



AG MECHANICS 2019

**Manhattan Area Technical College
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Monday, May 6, 2019

Registration: 7:30 a.m. – 7:45 a.m.

Contest: 7:45 a.m. – 1:00 p.m.

The CDE consists of three individual skills components, a team activity and written test. **Students must come with their own equipment as listed, failing to have adequate equipment may result in NO SCORE within individual and/or team events.**

Individual Skills

Hands-on skills components will include skills activities in the three areas below. The specific activities occurring in each of the events will not be publicized prior to the event but will involve one or more of the topics listed under each area.

Welding –

1. Short circuit transfer
2. Out of position fillet welds
3. Gas metal arc welding

HVAC –

1. Electrical controls
2. Using test instruments on residential wiring
3. Understanding ladder schematics in residential wiring

Building Trades –

1. Residential Layout of a common rafter
2. Residential Stair layout
3. Residential Wall layout

Team Activity

Team Activity details TBD by Kurt Dillon.

Tools:

Students will need to bring a pencil, pen, and magic marker in addition to the following.

Electrical:

- Wire Strippers
- #2 Phillips Head Screwdriver or Multi Screwdriver
- Needle Nose Pliers
- Lineman Pliers
- Diagonal Side Cutting Pliers
- Digital Multi-Meter
- Safety glasses

Welding:

- Safety glasses
- Welding Hood
- Welding jacket
- Gloves
- Boots
- Tape Measurer

Construction:

- Framing square
- Stair gauge (optional)
- Carpenter pencils
- Tape measurer

Needed- Safety Materials Students Must Provide. Each event participant must adhere to the safe practices and work habits appropriate when performing required activities. Participants are responsible and must provide all personal safety equipment including a. Industrial-quality eye protection: INDIVIDUALS MUST WEAR STYLE B (SEE BELOW) INDUSTRIAL-QUALITY EYE PROTECTION during the team activity and the skill/problem-solving activities. Those with prescription eyewear that is not Style B must also wear safety glasses or goggles while participating in this event. Safety glasses do not have to be worn while completing the written exam. Acceptable spectacles or goggles must adhere to the American National Standard Practice for Occupational and Education Eye and Face Protection, Z87.1-1979 (or Z87.1- 1968) and revisions approved by ANSI. Descriptions of style A, B, and C Industrial Quality Eye Protection are as follows: i. Style A: NOT ACCEPTABLE for use in the event. These are safety spectacles without side shields. They are for limited- hazard use requiring only frontal protection. The addition of accessory side shields that are not firmly secured does not upgrade style A to a style B or C. ii. Style B: ACCEPTABLE—Safety spectacles with wire mesh, perforated plastic or non- perforated side shields. The side shields shall be tapered, with an anatomical periphery extending at least halfway around the circumference of the lens frame. Industrial-quality eye protection for those not wearing prescription glasses shall be style B. iii. Style C: NOT ACCEPTABLE for use in the event. Safety spectacles with semi- or flat-fold shield that must be firmly secured to the frame. Style C glasses do not provide maximum protection from the top and bottom angles. b. Clothing: Each individual shall furnish and wear appropriate clothing such as long pants and long-sleeved cotton shirt, coveralls, etc. for this event. Clothing must be in good repair and fit properly. Oversized or loose fitting clothing is dangerous around agricultural equipment and is not allowed. Long-sleeves must be worn when welding or oxy-fuel cutting. No open-toed footwear shall be worn during the event.

