards and Competencies as mentioned in National Technical Standards 2015-2016 as follows:

PN 1.0 — Provide coordinated care to meet clients' individualized needs

PN 3.0 — Implement procedures that provide quality assurance

PN 4.0 — Provide goal-oriented patient care through the development of nursing care plans, communication within the healthcare team and individualized patient care

PN 5.0 — Create a safe environment for patients and coworkers to ensure safety to meet individualized client needs

PN 6.0 — Prepare a client for medical treatments and procedures including diagnostic tests, surgery and delivery

PN 9.0 — Observe and communicate changes in a client's medical status

PN 10.0 — Evaluate a patient's health state and provide emergency medical care to a patient when needed

PN 14.0 — Anticipate client's needs for pain management and educate client on pain coping methods

PN 15.0 — Provide patients with basic care such as monitoring patient health and ensuring patient comfort

PN 17.0 — Educate clients on adaptation and coping skills needed to deal with emotional and physical illness

Equipment/Tool Requirements:

Small notebook Watch with second hand

2 pens - black ink only Bandage scissors

Safety glasses No facial piercing allowed

Current/Factual Resume (see the SkillsUSA Professional Development Program – Level 3.1 for assistance)

*STUDENTS SHOULD BE TRAINED IN BOTH CPR AND FIRST AID.

FOR THE NATIONAL CONTEST YOU WILL HAVE TO BRING CURRENT CPR CARD FROM EITHER THE AMERICAN HEART ASSOCIATION OR AMERICAN RED CROSS AND A CURRENT FIRST AID CERTIFICATION CARD FROM EITHER THE AMERICAN RED CROSS OR NATIONAL SAFETY COUNCIL

Clothing Requirements:

White SCRUBS

(no other uniform will be allowed and no colored scrubs must be white)

Hair neatly arranged off the collar

NO nail polish-nails short and clean

NO heavy make-up

White color stockings

NO gum chewing

Clean all-white leather shoes (NO canvas), completely closed, (NO open toe or open heel).

Athletic style shoes that meet these criteria are acceptable.

NO jewelry except small stud earrings-one per ear *(optional)* and/or a plain wedding band

No cell phones or pagers allowed

MEDICAL ASSISTANT CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Medical Assisting

Professional medical assisting technicians judge contestants on the basis of general office skills, communication skills, identification of anatomy and instruments, and on a variety of clinical procedures and techniques. The contestants are asked to assess a situation in a short period of time and perform a skill required for that situation. They are judged on speed, the use of correct safety measures, and their ability to interact personally with a patient.

State Skills - Medical Assisting

Contestants should be familiar with all the Standards and Competencies as mentioned in National Technical Standards 2015-2016 as follows:

MA 1.0 — Perform general office procedures to accreditation and certification standards recognized by the American Medical Association

MA 4.0 — Perform general laboratory procedures to accreditation and certification standards recognized by the American Medical Association

MA 5.0 — Perform hematology procedures to accreditation and certification standards recognized by the American Medical Association

MA 6.0 — Perform electrocardiogram (EKG) procedures to accreditation and certification standards recognized by the American Medical Association

MA 8.0 — Perform clinical office procedures to accreditation and certification standards recognized by the American Medical Association Health Occupations: Core Knowledge and Skills reference 1. Academic Foundations 3. Safety Core. 4. Infection Control and Asepsis

Equipment/Tool Requirements:

2 pens-- black ink only Safety glasses/shields Watch with second hand

Current/Factual Resume (see the SkillsUSA Professional Development Program – Level 3.1 for assistance)

Clothing Requirements:

White SCRUBS & White color stockings/socks

(no other uniform will be allowed and no colored scrubs must be white)

Hair neatly arranged off the collar

NO nail polish-nails short and clean

NO heavy make-up

NO gum chewing

Clean all-white leather shoes (**NO canvas**), completely enclosed, (**NO open toe or open heel**), Athletic style shoes that meet these criteria are acceptable.

NO jewelry except small stud earrings--one per ear (optional) and/or a plain wedding band

NO facial piercing - No cell phones or pagers allowed

STUDENTS SHOULD BE TRAINED IN BOTH CPR AND FIRST AID. NO CARD NEEDED FOR THIS CONTEST

NURSE ASSISTANT CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Nurse Assisting

Students competing in the nurse assisting contest are required to demonstrate knowledge and skill in performing patient care procedures representative of the general areas of competence required in nurse assisting, including CPR. All procedures must be performed using safety precautions and correct body mechanics. . All skills demonstrated will be based on nationally accepted accreditation and certification standards recognized by the American Medical Association Contestants, as part of the demonstration, should voluntarily express pertinent information. Examples may include the ability to use and identify equipment; manipulate medical materials in the taking vital signs, height, weight.

State Skills - Nursing Assistant

Contestants should be familiar with all the Standards and Competencies as mentioned in National Technical Standards 2015-2016 as follows:

NA 4.0 — Explain infection control and methods of preventing the spread of infections

NA 5.0 — Perform nurse assistant skills/procedures including dressing, undressing and bathing patients, Foley catheter care, providing hair and oral care, and transferring, turning and assisting patients with walking

NA 7.0 — Provide patient with basic nursing procedures and restorative care

NA 8.0 — Monitor patient's vital signs

NA 9.0 — Perform adult, child and infant CPR and first aid

Equipment/Tool Requirements:

Small notebook Watch with second hand

2 pens - blue or black ink Safety glasses

Current/Factual Resume (see the SkillsUSA Professional Development Program – Level 3.1 for assistance)

**STUDENTS SHOULD BE TRAINED IN BOTH CPR AND FIRST AID. BUT DO NOT NEED CARDS FOR STATE CONTEST. THEY WILL NEED TO SHOW CPR CARDS AT NATIONAL CONTEST

Clothing Requirements:

White SCRUBS & White color stockings/socks

(no other uniform will be allowed and no colored scrubs must be white)

Hair neatly arranged off the collar

NO nail polish-nails short and clean NO heavy make-up

NO gum chewing

Clean all-white leather shoes (**No canvas**), completely enclosed (**No open toe or open heel**). Athletic style shoes that meet these criteria are acceptable.

NO jewelry except small stud earrings-one per ear (optional), a plain wedding band

No cell phones or pagers allowed

HEALTH OCCUPATIONS B

EVENTS:

BASIC HEALTH CARE DENTAL ASSISTING FIRST AID/CPR

SERIES DIRECTOR:

ERIN ROY

CONTACT INFORMATION:

P.O.BOX 393 WHITINSVILLE, MA PHONE 774-280-1426

EMAIL: erinroy6912@gmail.com



BASIC HEALTH CARE CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills / State Skills

The contest evaluates a contestant's beginning level of health occupations knowledge and skills and recognizes outstanding students for excellence and professionalism. The contestants' skills may be evaluated through a written test and/or a skill performance.

Scope:

Contestants will demonstrate their knowledge and ability to perform procedures or skills selected from the following list of competencies. These skills may be evaluated through a written test and/or a skill performance at ten (10) different stations.

- Employment Skills each contestant must submit a one-page typewritten resume prepared in advance to be handed in at the competition site on Friday. The following information must be contained in the one-page resume:
 - a. Name, Address and Phone Number
 - b. Career Objective
 - c. Education and Training
 - d. Work Experience (beginning with present employment listing specific responsibilities)
 - e. Community/Volunteer Work
 - f. Memberships, Major Accomplishments, Awards Earned
 - g. References Upon Request

This station will consist of completing a job application and demonstrating interview skills. (Refer to the SkillsUSA Championships Technical Standards 2015-2016)

Standards and Competencies

(Follow all competencies under each standard)

- 1. **Academic Foundations** CARE 1.0 Apply academic knowledge of life sciences as related to the health care professions
- 2. Safety- CARE 6.0 Create a safe working environment.
- 3. **Career Opportunity Concepts** CARE 3.0 Perceive major career opportunities and system available in health care.
- 4. **Communication Skills** CARE 2.0 Express verbal and nonverbal communication skills CARE 4.0 Epitomize quality employment and teamwork skills
- 5. Ethical/Legal- Care 5.0 Differentiate between law and ethics
- 6. Infection Control / Advanced Asepsis- CARE 6.0 Create a safe working environment
- 6.3- Practice infection control
 - 6.4 Employ standard safety precautions/body substance isolation techniques
- 6.5 Demonstrate aseptic technique
- 7. **Measurements** CARE 4.0 Epitomize quality employment and teamwork
 - 4.2.1 Measure and record thru 4.2.4 Time clock

- 8. **Emergency Care Component**: Perform basic adult, child, or infant CPR/ demonstrate emergency measures or treatments for choking, shock, bandages, splints and common medical emergencies. **Latest American Red Cross/American Heart Association CPR standards will be used.**
- 9. **Prepared Presentation** each contestant will deliver a prepared 5-7 minute presentation.
- a. The purpose of the presentation is to present a topic related to basic health care through demonstration, display and/or explanation. (see Scope of the Contest Section Presentation Guidelines and Purpose in the SkillsUSA Championships Technical Standards 2015-2016)
- b. A presentation will be compact, no larger than 30" x 30" x 30". A 4' x 6' space and table will be available. Any visual aids (signs, charts, transparencies, slides, diagrams) are to be prepared by the contestants. No pressurized aerosol cans of any kind will be permitted, and no compressed air, gas, or flammable liquid may be used.
- c. All employers' names and manufactures' trade names must be covered or removed.
- d. The demonstration will neither promote nor advertise any commercial organization or product.
- e. The title should designate the exact nature of the presentation. Catchy titles are not appropriate to the scientific and educational purpose of the presentation.
- f. The prepared presentation does not include another person acting as a patient.

Please Note

- 1. All skills demonstrated will be based on nationally accepted accreditation and certification standards.
- New American Red Cross/American Heart Association CPR standards (2012) will be used. Note: First Aid & CPR cards are not required for this event
- 3. Refer to the 2015-2016 National SkillsUSA Championships and Technical Standards Book for further explanations

Equipment/Tool Requirements:

Safety glasses Watch with second hand

Pen (black ink) Any equipment and supplies for oral table-top presentation

Current/Factual Resume (see the SkillsUSA Professional Development Program – Level 3.1 for assistance)

Clothing Requirements:

White SCRUBS (NO denim no other uniform) Hair neatly arranged up and off the collar

Clean all-white leather shoes (**No canvas**), completely enclosed (**No open toe or open heel**). Athletic style shoes that meet these criteria are acceptable.

Nails short and clean (NO nail polish, gels or tips) White Lab coat (optional)

NO personal name/school ID on clothing

NO jewelry except watch with second hand

White stockings (females) / socks (male) NO heavy perfume/makeup/cologne

NO gum chewing

NO cell phones or pagers allowed

Observer Rules:

- Observers will not be allowed to view the students during the competition.
- Talking or gesturing by the observers may result in disqualification of the contestant.
- Observers will not be permitted to communicate with contestants in the holding/assembly

DENTAL ASSISTING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

National Skills / State Skills

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

Scope of Contest/State Skills

The skills included in the contest will be selected from national competency categories and may involve total procedures or tasks that are part of the procedures. (Refer to SkillsUSA Championships Technical Standards 2015-2016 for complete listing)

- 1. **Chair side Assisting**-DA 4.0 Apply chair side assisting procedures using guidelines specified in the ninth edition of the Task Analysis of Dental Assisting National board, Inc. (DANB) for examinations and as determined by the national SkillsUSA Heath Occupations Technical Committee
- 2. **Laboratory Procedures**-DA 5.0 Apply dental laboratory procedures utilizing various dental material using guidelines specified in the ninth edition of the Task Analysis of Dental Assisting National board, Inc. (DANB) for examinations and as determined by the national SkillsUSA Heath Occupations Technical Committee
- 3. **Patient Assessment Procedures**-DA 2.0 Assess the client's condition following good practices based on guidelines specified in the ninth edition of the Task Analysis of Dental Assisting National board, Inc. (DANB) for examinations and as determined by the national SkillsUSA Heath Occupations Technical Committee
- 4. **Dental Materials-**DA 5.0 Apply dental laboratory procedures utilizing various dental material using guidelines specified in the ninth edition of the Task Analysis of Dental Assisting National board, Inc. (DANB) for examinations and as determined by the national SkillsUSA Heath Occupations Technical Committee
- 5. **Office Management Procedures**-DA 1.0 Monitor and manage safety and infection control using procedures specified in the ninth edition of the Task Analysis of Dental Assisting National board, Inc. (DANB) for examinations and as determined by the national SkillsUSA Heath Occupations Technical Committee
- 6. Radiography Procedures-DA 1.0 specifically 1.7, 1.8,
- 7. Employability each contestant must submit a one-page typewritten resume prepared in advance to be handed in at the competition site on Friday. The following information must be contained in the one-page resume:
 - h. Name, Address and Phone Number
 - i. Career Objective
 - j. Education and Training
 - k. Work Experience (beginning with present employment listing specific responsibilities)
 - I. Community/Volunteer Work
 - m. Memberships, Major Accomplishments, Awards Earned
 - n. References Upon Request
- 8. **Infection Control**--DA 1.0 Monitor and manage safety and infection control using procedures specified in the ninth edition of the Task Analysis of Dental Assisting National board, Inc. (DANB) for examinations and as determined by the national SkillsUSA Heath Occupations Technical Committee
- 9. **Preventive Procedures**-DA 3.0 Apply preventative procedures using guidelines specified in the ninth edition of the Task Analysis of Dental Assisting National board, Inc. (DANB) for examinations and as determined by the national SkillsUSA Heath Occupations Technical Committee

Knowledge Performance:

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

Suggested Professional References Include:

Task Analysis for Dental Assisting National Boards Inc. (DANB) Examinations 9th Ed. Modern Dental Assisting (Torres and Ehrlich)

Tool Requirements:

2 - #2 pencils (1 red and 1 blue) Watch with second hand

Safety goggles 1 - Black pen

Current/Factual Resume (see the SkillsUSA Professional Development Program – Level 3.1 for assistance)

NOTE: FIRST AID/CPR CARDS ARE NOT REQUIRED FOR THIS EVENT

Latest (11/05) American Red Cross/American Heart Association CPR standards will be used.

Clothing Requirements:

White SCRUBS (NO denim no other uniform) Hair neatly arranged up and off the collar

Clean all-white leather shoes (**No canvas**), completely enclosed (**No open toe or open heel**). Athletic style shoes that meet these criteria are acceptable.

Nails short and clean (NO nail polish, gels or tips) White Lab coat (optional)

NO personal name/school ID on clothing White stockings (females) / socks (males)

NO jewelry except watch with second hand NO gum chewing

NO heavy perfume/makeup/cologne **NO** cell phones or pagers allowed

Observer Rules:

- Observers will not be allowed to view the students during the competition.
- Talking or gesturing by the observers may result in disqualification of the contestant.
- Observers will not be permitted to communicate with contestants in the holding/assembly

FIRST AID/CPR CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

National Skills / State Skills

To evaluate each contestant's ability to react positively in simulated demanding first aid intervention and to recognize excellence and professionalism in the career and technical student's first aid skills.

Scope of the Contest:

1. Contestants will demonstrate their ability to perform procedures or take appropriate action based on scenarios presented related to the following topic areas:

CPR 1.0 - Contestants will demonstrate competency to proficiently perform procedures or take appropriate action based on scenarios presented related to the following topic areas:

CPR 2.0 - CPR with AED for adult

2.1 Demonstrate skills in performing CPR with AED (only college/postsecondary will demonstrate AED skills)

CPR 3.0 - CPR for child

3.1 Demonstrate skills in performing CPR for child

CPR 4.0 - CPR for infant

4.1 Demonstrate skills in performing CPR for infant

CPR 5.0 - Choking victim: conscious/unconscious adult

5.1 Demonstrate skills in performing choking emergencies for conscious/unconscious adult

CPR 6.0 - Choking victim: conscious/unconscious child

6.1 Demonstrate skills in performing choking emergencies for conscious/unconscious child

CPR 7.0 - Choking victim: conscious/unconscious infant

7.1 Demonstrate skills in performing choking emergencies for conscious/unconscious infant

CPR 8.0 - Sudden illness: seizures/diabetics

8.1 Demonstrate skills in performing interventions and care for seizures/diabetic emergencies

CPR 9.0 - Injuries to muscles, bones and joints (i.e., dislocations; fractures; sprains and strains; head, neck and back injuries)

9.1 Demonstrate care dealing with muscle, bone and joint injuries

CPR 10.0 - Bleeding/wound care

10.1 Demonstrate care/control dealing with bleeding/wound care

CPR 11.0 - Burn care

11.1 Demonstrate care for first-, second-, and third-degree burns

- All skills demonstrated will be based on nationally accepted standards as identified by the American Red
 Cross for first aid emergencies and the American Red Cross/American Heart Association for CPR and the
 National Safety Council. Latest American Red Cross/American Heart Association CPR standards will be
 used.
- 3. Contestants will take a written test that will constitute no more than 20% of the total score. Based on the American Red Cross and American Heart Association manuals.
- 4. Employability each contestant must submit a one-page typewritten resume prepared in advance to be handed in at the competition site on Friday. The following information must be contained in the one-page resume:
 - a. Name, Address and Phone Number
 - b. Career Objective
 - c. Education and Training
 - d. Work Experience (beginning with present employment listing specific responsibilities)
 - e. Community/Volunteer Work
 - f. Memberships, Major Accomplishments, Awards Earned
 - g. References Upon Request

Tool Requirements:

Safety glasses

Current/Factual Resume (see the SkillsUSA Professional Development Program – Level 3.1 for assistance)

**STUDENTS SHOULD BE TRAINED IN BOTH CPR AND FIRST AID.

FOR THE CONTEST YOU WILL HAVE TO BRING CURRENT CPR CARD FROM EITHER THE AMERICAN HEART ASSOCIATION OR AMERICAN RED CROSS AND A CURRENT FIRST AID CERTIFICATION CARD FROM EITHER THE AMERICAN RED CROSS OR NATIONAL SAFETY COUNCIL

Clothing Requirements:

White SCRUBS (NO denim no other uniform) Hair neatly arranged up and off the collar

Clean all-white leather shoes (**No canvas**), completely enclosed (**No open toe or open heel**). Athletic style shoes that meet these criteria are acceptable.

Nails short and clean (NO nail polish, gels or tips) White Lab coat (optional)

NO personal name/school ID on clothing White stockings (females) / socks (males)

NO jewelry except watch with second hand NO gum chewing

NO heavy perfume/makeup/cologne **NO** cell phones or pagers allowed

Observer Rules:

- Observers will be allowed to view the scenarios as the contestants participate provided there is space available.
- Talking or gesturing by the observers may result in disqualification of the contestant.
- Observers will not be permitted to communicate with contestants in the holding/assembly area.
- Refer to General Regulations, 2015-2016 SkillsUSA Championships Technical Standards regarding photography rules.

HEALTH OCCUPATIONS C

EVENTS:

EARLY CHILDHOOD EDUCATION
HEALTH OCCUPATIONS PROFESSIONAL PORTFOLIO
MEDICAL MATH (Demonstration)
MEDICAL TERMINOLOGY

SERIES DIRECTOR:

DEBORAH BRIGHTMAN

CONTACT INFORMATION:

GREATER NEW BEDFORD REGIONAL TECHNICAL SCHOOL

1121 ASHLEY BOULEVARD NEW BEDFORD, MASS. 02745 PHONE 508-998-3321

EMAIL: dbrightman@gnbvt.edu



Massachusetts Skills USA Early Childhood Education 2016 Competition ` Requirements and Scope of Contest

Purpose:

National/State Skills

To evaluate a contestant's ability to plan and present appropriate activities for pre-school age children relating to a specific theme and demonstrate a general knowledge of quality childcare.

Scope of Contest: State Skills Major Project/Activity: (650 points)

Oral Language Lesson:

This lesson is designed for preschooler's ages 4 to 5 years old.

Contestants will choose one book from these 5 titles to read and prepare felt characters/ props to go with the story that was chosen. The 5 titles are:

- If you give a Mouse a Cookie by Felicia Bond
- The Hungry Caterpillar by Eric Carle
- The Mitten by Jan Brett
- Caps for Sale by Esphyr Slobodkina
- I Like Myself by Karen Beaumont

There will be a minimum of 6 felt character/ props for the story.

The character/props are to made out of felt.

The contestant will read the story to the "children" and use the created felt pieces to enhance the story.

A felt board will be provided for the contestants on competition day. The contestant will write a lesson plan for this lesson.

Lesson Plan: (250points)

The lesson plan should be detailed so that any person can easily read it and present the lesson.

All props for this lesson must be made at the competition. Nothing is to be pre-made.

Presentation:

The presentation must be 5 to 7 minutes before a panel of 3 judges.

(If under 5 minutes or over 7 minutes there is a penalty of -50 points.

Resume:

A one page-typed written resume required for every contestant to be turned in at the orientation.

(There will be a -50 point penalty if no resume is turned in.)

Clothing:

There is a clothing penalty of -50 points if the contestant is not in compliance with Skills USA clothing requirements.

Scoring:

The Presentation will be worth 650 points, the Lesson Plan will be worth 250 points and there will be a quiz on Pre-school knowledge consisting of 10 multiple choice or true or false questions worth 100 points.

The Massachusetts Guidelines (The Green Book) will be provided to the contestants on competition day.

Clothing Requirements:

For Women:

- Black dress slacks
- White shirt or blouse (not see thru)
- Skills USA jacket, windbreaker, or sweater
- Black socks, or skin-tone seamless hose
- Plain black flat leather shoes (not sneakers)
- No gum chewing
- No heavy make-up
- Small stud earrings- one per ear (optional)
- No nail polish, tips, or gel----nails short and clean
- No school ID or name on clothing
- No cell phones or pagers allowed

For Men:

- Plain black shoes for males (Not Sneakers)
- White button down shirt
- Black dress pants
- Black socks
- No gum chewing
- No cell phones or pagers allowed
- Black tie
- Skills USA jacket, windbreaker, or sweater
- No school ID or name on clothing
- Nails short and clean

Supply List

Students will bring supplies needed to create their lessons.

Such items as:

- Crayons
- Markers
- Glue sticks
- Glue gun
- Elmer's glue
- Scissors
- Felt
- Pipe cleaners
- Wiggly eyes

Misc. any other arts and craft supplies that they might want to use in creating your lesson.

Skills USA Competition 2016 Early Childhood Education Lesson Plan Outline

Contestant #		
1. Goal: (Be Specific)		
2. Objectives: (Be Specific)		
3. Materials needed:		
4. Introduction/Motivation:		
5. Presentation: Explain it in specific details so that another person would be	able to do this lesson following	ng your lesson plan.
6. Closure/Review:		
·		

Massachusetts Guidelines for Preschool Learning Experiences (The Green Book)

Skills USA Competition 2016 Early Childhood Education Rating Sheet

Presentation of lesson: 650pts

Personal Qualities Skills (250)pts
Presentation technique Skills (200) pts.
Originality/creativity Skills (100) pts.
Lesson Material (100) pts.

Presentation Lesson Plan: (250) Points

Lesson Plan:

Printing, spelling, neatness (50) pts
Age appropriate teaching methods (50) pts.
Age appropriate goals (50) pts

Does the procedure and use of materials support goals and content area (50) pts. Five areas of lesson plan completed correctly (50) pts.

Quiz: (100) pts.

Time Penalty: over or under minus 50 pts.

Need resume or minus 50pts. Clothing penalty: minus 50 pts.

HEALTH OCCUPATIONS PROFESSIONAL PORTFOLIO CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

National Skills/State Skills

To recognize students for their successful development of a professional portfolio and evaluate the ability of an individual to present himself/herself to an employer using effective communication skills.

Eligibility:

Open to active Skills USA members enrolled in a health occupation program.

Scope of Contest:

National Skills/State Skills

The contest will consist of two parts: (1) A notebook and (2) Live presentation by the contestant.

- 1. **Notebook:** Each contestant is required to submit an official SkillsUSA three-ring, 1-inch loose-leaf binder available from the current SkillsUSA Supply service Catalog. 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 the notebook. Pages must be limited to 25 (50 surfaces).
- 2. **Notebook:** must include the following, presented in progressive order, and typed **(hand written pages are not acceptable).**
- 3. General order of setup of Notebook:
 - **a. Title Page**-include name of contestant, name of school, grade, training program, and a picture of the contestant.
 - **b.** Table of contents with page numbers.
 - c. Components of an Employment Portfolio: organizations, professional appearance, (No handwritten or colored pages), White or beige pages.

CONTENT:

Section I: Resume and Career Objectives: 40pts.

Prepare a current resume. Students should include a written statement describing his/her career objectives, plans to achieve that objective, and competencies that have been met. (See PDP, Level 3.1 for assistance in developing your resume).

Section II: References: 40pts

Letters of reference from teachers, mentor, supervisors, employers, and others who verify student's skill ability (*Limit: three references*).

Section III: Awards and Recognitions': 40pts.

Include copies of certificates, documentation of leadership activities, news articles and supportive material to serve as proof of your achievements. Reflect the highest level of achievement.

Section IV: Work Sample Documentations: 200pts.

Summary of work site experiences pertaining to health occupations. Students should distinguish project documentation that is a result of school-based learning and/or work-based learning. Can be supported with photographs that are reflective of the learning.

Section V: Community Service: 40pts.

List of activities conducted that provided a benefit to the community. Concentration should be on excellence and professionalism in the area of service.

- A. School based
- **B.** In the community outside of school.

Section VI: Membership and Affiliations: 40pts.

List of organizations and community groups in which the student is actively involved. Total of 400pts for notebook

Presentation section:

- **a. Oral Presentation**: students should be prepared to make a 5-7 minute presentation of their portfolio to the judges. **Oral Presentation 200pts.**
- **b.** Visual presentations must be brought to contest on a "flash "/"jump" drive. Contestants are to use the equipment supplied by the host school. Visual presentation 100pts.
- c. Responses to questions: Contestants should anticipate questions from the judges. Responses to questions 50pts.
- d. Closing remarks: 50pts.

Section total 400pts.

Judging: Notebooks will be submitted on Thursday night at the contestant briefing. (Late notebooks may be accepted by Event Manager but will be subject to point deductions). The notebooks will be returned to the contestant at the end of the live presentation. Contestants will be required to report to the contest area at a designated time with all equipment for their presentation. Students will be required to stay until dismissed by the judges.

Clothing Requirements:

Black pants, (women, may also wear: skirt or Capri pants) (NO Jeans, denim material, or any color)

White Shirt (for women: blouse/shirt)
SkillsUSA jacket, sweater, or windbreaker
Tan or Beige stockings (for women) - Black socks with pants for men
Black shoes-plain black flats or plain black shoes with a heel no higher than 2"
Plain black shoes for men
NO heavy make-up
Small stud earrings-one per ear (optional)
NO gum chewing
NO nail polish, tips, or gel-nails short and clean
NO cell phones or pagers allowed
NO school ID or name on clothing

(Refer to the 2015-2016 National Technical Standards for updates on requirements to the portfolio)



MEDICAL MATH CONTEST

Purpose:

To evaluate the students' ability to understand and solve mathematical problems commonly used in the various health care settings.

Clothing Requirement:

For Men: Skills USA official attire: Official red blazer, windbreaker-style jacket or sweater, black dress slacks, white dress shirt; plain black tie with no pattern or Skills USA black tie; black socks and black shoes. **For Women:** Skills USA official red blazer, windbreaker style jacket or sweater; black dress slacks or skirt with businesslike white, collarless blouse or white blouse with small, plain black sheer or skin-tone hose and black shoes.

Equipment and Materials:

- 1. Supplied by the technical committee:
 - a. test problems and instructions
 - **b**. Scratch paper and pencils
- 2. Supplied by the contestant:
- **a.** Basic hand-held calculator *MUST BRING! (no graphing or scientific calculator [with fraction keys] will be permitted).
- **b.** all competitors must create a one-page resume using a word processor and bring it to the orientation meeting on Thursday night after opening ceremonies.

Scope of Contest:

- 1. The test questions will be taken from problems encountered in the medical field and are selected from the area that might be used in the real world applications. Contestants will demonstrate their ability to solve math problems that deal with the following area:
- a. Measurements including vital signs, temperature conversions, and height and weight.

- b. Metric and household measurements
- c. Conversions
- d. ratio and proportion
- e. Percentage
- f. Intake and output
- g. Roman numerals
- h. Dosage calculations
- 2. The test will comprise 50 problems that will allow contestants the opportunity to utilize their problem-solving skills as well as their mathematical ability.
- 3. The contestants will have two hours to complete the test. No bonus points will be given for early completion of the test, and no contest will be allowed to go in or out of the testing site during the testing. Suggested references: "Standardized Medical Abbreviations"
- 4. Prepare a current resume. Students should include a written statement describing his/her career objectives, plans to achieve that objective, and competencies that have been met. (See PDP, Level 3.1 for assistance in developing your resume).

MEDICAL TERMINOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

National Skills/Sate Skills

To evaluate the knowledge of medical terminology and abbreviations of an individual preparing for employment in the health occupation field and to recognize outstanding students for excellence and professionalism.

Eligibility:

Open to active SkillsUSA members enrolled in programs that include medical terminology as a component.

Scope of Contest:

Core standards from the medical terminology portion of the National Health Care Core Skills Standards Project make up the category from which questions are developed for the Medical Terminology contest.

Skills Performance:

Contestants will demonstrate knowledge of medical word roots, prefixes, suffixes, and medical abbreviations by successfully answering the questions.

Supplies:

No.2 pencil (2)

Current résumé - Resume: A one page-type-written resume is required for every contestant.

Clothing requirement:

For men: Official red blazer, windbreaker-style jacket or sweater; black dress slacks; white dress shirt, plain black tie with no pattern or Skills USA black tie; black socks and black shoes.

For women: Official red blazer, windbreaker-style jacket or sweater; black dress slacks or skirt with business-like white, collarless blouse, or white blouse with small, plain collar that may not extend onto the lapels of the blazer; skin-tone hose and black shoes: plain black flats or plain black shoes with a chunky heel no higher than 2'.

No heavy make-up

Small stud earrings-one per ear (optional)

No gum chewing

No nail polish, tip, or gel-nails short and clean No school ID or name on clothing No cell phones or pages allowed

METAL TRADES A

EVENTS:

AUTOMATED MANUFACTURING
ENGINEERING TECHNOLOGY
CNC MILLING
CNC TURNING
MECHATRONICS

SERIES DIRECTOR:
JAMES WOODWARD

CONTACT INFORMATION:

BLACKSTONE VALLEY TECHNICAL HIGH SCHOOL 65 PLEASANT STREET UPTON, MA. 01568

PHONE: 508.529.7758

EMAIL: jwoodwar@valleytech.k12.ma.us



OBSERVER RULES FOR METAL TRADES A

The Following observer rules apply to all contests in Metal Trades A.

- Observers will be allowed to view the students during the competition from the designated area only. Any infraction will result in contestant disqualification.
- Talking or gesturing by the observers may result in contestant disqualification.
- Observers will not be permitted to communicate with contestants in the holding/assembly area.
- Talking to judges will not be permitted.
- All communications are to be directed to the series director only and only at the end of the contest.
- Contestants are to stay until they are debriefed at the end. Any communication from observers will result in contestant disqualification.
- No prints or information will be allowed to leave with the student participants/school personnel.
- No videotaping of contests. (Still photography only)

AUTOMATED MANUFACTURING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

To evaluate each contestant's preparation for employment in automated manufacturing and the team approach to problem solving work environment. To recognize outstanding students for excellence and professionalism in the field of automated manufacturing technology.

Eligibility:

Open to active SkillsUSA members enrolled in programs with precision machining, automated manufacturing, or CAD/CAM or CNC as the occupational objective.

Scope of Contest:

- Teams must be composed of three members. Teams will demonstrate their ability to perform, exhibit, and compile skills and knowledge necessary from the following list of competencies determined by the SkillsUSA Championships technical committee.
- 2. The teams will be presented with dimensioned drawing(s) of a part(s) to prototype.
- 3. Each team will be issued a notebook. This will be a three-ring binder. Included in the binder will be all the necessary information and forms to complete the project. These forms will not be highly specific but will coach the teams. All binders, forms and drawings must be turned in to the judges at the end of the competition.
- 4. The competencies required for contestants to successfully compete are as follows:

a. Performing Mathematical & Measurement Calculations

- 1. Measure work piece to the nearest .001 inch
- 2. Calculate CNC speed and feeds
- 3. Calculate stock utilization and setup
- 4. Calculate tolerances

b. Designing, Sketching, Planning Machine Work

- 1. Transfer information from drawing to CAD drawing
- 2. Create CAD file for manufacturing
- 3. Begin manufacturing documentation process
- 4. Process Plan
- 5. Plot CAD file #1
- 6. Export CAD file

Scope of Contest: (cont.)

c. Create Tool path (CAM file), CNC Code

- 1. Create process plan (Job Plan)
- 2. Read-in CAD export file
- 3. Create tool path
- 4. Verify tool path
- 5. Create CNC Code
- 6. Send CNC code to machine tool

d. Perform CNC Machining Functions

- 1. Verify CNC file existence
- 2. Verify tool path
- 3. Setup part on mill
- 4. Set all offsets and tooling
- 5. Adjust to speeds and feeds as needed
- 6. In-process quality assurance
- 7. Perform tool changes
- 8. Perform multiple machining operations in one setup
- 9. Verify (TQM) process and part

e. Inspection of Part TQM process

- 1. Verify part to standards
- 2. Document process

Group Organizational Goal:

This is a group competition, and members may interact at will. The competition should run much like industry. The CAD operator will construct the part geometry, the CAM operator will generate the tool paths, and the CNC operator will do the setup and machine the part. When a team member has spare time, he or she will help others in the group.

One person should not dominate a team by doing the CAD drawing, the CAM tool path, and running the CNC machine while using the other members simply as support. The contest is designed to promote creativity in organization of production responsibility.

All group members are responsible for double-checking each other's work and quality control.

Tool Requirements: *One-page type-written resume required for every contestant

Provided by the Technical Committee:

Part(s) Design Competition Notebook

Pencils Blank Diskettes or thumb drive

Material for Machining

Provided by the Contestants:

CNC Machining center with:

Machinist vise

Hold-downs and clamps

Tool holders

End mills

Two Computers: A third may be utilized

One Computer loaded with CAD software for CAD program

One Computer loaded with software for CAM program. This computer must have an open full-sized PCI slot and Windows 98 or higher operating system. This computer will be connected to the **CNC machine**.

Licensed versions of the above CAD and CAM software

One 6" dial or digital vernier caliper

One dial indicator. Dial indicator must have 3/8" or 1/2" holding shank to fit into tool holder supplied by the technical committee.

One Calculator

One pair of 2/4" or 1" parallels

One soft-face hammer

One 6" or 12" steel rule

Clothing Requirements: (cont.)

Work Pants SkillsUSA Massachusetts T-shirt

Work Shoes Safety glasses with side shields or goggles

NO cell phones or pagers allowed

Special Note: Clarification of Rules

The scope of the contest states that the equipment supplied by the contestant will be two separate computers, one with CAD on it and one with CAM on it.

Skills USA Massachusetts has decided that the computers that will be used do not have to remove any software to compete but will only be allowed to use one software program on each computer. IE one will be using a version of CAD and one will be using a version of CAM.

At no time will contestants be allowed to use the CAD component of the CAM software. The Drafting student's ability to use his / her skills on CAD software is essential to the integrity of the contest and in the preparation of our students for the National level of competition.

It is, however, important to allow the students the ability to create bounding boxes for the purpose of machinability only. This is an industry acceptable standard and will be put in place. This is the only CAD feature they will be allowed to use in their CAM software.

Contestants will not be allowed to make any CAD Engineering changes to the parts in their CAM software. If you have any questions please contact the Series Director, Jim Woodward using the contact information provided above.

CNC MILLING COTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

To evaluate each contestant's preparation for employment in Computer Numeric Control machining. To recognize outstanding students for excellence and professionalism in the CNC machining field.

Eligibility:

Open to active SkillsUSA members enrolled in programs with precision machining, automated manufacturing, or CNC as the occupational objective.

Scope of Contest:

Each contestant will receive a dimensioned drawing and material to CNC-machine a part. Participants are expected to write a CNC program, set up the machine and tool offsets and machine a part without the use of CAD/CAM software. Only the part will be evaluated, not the CNC program. Participants are given 15 minutes to study the task and ask questions before beginning. The competition may run 6-8 hours, depending on the project design.

Competencies required are as follows:

- 1. Programming
 - a. Write and verify CNC program without the use of CAM software (competitor has the opportunity to correct any program errors on the machine.)
 - b. Display complete knowledge of DIN/ISO programming (G and M codes)
 - c. Apply the correct use of cutter compensation (G41/G42)
 - d. Adjust speeds and feeds as needed

2. Setup

- a. Setup machine and establish a zero reference point for machining the part
- b. Select and mount necessary tools from the provided set
- c. Establish tool offsets and enter them into the CNC machine control
- d. Enter any necessary tool corrections into the CNC machine control

3. Perform mathematical calculations

- a. Calculate CNC speeds and feeds
- b. Calculate programming coordinates from the drawing
- c. Calculate radius tangent points

4. Measuring

a. Measure test part to the nearest 0.001"

5. Communication

- a. Read and interpret technical blue prints
- b. Understand all symbols on technical blue prints, such as geometric tolerances, surface-finish symbols, corner-break symbols, etc.

Test Project Scoring:

The three evaluation criteria for the test part are:

- 1. Conformity to Print:
 - a. Visual conformity and accuracy of part to drawing. (Look for shape and features of part)
 - b. Edges broken
 - c. Transition of surfaces
 - d. Part is burr-free
 - e. Damage to part (clamp marks, scratches)

2. Dimensions:

This is an objective scoring. Scores will only be granted if dimension is in compliance with the print. The score for each dimension will either be full points or zero points.

3. Use of Material

Contestant will receive on piece of stock for the contest. Material may be Steel, Aluminum, Wax, or Delrin.

Tool Requirements: *One-page type-written resume required for every contestant

Provided by the Technical Committee:

CNC Mill with proper holding devices

Workbench

Necessary hand tools and cutting tools

Necessary information and furnishings for judges and technical committees

Provided by the Contestants:

0-1" micrometer

6 inch caliper (digital or vernier)

Non-programmable calculator

Pencils and paper

Machinery's Handbook (optional)

Deburring tools (files, Emory cloth, etc.)

Clothing Requirements:

Work Pants

SkillsUSA Massachusetts T-shirt

Work Shoes

Safety glasses with side shields or goggles

NO cell phones or pagers allowed

CNC TURNING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

To evaluate each contestant's preparation for employment in Computer Numeric Control turning. To recognize outstanding students for excellence and professionalism in the CNC turning field.

Eligibility:

Open to active SkillsUSA members enrolled in programs with precision machining, automated manufacturing, or CNC as the occupational objective.

Scope of Contest:

Each contestant will receive a dimensioned drawing and material to CNC-turn a part. Participants are expected to write a CNC program, set up the machine and tool offsets and turn a part without the use of CAD/CAM software. Only the part will be evaluated, not the CNC program. Participants are given 15 minutes to study the task and ask questions before beginning. The competition may run 6-8 hours, depending on the project design.

Competencies required are as follows:

- 6. Programming
 - a. Write and verify CNC program without the use of CAM software (competitor has the opportunity to correct any program errors on the machine.)
 - b. Display complete knowledge of DIN/ISO programming (G and M codes)
 - c. Apply the correct use of cutter compensation (G41/G42)
 - d. Adjust speeds and feeds as needed

7. Setup

- a. Setup machine and establish a zero reference point for machining the part
- b. Select and mount necessary tools from the provided set
- c. Establish tool offsets and enter them into the CNC machine control
- d. Enter any necessary tool corrections into the CNC machine control

8. Perform mathematical calculations

- a. Calculate CNC speeds and feeds
- b. Calculate programming coordinates from the drawing
- c. Calculate radius tangent points

9. Measuring

a. Measure test part to the nearest 0.001"

10. Communication

- a. Read and interpret technical blue prints
- b. Understand all symbols on technical blue prints, such as geometric tolerances, surface-finish symbols, corner-break symbols, etc.

Test Project Scoring:

The three evaluation criteria for the test part are:

- 1. Conformity to Print:
 - a. Visual conformity and accuracy of part to drawing. (Look for shape and features of part)
 - b. Edges broken
 - c. Transition of surfaces
 - d. Part is burr-free
 - e. Damage to part (clamp marks, scratches)

2. Dimensions:

This is an objective scoring. Scores will only be granted if dimension is in compliance with the print. The score for each dimension will either be full points or zero points.

3. Use of Material

Contestant will receive on piece of stock for the contest. Material may be Steel, Aluminum, Wax, or Delrin.

Tool Requirements: *One-page type-written resume required for every contestant

Provided by the Technical Committee:

CNC Lathe with proper holding devices
Workbench
Necessary hand tools and cutting tools
Necessary information and furnishings for judges and technical committees

Provided by the Contestants:

0-1" micrometer
6 inch caliper (digital or vernier)
Non-programmable calculator
Pencils and paper
Machinery's Handbook (optional)
Deburring tools (files, Emory cloth, etc.)

Clothing Requirements:

Work Pants Work Shoes NO cell phones or pagers allowed SkillsUSA Massachusetts T-shirt Safety glasses with side shields or goggles

ENGINEERING TECHNOLOGY CONTEST

Purpose: To recognize an outstanding engineering innovation project which has been developed by a three-member team of engineering students. The student team will present their innovative idea along with a display and live model.

Clothing Requirements:

For Men: SkillsUSA official attire: Official red blazer or jacket, black dress slacks, white dress shirt, plain black tie with no pattern or SkillsUSA black tie from Midwest Trophy, black socks, and black shoes.

For Women: Official red blazer or jacket, black dress slacks or skirt, with businesslike white, collarless blouse or white blouse with small, plain collar that may not extend onto the lapels of the blazer, black sheer or skin-tone hose, and black shoes. To purchase official clothing, contact Midwest Trophy Manufacturing Co. Inc. by calling 1-800-324-5996 or order online at

http;//www.mtmrecongnition.com/skillsusa/.

Eligibility

Open to active SkillsUSA members enrolled in a career and technical education engineering or program that integrates engineering/pre-engineering techniques as an integral component of the instructional program.

Observer Rule:

No observers will be permitted during the judging phase of the team presentation. Live models and presentation displays may be viewed on the day of the competition. All teams will be invited to repeat the team presentation to the public following the judging phase.

Equipment and Materials:

SkillsUSA will provide:

- a space for the live model no bigger than 10' x 12'
- a space for the storyboard
- one standard 120 volt electrical outlet
- one standard 8' conference table

Supplied by the contestant team: *One-page type-written resume required for every contestant

- live model cannot be hazardous in any way.
- if the live model is not conducive to being presented in an indoor facility, please notify headquarters in advance so other arrangements can be made.
- live models must be transported and set-up in the contest area by the contestant team. No help will be provided by SkillsUSA.

Scope and Contest:

A team consisting of 3 students, all enrolled in the same educational institution during the current year. Students may be members of only one team per contest year.

The project must be designed and constructed by students who are (or were enrolled immediately preceding the NLSC) enrolled in an engineering program (see definition in the eligibility section). Each team will have one storyboard explaining the new innovation they collaboratively worked on.

Each storyboard may be smaller than, but may not exceed a maximum of 4' x 4'.

The live model must be an accurate reflection of what is being claimed in the oral presentation. Importance is placed on the oral presentation that lasts no longer than ten minutes.

Following the oral presentation, there will be a possible ten-minute question and answer session by the judging panel to clarify any questions that arise during the presentation.

High school and college/post-secondary educational institutions are eligible to participate.

Leadership from the team's career and technical instructor, academic teachers and business/industry is highly encouraged.

The panel of judges will consist of engineers, engineering educators and members from business and industry.

Judging Criteria:

Each engineering presentation will be judged according to its own merits and compliance with the listed criteria. Participants should read the guidelines carefully and make sure the project presentation covers all the criteria.

Live model – The live model is a working model that demonstrates the results of the teams' research and how the team has put their research into action (i.e. a newly designed air-intake system for a high mileage vehicle). The live model must accurately reflect the engineering design accomplishment referred to in the presentation. If judges wish, they will be able to inspect the model at the conclusion of the presentation.

Presentation – Students should demonstrate appropriate mastery of the engineering project. Each student should take an equitable role during the allotted time. The presentation given by the entire group should reflect excellent presentation skills, clear communication and explanation of the technical process related to the engineering innovation and design project. The use of technology presentation equipment is highly encouraged to convey a clear presentation.

Integration of business and industry – The project must demonstrate evidence of the integration and involvement of business and industry related to the engineering field. This involvement might take many forms (i.e., technical assistance), but must be evident during the presentation process. The team must have engaged business and industry in at least one phase of the project – research, planning, and/or construction of the model or assistance in a quality presentation.

Storyboard presentation model – The storyboard will chronicle the history of the innovation from idea to reality. The storyboard will be rated on gaining attention, explaining the engineering process involved, quality, imagination and overall effectiveness as a history of the project.

Overall effect – The entire presentation and supplied materials (i.e., storyboard, live model, etc) were projected in a businesslike and professional manner. The live model and presentation materials were well organized. The students' display of knowledge and clear connection to engineering business/industry has been firmly established.

MECHATRONICS CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

To better reflect the emerging industrial technology called "Mechatronics", this year's competition will include mechanical, fluid power, electronic and control components. Teams of 2 students will be required to assemble, integrate and program these components to create an automated system capable of completing a specific task. Programming can be done with committee-provided FluidSIM software or team-provided PLC (teams must register their choice by April 10th jwoodwar@valleytech.k12.ma.us to allow for equipment planning). Scores will be based on task completion, accuracy and efficiency.

NOTE THAT BOTH PROGRAMMING OPTIONS REQUIRE A TEAM-PROVIDED COMPUTER (WITH ADMINISTRATIVE RIGHTS).

Tool Requirements: *One-page type-written resume required for every contestant

Mechatronics Technical Committee provides:

Mechanical, fluid power and electronic components

FluidSIM software

24 VDC 2 AMP Power supply (for above components)

Terminal Strip

Status Box

Integration cables and patch cords (for above components)

Pneumatic tubing and cutter

Mini Compressor

Contest Site provides:

3' x 6' workstations

Chairs at each workstation (2)

110VAC at each workstation

Teams provide:

Computer with Windows XP and CD/DVD drive

OPTIONAL PLC (any brand with 6 or more 24VDC sinking inputs and 6 or more 24VDC sourcing outputs) with matching software and all necessary interface cables/wires.

Pen/pencil

Safety glasses

Multimeter

Small Screw Drivers (Phillips and Regular)

Wire Cutter/Stripper

Allen Wrench Set (Inch and Metric)

Open-Ended Wrenches (Inch and Metric)

Appropriate Clothing

Please refer to the 2015-2016 SkillsUSA Technical Standards for additional information



METAL TRADES B

EVENTS:

PRECISION MACHINING
SHEET METAL
WELDING
WELDING SCULPTURE

SERIES DIRECTOR:

JEFF KOOPMAN

CONTACT INFORMATION:

ASSABET VALLEY TECHNICAL HIGH SCHOOL 215 FITCHBURG STREET MARLBOROUGH, MA. 01752

PHONE: 508.485.9430 x1423



OBSERVER RULES FOR METAL TRADES B

The Following observer rules apply to all contests in Metal Trades B.

- Observers will be allowed to view the students during the competition from the designated area only. Any infraction will result in contestant disqualification.
- Talking or gesturing by the observers may result in contestant disqualification.
- Observers will not be permitted to communicate with contestants in the holding/assembly area.
- Talking to judges will not be permitted.
- All communications are to be directed to the series director only and only at the end of the contest.
- Contestants are to stay until they are debriefed at the end. Any communication from observers will result in contestant disqualification.
- No prints or information will be allowed to leave with the student participants/school personnel.
- No videotaping of contests. (Still photography only)

CNC TECHNICIAN

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

Massachusetts Skills - Precision Machining

The competition is based on the National Institute for Metalworking Skills (NIMS) skill standards for lathes, mills, drill presses, surface grinders, bench skills--including layout, hand filing, tapping and hacksawing, inspection knowledge and skill--using precision measuring instruments, plus knowledge tests in engineering drawing interpretation, geometric dimensioning/tolerancing, basic machine shop theory, and numerical control programming.

Minimum Tool Requirements

Note: Turning test piece will be aluminum. Milling test piece will be Aluminum. **No Carbide tooling allowed.**

H.S.S. Turning Tooling	H.S.S. Milling Tooling	Other Required H.S.S. Tooling
All tooling should be 3/8" or ½" square H.S.S. to fit adjustable style tool blocks	R8 shank fly cutter	Ø.500 Stub or jobber length drill
LH &RH Turning Tools	.250R Corner Radius Cutters (to form a radius on the external corner of a block)	#2 and 3 center drills
External radius turning tools, preground to form the following radii: 5/32, 3/16. Tools should be full radius to allow left or right usage AND a 5/8" depth of cut, (*** there will be pedestal grinders available for tool touch up, if needed***)	Boring Head for R8 spindled Bridgeport [with boring bars capable of boring Ø.437-1.000 and 1.5" deep]	
.125 max. width trepanning tool to cut (flat bottomed) groove in face of part. Max OD of groove Ø1.500, Min OD of groove Ø1.00, given for grinding reference only.***)	Assorted Ø.25, Ø.375, Ø.5, Ø.75, Ø.875 Endmills	
10-32 and ¼-20 Taps & tap-drills for same.	Tap drills for: 4-40, 6-32, 8-32, 10-32 and 1/4-20 taps	
3/8 x 90 ⁰ Countersink 60 ⁰ Thread Tool	Taps: 4-40, 6-32, 8-32, 10-32 and ¼-20 Taps PLUS additional ¼-20 Tap with leads removed to allow full depth (bottoming)threading	** Material finish chart** (to compare against your machined finish and required finish as noted on print)

Files, oil stones, emery cloth, and other deburring and layout tools are strongly encouraged. Also allowed are H.S.S. fly cutters and any other tooling students feel necessary. Use of calculators, Machinery Handbook, Trig books are allowed at worksite. All miscellaneous worksheets, note cards, etc. that are *not otherwise obtainable* by all contestants are not allowed.

Minimum Inspection Tools:

0-1" & 1-2" outside micrometers, 0-6" dial vernier, 6" scale, 0-1" spade (groove) micrometer, thread measuring wire set, machine finish chart, radius gage set, thread pitch gage, inside calipers or telescoping gage set, center gage, protractor, combination square and scribe, 4-40, 10-32 and ¼-20 Thread Plug Gages.

Any other measuring instrument easily carried may be brought.

Miscellaneous Notes:

Contestants will be required to submit a one-page type-written resume. Contestants will analyze the contest parts' blueprints, create and provide a written process plan of the contest parts.

Contest site will provide parallel sets, hammers, oil cups. Lathes and mills will be provided with vises, collets, 3 or 6 jaw chucks, drill chucks, required wrenches, and other equipment as needed, as needed. Contestants are urged to check for vise and machine alignment. While every effort is made for this provision, it is not quaranteed.

Contestants will need to maintain a safe and professional working environment. Care and usage of tooling, inspection equipment, and overall workplace etiquette expected of a professional will be considered in final score.

Clothing Requirements:

Solid blue or black work pants Hard soled work shoes NO cell phones or pagers allowed SkillsUSA Massachusetts T-shirt Safety glasses

SHEET METAL CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

State Skills Competition- Sheet Metal

Contestants in the Sheet Metal contest are tested on their ability to perform such jobs as connecting sheet metal pieces with Pittsburg seams and dovetails. Professional Sheet Metal workers judge contestants on the basis of use of hand tools, correctness of layout and shop safety procedures.

One-type-written resume required for every constant

Tool Requirements:

Safety glasses
Tool box
Calculator
Hammer (*sheet metal tinners*)
12"or 24"Combination and/or framing square
Left and right aviation snips
Straight shears
8' min. Tape measure and 48" steel rule
Strapping tape rule

12" dividers or trammel points
Hand Seamer or Sheet Metal clamp
Pop rivet / blind rivet gun
24ct. 1/8" dia. x 3/8" long stl. blind rivets
Scratch gauges
Scratch awl
Center or prick punch
Hand dolly
Permanent marker pen

Blue Print Reading Test

Contestants will be tested in their knowledge of blue print reading.

1/4" electric drill w/two 1/8" or 9/64" drill bits Flat blade screw driver Two pencils and paper pad Pittsburg opener

Wooden or rubber mallet 7" or 8" straight jaw vise grip

Clothing Requirements:

Shop work pants
Work boots (NO sneakers or shoes)
NO cell phones allowed
Long hair pinned up
SkillsUSA T-shirt

Steel protractor Rivet set or 3/8"x 3/4" x 4" or equivalent for setting flanged edge into Pittsburg lock

WELDING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

On contest day each competitor receives the 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. The contestant will be tested on various aspects of welding:

- 1. Contestants will work on a steel project, making welds in various positions utilizing: gas metal arc welding (GMAW) (both mild steel & SS filler wire processes), shielded metal arc welding (SMAW), Flux Core Arc Welding (FCAW), and gas tungsten arc welding (GTAW).
- 2. Contestants will weld an aluminum project. Welds are made in various positions using a variety of filler metals.

Minimum Tool Requirements:

*One-page type-written resume required for every contestant

Combination square Number stamp set

Vise grips Welding helmet w/ #10 min. shaded lens

6' Tape measure (minimum) Safety glasses

Assorted hand picks and cold chisels (deslagging)

Soap stone Hack saw with extra blades

Carbon Steel wire brush

GTAW and GMAW style welding gloves

Chipping hammer with a wire brush attached

Ball peen hammer Half round metal file with a handle

Spark lighter

NOTE: EACH CONTESTANT SHOULD HAVE THEIR OWN TOOL BOX.

Supplied by the Technical Committee:

- A. All the necessary welding equipment to complete the projects
- B. Instructions, blueprints and any other miscellaneous information required.
- C. Aluminum plate will be supplied for the Aluminum weld test

Supplied by the Contestant:

- A. Contestant will have his/her own steel weldment to be used in the contest. The blueprint will be provided to all contestants between the last district competition date and the state competition date. All pieces are to arrive tack welded in place (any process may be utilized for tacking) Contestants will be provided specific weld process and position information on the day of the contest.
- B. Contestants must provide certification that the contestant solely planned and executed all steps to cut, fabricate features via OFC (Oxy-fuel cut as specified on the print) and tack weld as per assembly. Certification must be signed by student, program instructor, technical director, and principal of the sponsoring school.

Clothing Requirements:

A welding operator should wear hard, slick cotton type clothing. Avoid wools and synthetics. He/She should wear long sleeve shirts with a collar that fits up tight to the neck and shirt pockets should have flaps over them. Trousers should be straight legged without cuffs. High topped shoes/boots, safety glasses with side shields, a good head shield with filter plate lens, gloves and leathers as needed (such as long sleeve welding jacket or shoulder sleeves with bib and apron). A welding hat is also advisable. NOTE: A WELDING OPERATOR MUST WEAR PROTECTIVE CLOTHING AND BE SAFETY CONSCIOUS WHILE WELDING.

WELDING SCULPTURE CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Supplied by the Technical Committee:

- All necessary information for the judges and technical committee.
- One 4-foot table

Supplied by the contestant:

- All competitors must create a one-page professional résumé and submit the day of the contest
- Student designed and produced sculpture
- Professional-detailed portfolio of the sculpture's creation.

Scope of the Contest

The contest consists of two parts:

- 1. Evaluation of the Sculpture
- 2. Oral presentation and questions and answers 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 create a concept and produce a sculpture of that design, as well as give a presentation regarding all aspects of his or her creation of the design.

Contest Guidelines

Sculpture Design and Workmanship:

Materials used must be ferrous or non-ferrous 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 opaque coatings.

All copyright laws must be followed in the creation of the design.

Sculptures may be delivered to the contest site on Thursday, April 30th, 2016 between the hours of 12:00 noon and 3:00 p.m.

The sculpture must be one continual piece, not multiple pieces unconnected.

The sculpture cannot exceed the maximum size of 18" tall x 12" wide x 18" long and cannot exceed a weight of 250 lbs.

Portfolio — **A portfolio must be placed with the sculpture prior to judging. It must be tabbed and must contain pictures and supporting evidence (i.e. receipts). It must include a description of the concept development and manufacture of the project and processes used to develop the sculpture.

A hard copy portfolio must be submitted if part and presentation is to be considered for judging.

The first page of the portfolio must include a letter certifying that the sculpture was designed and constructed by the student. The letter must contain an itemized list of all expenses.

The letter must identify the school, city, state and local advisor. The letter must identify the student to be interviewed, division (high school or post-secondary), and the letter must be signed by the instructor <u>and</u> vocational-director or principal.

**NOTE: **A digital copy of the portfolio must be submitted to jkoopman@assabet.edu NO LATER THAN April 28, 2016 at 5:00 p.m. A digitized copy as .pdf is preferred to eliminate software issues.

Presentation – The student will participate in a 4 to 5 minute presentation. Elements of the presentation should include:

- 1. General information (Individual's name, school, and title of project).
- 2. Discuss elements of the portfolio (concept, material, design and manufacture).
- 3. Inspiration for project design.
- 4. Details of processes and workmanship in the sculpture. Question and Answer Session –

After each presentation the individual will be asked questions from the judges. Questions will be about the sculpture, presentation, materials, processes and workmanship.

WELDING SCULPTURE CONTEST (continued)

Clothing Requirements:

Official SkillsUSA Attire consisting of:

For men: Official red blazer, windbreaker-style jacket or sweater; black dress slacks; white dress shirt, plain black tie with no pattern or Skills USA black tie; black socks and black shoes.

For women: Official red blazer, windbreaker-style jacket or sweater; black dress slacks or skirt with business-like white, collarless blouse, or white blouse with small, plain collar that may not extend onto the lapels of the blazer; skin-tone hose and black shoes: plain black flats or plain black shoes with a heel no higher than 2'.

-or-

Professional Business Attire.

OCCUPATIONAL SUPPORT TRADES A

EVENTS:

PRINCIPLES OF TECHNOLOGY
TECHNICAL COMPUTER APPLICATIONS
WEB DESIGN

SERIES DIRECTOR:
CHRIS HICKMAN

CONTACT INFORMATION:

GREATER LOWELL TECHNICAL HIGH SCHOOL 250 PAWTUCKET BLVD. TYNGSBORO, MA 01879

PHONE: 978.454.5411

EMAIL: sdickson@gltech.org



PRINCIPLES OF TECHNOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Please refer to the 2015-2016 SkillsUSA Technical Standards for additional information



TECHNICAL COMPUTER APPLICATIONS CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

State Skills - Technical Computer Applications

The contest will test the student skills through written exam, which will 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. A practical exam will test the students skills using Microsoft Office 2010, specifically Word, Excel, and PowerPoint.

Hardware:

IBM PC's

Software:

Office Products including: Word, Excel, PowerPoint, Access and Windows XP. The host site has <u>Office 2013</u> and that will be the preferred product. If you would like to use another version please contact the series director ASAP.

Tool Requirements: *One-page type-written resume required for every contestant

- 2 #2 Pencils with erasers
- 1 Tablet of paper

Clothing Requirements

Official SkillsUSA blazer, windbreaker, or sweater and accompanying official dress or businesslike attire. (**Refer** to the 2015-2016 National Technical Standards)



WEB DESIGN CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

To evaluate each member teams preparation for employment and to recognize outstanding students for excellence and professionalism in the field of web development.

Scope of Contest:

The contest will require each team to build a web-site.

Hands-on Evaluation:

Each team will be required to build a web-site for a non-profit organization. Each team will be given a flash drive with graphics, which can be used. They may be altered as the team sees fit. There will be no server side scripting or web server requirements. All projects will be submitted to the judges via a memory stick. **Any previously developed documents or graphics that are used by the team will disqualify that team.**

Tool & Equipment Requirements: *One-page type-written resume required for every contestant

Hardware Requirements:

The team must provide all the computers, and interconnecting equipment.

Software Requirements:

Any software can be used as long as it is properly licensed.

Clothing Requirements:

Official SkillsUSA blazer, windbreaker, or sweater and accompanying official dress or businesslike attire. (*Refer to the 2015-2016 National Technical Standards*)



OCCUPATIONAL SUPPORT TRADES B

EVENTS:

COMPUTER MAINTENANCE TECHNOLOGY
COMPUTER PROGRAMMING
INTERNETWORKING
Telecommunications Cabling (Full Demonstration)

SERIES DIRECTOR:
ROGER BELLEROSE

CONTACT INFORMATION:

MONTACHUSETT RTHS 1050 Westminster Street Fitchburg, MA

PHONE: 978-345-9200

E-Mail: bellerose-roger@montytech.net



INFORMATION TECHNOLOGY SERVICE CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

PURPOSE

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

CLOTHING REQUIREMENT

For men: White SkillsUSA Massachusetts tee-shirt with black pants, black socks and black leather shoes.

For women: White SkillsUSA Massachusetts tee-shirt with black pants, black socks and black leather shoes.

ELIGIBILITY

Open to active SkillsUSA members enrolled in programs with computer maintenance technology, computer networking and security, Cisco network academy as the occupational objectives.

EQUIPMENT AND MATERIALS

1. Supplied by the technical committee:

All materials, schematics and equipment required for the contest. Internet whitepaper documents or Internet research documents are not permitted. If determined by the committee such documentation is required for the module, the technical committee will supply it.

2. Supplied by the contestant:

- a. Pencils
- b. Basic hand tools suited for accessibility to a device, such as screwdrivers, needle-nose pliers, etc.
- c. Anti-static wrist strap with alligator clip end. Straps must be in proper working order.
- d. Digital multi-meter
- e. Contestants may bring diagnostic software with proof of ownership such as original disk or original software license, proof of payment of shareware license fee, or proof of software released into public domain (freeware)
- f. Contestants may use standard technical data reference books such as those that include BIOS codes, HDD parameters, etc. Books normally used as a classroom text will not be permitted
- g. Contestants may use malware detection and removal software with proof of ownership, as described in Item E
- h. All competitors must create a one-page résumé, which will be submitted at the contest site the day of the actual contest

SCOPE OF THE CONTEST

The contest is defined by industry standards as determined from elements of the CompTIA A+ including elements of Network + and Security + guides. Certification objectives may be found at the following website: www.comptia.org. These are also free by request. Write to: CompTIA 3500 Lacey Road, Suite 100, Downers Grove, IL 60515; 630-678-8300.

Knowledge Performance

This portion of the contest will be a written knowledge exam. Competencies evaluated on the written exam are congruent with those evaluated on the newest release of the A+ Certification exam.

Skill Performance

This portion of the contest will be a series of modules through which each contestant will rotate on a fixed time schedule to troubleshoot end user computing issues. Adaptive research is not in the current scope of the contest.

Contest Guidelines

- 1. The contests will have several hands-on skill scenarios that demonstrate one's entry-level employment skills selected from the list of competencies as determined by the SkillsUSA technical committee. Scenarios may include but are not limited to the following:
- a. Diagnose and service client issues with their relation to server or network interaction
- b. Diagnose and resolve operating system and startup problems
- c. Demonstrate ability to use utility software, drives and other peripherals
- 2. The software problems will relate to Windows operating systems, powershell and command-line skills
- 3. Contestants will be awarded points based on their ability to solve problems or complete tasks within the allotted time. Partial points may be awarded for solving partial problems.
- 4. Competence is determined when the contestant acquires 60 percent of the available points.
- 5. Contestants will be provided, as required, manufacturers' documentation of the devices to be installed and/or serviced.
- 6. Winners will be determined on the basis of their total scores.
- 7. Specific penalties will be assessed for the failure to properly use anti-static straps at all times when in contact with the contest equipment. Penalties will be assessed at 5 points per occurrence, and notice of infractions will be communicated to the contestant when they occur.
- 8. Penalties will be assessed for failure to follow a judge's instruction that results in damage or loss of equipment or when improper handing is determined. Penalty may be assessed up to 10 points per infraction.

Contestants do not need to purchase the official SkillsUSA polo shirt required for National competition.

COMPUTER PROGRAMMING CONTEST

Purpose:

To evaluate the contestants knowledge and understanding of computer programming and to evaluate the students preparation for employment in the software industry.

Scope of the contest:

Contestants will be given a computer-programming problem consisting of background information and program specification with accompanying reference material and description of program requirements. Contestants will develop an appropriate (successfully executable) computer program from design notes and instructions. The programming document requirements may include, but not limited to, the following: Program module hierarchy, Structured flow chart for each module, each program module coded in Pseudo-English.

Eligibility:

Open to active SkillsUSA members enrolled in programs with computer programming as the occupational objective.

Clothing, Resume, and Supplies Requirements:

Clothing requirements:

- For men: Official SkillsUSA white dress shirt with black dress slacks, black tie, black socks, and black leather shoes. Business like attire is also acceptable. NO SNEAKERS.
- **For women**: Official SkillsUSA white dress shirt with black slacks or skirt, black socks or black or skin tone seamless hose and business appropriate shoes. NO SNEAKERS.

Contestants do not need to purchase the official SkillsUSA polo shirt required for National competition.

Resume:

*One-page type-written resume required for every contestant

Equipment and Materials:

- All equipment is to be supplied by the contestant
- Recommending that students down load the free copy of <u>VB Express 2008 Download or newer</u> version and/or Microsoft C Sharp prepare for contest. Contest can be presented in either software application.
- Flash drives will be provided to store the completed program, which will be left with the judges.
- **Previous Contest requirements are available at** http://4square.net/ and select SkillsUSA from the left column of webpage
- One reference manual

INTERNETWORKING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Purpose:

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

First, refer to the National SkillsUSA Technical Standards, General Regulations.

Clothing, Resume, and Supplies Requirements:

Clothing requirements:

- For men: Official SkillsUSA white dress shirt with black dress slacks, black tie, black socks, and black leather shoes. Business like attire is also acceptable. NO SNEAKERS.
- **For women**: Official SkillsUSA white dress shirt with black slacks or skirt, black socks or black or skin tone seamless hose and business appropriate shoes. NO SNEAKERS.

Contestants do not need to purchase the official SkillsUSA polo shirt required for National competition.

Resume:

*One-page type-written resume required for every contestant

Equipment and Materials:

Pencil and paper (for notes)

Written Evaluation:

The purpose of the written portion, of the contest, is to test a student'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
- 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

Hands-on Evaluation:

The purpose of the hands-on component of the contest will be to test a student's ability to design, install, and maintain Internetworks. Given a set of networking equipment (cable, switch, routers, etc.), the students must, in a finite amount of time, install network equipment and configure.

This would be similar to doing an installation at a trade show. The vision and context is that client companies would request a demonstration booth which runs a particular Internet application — and students, given equipment and tools, would provide the appropriate connectivity for the application to run successfully.

Equipment Provided for Contest:

- Cisco Routers
- Cisco Switch
- All Cat 5 Cables
- All V.35 Cable Used to Interconnect Network Equipment
- Computers
- Console Cables for Network Equipment

TELECOMMUNICATIONS CABLING

Clothing, Resume, and Supplies Requirements:

Purpose:

To evaluate each contestants preparation for employment, to recognize outstanding students for excellence, and professionalism in the field of Information technology.

Scope of contest

Knowledge Performance

The contest includes a written knowledge exam to assess knowledge of structured cabling. Questions from the written evaluation will be taken from the following general telecommunications cabling topic areas and are verbalized in the attached competencies: cable pulling, copper media (UTP cabling), grounding and bonding, horizontal cabling, installation of support structures, plans (blueprint and drawing), safety practices, splicing, standards and codes, telecommunications cabling systems, testing UTP cabling, transmission theory and troubleshooting.

Skill Performance

The purpose of the hands-on component of the contest will be to evaluate the ability to install, terminate and manage telecommunications cabling.

Contest Guidelines

- 1. An installation will be tested to industry standard requirements.
- 2. The cabling 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 by the contestant.
- 4. Skills that are to be evaluated are outlined in the competencies provided by the contest technical committee. Standards are congruent with those established by the ETA Competency Requirements for Certified Data Cabling Installers.
- 5. Contestants should have a 10-hour OSHA Card

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 connector are presented.

The contest stresses safety and working effectively in group environments as well as customer service skills. Student will build: Note: EIA/TIA Color Wire Standard for T568B or T568A will not be provided to contestants or used by the contestant when building the describe cables.

Cables to be terminated and tested:

- Cat6 cable from bottom of wall (jack plate) up and over head to punch-down panel to the designated terminal.
- Coaxial cable crimped at both ends one end screwed onto jack plate at bottom of wall, the other end will be left hanging next to punch-down panel run with the Cat6 cable.
- A Cat5e cable terminated to the 66 block on the left run up the outside wall to the wire trough hanging from the ceiling and across to the punch-down panel to the designated terminal.
- A 25 pair cable terminated at 110 blocks on right side of wall run into wall and left hanging. This is for demonstrating knowledge of color code termination only.
- We will have a selection of fiber optic cables with various connectors on them that the contestant must write down and identify the different terminals.
- Contestant will assemble two cables on a bench and demonstrating knowledge of color code termination only.

Clothing, Resume, and Supplies Requirements:

Clothing requirements:

- For men: Official SkillsUSA white polo shirt with black dress slacks, black tie, black socks, and black leather shoes. Business like attire is also acceptable. NO SNEAKERS.
- **For women**: Official SkillsUSA white polo shirt with black slacks or skirt, black socks or black or skin tone seamless hose and business appropriate shoes. NO SNEAKERS.

Resume:

*One-page type-written resume required for every contestant

Contest Guidelines

- An installation will be tested to industry TIA/EIA standard requirements.
- The cabling project must be completed within the given time and certified for use.
- Equipment and tools needed to install the appropriate connectivity for the project will be provided by the contestant.
- Skills that are to be evaluated are outlined in the competencies provided by the contest technical committee. Standards are congruent with those established by the ETA Competency Requirements for Certified Data Cabling Installers.
- Contestants should have a 10-hour OSHA Card

Tool and Supplies Requirements:

NOTE: IF THE CONTESTANT DOES NOT HAVE TOOLS THEY WILL BE DISQUALIFIED. NO TOOLS WILL BE PROVIDED AT CONTEST SITE

Supplied by the technical committee:

- Mock wall, Cable Ladder, Equipment Racks, Racks, Cable, Patch Panels, Telecommunications Outlets, Termination Blocks and Modular Plugs
- Other Various Connectors
- Fiber Optics Connectors

Equipment and Materials Supplied by contestant:

- a. Personal eye protection and Hard Hat
- b. Stripping Tools
- c. 8 pin modular plug crimping tool
- d. Cable prep tool for F-style compression connector using RG 6 Cable
- e. F-style coax compression tool
- f. Compression tool to do BNC and RCA connectors
- g. Electrician's scissors
- h. Probe-pics

- Volt ohmmeter (needed to test continuity), 4 pair tester and Coax tester or combo tester
- j. Electrical tape
- k. Cable tester
- Fish tape
- m. Other cable/wire preparation and installation/termination tools
- n. Cable labeling device
- o. Tone Generator and probe
- p. 6 inch tie wraps

SERVICE OCCUPATIONS A

EVENTS:

COMMERCIAL BAKING
CULINARY ARTS
FOOD & BEVERAGE SERVICE

SERIES DIRECTOR:

HEATHER K. McCall

CONTACT INFORMATION:

GREATER LAWRENCE RTHS 57 RIVER ROAD ANDOVER, MA 01810 978.686.0194 x2016

EMAIL: hmccall@glts.net



COMMERCIAL BAKING CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Commercial Baking

The commercial baking contest covers a variety of production techniques and knowledge of the modern baking industry. The contestants are given a written test covering basic baking science. The performance phase is the actual preparation of goods and presentation of finished products ready for sale to customers. Contestants are given a predetermined selection of all necessary food items.

State Skills - Commercial Baking

Each contestant will be supplied with the raw ingredients and/or ready-to-use dough(s) to produce bakery items.

Formula and mix/bake procedures for each item, with the exception of cake icing, white, will be provided to each contestant.

Contestants will also be graded on the following:

Scaling

Mixing

Dough Make-up skills

Batter Mixing methods

Tool Requirements:

1 - Hand rolling pin or

1 - Regular rolling pin

1 - Pastry wheel (straight or fluted)

3 - 9" Pie tins (no deep dish)

1 - Metal bench scraper

1 - Plastic scraper

1 - Rubber spatula

3 - Pastry bags at least 3

1- Bench canvas (approximately 3' x 5')

1- Wooden spoon

1 - Asst. Cake decorating tips with food coloring

1 - Cake turn table

1 - Timer

1 - Serrated knife

4 - S/S side bowls (1 - 8 qt. capacity, 3 - 3/4 to 1 qt. capacity)

Graduated Measures (cup, pint, quart, gallon)

1 – set measuring spoons

1- Baker's Scale, spring scale, or digital scale)

Optional Tools:

Cream Horn Irons

Round or fluted cookie cutters only

***No other food items allowed (e.g., sprinkles, decorates, etc.)

1 - Grease brush

2 - Muffin tins

1 - Egg wash brush

1 - Bench brush

1 - Hand whip

1 - #10 or #12 Scoop

1 - Dough thermometer

1 - Glaze brush

3 - Spatulas(2 straight, 1 off-set)

1 - Dough knife

1 - Pair of scissors

1 - Lg. kitchen spoon

1 - Paring knife

- DECORATING ICING WILL BE PROVIDED BY THE HOST SCHOOL.
- ALL FORMULAS WILL BE PROVIDED.
- Serve Safe/HACCP sanitation procedures will need to be followed.

Clothing Requirements:

Baker/Chef uniform without school name
White T-shirt or white shirt under chef's coat
White or black leather shoes (NO sneakers)
White T-shirt or white shirt under chef's coat
Apron (white)
Side towels

CONTESTANTS WILL NOT BE ALLOWED IN THE CONTEST AREA WITHOUT CORRECT SHOES.

Chef's scarf (optional, worn with chef's coat)

NO nail polish

NO jewelry

1 - Notebook

NO cell phones or pagers allowed

EACH CONTESTANT WILL BE GRADED ON DRESS AND SANITARY WORK HABITS.

SkillsUSA Massachusetts State Conference 2016

Commercial Baking Competition

Each student receives

2 lbs. Puff Pastry Dough (or 3 sheets)
2 lbs. Danish Pastry Dough
Recipe for White Bread Dough
Recipe for Pie Dough
Recipe for Muffin Batter
2 cake layers
Frosting
Fillings

Each student will prepare

From the Bread Dough (dough weights)

1- 12 oz. pan loaf

1-12 oz round loaf

2 three strand braided loaves 18 oz each loaf

1 sheet pan of 2 oz. single knot dinner rolls

From Puff Pastry Dough:

Prepare 3 varieties of Puff Pastry Products

From the Danish Dough:

Prepare 3 varieties of Danish

Prepare Pie Dough

Prepare one 9" two crust pie

Prepare one 9" lattice top pie

Using 1#12 ounces of fruit filling

Students will cut and fill and decorate two (2) cake layers with the inscription of "Happy Birthday"

Two (2) different styles of borders

Three (3) to five (5) roses, leaves, appropriately colored and decorated for size of cake.

Cake will be professionally presented.

Pie Dough

- 20 ounces Pastry flour
- 14 ounces Shortening, all-purpose
- 6 ounces Cold water
- 2 teaspoons Salt
- 1 ounce Sugar
 - 1. Gather ingredients and equipment.
 - 2. Rub or cut shortening into flour to form nuggets the size of peas.
 - 3. Dissolve salt and sugar in water.
 - 4. Add water mixture to flour mixture.
 - 5. Refrigerate. Use as needed

Blueberry Muffin Recipe

- 8 ounces Sugar
- 1 1/.2 ounces Butter, unsalted
- 1/3 teaspoonSalt
- 1 teaspoon Vanilla extract
- 5 ounces Eggs
- 9 ounces Bread flour
- 1/4 ounce Baking soda
- 9 ounces Sour cream
- 7 ounces Blueberries, frozen
 - 1. Gather ingredients and equipment.
 - 2. Preheat oven. Grease muffin pans or line with muffin liners.
 - 3. Cream sugar, butter, salt and vanilla together.
 - 4. Add ½ of the eggs and cream together for one (1) minute. Scrape bowl. Add rest of eggs and cream for one (1) more minute.
 - 5. Mix flour and soda together and add to mix. Mix until flour is absorbed into mixture.
 - 6. Add sour cream and scrape bowl for one (1) minute until blended.
 - 7. Fold in blueberries into batter.
 - 8. Scoop with appropriate-sized scoop.
 - 9. Bake 20-25 minutes or until golden brown and springy.

White Pan Bread

 $2 \frac{1}{2}$ pounds Bread flour

4 ounces Sugar

4 ounces Shortening

2 ounces Dry milk

1 ounce Dry active yeast

1 ounce Salt

4 ounces Eggs 1 ½ pounds Water

- 1. Gather ingredients and equipment.
- 2. Dough temperature: 80°F
- 3. Allow dough to rise (approximately 90 minutes) punch and allow to rise again. (Approximately 45 minutes)
- 4. Make up bread products as indicated.
- 5. Wrap excess dough and leave on rolling rack.
- 6. Finish fermentation and bake 400°F.

Notes

Students should come to competition with a work schedule and notes.

CULINARY ARTS CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Culinary Arts

The contest for culinary arts is a 6-hour competition, encompassing both hot and cold food preparation and presentation. Contestants are rated on their technical culinary skills, sanitation and food safety techniques, and above all, the quality of their prepared items, particularly their creative presentation.

Judges will check that each contestant has only the exact tools and equipment stated. NO OTHER TOOLS AND EQUIPMENT ARE ALLOWED, INCLUDING UNIFORMS. PLEASE MARK EACH PIECE OF EQUIPMENT with your **initials only** (attach a piece of masking tape and mark with a marker).

NOTE: EACH CONTESTANT WILL PREPARE A MEAL FOR FOUR PEOPLE. THE CONTESTANT WILL PLATE TWO PORTIONS OF HIS/HER CHOICE, ONE FOR TASTING.

Tool Requirements: *One-page type-written resume required for every contestant

Equipment:

1 ea. - Food Mill, small 1 ea. - Wire bowl sieve 2 ea. - S/S Bowls small and medium 1 ea. - Portion scale

1 ea. - Instant Read Thermometer

1 ea. - Graduated Measuring Containers – Cup, Quart, Half Gal.

Pots and Pans:

2 ea. - Sauce pan 1 qt.

2 ea. - Sauce pan 2 qt. with cover

2 ea. - Sauté pan 10"-12"

1 ea. - Cast Iron Skillet 10"-12"

Knives:

1 ea. - Paring knife1 ea. - French knife1 ea. - Boning knife

1 ea. - Butcher's steel

Hand tools:

1 ea. – Solid and slotted spoon 1 pr. – Tongs

1 ea. – Wooden Spoon
1 ea. – Potato peeler
1 ea. – Ladle, 8oz
1 ea. – Parisienne scoop
2 ea. – Rubber spatula
1 set - Graduated measuring spoons
1 ea. – Wire Wisk, med.

Note: Familiarize yourself with the following:

CIA Chart of Vegetable Cuts

Avocado Shallots

Clothing Requirements:

Each student should bring the following:

Clean uniform consisting of:

Black or checkered work pants White chef's jacket

White socks White apron

White chef's scarf 4 side towels, 2 cleaning rags

Hair net NO nail polish

NO jewelry Pencil

Paper chef's hat **WILL BE** provided NO cell phones or pagers allowed

Work shoes, hard soled - black (NO sneakers)

Note: A. **NO** school I.D. may be worn on any part of the uniform.

B. A 10% point total will be deducted for infractions or unprofessional looking contestants.

CULINARY ARTS CONTEST NOTES

NOTE TO CONTESTANTS

- 1. Read each recipe carefully prior to beginning.
- 2. Underline items which must be cooked and cooled, or which must sit prior to cooking.
- 3. Check all your ingredients prior to cooking. Notify a judge immediately if you are missing an item.
- 4. Prepare your items according to the time each item requires for cooking, holding, maintaining, chilling, etc. Note well any items, which require special handling, such as "keep warm" or "chill." However, remember that you will present your menu in the following order as soon as they are ready.
 - 1. Appetizer
 - 2. Soup
 - 3. Salad
 - 4. Entree/Vegetable/Starch (must be presented as a unit)
- 5. The contest manager will keep you informed of the remaining time.

RESTAURANT SERVICE CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

State Skills - Food & Beverage Service Purpose:

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in table service.

Equipment and Material:

Supplied by the Technical Committee:

- All necessary equipment and food items
- All necessary information and furnishings for judges and technical committee.

Supplied by the Contestant: *One-page type-written resume required for every contestant

- Black pen
- Pencil
- Guest check book
- Guest check presenter (black)
- Table crumber manual
- Calculator

Clothing Requirements:

Black leather shoes *(no sneakers)*White shirt or blouse *(point or straight collar)*Black socks or neutral hose
Hairnet for below the collar hair

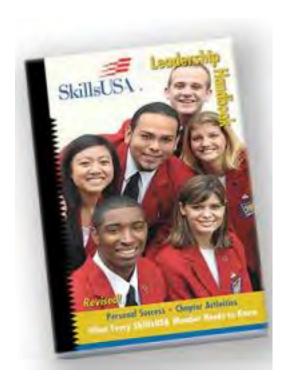
Black pants
Black tie
% length bistro style apron
NO cell phones or pagers allowed

Eligibility:

Open to active SkillsUSA members enrolled in a program with foodservice as the occupational objective.

- 1. The practical contest will be geared toward American Style Table service as seen in the SkillsUSA Leadership Handbook (Formal Service) in a commercial restaurant (see photo below for Leadership Handbook).
- 2. The performance phase will be actual customer service of customers (judges) in a restaurant setting.
- 3. Contestants will be given a written test covering different styles of table service, proper table set up, side work, taking a customer's order, personal hygiene, sanitation and general table service techniques. This test will be given prior to the actual practical test at the test location.
- 4. Contestants will demonstrate their ability to perform jobs and skills selected from the following lists of competencies:
 - A. Table set up
 - a. flatware
 - b. dishware
 - c. glasses
 - d. linen/napkin
 - e. condiments
 - B. Professional Presentation
 - a. Greeting
 - b. Attitude
 - C. Taking an order
 - D. Sequence of service
 - E. Carrying a bus tray
 - F. Meeting customers' needs/handling problems
 - G. Computation and presentation of guest check
 - H. Breakdown of table
 - I. Sanitation/personal hygiene

SkillsUSA's Leadership Handbook to be used for reference for table setting



SERVICE OCCUPATIONS B

EVENTS:

COSMETOLOGY (UNDER 500 HOURS)
COSMETOLOGY (OVER 500 HOURS)
ESTHETICS (Demonstration contest – By invitation only)
NAIL CARE

SERIES DIRECTOR:
PENNY ESTEE

CONTACT INFORMATION:

GREATER LOWELL TECHNICAL HIGH SCHOOL 250 PAWTUCKET BLVD. TYNGSBORO, MA 01879

EMAIL: pestee@gltech.org

PHONE: 978.454.5411



MEMORANDUM

TO: To All Cosmetology and Nail Care Advisors

FROM: Penny Estee, Series Director

DATE: March, 2016

RE: Contest Requirements

Due to difficulties experienced in the past, <u>no advisors</u> will be allowed to communicate in any way with the event manager or judges involved in the Cosmetology contests – Cosmetology (under 500 hours), Cosmetology (over 500 hours), Esthetics demonstration or Nail Care -- until the contest is complete and all judges' score sheets are marked and turned in.

Any violation of this will result in the disqualification of the advisor's student(s).

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COSMETOLOGY CONTEST (UNDER 500 HOURS)

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

Update: All contestants must present a resume to the Events Manager on the day of the competition. All contestants must have the required mannequin listed on the tool list. Refer to attached order form for information on how to order your mannequin.

State Skills - Cosmetology

All contestants will demonstrate their ability to perform job skills selected from the following list of competencies. Cosmetology contestants are required to duplicate a pre-selected haircut and style on a mannequin. Live models are used for PRE SELECTED DISNEY Fantasy hair style and make-up and should come to the competition with a ½ TO 1 FULL PAGE EXPLANITION OF FANTASY STYLE TO BE DONE and clean dry hair ready to be styled.

1. Fantasy Hair Style

- a. Style hair to produce fantasy effects. (DISNEY FANTASY STYLE)
- b. Incorporate braids, twists, curls.ect.
- c. Secure hair with bobby pins, hair pins, and bands, if needed.
- d. Demonstrate balance, proportion, and form in the finished look.

2. Fantasy Make-Up

After combing out the DISNEY fantasy hairstyle, perform a dramatic evening fantasy make-up to compliment the hairstyle. Sequins, feathers, etc., may be attached with surgical or other appropriate facial adhesive. False eyelashes may be attached. Creativity and artistry are being looked for here. No Masks to be used on the face.

- 45 min.
- 3. Haircut on long-haired mannequin (12 "or more)

Perform a haircut with tools necessary to complete the (pre-selected) style.

- 45 min.
- 4. Hair Style on mannequin

Blow dry and using a curling iron style to complement the hair cut.

30 min

6. Interview Question

During the competition, all contestants will be briefly interviewed. During the interview, all contestants will have a choice of three (3) questions at random to be answered within a five (5) minute time period. However, all contestants will be allowed to complete these interviews and will not be marked down for any additional time needed.

*Also, contestants' scores will not be based on the answers they give but focused on the professional presentation and their ability to sell themselves during the interview.

One of the following questions will be asked:

- 1. Within the beauty industry, where do you see yourself in the next two (2) years?
- 2. How will a salon benefit by hiring you?
- 3. Explain two (2) qualities you are looking for in a salon and why?

Special Notes:

- 1. No hairpieces or weaving or extensions will be allowed for any portion of the competition. Only the hair growing from the model's head may be used to create the style. See Page 103.
- 2. Hair ornaments of any type may be used provided that no more than 1/4 of the completed hairstyle is covered.
- 3. Follow all sanitation and safety rules!

Tool Requirements: *One-page type-written resume required for every contestant

Discard bag Towels (enough for all services)

Blow dryer Capes
Spray Bottle Hair Sprays
Neck bands (sanek strips) Combs

Brushes Hair Cutting Tools
Sufficient cosmetics for make-up application Mannequin Stand

Clips (butterfly, double prong)Styling AidsCurling Iron (Marcel)Flat IronsBobby PinsHair PinsHand SanitizerMannequin

1 Manneguin Needed - GABRIELA 560 19"-21"

 MAIL TO:
 BURMAX COMPANY
 FAX:
 CALL TOLL FREE:

 28 Barretts Ave.
 1-631-289-7590
 1-800-645-5118

Holtsville, NY 11742 Attn: School Division

Attn: School Division

*FOLLOW ALL SANITATION RULES

Clothing Requirements:

<u>All Contestants</u> will be required to wear white top and white bottom (NO JEANS) or white dress and white professional shoes, no open toes or open back. (NO SNEAKERS) Make-up for women will be minimal. Jewelry will be minimal. Make-up and jewelry will be appropriate. There will be a clothing penalty for clothing violations.

<u>All Models</u> will wear white tops and black bottoms. Shoes should be appropriate for competition movement. Models will arrive with clean faces with No make-up and clean hair. All models will take a Skills USA employability skills test at contest site.

<u>Models Note</u>: No visible piercing on face or body OF YOUR MODEL FOR SAFETY REASONS. Any JEWERLY should be put on after last comb-out.

<u>Note to All Competitors</u>: Additional equipment maybe brought to the contest site, but, will be subject to the approval of the judging team. Single strand extensions including all colors will be accepted. No more than 5 single strand extensions may be attached.

2016 Order Form



★ ORDER NOW FOR 2015 ★ REGIONAL AND STATE COMPETITIONS!

School Name		
Address		
City		
State	Zip	
Contact Person		
Title		
Phone Number		
Purchase Order Number		

Prices effective thru 3/31/15.

ITEM#	DESCRIPTION	PRICE	QTY.	TOTAL
MEN-HEAD	Mr. Sam Manikin	\$38.25		\$
3153	Sam II Manikin (Brown)	\$37.48		\$
S153-DUO	Sam II Manikin with holder	\$40.52		\$
8153-BL	Sam II Manikin (Blonde)	§37.48		\$
3153D-BL	Sam II Manikin with holder	\$40.52		\$
551	Lauren Manikin	\$79.72		\$
560	Gabriela Manikin	\$39.40		\$
0804	Debra Manikin	\$27.95		\$
N333	Nicki 100% Chemical Free Manikin	\$65.55	1	\$
329	Amanda Shoulder Manikin	§56.91		\$
SAM-4	Samantha Shoulder Manikin	\$56.46		\$
H-555	Manikin Tripod	\$52.95		\$

Prices do not include freight.

FAX: 631.289.7590

MAIL TO: Burmax Company 28 Barretts Ave., Holtsville, NY 11742 Attn: School Division

CALL TOLL FREE: 800.645.5118

9.00 x 11.50 in

Hair Cut for 2016



COSMETOLOGY CONTEST Over 500 Hours

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

State Skills - Cosmetology

All contestants will demonstrate their ability to perform job skills on a mannequin selected from the following list of competencies. Cosmetology contestants are required to duplicate a pre-selected haircut and style on a mannequin. Pre-selected haircut will be shown to all competitors at the competition site.

State Skills - Cosmetology

Contestants will demonstrate their ability to perform the following job skills on Mannequins:

- 1. Hair Styling
 - a. Create an Evening Style
 - b. Create a design that is smooth and clean demonstrating balance, proportion and form in finished style.
 - c. Incorporate current trends \$\frac{1}{2}\$ 60min.
 - a comm.
- 2. Permanent Waving (Mock)
 - A. On a long-haired mannequin (12 inches in length) section hair into 9 Panels.
 - B. On one pre-determined section demonstrate a regular perm wrap.
 - C. Demonstrate a mock solution and or neutralizer application.
 - 30 min.
- 3. Hair Coloring/Hair Straightening/Foils (Mock)
 - a. On same long-haired mannequin, divide the hair into five Panels.
 - b. On one pre-determined section demonstrate a virgin application (2 steps)
 - c. On one pre-determined section, demonstrate a retouch hair color (½ inch regrowth).
 - d. On one pre-determined section, demonstrate a virgin sodium hydroxide hair straightening process.
 - e. On one pre-determined section demonstrate foils using the slicing method.
 - f. On one pre-determined section demonstrate foils using the weaving method.

45 min.

Scope of Contest: (cont.)

4. <u>Hair Cutting</u> - haircut on long-haired mannequin (12" or more)

Judges will select cut and style at the event - student will perform haircut, blow dry and style to the given picture.

2 45 min.

5. Interview Question

During the competition, contestants will be briefly interviewed. During the interview, all contestants will be asked the <u>same</u> question, to be answered within a five (5) minute time period. However, all contestants will be allowed to complete these interviews and will not be marked down for any additional time needed.

**Also contestants' scores will not be based on the answers they give but focused on the professional presentation and their ability to sell themselves during the interview.

Tool Requirements: *One-page type-written resume required for every contestant

Spray bottle Towels (enough for all services) Combs

Neck bands (sanek strips)

Brushes

Perm rods (enough for a full head) Foils (Traditional)

Blow dryer Hair Spray
Clips (butterfly, double prong, etc.) Hair net

Combs Curling iron (Marcel)

Bobby and Hair Pins Flat Iron
End wraps Discard bag

Cotton 2 Mannequins (See Below) Haircutting Tools Mannequin Stands (2)

Gel/Setting lotion (enough for hair color techniques)

Applicator bottles, bowl and brushes (for mock perm, mock color, and foils)

2 Mannequins Needed – Nicki 100% Chemical Free Manikin #N333 –

MAIL TO: BURMAX COMPANY FAX: CALL TOLL FREE:

 28 Barretts Ave.
 1-631-289-7590
 1-800-645-5118

 Holtsville, NY 11742
 Attn: School Division

Attn: School Division

For Evening Comb out (Optional)

Bobby pins Spray(s)
Hair pins Flowers

Barrettes Hair ornaments (no more than ¼ of head)

Hair combs

*NOTE TO ALL COMPETITORS

ADDITIONAL EQUIPMENT MAY BE BROUGHT TO THE CONTEST SITE, BUT, WILL BE SUBJECT TO THE APPROVAL OF THE JUDGING TEAM.

* Coloring mannequin is optional

Clothing Requirements:

All contestants will be required to wear white top and white bottom (NO JEANS) and white professional footwear, no open toes, open back, NO SNEAKERS. Make-up and jewelry will be minimal. No high heels OR platforms. There will be a point deduction for clothing violations. Remember, you will be judged on professional image, as well as professional attitude.

2016 Order Form



ORDER NOW FOR 2015 **REGIONAL AND STATE COMPETITIONS!**

School Name__ Zip_____ State Contact Person Title Phone Number Purchase Order Number_

Prices effective thru 3/31/15.

ITEM#	DESCRIPTION	PRICE	QTY.	TOTAL
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560	Gabriela Manikin	\$39.40		\$
D804	Debra Manikin	\$27.95		\$
N333	Nicki 100% Chemical Free Manikin	\$65.55	1	\$
329	Amanda Shoulder Manikin	\$56.91		\$
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H-555	Manikin Tripod	\$52.95		\$

Prices do not include freight.

MAIL TO: Burmax Company 28 Barretts Ave., Holtsville, NY 11742 Attn: School Division FAX: 631.289.7590

CALL TOLL FREE: 800.645.5118

9.00 x 11.50 in

NAIL CARE CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

State Skills - Nail Care

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism.

- 1. **Initial degree of difficulty** (pre-judged before the start of the contest at the contest site). Based on condition and characteristic of natural nails.
- 2. Initial preparation (pre-judged before the start of contest at the contest site).

Table Set-Up

- a. Table set-up can only consist of items needed for the specific contest application in progress (i.e., if sculptured is in progress, the tip and wrap and nail art materials should not be visible during this time). Time will be allowed between each contest to reset the table set-up.
- b. All products and solutions must be properly identified with the manufactures original packaging, original labeling, and be odorless.
- c. Product labels cannot be defaced.
- d. Required tools and products accounted for and professionally organized.
- e. Sanitation solutions must be newly activated and labeled properly.

NOTE: ANY PRODUCT THAT APPEARS TO HAVE BEEN ALTERED, AS DETERMINED BY THE TECHNICAL COMMITTEE, WILL BE JUST CAUSE FOR THE CONTESTANT TO BE DISQUALIFIED FROM THE COMPETITION.

Models

Hands must be properly prepped.

- a. **NO** jewelry is allowed during competition (i.e., rings, watches or bracelets).
- b. Contestants and models will be required to have hands cleansed with an anti-microbial cleanser under the supervision of a Technical Committee member prior to entering the contest site and after each (escorted) break.
- c. Models and contestants will use a hand sanitizer in the contest area.
- 3. Product and Tool Control
 - a. Proper control and usage of all items.
 - b. Neatness and professionalism in which all items are used.
- 4. Gel/Tip Application 60Min.

Tip Application

Tip customizing

Tip alignment

Proper fit

Tip application technique

Air pockets Amount of gel/glue utilized for each nail

Extension length Tip blending
Clarity with no visible plastic Color distinction

Scope of Contest: Sculptured Nails 60 min.

Sculptured Application
 Efficiency in working with product
 Monomer contamination

Clarity Color distinction

File marks Void of bubbles and ridges

Degree of thinness and thickness

6. Cuticle and Nail Groove

<u>Cuticle</u>

Healthy, with no abrasions Cuticle free of any product

Nail Groove

Extension alignment No ridge or unevenness

7. Shape and Length

<u>Shape</u>

Consistent Proportionate to the hand

Contour Degree of thinness and thickness

Continuity

Length

Appropriate to nail bed Consistency

8. Arch and C-Curve

Arch

Left and right hand side view taper highest point of the arch

Lower arch clean and symmetrically balanced

C-Curve

Conformity with nail plate

9. Surface Finish

Smooth High gloss sheen

NO file marks, cloudiness, ridges or dull spots White fiber lines – tip & wrap application

10. Lacquer/Polish

Neatness Brush marks

Skill in evenness and accuracy

- 11. Perform foot care in a nail care situation on one foot.
 - 1. Perform a basic pedicure
 - A. Demonstrate proper steps for a basic pedicure
 - B. Demonstrate knowledge of a safe and sanitary pedicure procedure.

30 min.

Scope of Contest: (cont.)

12. Wearable Nail Art Application

The contestant will complete wearable nail art on nails. Contestant will have prepared the models nails in the first two required contests. (One hand will have a complete set of sculptured nails. One hand will have a complete set of tip with gel overlay.)

All contestants will submit to the Events Manager a short summary describing in detail their nail art theme before the competition. Nail art will be done on one hand only.

THE NUMBER OF NAILS USED FOR NAIL ART WILL BE DECIDED AT THE COMPETITION.

All nail painting and artwork must be done during the wearable nail art application. Items NOT allowed for use in the wearable nail art application: gems, skins, feathers, rhinestones, glitters, threads, fabrics, foils, beads, tapes, jewelry. No 3-D medium art, airbrushing, decals/stencils or cast moldings will be allowed.

30 min.

Creativity:

Clarity of line

Notable precision of expression

Color Coordination:

Colors must work together harmoniously

Level of Difficulty:

Degree of being inventively unique

13. Overall Results of Workmanship

Execution of skill, precision and professionalism throughout the contest Cleanliness and organization of the working environment Sanitation and safety procedures throughout the contest

14. Interview Question

During the competition, all contestants will be briefly interviewed. During the interview, all contestants will have a <u>choice</u> of (3) three questions at random to be answered within a five (5) minute time period. However, all contestants will be allowed to complete these interviews and <u>will not</u> be marked for any additional time needed.

**Also, contestants' scores will not be based on the answers they give but focused on the professional presentation and their ability to sell themselves during the interview.

ONE of the following questions will be asked:

- 1. Describe the importance of a thorough client consultation.
- 2. Within the professional industry, where do you see yourself in 5 years?
- 3. What expectation do you have about being employed in a salon?

NOTE: CONTESTANTS MUST BE PREPARED TO COMPETE IN ALL SEGMENTS OF THE CONTEST TO ENTER THE SKILLS USA CHAMPIONSHIPS.

Tool Requirements:

Supplied by Technical Committee

- Tables, chairs, foot bath, and electrical hook-ups
- Technical guidelines for the specific applications required to be performed
- All necessary information and supplies for judges and the technical committee
- Score sheets for each of the respective contest applicants

Tool Requirements: *One-page type-written resume required for every contestant

Supplied by Contestant

Electrical extension cord Manicure table lamp (optional)

Disposable contestant work area placemat

Assorted files and buffers

Cuticle pusher

Hand Sanitizer

Acrylic nail brushes

Orangewood stick

Assorted files and buffers

Forms for sculptured extensions

Dappen dishes with covers

Note: bettle discourse.

Water bottle dispenser

Portable air purifier if you have one

Lint free pads and/or cotton

Nail sanitizer

Nail sanitizer

Goggles and mask Half Well Nail Tips ONLY

Polish/Lacquer- Dark crème lacquer/polish (i.e., dark red) Plastic zip lock bags, gallon size for disposal of refuse

Portable kit organizer (to transport all necessary items needed for the contest)

Cuccio products gel kit should which include:

1 mini black LED light, 1 primer pen, 1 gel brush, 1 T3 opaque pink hard gel (LED Cure), 1 T3 white hard gel (LED Cure), 1 veneer base coat, 1 pack of assorted clear tips, 1 small brush on glue for tips, 1 cleanser for induction layer, 1 veneer top coat.

CUCCIO PRODUCT KIT SHOULD INCULUDE:

1 odorless monomer 2 ounces, 1 odorless white powder 2 ounces, 1 odorless pink powered 2 ounces, 1 acrylic brush, 1 primer pen, 1 sealer, 1 pack of 50 large rectangular sculpting forms, 1 small sani spray.

CUCCIO PRODUCT KIT SHOULD INCLUDE:

1 pair foam pedicure slippers, 1 nail brush, 1 sani nail file, 1 pair toe separators, 1 Birchwood stick.

Supplies, sanitized implements, and products needed to complete a basic pedicure on one foot.

White terry towels (15 x 26) - **NO holes, stains or colors allowed**Anti-bacterial solution for foot bath
Disinfectant/sanitation surface spray (for work environment)
Disinfectant tray system or sanitizing jar (for implements)
Anti-microbial cleanser (for pre-cleaning of feet)
Lotions and creams needed for pedicure
FOOT BATH WILL BE PROVIDED AT COMPETITION SITE

Optional Items Allowed

Cushion for chair
Oil (can only be used after the judging has been completed)
Hand lotion/crème (can only be used after judging has been completed)
Fine tip art brush for polish/lacquer clean-up

Supplies Not Allowed

NO MIX & MATCH OF CHEMICALS (I.E., THE ACRYLIC POLYMER AND ODORLESS MONOMER USED FOR THE SCULPTURED APPLICATION MUST BE PRODUCED BY THE CUCCIO MANUFACTURER AND THE RESIN AND CATALYST USED FOR THE TIP AND GEL APPLICATION MUST BE PRODUCED BY THE SAME MANUFACTURER.) **NO EXCEPTIONS**

NOTE: ANY OTHER ITEMS BROUGHT BY THE CONTESTANT WILL BE SUBJECT TO THE APPROVAL BY THE TECHNICAL COMMITTEE AND MUST BE DECLARED AT THE TIME OF THE PRE-CONTEST SITE KIT CHECK.

Clothing Requirement:

Contestants:

White top and white skirt or pants (NO JEANS) with white or clear seamless hose or white socks and white professional shoes. **NO OPEN TOE SHOES OR SNEAKERS ALLOWED.**

Models:

White tops, black bottoms (NO JEANS) Shoes should be appropriate for competition movement.

Eligibility

Open to active Skills members enrolled in programs with cosmetology/nail care as the occupational objective.

COSMETOLOGY CONTEST ESTHETICS

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

The contest will include separate skill performance tasks and Oral Communication assessment.

State Skills - Esthetics

All contestants will demonstrate their ability to perform job skills selected from the following list of competencies. Live models are used for facials, massage, mask application, Business Day-Time and Fantasy make-up and should come to the competition with clean skin with no make-up.

Models will take the SkillsUSA Employability Skills exam at the contest site.

1. Cleansing Facial

- Demonstrate: Cleansing
- Demonstrate Exfoliation
- Massage using Tapotement (percussion), Petrissage, effleurage, Friction and Vibration... (15 minutes of continuous massage covering all areas of the face and neck)
- The use of facial steamer and hot towels.
- Mask application, and removal.

All safety and sanitation regulations must be followed throughout all procedures.

60 min.

2. Business Make-up Application

Perform a basic makeup application for daytime business following all safety and sanitation regulations.

30 min.

3. Fantasy Makeup Application

- The Fantasy makeup portion of the contest will have a pre selected theme (movie, story, time period, genre etc.)A 1-page written description of contestant's interpretation of theme must be submitted on the day of the competition.
- Perform a dramatic evening fantasy makeup without removing the pre applied business make-up. Sequins, feathers, etc., may be attached with surgical or other appropriate facial adhesive. False eyelashes may be attached. Creativity and artistry are being looked for here.
- No Masks are to be used on the face.
- Follow all safety and sanitation regulations.

60 min.

CONSULATION

Contestants will perform a three to four minute Skin analysis using documentation to justify the use of the treatments above on their clients. This will eliminate the need for an oral consultation and be in compliance with the Skills USA rules of no talking during the competition.

- Skin analysis
- Suggested facial treatments
- Beauty makeup product knowledge prior to application
- Fantasy makeup theme interpretation and character choice or other skill-related tasks.

3-4 minutes

Additional Rules

- Professional attitude and communication is expected throughout the contest.
- Cell Phones are not allowed in contest area.
- Props and hair ornaments, wigs and jewelry may be used in the fantasy portion of the competition but will not be part of the judging.
- All products must be considered safe for application to the skin.
- Contestant must stop working when time is called. A three point penalty will result if model is touched after time is called.
- Required products and implements must be kept organized
- All contestants must bring a model

The Fantasy makeup portion of the contest will have a pre selected theme (movie, story, genre, time period, etc.) A written description of the contestant's character and interpretation within the theme is to be limited to one page, typewritten and contained within a plastic sleeve. The description must be submitted on the day of the competition. No exceptions; none or late descriptions will result in a 10point deduction.

Tool Requirements: *One-page type-written resume required for every contestant

Spatulas Disposable applicators

Terry Towels/ Terry Face Cloths (enough for all All Cosmetics needed for Business Day time Makeup

services) Eyelashes
Cotton swabs Capes
Set -Up Sheets (paper towels) Adhesives
Make-up brushes Facial Steamer

Headbands Necessary Application tools

Cotton pads All supplies needed for cleansing facial

Decontamination Supplies Woods Lamp Tissues Analysis sheet

All cosmetics and items needed for Fantasy Makeup

Clothing Requirements:

<u>All Contestants</u> will be required to wear white top and white bottom or white dress, and white professional shoes, no open toes or open back. (NO JEANS and NO SNEAKERS). Hair must be pulled back off face. There will be a clothing penalty for clothing violations. No Jewelry.

*Models must wear Black bottom and white top. Shoes must be appropriate for competition movement. Have hair pulled away from the face; must have a clean, cosmetic-free face; and must not wear earrings facial piercings or necklaces. Jewelry may be worn in the fantasy portion of the contest. If any piercings are not removed, points will be deducted with no exceptions

^{*}TOWEL WARMERS WILL BE PROVIDED AT COMPETITION SITE.

^{**}MAGNAFYING GLASSES WILL BE PROVIDED AT THE COMPETITION SITE

^{***}FOLLOW ALL SANITATION RULES

TECHNOLOGY EVENTS

EVENTS:

ROBOTICS & AUTOMATION TECHNOLOGY

MOBILE ROBOTICS

URBAN SEARCH & RESCUE

HUMANOID ROBOTICS (Limited Demonstration)

SERIES DIRECTOR:
JAYLENE DosSANTOS

CONTACT INFORMATION:

TRI-COUNTY RVTHS 147 POND STREET FRANKLIN, MA

PHONE: 508.282-7727

EMAIL: JayleneEAdosSantos@gmail.com



ELECTRONICS TECHNOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest:

National Skills - Electronics Technology

The six-hour contest is divided into four sections that are designed to test the contestants' knowledge of analog and digital circuitry; ability to troubleshoot electronic circuits; ability to construct and test experimental circuits; to design and select circuit components; and to assemble an electronic circuit. In addition, all aspects of the contest test the contestant's ability to use and calibrate electronic equipment, record and organize data, and demonstrate good safety practices.

State Skills - Electronics Technology

Test will include construction of multistage circuit using digital, analog, and discrete components. Safety procedures will be observed.

Tool Requirements: *One-page type-written resume required for every contestant

1. Small Hand Tools and Supplies

- A. Diagonal cutters
- B. Long nose pliers
- C. Wire strippers
- D. Hook-up wire (10' of #22 gauge)
- E. 3 Solderless breadboard 3" x 6"
- F. Safety glasses
- G. Soldering iron
- H. Solder
- I. De-soldering tool
- J. Solder wick
- K. Jewelers slotted screwdriver

2. Test Equipment

All test equipment will be supplied, however, if you wish to bring your own DMM or VOM it will be acceptable.

*OPTIONAL, STUDENTS MAY BRING THEIR OWN TRAINER

Clothing Requirements

Work pants
Work shoes
NO cell phones or pagers allowed

SkillsUSA Massachusetts T-shirt Safety glasses

ROBOTICS AND AUTOMATION CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Scope of Contest

Teams of two will demonstrate their ability to perform, exhibit, and compile skills and knowledge necessary from the following list of competencies determined by the Robotics and Automation Technology SkillsUSA Technical Committee members.

The team will be provided with a written description of the task requirement and a list of the available equipment and material. The team will develop a system layout and robot program, and then demonstrate its product. Upon completion of this task, the team will be given a requirement to refine its system design and again demonstrate its functionality.

A. Perform Analysis of Task

- 1. Evaluate written task
- 2. Evaluate provided equipment and material
- 3. Evaluate system revision

B. Design, Sketching, Planning

- 1. Determine sequence of operation
- 2. Select equipment and material to meet functional need
- 3. Create flow chart
- 4. Create layout
- 5. Process system revision

C. Implement Design

- 1. Develop robot program
- 2. Install equipment
- 3. Integrate equipment with system controller
- 4. Modify system to meet revision requirements

D. System Performance

- 1. Perform functional test for total system operation
- 2. Present system for evaluation
- 3. Perform functional test to meet revision requirements
- 4. Present revised system for evaluation

Group Organization and Goals

This is a group competition and all members may interact at will. It is our hope that the competition will run much like actual industry.

- 1. The robot programmer will program the robot and peripheral equipment.
- 2. The electro-mechanical integrator will install the peripheral equipment and integrate it into the system.

We expect that when a team member has spare time he or she will help the other team member. It is our hope that one person will not dominate a team. It is in no way desirable for one person to do all the work while the other team member merely assists. Each team member must take an active role in this competition.

We have taken this course to promote creativity in the organization of production responsibility. All members are responsible for double-checking a team member's work and quality control.

General Information

- 1. This competition will be executed using intelitek's Scorbor-ER 4u robot, speed-controlled conveyor, and experiment table.
- 2. Other equipment and material is from local supply sources.
- 3. Each team will provide one working computer with Windows XP or Windows 7, 2GB RAM, 2GB free space on hard drive. Student or instructor must have administrative access to install robot software (SCORBASE).
- 4. Teams will consist of two members.

Goals

- 1. To have every team complete the contest.
- 2. To have each team member demonstrate reading and writing skills.
- 3. To have each team member use his or her critical thinking and problem-solving abilities.
- 4. To have each team member illustrate responsibility, teamwork, and self-management skills.

Notebooks

Each team will be issued a notebook and information packet. This will be a three-ring binder in which the team will complete the documentation of its assigned task.

Tool Requirement: *One page type-written resume required for every contestant

The team will require the following equipment and material to complete the competition. The Technical Committee provides most of the required equipment and materials, but the team must bring certain items.

Robotics and Automation Technical Committee provides:

Speed-controlled conveyor

Proximity sensor

Photoelectric sensor

Microswitches

Template storage area

Templates, portable and overlays

Plastic and metal blocks

Task assignment

Notebooks

Power strips and Extension cords

Scorbot-ER 4u robot with controller, power supply, cables and Scorbase Pro software

Contest Site provides:

3' x 6' Tables

Chairs (2 at each table)

110 VAC at each workstation

Teams provide:

Computer System (Pentium 4 800MHz or higher, 2GB RAM, 2GB free space on hard drive, USB port, CD-ROM drive, Windows XP or Windows 7 with administrative access.)

Each Team's computer MUST have a MINIMUM of 2GB of RAM available.

Also, each team MUST download and install the SCORBASE software before they arrive at the contest site. It can be downloaded from the following link: Scorbase Robocell V5335.zip

When installing the software, please select "SCORBASE for the ER-4u"."

Hookup wire 20-24 awg (3 different colors, 100 feet total)

- Wire Cutters
- Wire Strippers
- Flat Head Screw driver
- Phillips Screw Driver
- Needle nose pliers
- Safety Glasses with clear lens
- Tie wraps
- Pencils (2)
- Straight edge
- Templates allowed for Flow Chart
- Multimeter

Transportation to contest site for 7:30 am, due to the length of the exam, and it being in two parts a morning session and an afternoon session contestants need to be arriving earlier than the Conference transportation.

(This has been standard for previous years contests, any questions please contact Jaylene dosSantos, Series Director)

Clothing Requirement

Work pants
Work shoes
SkillsUSA- T-Shirt
No cell phones or pagers allowed

Safety glasses (clear lens)
No hanging jewelry
Long hair MUST BE tied back

MOBILE ROBOTICS CONTEST

can be found at the following link

Mobile Robotics Team Guide

 $\underline{\text{http://www.skillsusa.org/wp-content/uploads/2015/12/2016-Mobile-Robotics-Contest-FINAL-rev-a.pdf}$

Clothing Requirement

Work pants
Work shoes
SkillsUSA- T-Shirt
No cell phones or pagers allowed

Safety glasses (clear lens) No hanging jewelry Long hair MUST BE tied back

URBAN SEARCH & RESCUE (ROBO RESCUE) CONTEST

RoboRescue Team Guide

http://www.skillsusa.org/wp-content/uploads/2015/11/USAR2016ChalGuide.pdf

Clothing Requirement

Work pants Work shoes SkillsUSA- T-Shirt No cell phones or pagers allowed Safety glasses (clear lens) No hanging jewelry Long hair MUST BE tied back

HRI - Human-Robot Interaction (Demonstration)

Purpose

Robotics is quickly integrating into modern day life, creating a safer and more productive world. It is widely believed that robots will eventually take over dangerous jobs that are currently done by humans. Therefore, companies will be looking for talented individuals who can program these robots. 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.

Clothing Requirements

Contestants must wear SkillsUSA official attire *or* official attire for the occupational area of the demonstration.

For men: Official SkillsUSA white polo shirt with black dress slacks, black socks, and black leather shoes

For women: Official skills USA white polo shirt with black dress slacks or skirt, black socks or black or clear seamless hose, and black leather shoes.

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 800-401-1560 or 703-956-3723.

Eligibility

Open to active SkillsUSA members enrolled in CTE programs that are associated with or include Human-Robot Interaction, Computer Science, Computer programming, or Robotics

Equipment and Materials

- A. Supplied by the technical committee:
 - 1. 110 volt outlet
 - 2. Timer
 - 3. Access to the Choreographe programming software
 - 4. Items robot will retrieve
 - 5. NAO robot (to be used during competition for those schools that do not currently own a NAO Robot)
- B. Supplied by the contestant:
 - 1. A PC laptop computer 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
 - 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

Scope of the Contest

The contest will consist of the following parts:

- A. Knowledge Performance
 - 1. A reflective paper
 - 2. A presentation
 - 3. An exam
- B. Skill Performance
 - 1. On Site Programming Challenge

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.
- 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 minutes and a maximum of 10 minutes in length.
- 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.

Exam:

The exam will consist of basic geometry and Choreographe programming knowledge

HRI 1.1- Create a professional notebook that follows guidelines and effectively expresses the idea of the team.

Skill 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.

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.

Prior to programming the NAO robot to complete each task, the contestants will develop a written flow chart that outlines the program flow. Once the flow chart has been reviewed by the judges, the contestants will then continue with programming their robot for the assigned task.

Standards and Competencies:

HRI 1.0 – Engineering Notebook

HRI 2.0 – Presentation Development HRI 2.1- Develop an effective presentation that provides the judges with a detailed overview of the teams' idea

HRI 3.0 – Oral Presentation Skills
HRI 3.1- Deliver the presentation in a professional manner, meeting the standards outlined by the technical committee.

HRI 4.0 – Professional Attire
HRI 4.1 - Wear appropriate clothing
for the SkillsUSA national contest.

HRI 5.0 - Time Management HRI 5.1 - Manage time allotted to complete the assigned tasks.

HRI 6.0 – Software Development
HRI 6.1 - Develop a program to
optimize movement of a robot based on
criteria given by the technical team in order to
complete a task.

HRI 7.0 – Programming Knowledge HRI 7.1 - Basic programming knowledge

Committee Identified Academic Skills

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

Math Skills:

1.0 Shapes and Figures

- 1.1 Uses synthetic geometric models to solve distance problems
- 1.2 Uses analytic methods to solve distance problems

2.0 Problem-Solving

- 2.1 Engages in problem finding situations in the community2.2 Solves real-world problems involving three-dimensional measures
- 3.0 Units of Measurement
 - 3.1 Understands the concept of unit analysis

Science Skills:

- 1.0 Models
 - 1.1 Knows that criteria are used to evaluate a model's representation of the real world
- 2.0 Science, technology, and society
 - 2.1 Knows that throughout history, diverse cultures have developed scientific ideas through technology
 - 2.2 Knows that throughout history, diverse cultures have solved human problems through technology
 - 2.3 Knows that human adaptation has allowed for humans to overcome "limits to growth" imposed by physical systems
 - 2.4 Knows that societal challenges inspire questions for scientific research

Language Arts Skills:

- A. Provide information in oral presentations.
- B. Demonstrate use of verbal communication skills (word choice, pitch, feeling, tone, and voice).
- C. Demonstrate use of nonverbal communication skills (eye contact, posture, and gestures) using interviewing techniques to gain information.

Contest Location/Setup Information

- 1. Approximately 1400 square ft. is needed to run the event for 12 teams. The flooring in the competition area (12' x 12') needs to be smooth (polished) concrete or a commercial tile.
- 2. For the initial contest: 1-3" wide roll of blue painters tape, 25' tape measures, engineering notebooks, graph paper for each team, one calculator per team, and pencils.
- 3. For the robot performance finals: a 12' X 12' arena needs to be marked off on the floor using blue painters tape.
- 4. Each student work station (1-6' table per team) will need an 110V electrical drop.
 - 5. Two electrical drops need to be run for the judges' use.
 - 6. The time needed for the event is eight hours.

Humanoid Robotics						
	Possible					
Items Evaluated	Points	1	2	3	4	5
Engineering Notebook						
Overall Appearance	50					
Depth of Documentation	50					
Presentation						
Oral Presentation	40					
Support Materials	30					
Team Participation	30					
NAO Task Performance						
Task #1 - Object Retrieval	150					
Task #2 - Object Selection	250					
Task #3 - Object Sorting and Retrieval	350					
Math and Choreographe Exam	50					
Resume Penalty	-10					
Clothing Penalty	-50					
Time Over/Under	-20					
Total Possible Points	1000					

TRANSPORTATION SERVICE TRADES A

EVENTS:

AUTOMOTIVE REFINISHING
COLLISION REPAIR TECHNOLOGY
CRIMINAL JUSTICE
POWER EQUIPMENT TECHNOLOGY

SERIES DIRECTOR: STEPHEN P. CONDON

CONTACT INFORMATION:

GREATER NEW BEDFORD TECHNICAL HIGH SCHOOL 1121 ASHLEY BLVD.

NEW BEDFORD, MA PHONE: 508.998.3321

EMAIL: scondon@gnbvt.edu



COLLISION REPAIR CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

National-Collision Repair

The competition requires contestants to do metal work-welding including MIG welding, structural damage analysis and alignment of body and frame, estimation of damaged automobile, plastic identification and repair, and a written test in multiple areas. Contestants are judged on the overall appearance of the finished product, speed, and proper safety practices. Contestants will be required to remain in their testing area until judges direct them to their next assigned contest area.

Contestants will be disqualified for communication with people outside the contest perimeters.

Contes	taiits wi	in be disqualified for communication with people outside the contest perimeters.
		Contestants 1-3
9:00	AM	Briefing
9:15	AM	Metal Working
10:50	AM	MIG Welding
11:40	AM	Frame Analysis
12:25	PM	Lunch
12:55	PM	Estimating
1:45	PM	ASE Test/Job Interview
2:35	PM	Plastic Repair
4:05	PM	Done
		Contestants 4-6
9:00	AM	Briefing
9:15	AM	Plastic Repair
10:50	AM	Frame Analysis
11:40	AM	MIG Welding
12:25	PM	Lunch
12:55	PM	ASE Test/Job Interview
1:45	PM	Estimating
2:35	PM	Metal Working
4:05	PM	Done
		Contestants 7-9
9:00	AM	Briefing
9:15	AM	Frame Analysis
10:05	AM	MIG Welding
10:55	AM	Plastic Repair
12:25	PM	Lunch
12:55	PM	Metal Working
2:25	PM	Estimating
3:15	PM	ASE Test/Job Interview
4:10	PM	Done
		Contestants 10-12
9:00	AM	Briefing
9:15	AM	MIG Welding
10:05	AM	Frame Analysis
10:55	AM	Metal Working
12:25	PM	Lunch
12:55	PM	Plastic Repair
2:25	PM	ASE Test/Job Interview
3:15	PM	Estimating
4:10	PM	Done

Skill Areas of Competition

Metal Working 1 ½ hrs. (Have a fender with E coat only/no paint). One dent to be worked out without the

use of filler, one dent to be repaired using only body filler. Prepare panel (fender) for primer.

Judge is looking for: Safety, proper use of tools, metal straightening, use of filler material, techniques and overall

final appearance.

Frame Analysis 45 minutes.. The following gauges may be used: Tram & Self Centering gauges

Judge is looking for: Safety, steering geometry and alignment, use of frame/body manuals, body measurements,

describe damage on paper, draw out what you see.

MIG Welding 45 Min. Plug weld, stitch weld, continuous weld (vertical weld and flat weld). Welders that

will most likely be used Miller's 175 and 160"s with.23 wire

Judge is looking for: Safety, good penetration of weld, proper set up of and tuning of the machine.

Estimating 45 Min. Must be able to identify five types of vehicle damage, and prepare a hand written

estimate.

Judge is looking for: Vehicle identification, estimate written legibly, list of parts in logical sequence, time involved

in repairing, parts and material cost, estimate completed with final figure.

Job Interview 15 Min. (with portfolio and resume)

Judge is looking for:

The ability to communicate with the judge, good eye contact, fill out a job application legibly

and completely.

Plastic Repair: 1 ½ hrs. Bumper and bumper tab repair.

Judge is looking for: Safety, surface preparation, featheredging, block sanding, overall finale appearance, and

general knowledge test.

Tool Requirements:

- 1. Hammers
- 2. Dollies
- 3. Sanding blocks
- 4. Board sanders
- 5. (2) #2 pencils sharpened
- 6. Calculator
- 7. Adjustable wrench
- 8. Metal file
- 9. Cheese file
- 10. Small grinder 3"-5"
- 11. Grinding disc
- 12. DA sander
- 13. DA sanding paper assortment
- 14. Sanding paper for shaping polyester body filler (example 80,180,320 grit)
- 15. Welding hood
- 16. Welding gloves
- 17. Welding vest
- 18. Welding respirator
- 19. Tape measure capable of English and metric measure
- 20. Tru-flat air nipples ¼ inch
- 21. Safety glasses with side shields
- 22. 2 gray scuff pads
- 23. 2 green scuff pads
- 24. Dust respirator
- 25. Student portfolio and resume
- 26. Air blow gun

Clothing Requirements:

All work clothes will be free of insignias/labels. A 5% clothing penalty will be deducted or possible disqualification for failure to comply with the dress code.

Dickie like work pants (dark blue). Jeans will not be considered work pants.

Leather work boots only (No sneakers or shoes allowed)

Dickie like work shirt (dark blue)

Safety glasses (w/side shields) Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.

POWER EQUIPMENT TECHNOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

The competitions purpose is to evaluate each contestant's preparation for employment and recognize outstanding students for excellence and professionalism in engine and equipment diagnostics, overhaul and repair of both liquid and air-cooled engines. It will also evaluate the ability to troubleshoot and possibly overhaul the power train components of a piece of powered equipment and/or machinery.

Contestants can be and will be disqualified immediately for any communication with people outside of the contest perimeters



			Power	· Equipn	nent Tec	hnology				
Contestant Number	Items Evaluated	Written Test	Parts I.D.	Customer Service Job Quote	Failure Analysis	Precision Measurements	4-cycle service	Interview/Portfolio	Explain how a 2-cycle air cooled engine and a 4-cycle engine operate	Clothing penalty
										0 0r
	Possible Points	10 0	75	100	150	150	150	10 0	175	or - 5 0
	T Gilles		7.5			100	230		270	

Equipment and Materials:

- 1. Supplied by the technical committee:
 - a. All necessary engines, engine parts, work stations, test stands, power equipment, gasoline, oil and all basic hand tools as well as necessary specialty tools.
 - b. Industry manuals, including service and repair instruction manuals.
- 2. Supplied by the contestant:
 - a. All competitors must create a one-page typed resume to be turned in at the time of the contest orientation.
 - b. Contestants must provide a portfolio (without the school or contestants name) at the time of the interview. (Portfolios will be returned at the end of the contest).

Clothing Requirements:

All work clothes will be free of insignias/labels. A 5% clothing penalty will be deducted from your total score for failure to comply with dress code.

Dickie like work pants (dark blue) (Jeans will not be considered work pants)

Dickie like work shirt (light blue)

Leather work boots only (Sneakers or shoes will not be allowed)

Safety glasses (w/side shields)

AUTOMOTIVE REFINISHING TECHNOLOGY CONTEST

Scope of Contest

National-Auto-Refinishing

The contest is defined by the current industry technical standards. The contest is divided into six portions: a written ASE exam, an interview, a manually written estimate, and a series of workstations. Contestants will demonstrate their abilities to perform tasks selected from the following list of competencies as determined by the Skills USA Championship technical committee

$\underline{\textbf{Contestants will be disqualified for communication with people outside the contest perimeters.}}$

Schedule

		Contestants 1-3					
9:00	AM	Briefing					
9:15	AM	Estimating					
10:05	AM	Tinting/Color/Pain I.D. matching including mixing					
11:55	AM	Sanding/Priming panel					
12:25	PM	Lunch					
12:55	PM	Masking of vehicle					
1:45	PM	ASE paint test/Interview					
2:35	PM	Prep. Entire panel BC/CC					
3:20	PM	Done					
-		Contestants 4-6					
9:00	AM	Briefing					
9:15	AM	Prep. Entire panel BC/CC					
10:50	AM	Sanding/Priming panel					
11:40	AM	Masking of Vehicle					
12:25	PM	Lunch					
12:55	PM	ASE Test/Job Interview					
1:45	PM	Tinting/Color/Pain I.D. matching including mixing					
2:35	PM	Estimating					
3:20	PM	Done					
		Contestants 7-9					
9:00	AM	Briefing					
9:15	AM	Masking of Vehicle					
10:05	AM	Tinting/Color/Pain I.D. matching including mixing					
10:55	AM	Prep. Entire panel BC/CC					
11:40	AM	Lunch					
12:50	PM	Estimating					
1:40	PM	ASE Test/Job Interview					
2:30	PM	Sanding/Priming panel					
3:20	PM	Done					
		Contestants 10-12					
9:00	AM	Briefing					
9:15	AM	Tinting/Color/Pain I.D. matching including mixing					
10:05	AM	Masking of Vehicle					
10:55	AM	Estimating					
11:40	PM	Lunch					
12:55	PM	Prep. Entire panel BC/CC					
2:25	PM	Sanding/Priming panel					
3:15	PM	ASE Test/Job Interview					
4:05	PM	Done					

Skill Areas of Competition

Prep. entire panel for 1 ½ hrs. Perform proper sanding techniques and final sand for

BC/CC sealer application in relationship to tasks.

Judge is looking for: Safety, proper use of tools, metal straightening, use of filler material,

techniques and overall final appearance. **NOTE** Should student prepare

panel/fender for primer

Sanding/Priming Panel 45 minutes Perform industry standard sanding procedures to prepare panel

for priming.

Judge is looking for: Safety, proper use of tools/equipment, and supplies. Overall finished product

Masking of vehicle 45 minutes. Appropriate masking techniques for refinishing fender and

blending into adjacent panel application in relationship to tasks.

Judge is looking for: Safety, mask and protecting of panels no to be refinished, mask door jambs

and other aperture panels.

Paint test/Interview 45 minutes. ASE style test, with portfolio students name and school should

not be present on their portfolio

Judge is looking for: the ability to communicate with the judge, good eye contact, fill out job

application legibly

Tinting/Color matching 45 minutes. Complete color assessment in relationship to the task. Selecting

the correct toner for color within the formula.

Judge is looking for: ability to determine adjustment that must be made, ability to select the

correct toner, ability to follow set directions.

Estimating/Paint ID 1½ hrs. Proper vehicle ID, estimate written legibly, list parts in logical

sequence, time involved repairing, parts material cost, estimate completed final figure. Locate and document vehicle manufacturer's paint code application in relationship to tasks. Identify the code using paint

manufacturer manuals.

Judge is looking for Safety, Vehicle I.D., estimate written legibly, list of parts in logical sequence,

time involved in repairing, parts and material cost, estimate completed final

figure. Accurate location of paint ID and ability to look code up in

manufacturer's manual.

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Tool requirements:

- 1. Spray guns (Advisors/Contestants should make sure that the air nipples attached to their air tools will work in the Balckstone Valley collision shop)
- 2. Cartridge-type respirator (charcoal-filtered) for mixing, not spraying
- 3. Paint suite
- 4. Tack rags
- 5. Air pressure gauge (spray gun)
- 6. DA pad wrench
- 7. Hook-it and sticky back DA pads
- 8. DA sander
- 9. 9/16" and 5/8" wrenches
- 10. Sanding pads
- 11. Sanding blocks
- 12. Red, gray, and white scuff pads
- 13. One page type- written resume along with their portfolios (students name and school should not be present on their resume)
- 14. Air blow gun

Students will be required to wear fresh air supplied hoods for the painting portion of the contest. These will be provided.

Clothing Requirements:

All work clothes will be free of insignias/labels. A 5% clothing penalty will be deducted from your total score for failure to comply with dress code.

Dickie like work pants (dark blue) - Jeans will not be considered work pants Dickie like work shirt (light blue)
Leather work boots only - Sneakers or shoes will not be allowed Safety glasses (w/side shields)

CRIMINAL JUSTICE CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

The competitions purpose is to evaluate each contestant's preparation for employment and recognize outstanding students for excellence and professionalism in Criminal Justice.

This new demonstration contest will follow National Contest rules as written in the 2012-2013 SkillsUSA Championships Technical Standards, EXCEPT for CLOTHING REQUIREMENTS. State competition clothing requirements are as follows:

Clothing Requirements:

All work clothes will be free of insignias/labels. A 5% clothing penalty will be deducted from your total score for failure to comply with dress code.

Dickie like work pants (dark blue) - Jeans will not be considered work pants
Dickie like work shirt (light blue)
Leather work boots only - Sneakers or shoes will not be allowed
Safety glasses (w/side shields)
And all other equipment specified in National Standards under Supplied By Contestant.

TRANSPORTATION SERVICE TRADES B

EVENTS:

AUTOMOTIVE SERVICE TECHNOLOGY
DIESEL EQUIPMENT TECHNOLOGY
MARINE SERVICE TECHNOLOGY

SERIES DIRECTOR:
SCOTT BOYDSTON
SAMUEL PORAZZO

CONTACT INFORMATION:

UNIVERSAL TECHNICAL INSTITUTE
One Upland Road, Bldg. 200
Norwood, MA 02062
PHONE: 774-571-1781

EMAIL: sboydston@uti.edu



AUTOMOTIVE SERVICE TECHNOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Contestants will rotate among multiple test stations. Each station will be timed and one rest station is built into the rotation. Test stations may include the following:

- HVAC
- Engine Performance
- Charging Systems
- Environment, Health and Safety
- Electrical Circuit Diagnosis
- Electronic Service Information
- Steering and Suspension
- Information Systems ChiltonPro
- Professionalism Job Interview Skills
- Brake Service
- Engine Mechanical

Tool Requirements:

- One-page type-written resume
- 2-#2 Lead pencils with eraser
- All other tools and equipment will be supplied.

Clothing Requirements:

Work pants (NO Jeans)
Work boots (NO sneakers)
Safety glasses

SkillsUSA Massachusetts Tee Shirt

NO cell phones or pagers

NO Jewelry

DIESEL EQUIPMENT TECHNOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Contestants will be tested on multiple work stations, which may include the following:

- Shop Skills
- Drive Train
- Precision Measurement
- Electronic Diagnosis
- Safety
- Hydraulic Components
- Machine Inspection
- Electric Power Generation
- On Highway
- Live Engine Test

Tool Requirements:

- One-page type-written resume
- 2-#2 Lead pencils with eraser
- All other tools and equipment will be supplied.

Clothing Requirements:

Work pants (NO Jeans)
Work boots (NO sneakers)
Safety glasses

SkillsUSA Massachusetts Tee Shirt

NO cell phones or pagers

NO Jewelry

MARINE SERVICE TECHNOLOGY CONTEST

REQUIREMENTS AND SCOPE OF CONTEST

Contestants will be tested on multiple work stations, which may include the following:

- Fuel Systems
- Outboard Valve Adjustment
- Remote Control Key Switch Tests
- Control Harness
- Engine Component Identification
- Precision Measuring
- Service Manual Navigation
- Electrical Board Set up and Testing
- Principles of Navigation
- Capacitor Discard Ignition Systems
- Two and Four Cycle Engine Theory of Operation
- Sterndrive Shim Calculations
- Lower Unit Service.

Tool Requirements:

- One-page type-written resume
- 2-#2 Lead pencils with eraser
- All other tools and equipment will be supplied.

Clothing Requirements:

Work pants (NO Jeans)
Work boots (NO sneakers)
Safety glasses

SkillsUSA Massachusetts Tee Shirt

NO cell phones or pagers

NO Jewelry

DISPLAY EVENTS & TECHSPO

EVENTS:

CHAPTER DISPLAY

PROMOTIONAL BULLETIN BOARD

TECHSPO

SERIES DIRECTOR: SIOBHAN SANTOS

CONTACT INFORMATION:

DIMAN TECHNICAL HIGH SCHOOL 251 STONEHAVEN ROAD FALL RIVER, MA 02723

PHONE: 508.678.2891

EMAIL: ssantos@diman.mec.edu





TECHSPO REGISTRATION FORM



CHAPTER(SCHOOL)NAME:			
Address:			
CITY:	STATE:	ZIP CODE:	
SCHOOL PHONE NUMBER:			
CHAPTER ADVISOR NAME:			
STUDENT'S NAME ENTERING THE PROJECT:			
STUDENT'S SHOP (CAREER) AREA:			
STUDENT'S GRADE LEVEL:			
IS THIS STUDENT REGISTERED TO PARTICIPATE IN THE S	TATE CONFERENCE?		
YES	No \square		
IF YES, WHERE ARE THEY PARTICIPATING IN:			
IF NO, WHO WILL SET-UP/TAKE DOWN THE EXHIBIT EN	ITRY:		
PROJECT DESCRIPTION:			
ENTRY NUMBER:			
(This number will be inserted by MA S	SkillsUSA)		

This form should accompany the project to the judging area. Techspo entries are paid for using the State Conference Summary Sheet.

This form does not need to be sent to the state office prior to the time of Display

TECHSPO GRADING SHEET

Judge:		
Duningt Niverbau		
Project Number:		

PROJECT	POINTS	GE'S	POINTS
EDUCATIONAL VALUE/RELEVANCE	1-10		
DESIGN/FORMAT	1-10		
CREATIVITY/ORIGINALITY	1-10		
QUALITY OF WORKMANSHIP	1-10		
OVERALL PRESENTATION	1-10		
SUBTOTAL	50		
CLOTHING PENALTY (minus 0-5% of Total Points)			
TOTAL			

Refer to the 2015-2016 Technical Standards for Information, standards and rules for Display Events



OCCUPATIONALLY RELATED EVENTS

EVENTS:

COMMUNITY SERVICE CUSTOMER SERVICE ENTREPRENEURSHIP RELATED TECHNICAL MATH

SERIES DIRECTOR:

Kathy Conole

CONTACT INFORMATION:

PHONE: 978.692.3943

EMAIL: kconolemava@aol.com



Refer to the 2015-2016 Technical Standards for information on all Occupationally Related Contests

ENTREPREUNERSHIP CONTEST – SPECIAL INFORMATION

1. Business Plans must be sent to the State SkillsUSA office POST MARKED no later than April 7, 2016. Six copies (without binders) required.

Mail to:

Entrepreneurship Contest SkillsUSA Massachusetts 250 Foundry Street South Easton, MA 02375

AND

E-mail one copy to: klopez@maskillsusa.org (.pdf format)

2. A computer, LCD projector and screen WILL BE PROVIDED for presentations. Teams should bring their presentation on a flash drive.



INDIVIDUAL LEADERSHIP EVENTS

EVENTS:

EMPLOYMENT APPLICATION PROCESS
EXTEMPORANEOUS SPEECH
JOB INTERVIEW
PREPARED SPEECH

SERIES DIRECTOR:

Gayle Begley

CONTACT INFORMATION:

RL PUTNAM VOCATIONAL TECHNICAL HIGH SHOOL 1300 STATE STREET SPRINGFIELD, MA 01119

PHONE: 413.787.6937

EMAIL: begleyg@sps.springfield.ma.us



Refer to the 2015-2016 Technical Standards for information on all Individual Leadership Contests



TEAM LEADERSHIP EVENTS

EVENTS:

CHAPTER BUSINESS PROCEDURE
OPENING & CLOSING CEREMONIES
CAREER PATHWAYS SHOWCASE (Formerly Tech Prep Showcase)
COMMUNITY ACTION PROJECT (Demonstration)

SERIES DIRECTOR:
BRIAN BENTLEY

CONTACT INFORMATION:

EMAIL: bbentley@dimanregional.org



COMMUNITY ACTION PROJECT CONTEST

Purpose:

To evaluate an individual contestant's or team to two contestants' ability to develop, execute, document and present a Project that was completed in their Community or School Community which provides a benefit or learning experience to the Community or School.

Clothing Requirement:

For men: Official red blazer, windbreaker-style jacket or sweater; black dress slacks; white dress shirt; plain black tie with no pattern or SkillsUSA black tie; black socks and black shoes

For women: Official red blazer, windbreaker-style jacket or sweater; black dress slacks or skirt with businesslike white, collarless blouse or white blouse with small, plain collar that may not extend onto the lapels of the blazer; black sheer or skin-tone hose and black shoes. Or as updated by SkillsUSA

Note: Contestants must wear their official contest clothing to the contest orientation meeting.

Eligibility:

The contest is available to students who are classified under the provisions of Public Law 105-17, Individuals with Disabilities Education Act, 1997.

An individual or a team of two students from the same school may organize the Community Action Project. The students may enlist the assistance of others at their school in completing the Project, including other shops or chapters within the school. However, only the individual student or team who developed the Project must present the results at the competition. The students need not necessarily be from the same shop, just the same school. If a team, both members must be actively involved in the presentation.

Knowledge Performance:

There is no written knowledge (PDP) test required in this contest.

Equipment and Materials:

- 1. Supplied by the technical committee
 - a) Judges
 - b) 110 volt outlet and one extension cord
 - c) Timer and Time cards
- 2. Supplied by the contestant:
 - a) Notebook documenting project.
 - b) Presentation media, such as posters, Laptop computer, LCD projector or other visual equipment as necessary for the presentation. Recommendation is to have a backup presentation should technical problems occur when using a computer.
 - c) One-page, typewritten resume for student(s) involved in the presentation. Plus where required, such as at the Nationals, by SkillsUSA, the on-line submission of the resume is required.

Scope of the Contest:

The contest will require contestant(s) to develop and execute a Project in their Community or School Community. Documentation or recording of the events will be maintained in a Notebook to be presented at the competition. The presentation shall last a minimum of 5 minutes and a maximum of 10 minutes, explaining the purpose and scope of the Project, how the Project was developed, methods used, implementation and execution of the project, and results.

The contest will consist of two parts:

1. At Home School:

Project will be completed prior to competition.

- a) Determine the need or desire for a Project
- b) Scope or outline of the Project
- c) Develop the timeline of the Project
- d) Implement the Project
- e) Anticipate results of the Project or impact to the Community
- f) Include participation of others involved; school peers, school administration, community leaders, or other support people.
- g) Evaluate final results of the Project by the student or team.

Notebook:

Purpose of the notebook is to document and capture the chronological events in the completion of the Project. The Notebook will be judged at the contest. The Notebook may be of a design by the student or team. However, the format listed below must be followed.

- a) Title Page Name of the Project
- b) Table of Contents
- c) Section 1: Methodology for determining the project to be completed. How did you decide on the Project, who did you enlist at this stage, what was the anticipated goal of the Project?
- d) Section 2: How was the Project organized? What was the timeline? Who was responsible for which steps? How did you determine this?
- e) Section 3: Implementation schedule, specific steps to be followed.
- f) Section 4: Result of the Project. Impact of the Project on the School or Community, who benefited from the Project.
- g) Section 5: Recognition of Publicity gained. Was this recognition in any local papers, other media, school assembly, local community group, letters of appreciation, etc?
- h) Section 6: Your evaluation of the Project and recommendation. Do you feel the Project was successful or not? If yes, why? If not, why?

2. Presentation:

Purpose of the presentation is to provide the judges with an understanding of the Project, how the project was decided or determined, how it was completed, results achieved, and thoughts or recommendations for others to do a similar project.

- a) Presentation shall be a minimum of 5 minutes and a maximum of 10 minutes in length.
- b) Time Penalty: 5 points will be deducted for each 30 seconds (or fraction thereof) under the five minutes or for each 30 seconds (or fraction thereof) over the ten minutes. Time will be started with the presentation begins. The timekeeper will signal the presenter at 5 minutes, eight minutes, and ten minutes.
- c) Presentation can use any type of media, such as PowerPoint, slides, transparencies, posters, etc. Be creative to express to the judges your presentation. All presentation materials must be produced by the students involved in the project whether they are presenting or not.
- d) If team of 2 students, both must participate in the presentation.

Standards and Competencies:

- CAP 1.0 Create a community project.
 - o Determine the need/desire of the project
 - Develop the project
 - Obtain assistance in completing the project
 - Execute the project
- CAP 2.0 Create a professional notebook that follows guidelines and effectively expresses Project.
 - Design a title page that lists the name of the project
 - Construct a table of contents and organize subjects in order and list with page numbers
 - Write clear and effective objectives and scope of Project
 - Describe impact of the Project on the school or community
 - Secure any publicity, including newspaper articles, letters of commendation from appropriate sources
 - Clearly evaluate and recommend (or not) your Project.
- CAP 3.0 Design and prepare an effective presentation that provides the judges with an overview of the Project, including the results achieved
 - o Prepare a five to ten minute presentation of the Project
 - Organize the demonstration in a logical and coherent manner
 - o Incorporate at least one of the following visual aids in the presentation: posters, flip chart, overhead transparencies, 35mm slide presentation and/or PowerPoint or other computer presentation.

- CAP 4.0 Deliver the presentation in a professional manner meeting the standards outlined by the technical committee.
 - o Explain the Project through the use of media you have chosen
 - Demonstrate an effective and pleasing delivery style
 - Effectively use verbal illustrations and examples
 - Make a formal and effective introduction to the presentation that clearly identifies the scope of the Project.
 - Use a variety of verbal techniques including: modulation of voice, changing volume, varied inflection, modifying tempo and verbal enthusiasm
 - o Demonstrate poise and self-control while presenting
 - o Demonstrate good platform development and personal confidence
 - Tie organizational elements together with an effective closing
 - o Complete the Presentation within the time limits set by the contest requirements
- CAP 5.0 Wear appropriate clothing per SkillsUSA National requirements.
 - Display clothing the meets national standards for competition
 - o Demonstrate good grooming in dress and person hygiene.

Committee Identified Academic Skills:

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

Math Skills

Potential calculations based on providing results of the project, cost analysis, etc.

Science Skills

Green Project or other project related to the environment within the community.

Social Studies

Community Demographics, generational impact, historical impact based on the type of project.

Language Arts Skills

Provide information in oral presentations

Demonstrate use of verbal communication skills: word choice, pitch, feeling, tone and voice

Demonstrate use of nonverbal communication skills: eye contact, posture and gestures using interviewing techniques to gain information

Organize and synthesize information for use in written and oral presentations

Use print, electronic databases and online resources to access information in books and articles

Demonstrate narrative writing

Demonstrate information 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

- None Identified
- Source: NCTM Principals and Standards for School

Mathematics: To view high school standard, visit: standards.nctm.org/document/chapter7/index.htm. Select "Standards" from menu.

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: www.mcrel.org/standards-benchmarks/.

Language Arts Standards

- 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. They use different writing process elements appropriately to communicate with different audiences and for different 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 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.readwritethink.org/standards/index.html.

Rating Sheet

Initial proposed rating sheet is attached. Notebook documenting the project will be worth 400 points with the presentation worth 600 points.

Community Action Project – Limited Demonstration Contest

Notebook

Title Page	5
Table of Contents	5
Section 1	80
Section 2	80
Section 3	50
Section 4	80
Section 5	50
Section 6	50
TOTAL	400

Presentation

Introduction, involvement of members	75
Project Scope, Creativity	100
Organization	75
Steps/Timeline	75
Results	75
Closing	50
Organization of Presentation	100
Presence, Demeanor, Self-Confidence	50
TOTAL	600

Refer to the 2015-2016 Technical Standards for information on all other Team Leadership Contests

- SPECIAL NOTE: <u>NATIONAL UPDATE</u>: <u>Chapter Business Procedure, Clarification</u>: Knowledge Performance: The written exam consists of 100 multiple-choice questions found in Roberts Rules of Order Newly Revised 11th Edition.
- SPECIAL NOTE: For <u>Career Pathways Showcase</u> and <u>Community Action Project</u> please refer to Technical Standards for "Tech Prep Showcase"
- Employability Testing will take place in Zachary's restaurant (start time 7:45am)
- The set-up time for Career Pathways to 8:00am to 9:00am in the presentation room.
- SPECIAL NOTE: The Opening & Closing Ceremonies Contest will allow observers but contestants will be prohibited from watching other teams



DEMONSTRATION SKILL EVENTS

EVENTS:

ACTION SKILLS
AMERICAN SPIRIT AWARD
JOB SKILL DEMONSTRATION A
JOB SKILL DEMONSTRATION (OPEN)
OUTSTANDING CHAPTER
OCCUPATIONAL HEALTH & SAFETY

SERIES DIRECTOR:
MINDY GAUTHIER

CONTACT INFORMATION:

DIMAN REGIONAL TECHNICAL HIGH SCHOOL 251 STONEHAVEN ROAD FALL RIVER, MA 02723

PHONE: 508.678.2891

EMAIL: mgauthier@dimanregional.org



Refer to the 2015-2016 Technical Standards for information on all Demonstration Skill Contests



Massachusetts SkillsUSA Championships

CONTEST LOCATIONS LIST





SkillsUSA Massachusetts Event/Activity Locations Roster 2016 SkillsUSA Championships Events



Series: Building Trades A	Series Director: Noel Lamothe	Address: Tantasqua Regional HS 319 Brookfield Road Fiskdale, MA 01518	Telephone: 508/347-3045 x5130 Email: lamothen@tantasqua.org
Board Member Liaison: Brian Kelly Event	Location	Event Manager	Briefing Room
Masonry	Upton Highway Barn	Lawrence Bradley - Ibradley@shawsheen.tec.ma.us	Best Western Hotel Princess Ballroom
Industrial Motor	Room 209C	Steve Sullivan - ssullivan@wjgei.com	Best Western Hotel
Controls	Written 208C	Assisted by: Dave Barboza	Princess Ballroom
Electrical Construction Wiring	Room 210C	Tom Donahue –	Best Western Hotel
	Holding 208C	tdonahue@wjgei.com	Princess Ballroom
Major Appliance	Plumbing Shop 070C	Jeffrey Thompson -	Best Western Hotel
Technology	Holding 081C	jeffrey_e_thompson@whirlpool.com	Princess Ballroom
Series: Building Trades B	Series Director: John Koliss	Address: Bay Path RVTHS 57 Old Muggett Hill Rd. Charlton, MA 01507	Telephone: 508/248-5971 Email: jkoliss@baypath.net
Board Member Liaison: Brian Kelly			
Event	Location	Event Manager	Briefing Room
Cabinetmaking	Carpentry Shop – Room 330C Holding Room 340C	Christopher Ward	Best Western Hotel Princess Ballroom
Carpentry	Old Gym 750B Holding Room 340C	Dan Staruk	Best Western Hotel Princess Ballroom
Plumbing	Room 080C Holding Room 071C	Jim Bottis	Best Western Hotel Princess Ballroom
Heating, Ventilation, Air Conditioning & Refrigeration	HVAC Shop – Room 110D – 111D	Chris Faucher	Best Western Hotel Princess Ballroom
Series:	Series Director:	Address:	Email:





TeamWorks	Ken Pacheco	Director of Community Maintenance Fall River Department of Public Works 1 Government Center Fall River, MA 02722	kpacheco@fallriverma.org
Board Member Liaison: John Brochu with help from	ith help from John Rodominick		
Event	Location	Event Manager	Briefing Room
TeamWorks	Best Western Hotel Tent at the Trade Center *All Teams required to check-in to hotel on Wednesday, April 24, 2013 and attend industry sponsored dinner Wednesday night.	Chris Gallagher	Best Western Hotel Princess Ballroom
Series:	Series Director:	Address:	Telephone:
Commercial Design A	Becky Larson	Bay Path RVTHS 57 Old Muggett Hill Rd. Charlton, MA 01507	508/248-5971 Email: rlarson@baypath.net
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Advertising Design	Graphics Computer Lab – Room 051B	Don Goldman	Best Western Hotel Duchess Room
Photography	521-522	Bill Chenaille	Best Western Hotel Duchess Room
Digital Cinema Production	Room - 525	Howard Phillips	Best Western Hotel Duchess Room





Series: Commercial Design B	Series Director: Mark Lyons	Address: ЗНТі, LLC	Telephone: Office: 617/431-2680 Cell: 978/846-1194 E-Mail: mlyons@3HTi.com
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Additive Manufacturing Technology (Limited Demonstration)	Rooms TBA	Pam Hurt	Best Western Hotel Corporate Room
3D Visualization & Animation Technology	Rooms 524A & 527A	Ed Hull	Best Western Hotel Corporate Room
Architectural Drafting	Drafting Shop – Room 160D	Gerald Blake	Best Western Hotel Corporate Room
Technical Drafting	Drafting Shop – Room 165D	Marc Leizza	Best Western Hotel Corporate Room
Series: Commercial Design C	Series Director: Rick Allain	Address: Joseph P. Keefe Technical HS 750 Winter Street Framingham, MA 01702	Telephone: 508/416-2100 x478 E-Mail: rallain@jpkeefehs.org
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Graphic Communications	J.P. Keefe Technical HS - Graphic Communications Shop	Doug Sturgis	Best Western Hotel Duchess Room
Screen Print Technology	J.P. Keefe Technical HS - Graphic Communications Shop	Javier Melendez	Best Western Hotel Duchess Room
Painting & Design Technology (Limited Demonstration)	J.P. Keefe Technical HS	John Hughes	Best Western Hotel Duchess Room





Series: Health Occupations A	Series Director: Tara Lane	Address: Tri County RVTHS 147 Pond St. Franklin, MA 02038	Telephone: 781/864-6537 Email: lane@tri-county.tc
Board Member Liaison: Michelle Roche	e		
Event	Location	Event Manager	Briefing Room
Practical Nursing	Competition Center	Justine Naper	Best Western Hotel Marlboro Room
Medical Assistant	Competition Center	Penny Hennessy	Best Western Hotel Marlboro Room
Nurse Assistant	Competition Center	Tricia Munger	Best Western Hotel Marlboro Room
Board Member Liaison: Jane Baldi			
Health Knowledge Bowl	Holiday Inn Marlboro	Dawn Mecartea Danielle Lambert	Best Western Hotel Zachary's Restaurant
Series: Health Occupations B	Series Director: Erin Roy	Address: 1327 Providence Road Whitinsville, MA 01588	Telephone: 774/280-1426 Email: erinroy6912@gmail.com
Board Member Liaison: Michelle Roche	e		
Event	Location	Event Manager	Briefing Room
Basic Health Care	Health Services Shop – Room 310B	Holly Lafrance	Best Western Hotel Marlboro Room
Dental Assistant	Dental Lab – Room 670B	Tricia Wosney	Best Western Hotel Marlboro Room
First Aid/CPR	Competition Center	Chris Olsen	Best Western Hotel Marlboro Room





Series: Health Occupations C	Series Director: Debbie Brightman	Address: Greater New Bedford RTHS 1121 Ashley Blvd. New Bedford, MA 02745	Telephone: 508/998-3321 Email: dbrightman@gnbvt.edu
Board Member Liaison: Michelle Roche	е		
Event	Location	Event Manager	Briefing Room
Early Childhood Education	Health Services Shop – Room 311B Holding Room 300B	Judith Thornhill Pauline McCready	Best Western Hotel Marlboro Room
Health Occupations Professional Portfolio	Classroom 502 Holding Room 501	Grace Gwozdz	Best Western Hotel Marlboro Room
Medical Math (Demonstration)	Classroom 512A	Paul Correira	Best Western Hotel Marlboro Room
Medical Terminology	Classroom 523A	TBD	Best Western Hotel Marlboro Room
Series: Technology Events	Series Director: Jaylene DosSantos	Address: Tri County RVTHS 147 Pond St. Franklin, MA 02038	Telephone: 781/864-6537 Email: jayleneEAdosSantos@gmail.com
Board Member Liaison: Michael Ogilvy			
Event	Location	Event Manager	Briefing Room
Electronics Technology	Electronics Shop – Room 643B - 641B	John Safkais	Best Western Hotel Southboro Room
Robotics & Automation Technology	Classrooms; 302B, 304B, 305B	Bryant Abbot	Best Western Hotel Southboro Room
Mobile Robotics Technology	102D	Michael Ogilvy	Best Western Hotel Southboro Room
Urban Search & Rescue	200B	Chris Herget	Best Western Hotel Southboro Room



SkillsUSA Massachusetts Event/Activity Locations Roster 2016 SkillsUSA Championships Events

Skills(SK	
Skills	

Series: Metal Trades A	Series Director: James (Woody) Woodward	Address: Blackstone Valley RTHS 65 Pleasant Street Upton, MA 01568	Telephone: 508/529-7758 X2130 Email: jwoodwar@valleytech.K12.ma.us
Board Member Liaison: John Lafleche			
Event	Location	Event Manager	Briefing Room
Automated Manufacturing	Facilities 180D	Mark O'Brien	Best Western Hotel Northboro Room
CNC Technician	Machine Shop Room - M130D	Michael Pasciuto	Best Western Hotel Northboro Room
CNC Milling	Room 131D	William Weir	Best Western Hotel Northboro Room
CNC Turning	139D	Scott Brooks	Best Western Hotel Northboro Room
Sheet Metal	Metals Shop – Room 150D	Kendall Sprague	Best Western Hotel Northboro Room
Welding	Metals Shop – Room 150D	Scott Houle	Best Western Hotel Northboro Room
Series:	Series Director:	Address:	Telephone:
Metal Trades B	Matthew Connors	Blackstone Valley RTHS 65 Pleasant Street Upton, MA 01568	508/529-7758 X2570 Email: mconnors@valleytech.K12.ma.us
Board Member Liaison: John Lafleche			
Event	Location	Event Manager	Briefing Room
Engineering Technology	Room 620D Holding Room 640B	Meghan Abella-Bowen	Best Western Hotel Northboro Room
Mechatronics	221C	David Kempski	Best Western Hotel Northboro Room
Welding Sculpture	202B	Judith Morton	Best Western Hotel Northboro Room



SkillsUSA Massachusetts Event/Activity Locations Roster 2016 SkillsUSA Championships Events



Series: Occupational Support Trades A	Series Director: Chris Hickman	Address: Bay Path RTHS 57 Old Muggett Hill Road Charlton, MA 01507	Telephone: 508/248-5971 Email: cjh.hickman@baypath.net
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Web Design	Computer Lab – Rooms 510 & 511	Steve King	Best Western Hotel Boxboro Room
Technical Computer Applications	Business Tech Shop — Room 401B	Pat Illsley Jenni Gallant	Best Western Hotel Boxboro Room
Principles of Engineering Technology	308B – 309B	Katie Cunningham	Boxboro Room
Series: Occupational Support Trades B	Series Director: Roger Bellerose	Address: Montachusett RTHS 1050 Westminster Street Fitchburg, MA 01420	Telephone: 978/345-9200 Email: bellerose-roger@montytech.net
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Internetworking	IT Shop — Room 010B Holding Room 011B	Steve Ricciardi	Bost Western Hotel Boxboro Room
Information Technology Service	IT Shop – Room 011B Holding Room 011B	Scott Soucy	Bost Western Hotel Boxboro Room
Computer Programming	Computer Lab – Room 625D	Pat Toomey	Bost Western Hotel Boxboro Room
Telecommunications Cabling	Computer Lab	William Ramsey Roger Bellerose	Boxboro Room





Series: Service Occupations A	Series Director: Heather McCall	Address: Greater Lawrence RTHS 57 River Road Andover, MA 01810	Telephone: 978/686-0194 ext. 2016 Email: hmccall@glts.net
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Commercial Baking	Baking Kitchen - Room 143D Holding Room 019D	Gloria Cabral	Best Western Hotel Seminar Room
Culinary Arts	Culinary Kitchen – Room 140D Holding Room 019D	Dana Morley	Best Western Hotel Seminar Room
Restaurant Service	3 Seasons Dining Room – Room 142D Holding Room 019D	Suzanne Bagnera	Best Western Hotel Seminar Room
Series:	Series Director:	Address:	Telephone:
Service	Penny Estee	Greater Lowell Tech.	978/454-5411 Ext 6694
Occupations B		250 Pawtucket Blvd. Tyngsboro, MA 01879	Email: PEstee@gltech.org
Board Member Liaison: Michelle Roche	16		
Event	Location	Event Manager	Briefing Room
Cosmetology (Under 500 hrs.)	Cosmetology Shop - Room 631D	Sharon Clohesey	Best Western Hotel Salon A
Cosmetology (Over 500 hrs.)	Cosmetology Shop 637D	Gail Fabri-Schwartz	Best Western Hotel Salon A
Nail Care	Media Center – Room 710A Holding Room 111D	Pat Roe	Best Western Hotel Salon A
Esthetics (Limited Demonstration)	Blackstone Valley (TBD)	John Taylor	Best Western Hotel Salon A





Series: Transportation Service Trades A	Series Directors: Stephen Condon Jeremy Guay	Address: Greater New Bedford/Bay Path RTHS 1121 Ashely Bivd/57 Old Muggett Hill Rd. New Bedford, MA /Charlton, MA 01507	Telephone: 508/998-3321/508/248-5971 Email: scondon@gnbvt.edu/jguay@baypath.net
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Automotive Refinishing	Auto Body Shop – Rooms 220C Holding Room 223C	Ken Robbins	Best Western Hotel Salon B
Collision Repair Technology	Auto Body Shop – Rooms 220C Holding Room 223C	Tom Ricci	Best Western Hotel Salon B
Criminal Justice	Competition Center / Outside Venue	Jose Gonsalves	Best Western Hotel Salon B
Power Equipment Technology	QCC Area – Room 230C	Roy Manring	Best Western Hotel Salon B
Series:	Series Director:	Address:	Cell Phone:
Transportation Service Trades B	Scott Boydston/Sam Porazzo	Universal Technical Institute 39 North Circle Drive East Longmeadow, MA 01028	774/571-1781 Email: sboydston@uti.edu sporazzo@uti.edu
Board Member Liaison: John Brochu			
Event	Location	Event Manager	Briefing Room
Auto Service Technology	Automotive Technology Shop – Room 230C Holding Room 231C	George Sadowski	Best Western Hotel Salon B
Diesel Equipment Technology	Milton CAT	Richard Smith	Best Western Hotel Salon B
Marine Service Technology	Automotive Service Shop – Café Annex 220C	Ted Chamberlin	Best Western Hotel Salon B



SkillsUSA Massachusetts Event/Activity Locations Roster 2016 SkillsUSA Championships Events



Series: Display Events & Techspo	Series Director: Siobhan Santos	Address: Diman RVTHS	Telephone: 508/678-2891
		Stonehaven Road Fall River, MA 02723	Email: ssantos@dimanregional.org
Board Member Liaisons: Brian Bentley/ Sheila Herbert	// Sheila Herbert		
Event	Location	Event Manager	Briefing Room
Promotional Bulletin Board Display	BW Hotel	Stephen Marciszyn	Best Western Hotel Court Yard
Display	BW Hotel	Jim McCreedy	Best Western Hotel Court Yard
Techspo	BW Hotel Trade Center, Rear Section	Mindy Kempner	Best Western Hotel Court Yard
Series:	Series Director:	Address:	Telephone:
Occupationally	Kathy Conole	4 Chamberlain Road	978/692-3943
Board Member Liaison: Linda Coté		Westion, MA Otobo	Elliali. Acololelliava@aol.coll
Event	Location	Event Manager	Briefing Room
Customer Service	Marriott Courtyard Boston 1 Room	Bonnie Carr & Kim McFarland	Best Western Hotel Salon C
Related Technical Math	Best Western – Zachary's	Stacey O'Keefe	Best Western Hotel Salon C
Community Service	Marriott Courtyard Worcester Room	June Renaghan	Best Western Hotel Salon C
Entrepreneurship	Marriott Courtyard Boston 2 Room	Rebecca McInnis	Best Western Hotel Salon C



Event/Activity Locations Roster 2016 SkillsUSA Championships Events SkillsUSA Massachusetts

Courses	Coulor Discotors		Tolombono
Freshman Events	Carol Hartnett	Address: Blue Hills RTHS 800 Randolph Street Canton, MA 02021	retephone. 781/828-5800 Email: chartnett@bluehills.org
Board Member Liaison: Meg Costello			
Event	Location	Event Manager	Briefing Room
Career Choice Commentary	Embassy Suites Hotel – Bentley Room	Richard Vickery	Best Western Hotel Salon C
Exploratory Project Demonstration	Embassy Suites Hotel – Clark Room	John Mare	Best Western Hotel Salon C
Sticker Design (Limited Demonstration)	Embassy Suites Hotel – Berklee Room	Edward Hartnett	Best Western Hotel Salon C
Series: Individual Leadership Events	Series Director: Gayle Begley	Address: RL Putnam Technical Academy 1300 State Street Springfield, MA 01119	Telephone:413/748-6336 begleyg@springfieldpublicschools.org
Board Member Liaison: Brian Bentley/Sheila Herbert	Sheila Herbert		
Event	Location	Event Manager	Briefing Room
Employment Application Skills	Best Western Hotel Coat Room & Business Office	Sherry Anderson Diane Swenson	Best Western Hotel Salon D
Extemporaneous Speech	Best Western Hotel Executive & Corporate	Martha McCarthy	Best Western Hotel Salon D
Job Interview	Best Western Hotel Duchess & Draped Hallway	Ann Sapelli	Best Western Hotel Salon D
Prepared Speech	Best Western Hotel Boxboro	Breanna Bell	Best Western Hotel Salon D





Series: Team Leadership Events	Series Director: Brian Bentley	Address:	Telephone: 508/246-9815 Email: briansbentley@comcast.net
Board Member Liaison: Brian Bentley/Sheila Herbe	/Sheila Herbert		
Event	Location	Event Manager	Briefing Room
Chapter Business Procedure	Best Western Hotel Zachary's & Marlborough (after OCC.)	Kathryn Kenney	Best Western Hotel Trade Center - Rear Section
Community Action Project (Demonstration)	Marlborough (before OCC & CBP)	Sherry Anderson Diane Swenson	Best Western Hotel Trade Center - Rear Section
Open & Closing Ceremonies	Best Western Hotel Marlborough (after Community Action Project)	Kathryn Kenney	Best Western Hotel Trade Center - Rear Section
Career Pathways Showcase	Best Western Hotel Seminar & Salon A, Princess Ballroom *Set-up hour 8:00-9:00 a.m. Friday, April 29, 2016 (all presentation materials must be set up within this time frame	Sheila Herbert Glenn Koocher Tara Mancini	Best Western Hotel Trade Center - Rear Section
Series: Demonstration Skill Events	Series Director: Mindy Gauthier	Address: Diman RVTHS 250 Stonehaven Rd. Fall River, MA 02723	Telephone: 508-678-2891 Email: mgauthier@dimanregional.org
Board Member Liaison: Brian Bentley/Sheila Herbert	Sheila Herbert		
Event	Location	Event Manager	Briefing Room
America Spirit Award	Best Western Hotel Second Floor Conference Room	Kevin O'Brien	Best Western Hotel Salon E
Action Skills	Best Western Hotel Northboro	Debbie Pacheco	Best Western Hotel Salon E
Job Skill Demonstration – A	Best Western Hotel Southboro	Henry Champagne	Best Western Hotel Salon E
Job Skill Demo – Open	Best Western Hotel Westboro	Robert Ciosek	Best Western Hotel Salon E



SkillsUSA Massachusetts Event/Activity Locations Roster 2016 SkillsUSA Championships Events



Outstanding	Best Western Hotel	Dennis Abdow	Best Western Hotel
Chapter	Second Floor Conference Room		Salon E
Occupational Health & Safety	Best Western Hotel	Dennis Abdow	Best Western Hotel
	Second Floor Conference Room		Salon E
Holding Area	Best Western Hotel	Demonstration Skill Events and	
For Demonstration Skill		Leadership Events: All Star	
Events/Leadership Events		Restaurant	
Leadership Development Activities	Kevin Lopez, Program Manager	SkillsUSA Massachusetts	Telephone:
		250 Foundry Street	508.230-1207
		South Easton, MA 02375	E-Mail: klopez@maskillsusa.org
Event	Location	Event Manager	Briefing Room
State Officer	Best Western Hotel	Kevin Lopez & State Officers	Best Western Hotel
Candidates	Executive		Executive Room
Delegate Assembly/	Best Western Hotel	Mary-Theresa Tringale	Best Western Hotel
Voting Delegates	Trade Center		Trade Center
Employability Testing [for Leadership,	Best Western Hotel	Don Erickson	Zachary's Restaurant
Demonstration Skill &	Zachary's Restaurant	Ericks4858@aol.com	
Occupationally Related Events]			

Blackstone Valley Technical HS / JP Keefe Technical HS

t Street/ 750 Winter Street VFramingham, MA Site Coordinator(s): Fom Belland

Michele S. Denise Steve Grabowski Cyra Hathaway Jim Brochu

Best Western Royal Plaza Hotel and Trade Center

181 Boston Post Road, West Marlboro, MA 01752

Marlboro Courtyard by Marriott

Marlboro, MA 01752 75 Felton Street

Holiday Inn, Marlborough

Marlborough, MA 01752 265 Lakeside Avenue

Hampton Inn, Marlborough

277 Boston Post Road, West Marlborough, MA 01752

Embassy Suites

123 Boston Post Road, West Marlboro, MA 01752

Skills USA Championships Director

2016 SkillsUSA Championships EVอีกฟูvinter Street Framingham, MA 01702 Event/Activity Locations Rustrarefe Technical High SkillsUSA Massachusetts John Brochu

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