



Apprentice Program Standards

Facilities Management

VIRGINIA COMMONWEALTH UNIVERSITY | RICHMOND, VA

Virginia Commonwealth University would like to acknowledge and thank the University of Virginia for their assistance with the Apprenticeship Program.

APPRENTICE PROGRAM PURPOSE AND OBJECTIVES

The purpose of the Apprentice Program is to be the source of skilled trades employees in various crafts to become future leaders.

Apprenticeship is a system of learning while earning, and "learning by doing." Today, it is utilized chiefly in the skilled crafts. Each program operates under training standards agreed to by management in accordance with State and Federal laws, under which the apprentice works with a skilled tradesperson, gaining on the job skills and "know-how" to in turn become an important part of the occupation and industry.

Registered through the Commonwealth's Department of Labor and Industry, the Apprentice Program at the Virginia Commonwealth University is designed to establish and maintain high standards of work performance through the development of skilled employees using on-the-job training supplemented by technical and classroom instruction. This program will provide promotional opportunities for candidates and an avenue for entry into the skilled trades for those who have minimal to no training in the trades' field.

The standards set forth in this program are designed to guide the employee and the University through the Apprenticeship process and to explain the operation of our comprehensive Registered Apprentice Program.

Virginia Commonwealth University is an equal opportunity/affirmative action institution providing access to education and employment without regard to race, color, religion, national origin, age, sex, political affiliation, veteran status, genetic information, sexual orientation, gender identity, gender expression, or disability.

RESPONSIBILITIES

In collaboration with the Department of Labor and Industry and Facilities Management leadership, the Office of Human Resources is responsible for the effective administration of the Registered Apprentice Program. The administration efforts are led by the Apprentice Program Manager and entail items including, but not limited to, recruitment, training oversight, program enhancements, and records management.

Directors, managers and supervisors are responsible for implementation and administration of the procedures and guidelines contained in this program guide.

These standards may be modified at any time with the approval of the Department of Labor and Industry.

APPRENTICESHIP RECRUITMENT

The Apprentice Program Manager is responsible for determining when recruitment of Apprentices is necessary. If positions are available, Facilities Management will conduct necessary recruitment efforts by posting vacant positions, advertising openings, and accepting applications in accordance with Virginia Commonwealth University employment policies.

The Apprentice Program Manager will convene a Selection Committee to review the applications and recommend selections in each trade being recruited.

Each committee should include a minimum of four members:

1. A supervisor of the unit seeking an apprentice
2. A representative from the trade being recruited
3. A representative from Human Resources, who shall serve as committee chair
4. A representative from senior management

Each apprentice must meet the following requirements:

1. Be at least 18 years of age prior to the projected date of hire
2. Able to meet physical requirements for their prospective trade
3. Have a high school diploma or equivalent prior to the projected date of hire
4. Knowledge/skill/ability exhibited through:
 - Previous academic accomplishments
 - Previous work experience
5. Personal interview with Selection Committee that assesses competencies including initiative, problem-solving skills, teamwork, and leadership presence
6. Successful completion of academic assessments
7. Comprehensive reference and background checks

Full details regarding Facilities Management recruitment timeline can be found in Attachment C, Timetable and Process of Activities.

OPERATION AND ADMINISTRATION

Apprenticeship Program Agreements

Upon acceptance into the Registered Apprenticeship Program, each Apprentice shall sign two written agreements during induction:

1. The Virginia Commonwealth University Apprenticeship Program Agreement describes policies pertinent to employment at the Virginia Commonwealth University. See attachment A, Virginia Commonwealth University Apprenticeship Program Agreement.
2. The Commonwealth of Virginia Apprenticeship Action Form registers the Apprentice as a participant in a state recognized Apprenticeship Program. See attachment B, Virginia Commonwealth University Apprentice Action Form.

Term of a Registered Apprenticeship

The term of Apprenticeship is the period of time required to complete the number of hours of on-the-job training and the years of classroom instruction as determined by the Department of Labor and Industry and Facilities Management. In most cases, the term will be four years.

Acceptance of Agreement

Upon acceptance in the Apprenticeship Program any current university employees vacate their existing position.

Cancellation of Agreement

Cancellation of the Apprenticeship Program Agreement will normally be made by Facilities Management only if the Apprentice is not fulfilling the academic and/or on-the-job requirements necessary to remain in Apprentice training. An exception would be a lay-off situation. In the event a lay-off becomes necessary, it will be administered in accordance with the lay-off policy of the Virginia Commonwealth University.

The Apprentice may voluntarily terminate the agreement through written notification, which may result in separation from the University. An Apprentice may voluntarily leave the program and retain employment if s/he successfully competes and accepts an offer for a vacant University position.

Probationary Period

Apprentices who are new University employees will be subject to a probationary period of at least one-year as outlined by University employment policies.

Credit for Previous Training and Work Experience in the Trade

After successful completion of the probationary period, an employee may request the Apprentice Program Manager to evaluate prior experience and training for credit towards the program requirements. Such experience must be documented by a journey-level tradesperson and will be

measured against the work process training requirements for that trade. Decisions regarding advancement will be made in conjunction with recommendations from management and the Department of Labor and Industry and will not exceed 12 months of credit toward program requirements. Any credit that is awarded for prior experience will be formally documented to the apprentice and management.

Supervision of Apprentices

Upon hire, apprentices are assigned to a specific unit within Facilities Management. In order to meet specific training needs outlined on the Apprentice Work Process apprentices will be rotated within other trades within the unit if needed. Rotations will typically occur during the Apprentice's second and third year, allowing the Apprentices training opportunities in their trade in years one and four. The Apprentice's mentor in conjunction with the unit supervisor will complete a monthly assessment and semi-annual proficiency evaluation to assist in monitoring training progress.

Certification

Those Apprentices who complete their academic work, job related training and when applicable, pass the state licensure certification exam, will be awarded Apprentice diplomas from Facilities Management and will be promoted to the journey level. If they have not met these criteria within 6-months of completing the academic classes and job-related training, they will be subject to appropriate actions which may include an extension of this certification period for an additional 3 months upon concurrence of the Apprentice Program Manager and department management. Other actions which may occur will be in accordance with the Standards of Conduct.

APPRENTICESHIP INSTRUCTION

Each Apprentice will receive a combination of 8,000 hours of on-the-job training instruction in addition to formal classroom instruction. A Work Process is available for each trade to guide on-the-job training during the program. All Work Processes are available in Attachment D, Apprentice Work Processes. The academic institutions that provide the technical trades training and their instructors provide classroom curriculums that fulfill the program's requirement of 576 hours of coursework.

On-the-Job Evaluation & Assessment

Several methods are used to monitor the progress of Apprentices in the program. The tools utilized below are in addition to performance evaluation methods utilized by the University for all employees.

Monthly Assessment

In addition to on-going informal discussions and feedback, supervisors will complete a monthly assessment that provides the Apprentice with detailed information regarding their on-the-job performance, overall progress, areas needing improvement, etc. During this time, the Apprentice will be given the opportunity to make comments, offer suggestions, and discuss his/her perception of the progress. This is the appropriate time to discuss and resolve any problems or misunderstandings. Management comments are noted each month on the Apprentice Monthly Assessment.

Proficiency Evaluation

Apprentices will be evaluated twice per year, in approximate accordance with the academic calendar, by the current supervisor using the Proficiency Evaluation. The Proficiency Evaluation measures performance by taking the individual skills for each trade from the Work Process (see Attachment D) and giving the supervisor the opportunity to rate the apprentice's level of proficiency in that training area every 6 months. This information will also serve as a tool to determine the most beneficial placement as the apprentice learns specific skills in and rotates through the program as well as to assess on-the-job training completion. Levels of proficiency will be rated as: Independently Proficient; Performed with Supervision; Limited Practice; Observed; and No Exposure.

Academic Evaluation & Assessment

As students, Apprentices are subject to the rules and policies of the institution offering the classroom instruction, which in most cases will not be the Virginia Commonwealth University. Apprentices are required to attend classes regularly, satisfactorily complete assignments and achieve grades of "C" or higher on all related instruction classes. Expenses associated with academic instruction, such as course fees and books, are paid for by the program. The Apprentice shall not receive any compensation for time spent in attending, or in studying and preparing for, related classroom instruction.

The institution offering academic training will submit reports indicating attendance and academic progress for each Apprentice. These reports will be submitted to and reviewed by HR Manager for Facilities Management and matters of concern, such as absences and/or unsatisfactory interim grades, will be forwarded to management so that assistance/counsel may be promptly provided to the Apprentice.

At the end of each academic term, a summary will be provided to the Apprentice, their zone supervisor and manager, human resources, , and appropriate senior management.

If the Apprentice incurs more than three absences (in excess of 9 hours) the Apprentice will be dropped from the class and required to re-take the instruction at a later date. Likewise, the Apprentice's failure to meet academic standards by achieving a grade of "C" or higher will result in the course being repeated for a satisfactory grade.

Matters of Persistent Instructional Concern

If continuous on-the-job and/or academic deficiencies are present despite informal counseling, management will coordinate with Human Resources to develop a plan of corrective action. Such action will be taken in accordance with State and University policies including, but not limited to, the Standards of Conduct and VCU Human Resources policy.

Advancement

Based on his or her academic and on-the-job performance, management may formally recommend that the Apprentice continue to advance through the program. If management does not recommend the Apprentice for progression, management and the Apprentice Program Manager will design a performance improvement plan comprised of remedial instruction and/or on-the-job training for the Apprentice, which may include the issuance of a Notice of Improvement Needed in accordance with State and University policies.

ATTACHMENT A

**Virginia Commonwealth University
Facilities Management
APPRENTICESHIP PROGRAM AGREEMENT**

This Agreement, entered into this _____ day of _____, 20____, between Facilities Management on behalf of the Virginia Commonwealth University (the "University"), and _____ (the "Apprentice") witnesses that:

1. The Apprentice has applied for employment at the University and been accepted into Facilities Management's Apprenticeship Program in the trade of _____. During the term of such employment, Facilities Management will provide on-the-job skills training and will also provide for the Apprentice's enrollment and participation in academic courses required in connection with this program. The Apprentice agrees to:
 - Diligently and faithfully perform the work assigned such that the trade may be proficiently learned,
 - Maintain accurate records of on-the-job and academic training received,
 - Satisfactorily complete the required hours of on-the-job and academic instruction prescribed for the trade as provided under the Apprentice Program Standards,
 - Conduct himself/herself at all times in accordance with the Commonwealth of Virginia Standards of Conduct and University Policies.
2. The Apprentice will be an employee of the University only in connection with his/her work within Facilities Management and will be paid for such work in accordance with State and University compensation policies. Other terms and conditions of such employment shall be the same as those applicable to other University and State employees.
3. The Apprentice's continued eligibility for the Apprenticeship Program shall be subject to his/her achieving satisfactory progress both in the on-the-job and academic training areas.
4. The Apprentice Program Standards as presently in force and as amended from time to time, shall apply to and govern all matters related to the Apprenticeship Program and the Apprentice's participation therein.
5. The Apprentice is required to complete 8,000 of on-the-job training hours as well as fulfill the academic requirements specified by the Department of Labor and Industry. When applicable, the Apprentice must pass the Commonwealth of Virginia's journeyman exam, which may include credit granted under the program for previous craft experience, if any.

The Apprentice acknowledges receipt of a copy of this Agreement, the Apprentice Program Standards, and states that he/she has read, understands, and accepts all terms and conditions thereof.

Dana L. Henry, M.Ed, PHR, IPMA-SCP, SHRM-SCP
Apprenticeship Program Manager

<NAME>
Apprentice

ATTACHMENT B

The below is an image sample only.

COMMONWEALTH OF VIRGINIA
 APPRENTICESHIP PROGRAM
 DEPARTMENT OF LABOR AND INDUSTRY
 600 EAST MAIN STREET, SUITE 207
 RICHMOND, VIRGINIA 23219

APPRENTICE ACTION FORM

FIELD REP LAST NAME/# carvana
 SPONSOR NO _____

The Government Data Collection and Dissemination Practices Act, Va. Code §§ 2.2 -3800-3816, protects the release of the personal information you provide on this form (see statute for more information). Your social security number is requested for identification, wage and employment verification purposes only. Information on your sex, race and veteran status is used by this Department and the U.S. Department of Labor to determine the percentage of minorities, women, and veterans that participate in apprenticeship training. If you are applying for Veterans Administration (VA) benefits, you must indicate that you are a veteran.

The program sponsor and apprentice agree to the terms of the Apprenticeship Standards incorporated as part of this Agreement. The sponsor will not discriminate in the selection and training of the apprentice in accordance with the Equal Opportunity Standards in Title 29 CFR Part 30.3 and Executive Order 11246. This agreement may be terminated by either of the parties, citing cause(s), with notification to the registration agency, in compliance with Title 29, CFR, Part 29.6

Apprentice Name: (Type or print name as it should appear on completion certificate)

 First Name Middle Initial Last Name

Address _____ City _____ VA Zip Code _____ Phone _____
 SSN _____ Sex _____ Occupation steamfitter
 Date of Birth _____ Veteran _____ DOT/O*NET Code 862.281-022
 Race _____ Credit _____ Length of Program 8000 Hours - Probation 2080 Hours
 Education Level _____ Starting Date _____ Estimated Completion Date _____

Name & Location Where Attained (If Credit Given) _____

Previously Registered as an apprentice with the State of Virginia only? Yes No Name of company/sponsor? _____

Related Instruction Provider _____ ARI Site

Related Instruction (Number Hours Per Year) <u>144</u>	Apprentice Wages For Related Instruction <input type="checkbox"/> Will Be Paid <input type="checkbox"/> Will Not Be Paid	Competency <input checked="" type="checkbox"/> Time Based <input type="checkbox"/> Hybrid
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Signature of Apprentice _____ Date _____ Signature of Parent/Guardian (if minor) _____ Date _____

Sponsor VIRGINIA COMMONWEALTH UNIVERSITY Name of Sponsor Representative SHEDANA HENRY
 Address 700 W. Grace Street, Suite 2200 City/County RICHMOND FIPS 760 State VA Zip Code _____
 Phone 804-828-4870 Fax _____ Email s2slhenr@vcu.edu

PLEASE CHECK IF THIS IS A REGISTRATION SUPERSEDING AGREEMENT REINSTATEMENT
 STUDENT (H.S. CODE) COMMUNITY COLLEGE CODE

Journeyworker's Hourly Wage \$ _____ Apprentice's Entry Hourly Wage \$ _____

WAGES	Term (Hrs)	Period 1	2	3	4	5	6	7	8	9	10
Wage Rate (Mark One) % <input type="checkbox"/> \$ <input checked="" type="checkbox"/>											

Signature of Sponsor's Representative _____ Date Signed _____ Name and Address of Sponsor Designee to Receive Complaints (if applicable) _____

Registered with the Virginia Department of Labor and Industry _____ Commissioner _____ Date _____

COMPLETION Additional Credit Hours at time of Completion _____ (2,000 hours or more a letter is required)

Signature of Sponsor's Representative _____ Title _____ Date _____

Signature of Sponsor's Representative _____ Transcript Attached Yes No

CANCELLATION EFFECTIVE DATE _____ Reason _____

Signature of Sponsor's Representative _____ Date _____

Revised: 7/2015

ATTACHMENT C

Timetable and Process of Activities

Position Determination

June	Determine apprenticeship positions needed.
September	Create position descriptions to fulfill desired apprentice openings Prepare recruitment and advertising plan, including outreach to publications, agencies, schools, etc. Identify Selection Committee members for each trade being recruited and notify of responsibilities

Recruitment and Selection Process

October	Positions are posted and extensive recruitment efforts executed to fulfill the desire for a diverse pool of qualified applicants. Applications will be available through University recruitment tools, with additional information on the program provided by Human Resources & Training. Recruitment measures may include any or all of the following: <ul style="list-style-type: none">a) Notification of available Apprenticeships to all Facilities Management employees and appropriate University departments/divisions;b) Distribute promotional literature to external agencies including the Virginia Employment Commission;c) Submit promotional articles in University and local publications;d) Print and distribute promotional brochures;e) Advertise through area newspapers, television stations, websites and other appropriate media outlets as needed.
November	Office of Human Resources provides instructions for reviewing applications to each member of the respective Selection Committees including job requirements, evaluation criteria, and scoring tools. The Selection Committee members individually review applications and select their top applicants who they feel should be offered an interview. The Apprentice Program Manager compiles the Selection Committee recommendations and conducts an additional review of applications to ensure that EEO efforts are satisfied.

Through the oversight of the Apprentice Program Manager, candidates are selected and scheduled for interview.

November

Interviews are conducted with all members of the Selection Committee present for each interview. The Apprentice Program Manager provides the Selection Committee with behavior-based interview questions that score each candidate on criteria which supports the program's objectives.

Following the interviews, the Selection Committee will make recommendations to the Apprentice Program Manager.

Reference checks are conducted for finalists.

Upon review of the entire recruitment and selection file, final hiring decisions are made.

All candidates are notified of their status, including those not selected for interview, interviewed but not selected for hire, and those who are being offered an apprentice position. Appropriate documentation is completed including background checks and hires are processed.

Apprenticeship Documentation and Start Date

December

Apprentices will have a documentation meeting with Department of Labor and Industry to review and complete apprenticeship documentation

January

Apprentices start employment based on the start of University's pay period. Apprenticeship classes start generally mid to late August or the beginning of September.

ATTACHMENT D

Apprentice Work Processes



VCU

Facilities Management

Electrician (D.1)

HVAC Technician (D.2)

Locksmith (D.3)

Plumber (D.4)

Steamfitter (D.5)

Attachment D.1

ELECTRICIAN

Work Process

47-2111.00

- A. Independently assign, perform, and complete regularly scheduled preventative maintenance to electrical distribution systems, lighting systems, fire alarm systems, electrical portion of laboratory and mechanical equipment, motors, variable frequency drives and other electrical equipment/systems.
(Approximate Cumulative Hours 2,400)
- B. Install new electrical systems in existing buildings utilizing standard practices, tools of the electrical occupation.
(Approximate Cumulative Hours 800)
- C. Provide on-the-job craft-skills training to other members of the maintenance team, using in-depth knowledge of the electrical occupation. Monitors work of contractors and support shop employees to assure compliance with specifications, codes and drawings.
(Approximate Cumulative Hours 2,000)
- D. Advise supervision and/or management by recommending equipment maintenance tasks and identifying the equipment needing priority attention.
(Approximate Cumulative Hours 800)
- E. Provide work-site guidance and direct other members of the zone maintenance team assuring safe, orderly and timely completion of service calls and projects.
(Approximate Cumulative Hours 800)
- F. Communicate directly with building occupants and supervisors to provide information and status of system problems, estimated completion times, effect of system problems on occupant safety and comfort, as required to insure customer satisfaction.
(Approximate Cumulative Hours 400)
- G. Identify, locate and order parts required to maintain and repair equipment.
(Approximate Cumulative Hours 400)
- H. Formal training in safety procedures in accordance with OSHA regulations, including hazardous materials and work environment. Identification and proper use of safety equipment including Personal Protective Equipment (PPE). Working in a safe manner with other trades and building occupants. Jobsite and workplace organization and cleanliness. Identification, use, care, and repair of tools and specialized equipment. Reading and

understanding blueprints as they pertain to building layout and all affected trades.
(Approximate Cumulative Hours 400)

Total Hours 8,000

SAFETY IS THE FIRST PRIORITY IN ALL APPRENTICESHIP PROGRAMS AND, AS THE SPONSOR'S PRIMARY RESPONSIBILITY, MUST BE TAUGHT AND PRACTICED CONTINUOUSLY IN ALL ON-THE-JOB WORK PROCESSES.

**Work Process
49-9021.01**

- A. Independently identify, assign, respond, and complete service work orders requiring diagnosis and repair of air-handling units, fan-coil units, heat pumps, refrigerators, compressors, and other HVAC equipment.
(Approximate Cumulative Hours 2,400)

- B. Install new HVAC systems in existing buildings utilizing knowledge of HVAC and refrigeration fundamentals and all tools of the HVAC occupation.
(Approximate Cumulative Hours 800)

- C. Independently assign, perform, and complete regularly scheduled preventative maintenance to centrifugal pumps, heat exchangers, motors, fans, piping for condenser water, chilled water, electronic, and pneumatic controls, electrical wiring, drain piping, radiators and other HVAC equipment.
(Approximate Cumulative Hours 2,000)

- D. Advise supervision and/or management by recommending equipment maintenance tasks identifying equipment needing priority attention.
(Approximate Cumulative Hours 800)

- E. Communicate with building occupants and supervision regarding work, schedules, system problems, estimated completion time, effects of system problems on occupant safety and comfort.
(Approximate Cumulative Hours 800)

- F. Monitor work of contractors to assure compliance with specification codes and drawings.
(Approximate Cumulative Hours 400)

- G. Provide work site guidance and assistance to other members of the zone maintenance team, assuring safe and orderly completion of service calls and projects.
(Approximate Cumulative Hours 400)

- H. Formal training in safety procedures in accordance with OSHA regulations, including hazardous materials and work environment. Identification and proper use of safety equipment including Personal Protective Equipment (PPE). Working in a safe manner with other trades and building occupants. Jobsite and workplace organization and

cleanliness. Identification, use, care, and repair of tools and specialized equipment.
Reading and understanding blueprints as they pertain to building layout and all affected trades.

(Approximate Cumulative Hours 400)

Total Hours 8,000

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Attachment D.3

LOCKSMITH

Work Process

49-9049.00

- A. Ability to install, troubleshoot, and repair mechanical locking and electronic access control devices, safe repair, duplicating keys, and metal doors.
(Approximate Cumulative Hours 2,000)
- B. Use computer program for keying and specification writing; cut new or duplicate keys with stamp identification (e.g. building and vehicle keys, file cabinets, desks, cabinets, lost or stolen locks/keys, etc.)
(Approximate Cumulative Hours 1,200)
- C. Maintain detail records of all locks and security systems in use throughout the University; fill out daily records of time and any information as necessary, to include functions related to data entry for AiM system.
(Approximate Cumulative Hours 1,200)
- D. Utilize key cutting machines, drill, saws, buffers and grinder keys gauges and locksmith tool, maintains vehicle, tools and equipment for the purpose of ensuring availability in safe operating condition; re-keys locks and changes combinations for the purpose of ensuring security.
(Approximate Cumulative Hours 1,200)
- E. Interpret, implement, and maintain pre-defined master key system.
(Approximate Cumulative Hours 800)
- F. Establish, pick up, and maintain materials inventories.
(Approximate Cumulative Hours 800)
- G. Oversee locksmith work completed by outside contractors.
(Approximate Cumulative Hours 400)
- H. Formal training in safety procedures in accordance with OSHA regulations, including hazardous materials and work environment. Identification and proper use of safety equipment including Personal Protective Equipment (PPE). Working in a safe manner with other trades and building occupants. Jobsite and workplace organization and cleanliness. Identification, use, care, and repair of tools and specialized equipment. Reading and understanding blueprints as they pertain to building layout and all affected trades.

(Approximate Cumulative Hours 400)

Total Hours 8,000

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Attachment D.4

PLUMBER

Work Process 47-2152.02

- A. Independently identify, assign respond, and complete service work orders requiring diagnoses and repair of condensate pumps, heat exchangers, high pressure, high temperature steam lines, back flow prevention systems, medical/dental gas manifolds, plumbing fixtures including sinks, toilets, showers, using assorted fittings, gaskets, coupling, traps, valves and soldering or welding connections utilizing specialized knowledge of the plumbing trade.
(Approximate Cumulative Hours 2,400)
- B. Install new plumbing systems in existing building utilizing tools, materials and all tools of the plumbing occupation.
(Approximate Cumulative Hours 800)
- C. Independently assign, perform and complete regularly scheduled preventative maintenance to condensate pumps, heat exchangers, high pressure/high temperature steam lines and other equipment/systems.
(Approximate Cumulative Hours 2,000)
- D. Use plumbing knowledge to monitor work of contractors to assure compliance with specifications, codes, and drawings.
(Approximate Cumulative Hours 800)
- E. Provide work site guidance and direction to other members of the zone maintenance team, assuring safe and orderly completion of service calls and projects.
(Approximate Cumulative Hours 800)
- F. Advise supervision and/or management by recommending equipment maintenance tasks and identifying equipment needing priority attention.
(Approximate Cumulative Hours 400)
- G. Communicate with building occupants and supervision regarding work, schedules, system problems, estimated completion time, effects of system problems on occupant safety and comfort.
(Approximate Cumulative Hours 400)
- H. Formal training in safety procedures in accordance with OSHA regulations, including hazardous materials and work environment. Identification and proper use of safety

equipment including Personal Protective Equipment (PPE). Working in a safe manner with other trades and building occupants. Jobsite and workplace organization and cleanliness. Identification, use, care, and repair of tools and specialized equipment. Reading and understanding blueprints as they pertain to building layout and all affected. (Approximate Cumulative Hours 400)

Total Hours 8,000

SAFETY IS THE FIRST PRIORITY IN ALL APPRENTICESHIP PROGRAMS AND, AS THE SPONSOR'S PRIMARY RESPONSIBILITY, MUST BE TAUGHT AND PRACTICED CONTINUOUSLY IN ALL ON-THE-JOB WORK PROCESSES.

- A. Maintenance of the MCV steam plant and distribution system. Assist in the installation of replacement boilers on the Monroe Park Campus when required.
(Approximate Cumulative Hours 1200)
- B. Maintain all steam and hot water heating units to include located on the Monroe Park Campus.
(Approximate Cumulative Hours 600)
- C. Perform preventive maintenance on steam and hot water heating unit's fuel, water, air and steam systems.
(Approximate Cumulative Hours 600)
- D. Installs, bends, cuts, threads, and cuts off piping and shapes and fabricates pipe to particular requirements for the job. Starts up and shuts down equipment in line with company safety procedures for machinery under power and OSHA requirements.
(Approximate Cumulative Hours 600)
- E. Inspects and maintains facility piping systems, heating, refrigeration and air conditioning systems, water treatment and sewer systems, burners and heaters.
(Approximate Cumulative Hours 800)
- F. Connect pipe and fittings, solder, braze and weld pipe and tubing; wrap, insulate and secure piping to structure where necessary. Installs various types of insulation and pipe covering; removes and disposes of old coverings in line with company hazardous waste procedures and EPA and OSHA requirements.
(Approximate Cumulative Hours 600)
- G. Makes hydraulic pressure test of piping installations. Checks and adjusts controls, gauges, and valves to achieve control of flow or pressure.
(Approximate Cumulative Hours 400)
- H. Diagnose and isolate troublesome distribution points and make corrective repairs; make emergency repairs to offset downtime and production delays.
(Approximate Cumulative Hours 600)
- I. Inspect piping systems to insure safety and effectiveness of installations, especially those which convey high pressure and dangerous elements; check gauges and metering devices for measurement accuracy of pressure and flowage.
(Approximate Cumulative Hours 1,200)

J. Respond to emergencies in the steam and condensate distribution system of the Monroe Park and MCV Campuses to ensure the heating customers have no disruption of service.

(Approximate Cumulative Hours 400)

K. Work on-call during inclement weather and emergencies.

(Approximate Cumulative Hours 400)

Total Hours: 8,000

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