



Applied Engineering & Technologies Division

Technical Standards for Facility Maintenance Technology

Facility Maintenance Technology is a multi-trades program that combines the fundamentals of HVAC, electrical, and plumbing in order to provide students with a core set of skills and aptitudes needed to be a contributor in a high-occupancy residential or commercial facility.

A student wishing to enroll in the Facility Maintenance Technology curriculum must meet the following standards related to the trades in which they work.

In general, students must:

- Have sufficient visual capacity to read prints, schematics, other documents as well as meters and testers
- Not have a debilitating fear of heights, crawl spaces or confined spaces
- Be capable of hearing equipment running and/or operating to determine if working correctly
- Be able to communicate with co-workers at a moderate distance without line of sight
- Be able to identify wire, components, and supplies by color code
- Be able to climb ladders up to 35' in length
- Be able to lift objects weighing up to 50 lbs. and install equipment overhead
- Be capable of working with many types of tools and be able to wear a tool pouch for up to 10 hours per day
- Must not have a fear or anxiety of getting clothes or hands dirty
- Must be able to locate and interpret NC General Statutes, city codes, department rules, and regulations
- Be able to wear hard hats, safety glasses, steel toe shoes, and other safety related equipment as required by the Industry

For Air Conditioning, Heating & Refrigeration, students must also:

- Be able to tolerate exposure to noxious chemical compounds including, but not limited to: acids, acid-like chemicals, solvents, glues, cleaners, oils, and refrigerants
- Be able to work with hands (mechanical coordination skills)
- Must not have a debilitating fear of insects, spiders, snakes, lizards, or vermin
- Sufficient physical endurance to work in extreme thermal environments
- Sufficient motor function to execute movements required to install and service HVACR systems including heat pumps and furnaces

For Electrical Systems, students must also:

- Be able to clearly distinguish all the primary colors
- Have good peripheral vision and depth perception
- Be capable of hearing tones of various pitches emitted by testers and meters



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For Plumbing, students must also:

- Troubleshoot projects, components, and equipment to include detecting and evaluating slight differences in color, distance, smell, vibration, sound, and movement
- To carry to the top of a ladder and test, install, and/or repair items located at the ceiling of a room or on top of a building

For Welding, students must also:

- Must be able to locate, interpret and apply the rules of the American Welding Society and the American Society of Mechanical Engineering welding codes
- Must be able to identify welding electrodes, filler wire, and supplies by welding code