Sheet Metal Workers Local #10
Metro Area Sheet Metal JATC
3554 White Bear Ave N
White Bear Lake, MN 55110

JourneyLevel Classes

· Registration Information ·

Registration is easy! Simply **email** your choice of classes to: jsand@metrojatc.org (you will receive email confirmation back), or **mail** to:

SMW 10 Metro Area Training Center
3554 White Bear Ave N
White Bear Lake, MN 55110

Class dates are ONLY scheduled when enough members have signed up.You will be notified by email/text/phone with start date at least two weeks in advance to confirm your interest in class.

You will need to show up-to-date dues receipt, turn in $100 deposit (which will be returned to you upon completion of 70% of the class), and sign an ELA at the beginning of each class.

Class schedule and other information will be posted on our blog: http://j-levelclassesnow.blogspot.com/ as it becomes available.

JourneyLevel members may also enroll in apprenticeship classes if interested.

Members: Did you not find the class you want? Call us at the Training Center; we would like to offer any class that our members have an interest in!
651-779-6264

Name _____ Phone Number _____

Address _____ Membership # _____

City _____ State _____ Zip Code _____

EMAIL _____

Please put my name on your list for the following classes:

Class Code _____ Class Code _____ Class Code _____

Class Code _____ Class Code _____ Class Code _____

Metro Area Sheet Metal
Journeyman & Apprentice
Training Trust Fund

3554 White Bear Ave. N. · White Bear Lake, MN 55110
Phone: 651-779-6264 · Fax: 651-779-6065

JOURNEYLEVEL CLASSES 2024 - 2025

All classes in this brochure are set through the Metro Training Center. Members are encouraged to sign up for classes at any time. Class schedule and other information will be posted on http://smw10.org and our blog http://j-levelclassesnow.blogspot.com/ as it becomes available. **Registration is on a first come, first served basis until the class is full.** The International Training Institute's Education Loan Agreement must be signed on the first session of class. **We have hundreds of members signing up for these classes, so…if you sign up, please show up!** On that note, prior to class start, you MUST submit a deposit of $100 check or money order at Metro JATC Office & attendance 70% of the class to have your check returned to you. If you want to take a class elsewhere (not listed in this brochure), please check with the Training Center before taking the class to find out if it is one for which the Committee will refund tuition. You will then be responsible for providing proof of completion and tuition paid.

✦ Architectural Sheet Metal

This 32-hour class is designed to teach you some basics of fabricating and installing Architectural Sheet Metal. The primary focus of this class will be on installation skills with plenty of hands-on applications. Getting a completion certificate for this class will certainly help make you more employable with roofing and architectural firms. Don't limit your options to ductwork!

Class Code
ARCH-1

✦ Architectural Soldering

In this 12-hour class you will gain some basic skills in soldering galvanized iron, stainless steel and copper. Lab time will be spent soldering in horizontal, angled and vertical positions. Materials and equipment used will reflect both shop and field conditions.

Class Code
SODR-1

✦ AutoCAD, Introduction to

AutoCAD is a Computer Aided Design program used to create drawings. This 48-hour class is designed to teach you the basics of creating and working with CAD drawings. You will learn how to draw on the computer and plot out the finished drawing on a plotter. This is an excellent preparatory class for someone interested in doing detailing and planning work. Good detailers are in demand!

Class Code
CAD-1

✦ Autodesk BIM 360

Building Information Modeling (BIM) is changing how buildings are planned, designed, built and managed. The BIM process involves the generation and management of digital representations of physical and functional characteristics of places. This 8-hour class will cover the use of Autodesk's BIM360 Field/Glue software, introducing you to the user interface and navigating through the functionality of this software.

Class Code
BIM-1

✦ Autodesk Revit

Revit building design software is specifically built for Building Information Modeling (BIM). This product includes features for architectural design, mechanical/electrical/piping (MEP), structural engineering, and construction. This 32-hour class will introduce the experienced Detailer to the use of this software. You will create a model, add components to it, set up levels and grids, annotate and detail sheets, and create HVAC, hydronic, plumbing, lighting and power systems.

Class Code
REV-1

✦ Blue Beam Training

Bluebeam and the class will include use of the desktop application and iPad app functionality. The students will learn how to mark-up a PDF using the pen, highlighter, callouts, etc. inside Bluebeam. They will learn how to visual searches, counts and use of the common measurement tools. The students will also learn how to customize documents using the cut content feature.

Class Code
BB-1

✦ CAD, Introduction to MAP 3D CAD/CAM Software

MAP CAD is a Computer Aided Design program used to create HVAC shop drawings. This 40-hour class is designed to teach you the basics of creating and working with MAP Duct and MAP Mech. CAD drawings. You will learn how to draw on the computer and plot out the finished drawing on a plotter. This class is limited to six students.

Class Code
MAP-1

✦ Commissioning & Retro-Commissioning

Building Commissioning provides documented confirmation that building systems are functioning according to criteria outlined in the project documents. Retro-Commissioning (commissioning of existing buildings) is a systematic process for investigating, analyzing, and optimizing the performance of building systems by improving their operation and maintenance to ensure their continued performance over time. You'll gain extensive knowledge regarding the commissioning process in this class. Commissioning professionals will be needed in increasing numbers in coming years, this is a fast-growing area of the industry! Only 2% of all construction projects are new construction. This 48-hour class is limited to members with substantial TAB experience and/or training.

Class Code
COMM-1

✦ Controls, Direct Digital

This 20-hour class is a basic overview of Direct Digital Controls (DDC). This class is designed for Service, TAB, and Power Limited Technician oriented individuals. The Fundamentals of Controls class or equivalent experience is a prerequisite for this class.

Class Code
DDC-1

✦ Controls, Fundamentals of

This 24-hour class is a basic overview of controls designed for Service, TAB, and Power Limited Tech oriented individuals. Course content will include mechanical equipment, components and variables, terminology, control types, sequences of operation, specifications, sensors, valves and dampers, and safety. This class or equivalent experience will be a prerequisite for future classes we will be offering on pneumatic, electro-mechanical, and electronic controls.

Class Code
CTRL-1

✦ Design/Build HVAC Systems

So much of the work we install these days has been designed by the knowledgeable people employed by the shops we work for. This 32-hour class will provide you with the core knowledge necessary to competently design some basic HVAC systems for various types of building construction and occupancies. Upon completion of this class, you will have run heat load calculations, selected equipment, and designed at least 2 or 3 complete systems.

Class Code
DB-1

✦ Duct Construction Standards/HVAC-SMACNA

This 12-hour class will focus on the use of the SMACNA HVAC Duct Construction Standards Manual. Specifically, students will review sample plans and specifications, learn how to determine pressure classifications for duct systems, and reference the rectangular duct construction schedules to determine adequate gauges, transverse joints, and intermediate reinforcement requirements. Becoming comfortable with the use of these schedules is the primary intent of this class.

Class Code
DCS-1

✦ Duct Leakage Testing

This 12-hour class is intended primarily for foremen, supervisors,TAB techs, and project manager types. Class time will be spent on setting up the test apparatus and testing two different types of duct systems. Time will be split between a low/medium pressure supply duct system and a welded grease duct system. Knowledge gained in this class will prove very useful regarding proper installation and sealing requirements of these duct systems.

Class Code
DLT-1

✦ Duct Sizing Calculator Use

This 8-hour class will focus on the use of the SMWIA/Trane Ductulator, the industry standard in circular slide rule airflow calculations. The Ductulator aids in laying out air handling duct systems and determining proper duct sizes. We'll be using the ITI version of the Ductulator and some class time will be spent on aspect ratio, friction loss, duct sizing, and some of the formulas and other useful design information printed on the back side of the Ductulator.

Class Code
DSC-1

✦ Estimating / HVAC Combined with Project Management

This 32-hour class is designed as an introduction to estimating HVAC type work. Course content will include instruction on preparing estimates, job "takeoff" accuracy, estimating labor and material costs, productivity variables, labor factors for different building types, overhead and markup, etc. The PM portion of the class is designed to be an introduction to developing basic project management skills. Becoming a successful project manager takes plenty of on the job experience. Course content includes management and communications, construction documents, controlling costs, scheduling, productivity, legal considerations, budgetestimating, project completion, etc.

Class Code
EST-1

✦ Field Measuring

In this 24-hour class you will learn how to measure sheet metal items on the job and provide proper instructions to the shop so that the items fit and can be correctly installed. Course content includes accuracy in taking field measurements, clearances, math shortcuts for measuring, sketching fittings and shop drawings, etc.

Class Code
FM-1

✦ Fire & Smoke Damper Technician

Building Codes require the design of an integrated system of building features to protect occupants from fire and smoke. This 24-hour class will ensure that you have the core knowledge necessary to competently install, inspect, and maintain the fire, smoke, ceiling and combination fire/smoke dampers in the HVAC portion of these systems. Successful completion of this class and the included exam will certify you as a National Energy Management Institute (NEMI) Fire & Smoke Damper Technician. This certification is a prerequisite to Level Two (testing, balancing and smoke management) and the Supervisor Level certification. Test on last day.

Class Code
FSD-1

✦ Smoke Control Technician

Successful completion of this 28-hour class and the included exam will certify you as a National Energy Management Institute (NEMI) Smoke Control Technician. This class is intended for TAB professionals who are proficient in controls, smoke management systems and stairway pressurization. In order to qualify to sit for the exam, you must have the Fire & Smoke Damper Technician certification and also be TABB Certified.

Class Code
SCT-2

✦ Fittings, Good Choices When Measuring

This 8-hour class is designed to better educate anyone who is responsible for measuring duct runs, connections to furnaces or air handling units, and/or detailing same. Course content willinclude using the Fitting Loss Coefficient Tables in the SMACNA Duct Design manual as well as other reference materials regarding system effect on fans due to poor inlet and outlet connections, and the damage double elbows, “beam dodgers”, radical transitions, etc., can do to a duct system.

Class Code
FIT-1

✦ Foreperson Training

This 16-hour class is designed to introduce you to some of the basic skills required to be a good foreman. Course content includes responsibilities of the foreman, human relations, problem solving, communication, planning and organizing, leadership, personnel actions, safety, legal aspects, etc.

Class Code
FORE-1

✦ Forklift Operator Certification

This 4-hour class will contain some classroom training and time operating the forklift. Upon successful completion of this class, you will receive a certification that is good for three years.

Class Code
FORK -1

✦ Fume Hood Performance Testing

This 12-hour class provides knowledge essential to understanding the effective operation of laboratory fume hoods and the means for measuring their performance according to ANSI/ASHRAE Standard 110-1995. Members who wish to register and sit for the NEMI Fume Hood Performance Testing Technicianexam will be given assistance in that process as well.

Class Code
FUME-1

✦ Furnace System Installation

Our commercial apprentice curriculum now contains training on residential HVAC design and installation so that our members can feel confident in doing their own work when they build that dream home. Take this 24-hour class and get the same training!

Class Code
FURN-1

✦ Gas Burner Code Review

This is a basic course that will help you to better understand the gas safety controls of a residential furnace and their operation. This 16-hour class will also cover proper gas piping procedures, pipe sizing, clocking, meter and gas troubleshooting, and combustion analysis (Orsat tests).

Class Code
GAS-1

✦ Gas Piping (Flexible) Installation

This 12-hour class will include the Gastite® and Wardflex® training programs as put on by the manufacturer's representatives. These three brands of corrugated stainless steel tubing (CSST) are the most prevalent in use in this part of the country for flexible fuel gas piping systems. This class will include hands-on installation of tubing with black pipe fittings on a furnace and a pressure test. Please note that installers of gas piping must meet all state and local regulations and code requirements.

Class Code
GPF-1

✦ Gas Venting

This 8-hour class covers the fundamentals of gas venting. The curriculum consists of the proper use of vent tables and the rules to safely vent forced air furnaces, water heaters, central boilers and unit heaters for residential and commercial applications.

Class Code
GV-1

✦ Geothermal, Fundamentals & Operations

This 8-hour class will focus on choosing the proper geothermal systems for a given type project and learning the various options for installations. Topics covered will include design, tools needed for the project, and various types of equipment choices available. Three different types of closed loop applications will also be covered.

Class Code
GEO-1

✦ HRV/ERV Install & Balance

This 8-hour class is designed to better educate the installer of Heat Recovery and Energy Recovery Ventilation units (HRV's & ERV's). You will be instructed how to properly install, startup, test and balance these residential style units. Training will also include some troubleshooting.

Class Code
HERV-1

✦ HVAC Retrofit Wiring

Passage of the "Limited Energy" bill in the State House and Senate allows our qualified members to do certain electrical work when replacing HVAC equipment. This 16-hour class is designed to prepare you to do this work safely.

Class Code
WIRE-1

✦ Hydronic Heating Systems Code Review

This 12-hour class is designed to provide you with a more in depth knowledge of this portion of the International Mechanical Code. Some class time will be spent on areas of the code that pertain to in-floor radiant heating and geothermal heat pump systems.

Class Code
HHS-1

✦ Lagging

Lagging is the process of covering and protecting insulation with sheet metal, plastic, and other materials. This 40-hour class will provide you with some much-needed basic skills in this aspect of our trade. There is a tremendous amount of power plant, refinery, and other industrial type work that is in the works within Local 10 and also nationwide. These types of projects typically require a lot of lagging fabrication and installation.

Class Code
LAG-1

✦ Load Calculations & Duct Design

This 16-hour class will focus on the proper method to calculate heat loss for a residential home using a Manual J workbook and spreadsheet. Information from the spreadsheet will be used to calculate the heat loss for each room, and the entire house. Duct design will incorporate information from the heat loss spreadsheet to design a duct system to distribute the correct amount of air to each room to satisfy the load. **This class qualifies for NATE Continuing Education Hours.**

Class Code
LOAD-1

✦ Mechanical Code Class

This 32-hour class is based on the 2020 Minnesota Mechanical and Fuel Gas Code. This class will also help prepare you for the Twin Cities Warm Air & Ventilation Competency Exam. It's also very helpful for forepersons and superintendents as well as detailers and estimators. Participants in this class are required to provide their own codebook. For your convenience, codebooks will be available (at our cost) at the Training Center.

Class Code
MC-1

✦ Mechanical Code Update Class

This 8-hour class is designed to inform you on the changes between the old Minnesota Mechanical Code and the new Mechanical and Fuel Gas Code recently adopted by the state of Minnesota.

Class Code
MCU-1

✦ N.A.T.E. Exam Prep

North American Technician Excellence (NATE) certifications are widely recognized as the industry standard of excellence. If you are installing or servicing residential HVAC systems in particular, or commercially, these NATE patches tell the customer you are the best of the best. This 8-hour class is intended for individuals who are currently working in the Service or TAB side of our industry, or have some extensive training in the servicing of HVAC systems. NATE certifications generate more work hours for us and more profits for our contractors. The exams will be scheduled for a date after the conclusion of this class.

Class Code
NATE-1

✦ OSHA 30 Certification

This is a 30-hour safety awareness class. You will receive the OSHA-30 certification card upon successful completion of the class. More and more job specifications are requiring that at least one person per crew on the jobsite carry this certification. Labor Coordinators are now asking for members with OSHA-30 cards when they call the hall for manpower. Put yourself in a good situation and get this card! If you are interested, contact the Training Center to get your name on the list for this class.

Class Code
OSHA-1

✦ Plasma Table Operation

This 16-hour class is designed to teach you how to run a plasmatable. You will learn how to draw a custom part on a computer, load it into the plasma table, and cut it. You will then learn to enter some stock HVAC type fittings and cut and label them. Some time will be spent learning how to read labels for formingas well so you learn all aspects of the table use, from data entry to forming up.

Class Code
PT-1

✦ Power Limited Technician Upgrade Class

If you hold the Minnesota Power Limited Technician license, you are required to earn 16 hours of continued education for renewal of the license. Don't let your license lapse, it costs more money to renew if you do! This 16-hour class will give you the needed hours of upgrade training to maintain your license. **There is a registration deadline of a minimum of two weeks prior to the scheduled start date of the class. Register early!**

Class Code
PLTU-1A

✦ PRO-10 Certification

This is a 12-hour professional skills training class that goes beyond technical training. A few of the core topics covered are: Professionalism, Safety, Communication, Mutual Respect and Changing Perceptions. You will receive the PRO-10 certification card upon successful completion of this class. Some Metro Area jobsites are now requiring you to have this card in order to work on that site, just like the requirement for an OSHA-30 card. All Metro Area apprentices currently in school are receiving this training and getting their cards. Don't limit your options for work, we highly recommend you take this class now!

Class Code
PT-1

✦ PVC Welding

This 16-hour class is designed to teach you basic PVC welding, forming, and "fitting up" skills. Some time will be spent learning how to properly do the various types of fillet, corner, butt, and lap welds as pertains to PVC fabricated ducts and projects.

Class Code
PVC-1

✦ Reading Plans and Specifications – Architectural

This 12-hour class will focus specifically on architectural plans and specifications. A variety of building types and plans will beused so as to provide diversity of training. This class is intended primarily for forepersons, supervisors and those of you who have targeted detailing as a career path.

Class Code
ARCH P&S

✦ Reading Plans and Specifications

This 24-hour class is designed to enhance your reading plans and specifications skills. The primary focus will be on interpreting mechanical, structural, and architectural drawings and related specifications.

Class Code
PLAN-1

✦ Reading Plans and Specifications - Structural

This 12-hour class will focus specifically on structural plans and specifications. A variety of building types and plans will be used so as to provide diversity of training. This class is intended primarily for forepersons, supervisors and those of you who have targeted detailing as a career path.

Class Code
SRUC-1

✦ Refrigerant Handling – CFC Certification

This is a 12-hour class with the test for certification on the last night. It is a difficult test and should not be taken without the course instruction first. This is not a "hands-on" class, the material covered is all in the classroom. If you pass the test, you will hold the card that is the Environmental Protection Agency's certification to purchase and handle refrigerants as outlined in Section 608 of the Clean Air Act. The fine for improperly handling refrigerants can be up to $10,000. We need to order tests for this class so…**there is a registration deadline of a minimum of two weeks prior to the scheduled start date of the class. Register early!**

Class Code
CFC-1

✦ Refrigerant Handling – Hands On

Now that you are EPA certified, the next step is to get some hands-on experience. In this 16-hour class, you will install, charge, reclaim, and recover refrigerant in a split system. Component identification and review of the refrigerant cycle is also covered. You must have the CFC card in order to take this class. **This class qualifies for NATE Continuing Education Hours.**

Class Code
CFC-2

✦ Refrigeration Code Review

This is a 12-hour class that is designed to provide you with a more in depth knowledge of the refrigeration portion of the International Mechanical Code. This chapter in the code covers the design, installation, and construction of refrigeration systemsthat vaporize and liquefy a fluid during the refrigeration cycle.

Class Code
REF-1

✦ Rigging & Signal Person

OSHA requires that any person involved with the rigging and/or signaling of cranes be a Qualified Rigger or Qualified Signal Person. This 4-hour class is designed to augment your existing skills in this area and includes an exam for each qualification. Passing the exams ensures that you have the skills and knowledge required to be a Qualified Rigger and Qualified Signal Person.

Class Code
RIG-1

✦ Roof Top Unit & Furnace Start Up

Class Code
RTUF-1

✦ Servicing Environmental Systems I, II, & III

SES I will focus on the core knowledge required for servicing HVAC systems. We'll cover the basics of refrigeration systems, systems design, pressure/temperature relationships, electricity fundamentals, and controls. This 88-hour class or the equivalent in experience is a prerequisite for SES II. SES II picks up where SES I leaves off, going more in depth in all the fundamental areas of HVAC service, such as gas heating, air conditioning, and air distribution. Plenty of time will be spent on wiring diagrams, troubleshooting, and hands-on work in this 88-hour class. North American Technician Excellence (N.A.T.E.) and Industry Competency Exam (I.C.E.) certifications will be attainable at the conclusion of this class. SES III is a 40-hour class that will focus exclusively on commercial hands-on service. Lab time will be spent on some of the newer components and systems that are out there today. Prerequisites are SES I and SES II or the equivalent in servicework experience.

Class Code
SES I, II, III

✦ Servicing Residential Air Conditioning Systems

This 40-hour class is designed to give you some basic diagnostic and repair skills. We'll be covering service calls and safety procedures, wiring diagrams, superheat & sub-cooling and A/C diagnosing, and troubleshooting electric and gas.

Class Code
SRAC-1

✦ Servicing Residential Furnace Systems

This 40-hour class is designed to give you some basic diagnostic and repair skills. We'll be covering service calls and safety procedures, wiring diagrams, furnace system diagnosing and troubleshooting electric and gas.

Class Code
SRF-1

✦ Testing, Adjusting, and Balancing Systems (from Basic to Advanced)

This class introduces the basics of TAB work to an individual, with lots of hands-on applications. You will learn how to set up and use flow hoods, manometers, and many other testing instruments used daily by TAB technicians. In addition, you will learn how to test and balance various types of mechanical equipment along with their related duct systems.This is an excellent class for people who want to learn how to do TAB work, as well as for those people currently doing it.

Class Code				
TAB I, II, III, & TABTP	SEPT-APR	4:30-8:30 PM	M & W	Local #10 Metro Area Training Center

✦TAB Supervisor Test Prep

This 16-hour class is designed to get you ready for the TAB Supervisor Test. Call to inquire as to the prerequisites for this class.

Class Code
TSTP-1

✦ Total Station Jobsite Layout

This 8-hour class will provide you with hands-on instruction in the use of the Sokkia Total Station equipment. Drawing information provided by the CAD detailer allows the Total Station operator to locate hanger points, inserts, wall and floor openings, etc., with speed and accuracy. This programmed equipment has built-in checks that help avoid costly measuring errors.

Class Code
TS-1

✦ Welding-General

This class is open to all members wishing to learn new weld skills or enhance existing ones, whether it is oxy-fuel welding and cutting, stick (SMAW), wire feed (GMAW), or TIG (GTAW) welding. Various certifications will be attainable within this class for those wishing to can certify, including structural and lagging weld certs. This is an open-entry, open-exit class. You may want to come in for one night only to re-certify in a given process, the next person may spend a dozen nights practicing for the D1.1 Structural certification.

Class Code	Dates	Time	Day	Location
WELD-1	SEPT - MAY	4:30 PM-8:30 PM	last two W ea. month	Local #10 Metro Area Training Center

✦ Welding-Special

This 32-hour class is open to all members wishing to learn How to weld Stainless Steel (GTAW) and Aluminum and High-end welding processes. It will also lead into finishing/polishing stainless steel for Kitchen Equipment.

Class Code
WELD-S