Facilities Maintenance Mechanic Certificate

ST. CLAIR COLLEGE
CORPORATE TRAINING

Training Program consists of 15 FMM courses, 480 hours total (theoretical and practical training) + 4 hours Strategies for Success + 8 hours EV Handling & Storage Overview, + 4 hours Resume Writing = 496 hours

Safety and Tools (30 hours) *25 hrs theory / 5 hrs practical*
Upon successful completion the apprentice is able to explain the health hazards and safety risks that are present on the job site and equip themselves for personal protection and general safety. The apprentice is also able to select, use, and maintain hand and power tools.

Communications (24 hours) *18 hrs theory / 6 hrs practical*
Upon successful completion the apprentice is able to demonstrate a general knowledge of business and communicate in writing by preparing basic business documents, writing reports, maintaining service documents, and preparing work orders. The apprentice is able to perform computer operations in the preparation of these basic business documents. The apprentice is also able to communicate orally, liaising with staff, tenants, and contractors and demonstrates human relations skills in the process.

Occupational Calculations (18 hours) *18 hours theory*
Upon successful completion the apprentice is able to solve trade related calculations and problems involving basic arithmetic, geometry and mathematical functions.

Plumbing (36 hours) *24 hrs theory / 12 hrs practical*
Upon successful completion the apprentice is able to install and maintain plumbing fixtures by accessing the plumbing code, reading and interpreting blueprints and schematics, identifying and locating defective area of plumbing system, inspecting water drains, and performing routine maintenance.

Facilities Maintenance 1 (48 hours) *24 hrs theory / 24 hrs practical*
Upon successful completion the apprentice is able to inspect, maintain and troubleshoot building envelope by accessing information; conducting visual and physical inspection; repairing/replacing doors/components and windows/components; planning and estimating replacement paint and wall coverings; preparing wall surfaces; applying paint and wall coverings; maintaining ceilings, interior surfaces, exterior brickwork, masonry, cladding, wall appendages, and floor coverings; performing general cleaning procedures; and performing scheduled maintenance on overhead suspended equipment. The apprentice is also able to perform grounds maintenance by accessing information; conducting a visual and physical inspection of exterior grounds; maintaining ground facilities, lawn and garden equipment; maintaining lawns, plants, trees, flora, and shrubs; inspecting, maintaining, and testing irrigation systems, and inspecting and maintaining playground equipment.

Electricity (42 hours) *30 hrs theory / 12 hrs practical*
Upon successful completion the apprentice is able to inspect and maintain electrical systems by accessing information, reading and interpreting blueprints and shop drawings, inspecting electrical systems and components, maintaining breakers and fuses (maximum 240 volts), and maintaining 120 volts, single phase electrical components and devices.

Blueprint Practices (18 hours) *12 hrs theory / 6 hrs practical*
Upon successful completion the apprentice is able to reference building codes, identify and interpret types of architectural, structural and mechanical drawings, sketch views and sections of building components.

Brazing and Welding (24 hours) *12 hrs theory / 12 hrs practical*
Upon successful comletion the apprentice is able to set up and operate oxyacetylene and arc welding equipment. The apprentice will prepare weld surfaces, weld, then disconnect and store welding equipment.

Ventilation Systems (42 hours) *28 hrs theory / 14 hrs practical*
Upon successful completion the apprentice is able to operate and maintain fume/exhaust hoods by accessing information; reading and interpreting blueprints, shop drawings and schematics; and coordinating certification for fume/exhaust hoods. The apprentice will also be able to inspect, maintain and troubleshoot ventilation systems by accessing information; reading and interpreting blueprints and schematics; inspecting, troubleshooting, and maintaining ventilation systems and components; checking and cleaning ductwork and grills; inspecting and maintaining humidifier systems; and performing scheduled preventative maintenance procedures.

Air Conditioning (42 hours) *28 hrs theory / 14 hrs practical*
Upon successful completion the apprentice is able to inspect and maintain air conditioning systems by accessing information; reading and interpreting blueprints and schematics; opening and unsealing window/wall units; maintaining system; monitoring and recording gauge readings; inspecting, cleaning, and winterizing coolant towers; adjusting and monitoring chemical feed pumps; checking for refrigerant leakage; closing in and sealing window or wall units; and preparing and assisting in startup and shutdown procedures.

Protection and Controls (18 hours) *15 hours theory / 3 hours practical*
Upon successful completion the apprentice is able to test safety devices found on low pressure heating boilers; maintain temperatures on heating systems; test, adjust, calibrate, repair, and replace thermostats; explain the function of pneumatic controls and valves, electric and electronic controls; inspect damper motors and actuators; describe hydrometers, bourdon tubes, thermocouples, IC sensors, thermistors; adjust automatic fill valves, test low water cut-out, verify function of high temperature limit switches; test and adjust pressure actuated switches, differential pressure switches and temperature actuated switches.

Heating (42 hours) *28 hrs theory / 14 hrs practical*
Upon successful completion the apprentice is able to inspect, maintain and troubleshoot heating systems by accessing information, reading and interpreting blueprints and schematics, monitoring and recording gauge readings, checking system and related components, maintaining controls and thermostats, checking and maintaining pumps and motors, and preparing for on-site inspections.

Water Systems (24 hours) *16 hrs theory / 8 hrs practical*
Upon successful completion the apprentice is able to inspect and maintain water treatment systems by accessing information; reading and interpreting blueprint and schematics; identifying and monitoring, and maintaining components of water treatment systems. The apprentice is also able to operate, monitor and maintain domestic water treatment systems and heating and cooling water systems.

Facilities Maintenance II (42 hours) *21 hrs theory / 21 hrs practical*
Upon successful completion the apprentice is able to inspect, test, adjust, repair or replace entry and exit systems and associated hardware; change hardware and software codes for electronic systems. The apprentice is able to inspect inside and outside of roof, eaves, and downspouts; perform minor roof repairs; perform preventative and predictive maintenance procedures by accessing information; reading and interpreting blueprints, shop drawings, and schematics; analyzing, planning, preparing and performing preventative maintenance duties; and coordinating outside of contractors for inspections and corrective work.

Appliances and Laundry Systems (30 hours) *20 hrs theory / 10 hrs practical*
Upon successful completion the apprentice is able to inspect, maintain and troubleshoot domestic appliances by accessing information, reading and interpreting blueprints and schematics; inspecting and maintaining domestic electrical appliances; and setting up, leveling, and testing appliances. The apprentice is also able to inspect, maintain and troubleshoot laundry systems by accessing information; checking and testing safety devices; and inspecting and maintaining laundry system, components and parts.

EV BATTERY HANDLING AND STORAGE OVERVIEW (8 hours)
Students will be introduced to key concepts in the safe handling, storage, and transport of EV batteries. Topics include battery types, safety risks, storage requirements, and compliance with industry standards.