



Carpentry

2022 SkillsUSA Michigan State Championships Contest Description Task and Materials List

CONTEST LOCATION:

DeVos Place
303 Monroe Ave NW
Grand Rapids, MI 49503
616.742.6500
<http://devosplace.org/>

RESUME:

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

PURPOSE:

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

SAFETY REQUIREMENT:

IMPORTANT - All competitors must present a valid OSHA 10-hour certification card prior to the beginning of the contest. Contestants not providing their OSHA 10-hour card will not be allowed to compete, including the written test. Both the instructor and the contestant certify by agreeing to enter this contest that the contestant has received instructions and has satisfactorily passed an examination on the safe use of carpentry hand tools and small power tools. They also certify that the contestant's tools have been thoroughly inspected and are in safe working condition. Further they agree that SkillsUSA Inc., the Michigan SkillsUSA Championships technical committee all state judges are released from all responsibility relating to personal injuries resulting from its use. Contestants will be removed from competition if proper training has not been provided and/or they are using equipment in an unsafe manner.

UNSAFE WORK PRACTICES:

Contestants to be issued one (1) Unsafe Work Practices Warning. 1st Warning will be a 25pt deduction and 10 minute timeout! Immediate disqualification for second Unsafe Work Practice Violation.

CONTESTANT PROVIDED PERSONAL PROTECTION EQUIPMENT (PPE) AND CLOTHING REQUIREMENT:

HEAD PROTECTION: Per MIOSHA Part 6 Personal Protective Equipment, R408.40622

SAFETY GLASS: Per MIOSHA Part 6 Personal Protective Equipment, R408.40624

WORK BOOTS: Per MIOSHA Part 6 Personal Protective Equipment, R408.40625

WORK GLOVES: Rubber or other coated work gloves. Must wear during metal stud work.

HEARING PROTECTION: required per OSHA

CLOTHING: No loose fitting or sagging clothing. Long pants only cinched at waste with belt. Shirts tucked. No lettering or logos of sponsoring school or program. No inappropriate graphics or images.

JEWELRY: No dangling jewelry. Rings to be removed or taped over. **HAIR:** Long hair to be tied tightly to scalp.

Contestants to be disqualified for incomplete or inappropriate PPE or clothing. Contestants to be issued one PPE Warning for not wearing PPE at all times of competition. Immediate disqualification for second PPE Violation.

IMPORTANT NOTES: All instructors ***MUST*** pass along to all their contestants. This year, we will be following the rules as they are written here and approved by the contest chairperson.

- *All competitors must present a valid OSHA 10-hour certification card prior to the beginning of the contest. Contestants not providing their OSHA 10-hour card will not be allowed to compete, including the written test.*
- Proper PPE and Safety will be reviewed very close.
 - If the contestant is not dressed appropriately, they will not be allowed in the work area.
- We will not tolerate anything less than what has been written in these rules.
- If a student claims he or she did not know, we will hold the instructor personally responsible for not going over these rules with the student and deduct point or disqualify accordingly.
- All interactions, questions, and concerns must be addressed to the chairperson or the judges by the Student, not the instructor.

MATERIAL MANAGEMENT:

Contestants will each be provided the necessary materials to complete their project. Each contestant shall verify the provided materials match the project material list. In the event a contestant makes an error requiring additional material, they **MUST** inform the head judge to request additional materials. There will be a minimum 25-point deduction. Unauthorized material acquisition will be a 100-point deduction. Immediate disqualification for stealing materials from another contestant.

CONTESTANT PROVIDED TOOLS AND EQUIPMENT:

- Tool Belt
- Utility Knife w/ retractable blade
- Stair Gauges
- Tape Measure (min. 25-foot length)
- Circular Saw
- Speed Square
- Carpenters Pencils
- Cats Paw (nail puller)
- Chalk Line Box w/ chalk
- Framing Hammer
- Flat Bar
- Nail Set
- Straight Claw Smooth/Milled Head Hammer
- Framing Square
- 3/4 -inch Chisel
- Hand Saw
- Broom & Dust Pan
- 2 Extension Cords: 1- 25', 1-50'
- 4-in-1 Screw Driver
- Calculator
- Tin or Aviation Snips
- 2-foot or 4-foot Step Ladder
- Coping Saw
- 1 Pair of Slip-Joint or Lineman's Pliers
- Screw Gun or Driver/Drill
- Reciprocating Saw
- 1 Pair of Saw Horses
- Multi-Plug or Power Strip
- Clamps for holding materials while cutting
- Vise-grips or metal stud clamps.
- Sack lunch

CARPENTRY COMPETITION CHECK LIST

The following CHECK LIST is required and must be checked off and signed by the instructor and student or the student will NOT be able to compete! CHECK LIST is handed in with the resume at check in. The judges are interested in the accountability of both instructor and student.

Please check off the following list to confirm you are prepared to compete. [

] Students must arrive on time.

[] Student will hand their hard copy resume to the test coordinator at the door.

[] Student will hand their hard copy of their 10-hour OSHA card to the test coordinator at the door. []

Student has read and understands the above contest info.

[] Student has read and understands the above contest rules.

[] All electronic devices must be powered off and stored, including phones

[] Students must bring a lunch as they will not be able to leave the competition area. [

] Only judges and competitors are allowed in the competition and lunch areas.

_____ Instructor _____ Student

_____ Date

All tools to be inspected and approved prior to beginning competition by Judges. Any tool not in sound and safe condition to be replaced by competitor as directed. All unauthorized tools to be removed from competition area. Competitors who use non-authorized tools will be disqualified. Not bringing a listed tool does not disqualify a participant from competing.

COMMUNICATION or SUPPORT:

Contestants to have no communication or support from instructors, parents or other contestants from the start of the written exam until the end of the project build-out. No contact with parents or teachers between 7:30am and 3:00pm.

SCHEDULE: ALL Contestants expected to remain in the competition area until released by the Head Judge after clean up.

Saturday, April 9, 2022:

7:30am 8:15am: Contestant SetUp & Tool CheckIn
8:15am 8:45am: Written Exam
9:00am 9:15am: PreConstruction Meeting
9:30am 2:00pm: Project BuildOut
11:30am 12:00pm: Mandatory 30Minute Break (no work can be conducted)
2:00pm 2:30pm: Project Final Judging
2:30pm 4:00pm: Deconstruct Projects/Clean Up Contest Area

Note: All contestants to stay in competition area until all projects are deconstructed in a safe manner while wearing all PPE. All materials are to be stacked and competition area cleaned to the satisfaction of the Head Judge. This aspect of the contest will be scored as part of the competition.

SCOPE OF CONTEST:

1. Contestants will need to demonstrate their competency as compared to commonly accepted real-world work standards and practices found in the construction industry as represented by the MI SkillsUSA Carpentry Committee. This committee will be comprised of commercial contractors, new home builders, residential remodelers and other construction professionals. Contestants to show general and specific knowledge in the following areas in writing and/or demonstration:

- a. **Building Code**
 1. Identify specific building code requirements.
- b. **Blueprints and Specifications**
 1. Interpret and determine dimensions and orientation from multiview drawings.
 2. Interpret specifications and drawing notes.
 3. Interpret oral and/or written field changes.
 4. Understand common construction abbreviations and symbols.
- c. **Building Site**
 1. Orient structure properly on lot/site.
 2. Keep work area neat and orderly.
- d. **Building Materials**
 1. Identify, receive and inspect materials.
 2. Properly stage lumber and materials.
- e. **Rough Framing**
 1. Identify and select framing members.
 2. Frame and brace wood stud walls and metal stud walls to include: headers, corners, window roughopenings, fixture backing and sheathing.
- f. **Roof Framing**

1. Identify types and components of roof construction.
2. Determine rafter lengths.
3. Calculate and use the rise and run of a common roof.
4. Lay out a common roof plan.
5. Lay out, cut and install hip, gable and common rafters.

g. **Stairs**

1. Identify staircase components.
2. Calculate rise and run.
3. Layout stringer.

h. **Lumber**

1. Match common hardwoods and softwoods to their uses.
2. Identify types of trim and moldings.
3. Identify types and uses of dimensional lumber.
4. Identify types and uses of 4x8 sheet products.

i. **Deconstruction**

1. Proper disassembly of building components.
2. Removal of all nails.
3. Neat and orderly stacking of salvaged materials.

j. **Green Building Principles**

1. Be able to identify Green building principles.

k. **Time Limit**

1. Written Exam: 30minutes.
2. Project BuildOut: 4hours

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SkillsUSA Michigan Championships CARPENTRY RATING SHEET

| ITEMS EVALUATED | POSSIBLE | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|-----------------|----------------------------------|----------------|---|---|---|---|---|
| | | WALL & PARTITION WALL | 250 PTS | | | | | |
| Plates laid out correctly (16" oc) | 100 | | | | | | | |
| Parts cut to proper length (plates, studs, tract, sill, trimmers, headers, cripples) | 50 | | | | | | | |
| Window located in wall | 50 | | | | | | | |
| Constructed properly with correct nails/fasteners | 25 | | | | | | | |
| Walls plumb & braced correctly | 25 | | | | | | | |
| SUB TOTAL | | | | | | | | |
| ROOF FRAMING | 250 PTS | | | | | | | |
| Rafters laid out and cut (proper length, crown up, birds mouth, neat cuts) | 75 | | | | | | | |
| Rafters installed correctly, Hurricane clips installed | 75 | | | | | | | |
| Decking installed correctly | 50 | | | | | | | |
| Fascia installed properly | 50 | | | | | | | |
| SUB TOTAL | | | | | | | | |
| STRINGER FRAMING | 100 PTS | | | | | | | |
| Unit rise even and unit run | 50 | | | | | | | |
| Proper top step and bottom step adjustments | 50 | | | | | | | |
| SUB TOTAL | | | | | | | | |
| SUB TOTAL | | | | | | | | |
| SAFETY | 100 PTS | | | | | | | |
| Safe use and care of tools | 50 | | | | | | | |
| Housekeeping during contest | 50 | | | | | | | |
| SUB TOTAL | | | | | | | | |
| GENERAL AREA | 100 pts | | | | | | | |
| Quality of workmanship and good use of materials | 50 | | | | | | | |
| Ability to follow written directions and drawings | 50 | | | | | | | |
| SUB TOTAL | | | | | | | | |
| WRITTEN TEST | 100 PTS | | | | | | | |
| RESUME | 0 or -50 | | | | | | | |
| MATERIAL DEDUCTION | | | | | | | | |

OSHA Card 0 or -100
 DECONSTRUCTION 100
 UNSAFE WORK VIOLATION 0 or -25
TOTAL POINTS POSSIBLE 1000