



GOULD
CONSTRUCTION INSTITUTE

APPRENTICE HANDBOOK

2023 2024



gwgci.org

781.270.9990

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WELCOME GCI APPRENTICES!

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Congratulations on your decision to further your education in the construction trade! The GCI team is proud of your commitment and hard work. With dedication and effort, you will gain the knowledge and skills necessary to prepare for your future career path.

As we plan for the new academic year, we want to remind you that GCI's teachers and staff are here to support you throughout your journey. We understand that balancing work, school, and personal responsibilities can be challenging, and we are here to help you navigate these difficulties. It's crucial to take control of your career path and understand the requirements of your trade, whether licensed or non-licensed. If you have any questions, we'll do our best to answer them or guide you in the right direction.

Last year, we discussed our plan to support a strong apprenticeship training program. We took a step towards achieving this goal by hiring our first full-time teacher to teach daytime classes for electrical students in levels 1 – 4. The students attended school twice a month during the workweek for eight hours per day. Along with classroom theory, the students were guided through creating project boards to prove the practical application of what they learned. We received positive feedback from both students and employers who took part in the daytime pilot.

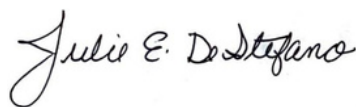
Employer feedback: "Our electrical apprentices are much more self-efficient on the job site and require less direction from the foreman because of the training and hands-on practical learning they are receiving in the daytime program."

Student feedback: "Being in the daytime class proves that my employer is willing to sacrifice for their employee's happiness and quality of life. Knowing this improves not only my worth ethic and motivation but also my eagerness to learn."

We are pleased with the positive feedback and plan to expand the daytime model of training to our other trades. Our goal is to offer a sheet metal daytime program later this year. The daytime model is one more step towards improving our educational program to support the challenges of the next generation entering the construction trade.

Thank you for your ongoing support. We look forward to another successful school year!

Sincerely,



Julie E. DeStefano
President, Gould Construction Institute



@GWGCI



@GWGCI



/GouldConstructionInstitute



Gould Construction Institute



Student Resource Page

ATTENDANCE

IN-PERSON CLASSES

All students are expected to be present and **ready** to begin class promptly at the designated start time. In order for the instructor to keep the class on schedule, it is expected that each student make a serious effort to attend every class. In order for you to receive full credit for each class, you must be present for the entire class.

Please note: Students enrolled in training programs of 120 hours or more, will be given credit for **ONLY** the number of hours they actually attend class. It is the **student's responsibility** to make certain **their name is on the attendance sheet for each class they attend in order for credit to be given.**

Class Attendance

Attendance should be taken at the beginning of each class and before dismissing the class.

VIRTUAL CLASSES

Expectations: Before the Course Starts

1. Students are highly encouraged to use a laptop, computer, or tablet with a keyboard and should have a stable internet connection. Cellphones are the least preferable choice of devices.
2. Select a distraction-free area for the class and notify others around you, that class will be in session, and you are unavailable during class time. Instructors should ensure that others, especially children, do not “photobomb” the class session. Think of the space as a “virtual classroom.”
3. Other considerations include:
 - a. Turn off any other devices, including cellphones, during the class.
 - b. Check equipment in advance to troubleshoot possible issues.
 - c. Have all materials, textbooks, notebook, scratch paper, and pen or pencil handy.
 - d. Have all class aides, PowerPoint ready to be shared.

Expectations: During and After Class

1. All students MUST arrive to class on time.
2. Missing more than a total of 15 minutes of class time, on any day, will be considered an absence. The student will then be required to repeat the entire class session.
3. The instructors determine when and for how long breaks are.
4. Students must wear proper clothing (pants, shirts) for each class meeting:
 - a. Dress Code: All students must attend all class meetings, including make-up days, in approved clothes. Pants/shorts and shirts are required. Inappropriate or offensive writings or graphics on clothing will not be tolerated. Failure to adhere to the dress code will cause the instructor (s) to dismiss the student(s) and notify the GCI Staff.
5. Students are not allowed to make or receive cell phone calls during scheduled class times. If a student has an emergency or other family problem, they must inform their instructor at the beginning of class. Should an emergency occur during instruction, the student will notify the instructor through the chat.
6. Students are not permitted to sleep during scheduled class time. Sleeping during class is counted as a tardy and could result in removal from class, resulting in the need to repeat the session.
7. Eating during the class session is not allowed. However, non-alcohol drinks are permitted.
8. Instructor has discretion to remove student from class.

MAKE-UP CLASSES

1. All of the GCI trade classes have been extended to more hours than what is required for each trade by year. These additional hours will provide you with built-in make up hours. Should you exceed the number of absences allowed in a school year, call the GCI office to schedule a make-up class. The fee for these additional make-up classes is \$50 per class.

<u>Trade</u>	<u>Hours Offered</u>
Electrical (Canton, Medford)	159 (3 additional classes)
Electrical (Springfield, Westfield)	168 (6 additional classes)
HVAC, Pipefitting, Sprinkler Fitting, Sheet Metal	159 (3 additional classes)
Gas Fitting, Plumbing	120 (3 additional classes)
HVAC Contractor	109 (3 additional classes)

2. If you need to make up hours at the end of the school year, GCI does conduct programs during late Spring and Summer that may be used for additional classroom hours. These courses include OSHA-10 hour, Plan Reading, Confined Space Entry, etc. Please be advised that there are additional fees for these make-up hours.

ABSENCES

Should a student, for any reason, miss a scheduled class, it should be reported to GCI at 781.270.9990, as soon as possible. Ideally, notification should be given prior to the class, but if this is not possible, the morning after is acceptable. Please make note to whom you gave the message for verification purposes should there be any questions of your reported absences at a later date.

MISSED ASSIGNMENTS/TESTS

All students missing a scheduled class(es) are responsible for completing any assignments, tests, and quizzes administered in their absence. Students should make arrangements with their instructor for any make-up work that cannot be completed at home, such as a test. All missed tests and assignments must be made up prior to the last class. MAKE-UP ASSIGNMENTS ARE IN NO WAY TO BE CREDITED AS CLASSROOM HOURS. YOU MUST BE PRESENT IN THE CLASSROOM TO BE GIVEN CREDIT FOR HOURS.

GRADING POLICY/CERTIFICATE

Students will be graded in the following categories: attendance, test/quiz grades, and class performance. Students will be issued a percentage grade at the end of the school year. This grade will be provided to the student or their employer. A student must obtain a minimum grade of 70% to pass and advance. In addition to the final grade notification, at the end of the school year students will receive a certificate including the number of hours completed. If your employer is paying for your classes, then your certificate will be sent to them. Please call the school if you would like verification of your hours.

Note: Certificates will NOT be sent until tuition has been paid in full by the student or their employer.

PROGRESS REPORTS

GCI is required to have annual progress reports signed by each student at the beginning of the 2nd semester.

SUSPENSION/TERMINATION

A student may be suspended or terminated at the discretion of GCI prior to completion of the course for one of, but not limited to, the following reasons:

- Unsatisfactory academic progress
- Excessive absences
- Non-payment of tuition
- Failure to adhere to the rules of the school where class is conducted
- Substance abuse

Students are expected to conduct themselves in a manner befitting a serious and interested course participant. A student may appeal any suspension or termination with the President of GCI for final action.

GRIEVANCE POLICY

All student complaints are to be in writing and sent to the school's President. Per 230 CMR 15.07(2) a school shall respond to written student complaints in writing within ten days from when the complaint was submitted to the school. A written record of the student's complaint will be maintained by the school for one year following their completion date or withdrawal. At any time, any and all students may contact the Division of Occupational Licensure's Office of Private Occupational School Education regarding a complaint or grievance:
1000 Washington Street, Suite 710, Boston, MA 02118-6100;
Phone: 617-701-8719; Email: Occupational.Schools@mass.gov;
Website: www.mass.gov/dpl/schools.

NO SOLICITATION POLICY

Solicitation for any purpose may **NOT** take place on the school premises by any individual. This includes, without limitation, the solicitation of employment from one student to another, solicitation of employment from a student to an instructor, solicitation of employment from an instructor to a student, and the selling of items or the distribution of materials and literature. Should any of the above occur, the individual may be asked to leave the class.

REFUND/WITHDRAWAL POLICY

Refunds will be given in accordance to the Office of Private Occupational School Education enrollment agreement. Please see this form in the Diamond Document management system for a breakdown.

Should a student, for any reason, decide not to continue with the program in which they are registered, they must formally withdraw by contacting Diane Craven to complete the withdrawal form. It is the responsibility of the student who has withdrawn from a program to notify their employer of this decision. The employer may also notify the school of the student's withdrawal in writing. A copy of the Refund Law can be found on page 24 of this handbook.

Per 230 CMR 15.04(7) and (8)

(7) If a student withdraws from a Program in accordance with the School's withdrawal policy, the School shall:

- (a) treat the withdrawal as a termination of the enrollment contract, effective immediately;
- (b) complete a refund calculation for the student, including all fees and payments, in a form acceptable to the division; and
- (c) provide the calculation and any refund to the student within 45 days of the effective date of the termination

(8) If a student stops attending School but does not withdraw in accordance with the School's withdrawal policy, the School shall:

- (a) for purposes of any payments due from the student or refund due to the student, treat the student's nonattendance as a termination of the enrollment contract, effective no later than the last date of attendance or last participation in an instructional activity;
- (b) determine the effective date of the termination within 30 days after the end of the period of enrollment, the term, or the Program, whichever is earliest;
- (c) complete a refund calculation for the student, including all fees and payments, in a form acceptable to the division; and
- (d) provide the calculation and any refund to the student within 45 days from the date the School determines the effective date of termination under 230 CMR 15.04(8)(b).

Financial Aid: 230 CMR 15.04 (5) and (6)

(5) After April 1, 2017, if a School allows a student to begin participation in a Program while an initial award for financial aid, including student loans, is pending, and the student subsequently is denied some or all of that student loan or financial aid amount, the School shall offer that student in writing an opportunity to terminate the enrollment agreement with a full refund of all Monies Paid, less actual reasonable administrative costs as defined under M.G.L. c. 255, § 13K.

(6) In addition to the requirements of M.G.L. c. 255, § 13K, for programs beginning after April 1, 2017, prior to the completion of five school days or five percent of the Program, whichever occurs first, a School shall afford a student the opportunity to withdraw with a full refund of all Monies Paid, less (1) actual reasonable administrative costs as defined under M.G.L. c. 255, § 13K; and (2) actual reasonable costs of non-reusable supplies or Equipment where a School reasonably provided the student with the supplies or Equipment, so long as the student receives the refund to which they are entitled under M.G.L. c. 255, § 13K. Provided, however, that this provision shall not apply to: (1) Programs not subject to division approval; and (2) Programs 80 hours or less in duration and \$2,000 in total cost.

CONDUCT

Conduct of all GCI students is of utmost importance. The conduct of students reflects directly on the school, your employer, and the construction industry. Courtesy and mutual respect is expected to be extended by **ALL** participants to individuals and the host facilities.

The use of electronic devices for non - School activities (such as phones, laptops, tablets, headphones), although frequent in society, significantly disrupts learning. They are a distraction to those using them, those around them, and disrespectful to the instructor. Do not bring these electronic devices into the classroom because use of such an electronic device is so distracting to the learning process. If the student uses one of these electronic device during class, or uses any other electronic device for non-class purposes, the student shall be **EXPELLED** from the class that day and shall not receive any credit for attendance. Further, if the student's electronic device sounds, even if the student is not using it, he/she must give it to the instructor until the class is over, or be expelled and receive no credit for class attendance that day.

If a student desires to record a class, they must obtain the instructor's permission **BEFORE** the class begins.

SUBSTANCE ABUSE

The use, possession, concealment or sale of drugs, controlled substances, alcohol, or drug paraphernalia on the premises or its designated training sites is strictly prohibited. Intoxication or other improper conduct arising from the use of drugs, controlled substances, alcohol, or drug paraphernalia off the premises or its designated training sites also is strictly prohibited. Any person found to be in violation of the above will be immediately terminated from the training program.

Should a student be using a legally prescribed drug that could impair his/her performance or cause a safety problem, they must make this information known to the instructor.

CLASS CANCELLATION

In the event of inclement weather, GCI will broadcast cancellation announcements on the GCI website, www.gwgci.org, by 3:00 p.m. on that day. Students should also be advised that if the school where they attend GCI classes has cancelled their day sessions, then GCI will not be conducting classes there that evening.

Example: If day classes have been cancelled at Greater Lawrence Technical School, then we will not be holding classes at that facility that evening. Students may email any staff member or visit GCI's Facebook Page, or www.gwgci.org to confirm if classes have been cancelled.

SCHOOL HOLIDAYS/VACATIONS

Labor Day	September 4, 2023
Start of School (1st Half)	September 5 & 6, 2023
Student Orientation Dates	First weeks of school, in-person, on-location
Columbus Day	October 9, 2023 - (No Classes)
Make-Up Student Orientations	October 23 & 24, 2023
Regional Craft Competition	November 18, 2023
Thanksgiving Break	November 22-24, 2023
Holiday Break	December 18 , 2023 - January 2, 2024
Start of School (2nd half)	January 3 & 4, 2024
Make-Up Student Orientations	January 8 & 9, 2024
Martin Luther King Jr. Day	January 15, 2024 - (No Classes)
February Break (High School Locations Only)	February 19-23, 2024
National Craft Competition	March 12-25, 2024
April Break (High School Locations Only)	April 15-19, 2024
Last day of School	May 26, 2024

IMPORTANT SCHEDULE INFORMATION

All end dates are **estimated**. Since GCI conducts its classes in other school facilities, when school is closed for a holiday, snow day or school vacations, GCI will not conduct their classes either.

YOU DO NOT RECEIVE CREDIT FOR SNOW DAYS!

Some classes may be cancelled on an evening when the school you're attending is conducting parent/teacher conferences. In the case of such a cancellation, students attending classes at the facility will be notified in advance by their instructor.

GUIDANCE AND COUNSELING POLICY

GCI does not offer any guidance or counseling to our students.

JOB PLACEMENT POLICY

GCI does not offer any job placement assistance to our students and does not guarantee employment upon completion of any of its courses or programs.

JULIE DESTEFANO

PRESIDENT

julie@gwgci.org

DIANE CRAVEN
EDUCATION DIRECTOR

diane@gwgci.org

MIKE MALONEY

**INSTRUCTOR LIAISON DIRECTOR &
APPRENTICESHIP DIRECTOR**

mike@gwgci.org

ALLISON JACKSON

MARKETING & CONTENT MANAGER

allison@gwgci.org

KEYLA RODRIGUEZ-SANTIAGO

STUDENT AFFAIRS ADVISOR

keyla@gwgci.org

GCI OFFICE

**PHONE: 781.270.9990 - ADDRESS: 100 UNICORN PARK DRIVE, SUITE 2 |
WOBURN, MA 01801**

STUDENT REMINDERS

- Be sure to update your contact information with GCI whenever it may change in order to receive important notifications regarding your course(s).
- Do not unsubscribe or opt-out of emails from GCI.
- You, the student, are responsible for checking licensing requirements with the state of Massachusetts for your trade.
- Create your account within the Diamond management system. There will be important paperwork that, if not completed, will delay your certificate of hours from being sent to you.
- Sign your teacher's attendance sheet each class.
- Keep track of your absences, if any. There are three absences built into your school year. Any absences thereafter will cost \$50 per makeup class.

CARPENTRY 1 *not offered this year*

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Basic Employability Skills
- Introduction to Materials Handling
- Orientation to the Trade
- Building Materials, Fasteners, and Adhesives
- Hand and Power Tools
- Introduction to Construction Drawings, Specifications, and Layout
- Floor Systems
- Wall Systems
- Ceiling Joist and Room Framing
- Introduction to Building Envelope Systems
- Basic Stair Layout

CARPENTRY 2 *not offered this year*

Course Curriculum Areas of Study:

- Commercial Drawings
- Cold-Formed Steel Framing
- Exterior Finishing
- Thermal and Moisture Protection
- Roofing Applications
- Doors and Door Hardware
- Drywall Installation
- Drywall Finishing
- Suspended Ceilings
- Window, Door, Floor, and Ceiling Trim
- Cabinet Installation

CARPENTRY 3 *not offered this year*

Course Curriculum Areas of Study:

- Properties of Concrete
- Rigging Equipment
- Rigging Practices
- Trenching and Excavating
- Reinforcing Concrete
- Foundations and Slabs-On-Grade
- Vertical Formwork
- Horizontal Formwork
- Handling and Placing Concrete
- Tilt-Up Wall Systems

CARPENTRY 4

Course Curriculum Areas of Study:

- Site Layout One: Differential Leveling
- Site Layout Two: Angular and Distance Measurement
- Advanced Roof Systems
- Advanced Wall Systems
- Advanced Stair Systems
- Introduction to Construction Equipment
- Introduction to Oxyfuel Cutting and Arc Welding
- Site Preparation
- Fundamentals of Crew Leadership

MASSACHUSETTS ELECTRICAL APPRENTICE

Electrical Journeyman License Requirements

- High School Diploma or GED
- 600 classroom hours from courses relating to Electrical Theory
- 8,000 field hours obtained on the job

Master's Electrical License Requirements

- Must hold an Electrical Journeyman License in the state of Massachusetts
- Additional 150 classroom hours
- Additional 2,000 field hours

BOARD OF STATE EXAMINERS OF ELECTRICIANS

Address: 1000 Washington Street, Suite 710
Boston, MA 02118

Phone: (617) 727-9931

Fax: (617) 727-9932

Email: electricians.board@mass.gov

ELECTRICAL 1

It is required that all students obtain a copy of the National Electrical Code, 2023 Edition, with the Commonwealth of Massachusetts Amendments (527 CMR 12.00) for classes.

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Basic Employability Skills
- Introduction to Materials Handling
- Orientation to the Electrical Trade
- Electrical Safety
- Introduction to Electrical Circuits
- Electrical Theory
- Introduction to the National Electrical Code (NEC)
- Device Boxes
- Hand Bending
- Raceways and Fittings
- Conductors and Cables
- Basic Electrical Construction Drawings
- Residential Electrical Services
- Electrical Test Equipment.

ELECTRICAL 2

It is required that all students obtain a copy of the National Electrical Code, 2023 Edition, with the Commonwealth of Massachusetts Amendments (527 CMR 12.00) for classes.

Course Curriculum Areas of Study:

- Alternating Current
- Motors: Theory and Application
- Electric Lighting
- Conduit Bending
- Pull and Junction Boxes
- Conductor Installations
- Cable Tray
- Conductor Terminations and Splices
- Grounding and Bonding
- Circuit Breakers and Fuses
- Control Systems and Fundamental Concepts

ELECTRICAL 3

It is required that all students obtain a copy of the National Electrical Code, 2023 Edition, with the Commonwealth of Massachusetts Amendments (527 CMR 12.00) for classes.

Course Curriculum Areas of Study:

- Load Calculations – Branch and Feeder Circuits
- Conductor Selection and Calculations
- Practical Applications of Lighting
- Hazardous Locations
- Overcurrent Protection
- Distribution Equipment
- Transformers
- Commercial Electrical Services
- Motor Calculations
- Voice, Data, and Video
- Motor Controls

ELECTRICAL 4

It is required that all students obtain a copy of the National Electrical Code, 2023 Edition, with the Commonwealth of Massachusetts Amendments (527 CMR 12.00) for classes.

Course Curriculum Areas of Study:

- Load Calculations –Feeders and Services
- Health Care Facilities
- Standby and Emergency Systems
- Basic Electronic Theory
- Fire Alarm Systems
- Specialty Transformers
- Advanced Controls
- HVAC Controls
- Heat Tracing and Freeze Protection
- Motor Operation and Maintenance
- Medium-Voltage Terminations/Splices
- Special Locations
- Fundamentals of Crew Leadership

MASTER'S ELECTRICAL

The 168 hour Certified Master's Program as per requirements contained in "237 CMR 22.02: Required Electrical Education as a Prerequisite for Master Electrician Examination" will focus the attention of the Eligible Candidate to the current testing edition of the National Electrical Code (NFPA 70-2020) with particular attention also given to the Commonwealth of Massachusetts Electrical Code Amendments (527 CMR 12.00) as contained in the current edition of the National Electrical Code (NFPA 70-2020) and other required documents and information required to sit for the test.

This course is intended to supplement the continuing studies of the serious Eligible Candidate, with emphasis on assisting the Eligible Candidate to pass the desired Commonwealth of Massachusetts, Certificate A (Master) Electrician License Examination. It is required that all students obtain a copy of the National Electrical Code 2023 Edition, with the Commonwealth of Massachusetts Amendments (527 CMR 12.00) for classes. It is required that all students hold an Electrical Journeyman License to attend this class. Book fees are not included in the tuition price. Students are responsible for purchasing books before the first day of the course.

Prerequisites:

- Massachusetts Electrical Journeyman License

Required Course Materials:

- NASCLA Contractor's Guide to Business, Law, and Project Management – 12th Edition, National Association of State Contractors Licensing Agencies (NASCLA), www.nascla.org. Effective April 23, 2018, only the 12th edition may be used.
- NFPA 72 – National Fire Alarm Code – National Fire Protection Association,
- Code of Federal Regulations Title 29, Part 1926 (OSHA) 2002, ---OR---PSI, OSHA Excerpts 2003 , Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954- (888)293-6498, <http://bookstore.gpo.gov> ---OR--- -PSI, 3210 E Tropicana, Las Vegas, NV
- Exam Busters 2023
- Texas Instruments TI-30Xa calculator

MASTER'S ELECTRICAL COURSE MATERIALS PACKAGE - \$ 265.00

- This package includes all books listed above under "Required Course Materials".
- Master's Electrical students are not obligated to purchase books through GCI.
- Email Diane Craven to purchase: diane@gwgci.org.

MASSACHUSETTS GAS FITTING APPRENTICE

Gas Fitting Journeyman License Requirements

- High School Diploma or GED
- 330 classroom hours
- 5,100 field hours
- Apprentices MUST apply for an apprentice license through the Board of State Examiners of Plumbers & Gas Fitters.

BOARD OF STATE EXAMINERS OF PLUMBERS & GAS FITTERS

Address: 1000 Washington Street, Suite 710
Boston, MA 02118-6100
Phone: (617) 727-3200
plumbingboard.info.mass.gov/

GAS FITTING TIER 1

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Basic Employability
- Skills Introduction to Materials Handling
- Introduction to Gas Fitting
- Safety and Installation Practices
- General Provisions for Gas Work in Massachusetts 248 CMR 3.00
- Education and Experience Requirements for Licensure 248 CMR 11.00
- Massachusetts Modifications to Sections of NFPA 54 248 CMR 4.00 & 5.00
- Gas Piping System Design, Material and Components
- Gas Piping Installation

GAS FITTING TIER 2 *not offered this year*

Course Curriculum Areas of Study:

- Testing and Inspection
- Equipment Installation
- Installation of Specific Equipment
- Venting of Equipment
- Gas Utilization in Large Equipment

GAS FITTING TIER 3 *not offered this year*

Course Curriculum Areas of Study:

- NFPA 58 Storage and Handling of Liquefied Petroleum Gases
- Basic Principles of a Propane Gas System
- Gas Code Review for Exam
- Business Related Costs

MASSACHUSETTS PIPEFITTING APPRENTICE

Unrestricted Pipefitting Journeyman License Requirements

- High School Diploma or GED
- 350 classroom hours (ASME)
- 6,000 field hours obtained on the job
- Two different cards must be obtained prior to the start of school. Apprentices **MUST** apply for an apprentice license through the Bureau of Pipefitters, Refrigeration Technicians, and Sprinklerfitters AND register as an apprentice through the Division of Apprenticeship Standards.

Pipefitter Master's License Requirements

- Additional 100 classroom hours (ASME)
- Additional 2,000 field hours
- The ASME Correspondence Course = 350 hours and is only available for those who have been in the field for 6+ years

BUREAU OF PIPEFITTERS, REFRIGERATION TECHNICIANS, AND SPRINKLERFITTERS

Address: 1000 Washington Street, Suite 710
Boston, MA 02118-6100

Phone: (617) 727-3200

mass.gov/dps - Engineering Division

PIPEFITTING 1 *not offered this year

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Basic Employability Skills
- Introduction to Materials Handling
- Orientation to the Trade
- Pipefitting Hand Tools
- Pipefitting Power Tools
- Oxyfuel Cutting
- Ladder & Scaffolds
- Motorized Equipment
- Piping Systems
- Drawing & Detail Sheets
- Identifying & Installing Valves
- Pipefitting Trade Math
- Threaded Pipe Fabrication
- Socket Weld Pipe Fabrications & Butt Weld Pipe Fabrication

PIPEFITTING 2

Course Curriculum Areas of Study:

- Excavations
 - Underground Pipe Installations
 - Rigging Equipment
 - Rigging Practices
 - Standards & Specifications
 - Advanced Trade Math
 - Motorized Equipment II
 - Introduction to Aboveground Pipe Installations
 - Field Routing & Vessel Trim
 - Pipe Hangers & Supports
 - Testing Piping Systems & Equipment
 - Advanced Blueprint Reading
 - Advanced Pipe Fabrication
 - Stress Relieving & Aligning
 - Maintaining Valves
 - Introduction to Supervisory Roles
-

PIPEFITTING 3

Course Curriculum Areas of Study:

- Excavations
- Underground Pipe Installations
- Rigging Equipment
- Rigging Practices
- Standards & Specifications
- Advanced Trade Math
- Motorized Equipment II
- Introduction to Aboveground Pipe Installations
- Field Routing & Vessel Trim
- Pipe Hangers & Supports
- Testing Piping Systems & Equipment
- Advanced Blueprint Reading
- Stress Relieving & Aligning
- Maintaining Valves
- Introduction to Supervisory Roles

MASSACHUSETTS PLUMBING APPRENTICE

Plumbing Journeyman License Requirements

- High School Diploma or GED
- 550 classroom hours
- 5,100 field hours under the supervision of a licensed Journeyman or Master
- Apprentices MUST apply for an apprentice license from the Board of State Examiners of Plumbers & Gas Fitters.

Plumbing Master's License Requirements

- MUST hold a Journeyman License for 1 year
- Additional 110 Tier V classroom hours
- Additional 1,700 field hours

THE BOARD OF STATE EXAMINERS OF PLUMBERS AND GAS FITTERS

Address: 1000 Washington Street, Suite 710
Boston, MA 02118-6100
Phone: (617) 727-3100
mass.gov/dpl

PLUMBING TIER 1

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Introduction to Plumbing
- Plumbing Safety
- Tools of the Plumbing Trade
- Introduction to Plumbing Math
- Introduction to Plumbing Drawings
- Plastic Pipe and Fittings
- Copper Tube and Fittings
- Cast-Iron Pipe and Fittings
- Carbon Steel Pipe and Fittings
- Introduction to Plumbing Fixtures
- Introduction to Drain, Waste and Vent (DWV) Systems

PLUMBING TIER 2

Course Curriculum Areas of Study:

- Plumbing Math Two
- Reading Commercial Drawings
- Structural Penetrations, Insulation and Fire-Stopping
- Installing and Testing DWV Piping
- Installing Roof, Floor, and Area Drains
- Installing and Testing Water Supply Piping
- Types of Valves
- Installing Fixtures and Valves
- Installing Water Heaters
- Basic Electricity
- Fuel Gas and Fuel Oil Systems

IMPORTANT UPDATE

248 CMR 11.00: A reduction of the experience requirements for journeyman licenses down to 4 years, and the elimination of age-based continuing education exemptions.

WHAT THIS MEANS: You can now enroll in Plumbing Tiers 1 and 2 in the same year to complete your education hours in four years instead of five.

PLUMBING TIER 3

Course Curriculum Areas of Study:

- Plumbing Math Two
- Reading Commercial Drawings
- Structural Penetrations, Insulation and Fire- Stopping
- Installing and Testing DWV Piping
- Installing Roof, Floor, and Area Drains
- Installing and Testing Water Supply Piping
- Types of Valves
- Installing Fixtures and Valves
- Installing Water Heaters
- Basic Electricity
- Fuel Gas and Fuel Oil Systems

PLUMBING TIER 4

Course Curriculum Areas of Study:

- Business Principles for Plumbers
- Fundamentals of Crew Leadership
- Water Pressure Booster and Recirculation Systems
- Indirect and Special Waste
- Hydronic and Solar Heating Systems
- Codes
- Private Water Supply Well Systems
- Private Waste-Disposal Systems
- Swimming Pools and Hot Tubs
- Plumbing for Mobile Homes and Travel Trailer Parks
- Introduction to Medical Gas and Vacuum Systems

PLUMBING TIER 5

Course Curriculum Areas of Study:

- Review of all sections of the Massachusetts State Plumbing Code:
 - 248 CMR 3.00
 - 248 CMR 10.00
 - 248 CMR 11.00
- Review of all sections of:
 - NFPA-54-2012
 - NFPA-58-2011
 - Massachusetts Fuel Gas Code 248 CMR 4.00
 - Amendments for NFPA-54-2012 248 CMR 5.00
 - Large Gas Utilization Equipment 248 CMR 7.00 and Amendments to NFPA 58-2011 248 CMR 8.00
- Review of all plumbing related math covered in Tier I through Tier V
- Review of all sketches in Massachusetts State Plumbing Code Section 10.22 Figures
- Business Related Costs

MASSACHUSETTS REFRIGERATION APPRENTICE

Refrigeration/Air Technician License Requirements

- High School Diploma or GED
- 100 Refrigeration Theory classroom hours
- 150 Electrical Code classroom hours
- 6,000 field hours
- Two different cards must be obtained prior to the start of school. Apprentices MUST apply for an apprentice license through the Bureau of Pipefitters, Refrigeration Technicians, and Sprinklerfitters AND register as an apprentice through the Division of Apprenticeship Standards.

Refrigeration Contractor License Requirements

- 100 Refrigeration Theory classroom hours
- 2,000 field hours

BUREAU OF PIPEFITTERS, REFRIGERATION TECHNICIANS, AND SPRINKLERFITTERS

Address: 1000 Washington Street, Suite 710
Boston, MA 02118-6100
Phone: (617) 727-3200
mass.gov/dps - Engineering Division

REFRIGERATION TECH 1 *not offered this year*

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Basic Employability
- Skills Introduction to Materials Handling
- Introduction to HVAC
- Trade Mathematics
- Basic Electricity
- Introduction to Heating
- Introduction to Cooling
- Introduction to Air Distribution Systems
- Basic Copper and Plastic Piping Practices
- Soldering and Brazing
- Basic Carbon Steel Piping Practices

REFRIGERATION TECH 2

Course Curriculum Areas of Study:

- Alternating Current
- Compressors
- Refrigerants and Oils
- Leak Detection, Evacuation, Recovery, and Charging
- Metering Devices
- Heat Pumps
- Basic Maintenance
- Chimneys, Vents, and Flues
- Sheet Metal Duct Systems
- Fiberglass and Flexible Duct Systems
- Commercial Airside Systems
- Air Quality Equipment
- Introduction to Hydronic Systems

REFRIGERATION TECH 3

Course Curriculum Areas of Study:

- Fasteners, Hardware, and Wiring Terminations
- Control Circuit and Motor Troubleshooting
- Troubleshooting Cooling
- Troubleshooting Heat Pumps
- Troubleshooting Gas Heating
- Troubleshooting Oil Heating
- Troubleshooting Accessories
- Zoning, Ductless, and Variable Refrigerant Flow Systems
- Commercial Hydronic Systems
- Steam Systems
- Retail Refrigeration System
- Customer Relations

REFRIGERATION TECH 4 *not offered this year*

Course Curriculum Areas of Study:

- Water Treatment
- Indoor Air Quality
- Energy Conservation Equipment
- Building Management Systems
- System Air Balancing
- System Startup and Shutdown
- Construction Drawings and Specifications
- Heating and Cooling System Design
- Commercial/Industrial Refrigeration Systems
- Alternatives and Specialized Heating and Cooling Systems
- Fundamentals of Crew Leadership

REFRIGERATION CONTRACTOR – ONLINE

Course Curriculum Areas of Study:

- Refrigeration Theory
- Evaporators
- Metering Devices
- Condensers
- Compressors
- Refrigeration Accessories
- Refrigerants
- Operation, Pressures & Temperatures
- AC and Refrigeration Math
- Multi Temperature Systems
- Other Refrigeration Systems
- Motors
- Purgers and Absorption Systems
- Definitions from ASHRAE 15 & 34
- The Mass Refrigeration Code

MASSACHUSETTS SHEET METAL APPRENTICE

Sheet Metal Journeyman License Requirements*

- Unrestricted License
 - High School Diploma or GED
 - 750 classroom hours
 - 8,000 field hours
- Restricted License
 - High School Diploma or GED
 - 450 classroom hours
 - 4,800 field hours

***All Sheet Metal apprentices MUST apply for an apprentice license through the Board of Examiners of Sheet Metal Workers.**

BOARD OF EXAMINERS OF SHEET METAL WORKERS

Address: 1000 Washington Street, Suite 710
Boston, MA 02118

Phone: (617) 727-3022

SHEET METAL 1

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Basic Employability Skills
- Introduction to Materials Handling
- Introduction to the Sheet Metal/HVAC Trades
- Introduction to M.G.L. c. 112, s. 237-251 and 271 CMR
- Tools of the Trade and Installation Ductwork

SHEET METAL 2

Course Curriculum Areas of Study:

- Safety Review
- Trade Math 104
- Shop Production and Organization
- Installation of Air Distribution Accessories
- Air Systems
- Duct Fabrication Standards
- Introduction to Layout
- Fabrication I – Parallel Line Development
- Fabrication II – Radial Line Development
- Hands-on Shop Fabrication

SHEET METAL 3

Course Curriculum Areas of Study:

- Trade Math II
- Introduction to Supervisory Skills
- Air Properties and Distribution
- Principles of Airflow
- Air Testing and Balancing
- Fabrication III – Triangulation
- Plans and Specifications
- Hands-on Shop Fabrication

SHEET METAL 4

Course Curriculum Areas of Study:

- Massachusetts Uniform Sheet Metal Code
 - Trade Math III – Field Measuring
 - Comprehensive Plan and Specification Reading
 - Soldering
 - Architectural Sheet Metal
 - Louvers, Dampers and Access Doors
 - Fabrication IV – Comprehensive Review
 - Hands-on Shop Fabrication
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SHEET METAL 5

Course Curriculum Areas of Study:

- Trade Math – Estimating
- Fume Exhaust Design
- Introduction to Welding, Brazing and Cutting
- Advanced Architectural Sheet Metal
- Hands-on Shop Fabrication
- Exam Review and Preparation

MASSACHUSETTS SPRINKLERFITTER APPRENTICE

Sprinklerfitter Journeyman License Requirements

- High School Diploma or GED
- 576 classroom hours
- 8,000 field hours
- Apprentices MUST apply for an apprentice license through the Bureau of Pipefitters, Refrigeration Technicians, and Sprinklerfitters

BUREAU OF PIPEFITTERS, REFRIGERATION TECHNICIANS, AND SPRINKLERFITTERS

Address: 1000 Washington Street, Suite 710
Boston, MA 02118-6100

Phone: (617) 727-3200

mass.gov/dps – Engineering Division

SPRINKLERFITTING 1

Course Curriculum Areas of Study:

- Basic Safety
- Introduction to Construction Math
- Introduction to Hand Tools
- Introduction to Power Tools
- Introduction to Construction Drawings
- Basic Rigging
- Basic Communication Skills
- Orientation to the Trade
- Introduction to Components and Systems
- Steel Pipe
- CPVC Pipe and Fittings
- Copper Tube Systems
- Underground Pipe

SPRINKLERFITTING 2

Course Curriculum Areas of Study:

- Hangers, Supports, Restraints, and Guides
- General Purpose Valves
- General Trade Math
- Shop Drawings
- Standard Spray Fire Sprinklers
- Wet Fire Sprinkler Systems
- Dry-Pipe Systems

SPRINKLERFITTING 3

Course Curriculum Areas of Study:

- Deluge/Preaction Systems
- Standpipes
- Water Supplies
- Fire Pumps
- Application-Specific Sprinklers and Nozzles

SPRINKLERFITTING 4

Course Curriculum Areas of Study:

- System Layout
- Inspection, Testing, and Maintenance
- Special Extinguishing Systems
- Introductory Skills for Foreman
- Procedures and Documentation

TO REGISTER FOR COURSES LISTED IN THIS CATALOG

- Please visit gwgci.org to register online.
- Tuition is due for Trade Specific courses before the start of the school year. The tuition fee for each Trade Specific course includes registration, textbook(s), and class materials unless otherwise noted.
- See Page 5 for financial aid information.
- We urge you to register as soon as possible to ensure a place in the course of your choice. Early registration will often prevent the cancellation of a course due to low enrollment.
- At the end of the school year, students will receive a certificate for the hours earned for the year. If a duplicate copy is needed, a \$30.00 administrative fee will apply.
- Gould Construction Institute, in compliance with both state and federal laws and regulations, does not discriminate on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, marital status, disability or Veteran's status in any of its policies, procedures, or practices.

REFUND LAW (AS PER M.G.L. CHAPTER 255, SECTION 13K):	DATES:
1. You may terminate this agreement at any time.	N/A
2. If you terminate this agreement within five days you will receive a refund of all monies paid, provided that you have not commenced the program. Refund Amount: \$	<i>5th day after date both parties have signed the contract</i> Date:
3. If you subsequently terminate this agreement prior to the commencement of the program, you will receive a refund of all monies paid, less the actual reasonable administrative costs described in paragraph 7. Refund Amount: \$	<i>Program start date</i> Date:
4. If you terminate this agreement during the first quarter of the program, you will receive a refund of at least seventy-five percent of the tuition, less the actual reasonable administrative costs described in paragraph 7. Refund Amount: \$	<i>Last date of first quarter</i> Date:
5. If you terminate this agreement during the second quarter of the program, you will receive a refund of at least fifty per cent of the tuition, less the actual reasonable administrative costs described in paragraph 7. Refund Amount: \$	<i>Last date of second quarter</i> Date:
6. If you terminate this agreement during the third quarter of the program, you will receive a refund of at least twenty-five percent of the tuition, less the actual reasonable administrative costs described in paragraph 7. Refund Amount: \$	<i>Last date of third quarter</i> Date:
7. If you terminate this agreement after the initial five day period, you will be responsible for actual reasonable administrative costs incurred by the school to enroll you and to process your application, which administrative costs shall not exceed fifty dollars or five percent of the contract price, whichever is less. A list of such administrative costs is attached hereto and made a part of this agreement.	<i>5th day after date both parties have signed the contract</i> Date:
8. If you wish to terminate this agreement, you must inform the school in writing of your termination, which will become effective on the day, such writing is mailed.	N/A
9. The school is not obligated to provide any refund if you terminate this agreement during the fourth quarter of the program.	<i>First day of fourth quarter</i> Date: 3/1/2024

Tuition refund calculations listed above are based on a percentage of tuition and may not reflect actual amount refunded. Actual amounts will be based on payments made to GCI. Calculated hours are based on continuous enrollment from class start date with all courses completed successfully and are subject to change in the event of leaves of absence or other unexpected breaks in attendance.

Administrative Costs Equal: \$ 50.00