



Student Handbook & Course Catalog

“Build & Service”

*Steamfitter Local Union 420
Apprentice Training Center
Building Trades and Mechanical Equipment
Service Programs*

United Association

Revised June 2021

14420 Townsend Road, Suite C
Philadelphia, PA 19116

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DISCLAIMER

The procedures and policies set forth in this Handbook are subject to revision from time to time. The most up-to-date available versions of the policies and procedures are contained in the electronic version of this document which may be accessed online at our website www.lu420.org.

Introduction

Welcome to the Steamfitter Local Union 420 Training Center. With over 100,000 square feet of training space available, we have ensured that our apprentices are given the highest quality learning experience possible in a state-of-the art facility with the space and flexibility to adapt to the ever-evolving business atmosphere.

When you signed your apprentice agreement, you took the first steps toward becoming a United Association (UA) Journeyman, a distinction known as the best trained and most productive worker in the construction trades. The UA and its signatory contractors are committed to providing you the best education and training available in your chosen craft. As part of that pledge, the UA, in partnership with various employer associations, has adopted the Standard for Excellence. These standards apply not only to journeymen, but to you as well. You are the life blood and future of this organization. The work habits you learn in your apprenticeship will carry over to your work as a journeyman and will be the foundation upon which the UA and its signatory contractors seek to protect and expand their market share. Your dedication to these principles will show the owners that the UA's commitment to excellence is not a short term gimmick, but a genuine pledge now and for the future. Your Board of Trustees has adopted these standards as an official policy, thereby cementing them into the fabric of your workplace experiences.

We hope you enjoy the programs and experiences that are described in the coming pages.

James Snell, Chair

Board of Trustees

Mission Statement

The Mission of the Steamfitter Local Union 420 Training Center is to instruct our apprentices to a level of excellence that maximizes their employability in all industries of our jurisdiction and ensures that they will meet or exceed the level of professionalism required to carry on our proud heritage in the Building Trades and Mechanical Equipment Service fields. We are also committed to making training opportunities available to equip our journeymen with the skills necessary to stay competitive in our technologically changing world. By facilitating these training needs and requirements we are enhancing the employment opportunities of our apprentices while remaining fiscally responsible to the beneficiaries of the training funds.

Our Campus

The campus for the Steamfitter Local Union 420 Training Center is located on 7 acres in northeast Philadelphia. There are 100,000 square feet of classrooms, labs and office space on this campus. The campus also houses computer labs and a curriculum library. There is a student break room and locker rooms. Each classroom is equipped with state-of-the-art technology. Labs meet and exceed industry standards for equipment and materials. There is ample parking for over 300 cars.

Accreditation and Licensure

Steamfitter Local Union 420 Training Center has standards of apprenticeship on file with the US Department of Labor. Inquiries regarding this registration should be addressed to:

Ron Leonard
US Department of Labor, Bureau of Apprenticeship and Training
170 S. Independence Mall West, Suite 820 East
Philadelphia, PA 19106

Hours of Operation

The Steamfitter Local Union 420 Training Center is opened on scheduled class days Monday through Thursday from 7:30 a.m. until 9:00 p.m. and Fridays from 7:30 a.m. until 4:30 p.m. except for legal holidays. **The offices** are open from 8:00 a.m. until 4:00 p.m. on Monday through Friday when classes are scheduled. Occasionally it is necessary to schedule a class on Saturday. Please refer to the online registration guide for actual class times.

Board of Trustees

Union:

Jim Snell, Business Manager

Kevin Heffernan, Financial Secretary-Treasurer

James Gallagher, Business Agent

Tom Redden, Business Agent

Management:

James Dougherty, Executive Vice President Mechanical and Service Contractors Association, Eastern PA, Greater Delaware Valley

Thomas H Graziano, Executive Vice President Herman Goldner Company Inc.

Add Anderson, Sales Manager E.B. O’Reilly

Thomas Dempsey, General Service Manager Limbach Co.

Calendar 2015-2016

August 1	Fall Semester Begins
November 26-27	Thanksgiving Holiday
December 24-25	Christmas Holiday
January 1	New Year Holiday
February 1	Spring Semester Begins
July 8	Spring Semester Ends
July 28	Graduation Day

Emergency Procedures/Closing

Fires: All Students are urged to acquaint themselves with the location of the exits, fire alarm switches, fire escapes, and available fire extinguishers throughout the School. In case of fire, call the emergency operator by selecting a line and dialing 911 immediately. Give the operator the precise location of the fire and he or she will alert the fire department.

Emergency Evacuation: When a fire alarm sounds please proceed to the closest exit and assemble in Rear parking lot for a head count.

Police: To summon the police, select a line and dial 911, and the operator will alert the police department.

Theft: If a theft has taken place, please report it immediately to the administrative office or to an Instructor.

Accidents and Illness: When there is doubt as to procedure in the case of medical emergency, immediate medical advice should be secured by selecting a line and dialing 911.

In the event anyone becomes injured or ill at the School, emergency response should be contacted. Emergency personnel will make determinations as to the needed medical attention and transportation.

Incident Reports: A complete report of every incident, no matter how minor, should be made to the Director within 48 hours of the incident. Copies of incident reports can be obtained from the administrative office. For non-emergencies related to police, fire, and rescue, please contact the local coordinator, and then file an incident report as described above. Any incident involving serious injury should be reported at any time during the day or night to emergency response at (911) then file an incident report as described above. In instances where there is doubt as to whether the incident is serious enough to require a report, it is better to report it immediately.

Inclement Weather Policy: If the campus is closed, students will be responsible for all assigned work, and classes will be rescheduled. The LU420 Training Center follows the closing schedule of the Philadelphia Public and Parochial Schools. **Both must be closed due to weather related emergencies impacting travel & commuting for the LU420 Training Center to be closed. Listen to KYW News Radio for the announcement.** In addition check the Training Center tab on our website for updates.

Student Services

The Steamfitter Local Union 420 Training Center is dedicated to providing each student the support and services they need to successfully complete their program and enter the industry fully prepared. The services listed below were developed to assist the student in meeting their educational goals. Questions regarding these services should be sent to the Director or staff.

Rules and Regulations

As a participant in this Program, you have been offered one of the most meaningful opportunities in your life: to develop the knowledge and skills that will enable you to perform at the highest levels of the professional trades represented by the United Association (UA).

The opportunity that you have been given is unique and valuable. Whether as an apprentice or at some other level of participation, not only will you have the opportunity to develop and/or expand a career in your trade, but you have been admitted to participate in the Steamfitter Local Union 420 Training Center's outstanding Program. It is the sincere hope of the Trustees, Director, Instructors and staff of the Program that you strive every day to make the most of this opportunity that you have been awarded. While the Program is demanding and rigorous, the benefits of your dedication will last a lifetime.

During your tenure in the Program, you should always bear in mind that, in addition to the grants and supplemental training funds that the Program receives your education is primarily funded by the work of the men and women represented by the Local Union 420, through direct contributions from their pay package. Every member of Local Union 420 has committed to your education, as a way to ensure the high standards and excellence of the trades represented by UA, and to ensure our ability to provide the highest quality of work to our participating and valued employers.

Bearing this in mind, these Rules and Regulations (hereafter referred to as “the Rules”) have been adopted by the Trustees of the Steamfitter Local Union 420 Training Center in order to:

- Administer the Apprentice and Training Program (“Program” of the Steamfitter Local Union 420 Training Center);
- Develop uniform policies and procedures that are applicable to all participants; and
- Clearly set forth the obligations and requirements that are applicable to every participant.

These Rules have been developed so that every participant in the Program has the opportunity to know and understand what is required of him or her in order to successfully participate in the Program. **Every participant in the Program is responsible for knowing and following the Rules of the Program, at all times.**

As a participant in the Program, you are expected to thoroughly read and follow these Rules. If you do not understand a Rule, or how it applies to you; you can contact the Director or another Program official. You should not rely on information given to you by another apprentice or Journey person -- even if other participants in the Program tell you what a Rule means, the only correct application of these Rules are the interpretation of the Program. Do not make the mistake of relying on anyone else, because your misplaced reliance **will not** excuse your failure to comply with the Rules, as they are interpreted and applied by the Program.

These Rules may be changed from time to time by the Program and its Trustees. It is your responsibility to know and comply with Rules, as they may be amended or otherwise changed.

A complete set of the rules follows.

- Apprentices will park in the rear of the building and enter the school from the rear center door (next to the cooling tower). Doors will be unlocked at approximately 7:00 A.M.
- The student commons area will be available to the apprentices before class, at coffee break and lunch time. Use of the refrigerator is also allowed if needed.

- The student commons area is available to the apprentices during lunch as stated, but those who wish to eat elsewhere may do so. Those eating outside the building will enter and exit by the rear door. If you take a lunchroom chair outside during break or lunch, YOU must return it to the lunchroom.
- When exiting the classroom to enter the welding class, apprentices will use the rear door, returning to the shop by the same door.
- No food or open liquid containers are to be taken into the classroom areas.
- Smoking is not permitted inside the building.
- No cell phones or beepers turned on in school.
- Apprentices may not attend apprentice school if they are wearing casts or are using slings, crutches, canes or any other similar devices; or if they are not physically available for work, no exemptions.
- Shorts, Sweat pants, sandals, flip-flops, and sleeveless shirts cannot be worn on the school premises.
- Hair shall not cover the ears, nor reach a normal dress collar; long hair covered by wigs, nets, or greased back is unacceptable. You must be **CLEAN SHAVEN**. Any visible body piercings with adornments are not permitted. This includes, but is not limited to, ears, eyebrows, nose, cheek, lip piercings, and similar ornaments.
- Weapons of any type (firearms, knives, etc.) are prohibited on Local Union 420 property.
- Per Our Standard of Excellence you will dress in a manner appropriate for our highly skilled and professional craft. Offensive words and symbols on clothing and buttons will not be acceptable. No hats are to be worn in class.

In addition to these basic rules you will be given handouts stating specific rules for Attendance, Absenteeism, Homework and Shop class. It is your responsibility to read, understand and follow ALL of our rules and regulations.

Complaint Procedure

A. Informal Resolution of Disputes. Apprentices are encouraged to informally discuss issues or problems that may arise, whether in the Steamfitter Local Union 420 Training Center or on the job, with the Director, their coordinator, or instructors, in an effort to obtain assistance or resolution. The purposes and objectives of the Steamfitter Local

Union 420 Training Center can be most effectively achieved through the process of cooperative problem solving.

B. Procedure. All apprentices have the right to present grievances regarding terms and conditions of their apprentice training, discipline, wages determinations, attendance determinations, assessments or evaluations, and any other matter or concern related to their enrollment and participation in the Steamfitter Local Union 420 Training Center, using the following procedure:

Step 1: The apprentice shall present a written grievance stating the specific facts and issues that are the subject of the grievance to the appropriate Joint Apprenticeship Training Committee, by presenting the written grievance to the Director of Training. The JATC shall notify the apprentice of a date and time to appear before the Committee for a hearing regarding the grievance. The apprentice must present any documents or witnesses that are relevant to the grievance at the Committee hearing. The Committee will issue a written decision regarding the grievance within 15 days after the hearing.

Step 2: If an indentured apprentice is dissatisfied with the decision of the JATC regarding the grievance, the apprentice can, within 10 days after receiving the decision, appeal the decision in writing to the Joint Apprenticeship Training Committee (JATC), by presenting the written appeal to the Director. The appeal shall fully state the basis for the appeal. The Committee shall notify the apprentice of a date and time to appear before the Committee for a hearing regarding the grievance. The apprentice must present any documents or witnesses that are relevant to the appeal at the Committee hearing. The Committee will issue a written decision regarding the appeal within 15 days after the hearing. The decision shall be the final decision of the LU420 Training Center as to all matters of this grievance.

Student Safety

Promotion of good health for all Steamfitter Local Union 420 Training Center students has always been our concern. For all students, good health is essential to achieving educational goals.

It is the policy of the Steamfitter Local Union 420 Training Center that all accidents and incidents which results in personal injury or illness, and/or damage to Steamfitter Local Union 420 Training Center property shall be properly reported and investigated. This operating procedure establishes a process to ensure that all injuries, illnesses, incidents, and accidents are properly managed in a timely fashion, and that all causes (direct and contributory) are thoroughly identified and that the appropriate actions are taken.

SCOPE

This policy applies to all students, employees and visitors at any Steamfitter Local Union 420 Training Center location at which work, study or any other Local Union 420 sanctioned activity is being conducted.

PURPOSE

This policy sets out guidelines and procedures for the reporting and investigation of injuries, incidents, illnesses, and accidents involving members of the Steamfitter Local Union Training Center community or visitors. Injuries and incidents must be reported and investigated in order to fulfill legal requirements, ascertain compliance with applicable regulations and Steamfitter Local Union 420 Training Center policies, and assist the Training Center in taking steps to remedy hazardous conditions to prevent recurrence.

DEFINITIONS

Student – an individual who has contracted with and is registered as a Steamfitter Local Union 420 Training Center apprentice or journeyman.

Visitor – an individual who is present on Steamfitter Local Union 420 Training Center premises.

Accident – a sudden and unforeseen event attributable to any factor which caused (a) an injury to a member of the Training Center community while he/she was carrying out Steamfitter Local Union 420 Training Center activities or (b) material damage to Training Center property.

Incident – an event or a situation attributable to any factor which could cause (a) an injury or illness to a member of the Steamfitter Local Union 420 Training Center community or (b) material damage to Training Center property.

Illness – An unhealthy condition of body or mind; sickness.

Injury – arising out of or in the course of an accident, or a disease, suffered by a student, employee, or a visitor as a result of the work / study /environment or activities performed in the course of employment, study or work.

Employee – a person who is employed by the Steamfitter Local Union 420 Training Center in either a part time or full time capacity.

POLICY

Internal Reporting

- All injuries, incidents, illnesses, or accidents involving students, employees, and visitors shall be reported by the individual involved, before leaving the Steamfitter Local Union 420 Training Center premises, either to his/her Instructor, Coordinator, Director, or an authorized representative.

Investigation

- The primary responsibility for investigation of an injury or incident lies with the craft instructor/coordinator or an authorized representative, which may include the Director.
- The authorized representative is responsible for writing the investigation report, which shall include:
 - An account of the injury or incident;
 - Recommendations for remedial actions to prevent recurrence; and
 - The names of the departments, services, and persons to which the recommendations have been forwarded for follow up.

All reports are located in each administrative office.

A copy of the investigation report shall be sent to the Steamfitter Local Union 420 Training Center Director.

REPORTING PROCEDURES FOR INJURY/INCIDENT REPORTING AND INVESTIGATION POLICY

Responsibilities of Students, Employees and Visitors

- A student, employee or visitor who is a victim of an injury or who has suffered an illness or disease shall:
- Immediately report the injury to the authorized representative;
- Complete and sign the Injury, Illness or Accident Report as soon as possible following the occurrence. All reports are located in each administrative office.

Responsibilities of Instructors, Coordinators or Administrators

An instructor, coordinator or administrator should:

- Ensure that the victim gets immediate medical attention if required;
- Call 911 for Emergency Medical Services if necessary;
- Obtain the names of any witnesses;
- Ensure that any one who is a victim of an injury, illness or accident completes and signs the appropriate reporting form;
- Investigate the injury

Maintaining good health requires access to health care when it is needed. The following medical facilities, health centers, and hospital are available to render the necessary health and medical services:

Major injuries, incidents, or illnesses (Outside of 911 calls):

Frankford Hospital – Torresdale Campus
Red Lion and Knights Road
Philadelphia, Pa. 19114
Phone 215-612-4000

Minor injuries, incidents, or illnesses:

Industrial Health Care Center
2804 Southampton Road
Philadelphia, Pa. 19154
Phone 215-677-0930
Fax 215-677-3266

Substance abuse and mental health issues:

Allied Trades Assistance Program
2791 Southampton Road
Philadelphia, Pa. 19154
Phone 215-677-8820
Fax 215-677-9046

Additional Injury, Illness or Accident Protocol

- Follow the three emergency action steps recommended by the American Red Cross (Check, Call, and Care).
- Direct the victim to the Training Center Infirmary located directly across from the water fountain outside of Classrooms # 1 and # 2.
- Sound the emergency alarm – if necessary.
- Supervise the evacuation of the building (Please follow guidelines as set forth on the Training Center emergency evacuation floor plans).
- Provide basic care for an injury or sudden illness until the victim receives professional medical help.

Campus Security

In addition to the health of our students, the safety and security of our students, their property and campus property is of primary concern. The following policies are in effect to ensure this security.

- 1) All Faculty, staff and students are to report the loss or damage of school equipment to the Director. An incident report form should be used for this purpose.
- 2) No guns, knives or other weapons are permitted on the campuses or in the parking lots at any time. Any student found to possess these items on campus or at their assigned work place will be immediately dismissed.
- 3) Students are to report any threats or attacks made by fellow students to the Director. A full investigation will be conducted. If these reports are substantiated, the offending student will be immediately dismissed.
- 4) Any other incidents or actions will threaten the harmony or the security of the campus, should be reported immediately to the Director.

Counseling Services

The Steamfitter Local Union 420 Training Center does not provide any direct counseling services, but does encourage students to seek any assistance that they require. To this end, a list of community counseling resources is available through the coordinator's office. The student should consult the Benefits Office regarding potential coverage for counseling services.

Drug Free Workplace and Campus

This constitutes the policy of Steamfitter Local Union 420 Training Center on controlled substances, illegal drugs and alcohol. As used in this policy, "controlled substances" and "illegal drugs" broadly refer to all forms of narcotics, depressants, stimulants, hallucinogens or other drugs, including marijuana, whose use, possession or transfer is restricted or prohibited by law (except the use or possession of drugs prescribed by a physician or dentist).

1. Apprentices who engage in any of the following activities while on Company or school premises, on Company or school worksites (including Company vehicles and any private vehicle parked on Company or school owned or leased premises or worksites), or while on Company or school business will be subject to disciplinary action up to and including dismissal from the Apprentice Program and termination by the Company.
 - a. The illegal possession, distribution, transportation, use, sale, purchase, transfer or consumption of controlled substances or illegal drugs.
 - b. The possession, distribution, transportation, use, sale, purchase, transfer or consumption of any type of alcoholic beverages.
 - c. Being at work while under the influence of (1) controlled substances, (2) illegal drugs, or (3) alcohol, regardless of whether they were consumed during, or out of, work or school times. "Under the influence" is defined as being unable to perform work in a safe and productive manner; being in a physical or mental condition which creates a risk to the safety and well-being of the individual, other employees, the public or Company or school property; and/or having in the body any detectable level of illegal drugs, or controlled substances, or any alcohol in excess of a trace.

2. Apprentices who engage in any of the following activities while off Company premises or off Company worksites and/or off working time will also be subject to disciplinary action up to and including dismissal from employment and the Apprentice Program:

- a. The illegal possession, distribution, transportation, use, sale, purchase, transfer or consumption of controlled substances or illegal drugs – where such involvement constitutes a direct threat to Company or school property or Company or school employees, or affects an apprentices job performance, or generates either publicity or circumstances which adversely affect the Apprentice school, the Union, or the Company.
- b. The felonious possession, distribution, transportation, use, sale, purchase, transfer or consumption of controlled substances or illegal drugs.

3. All applicants, as a condition for admission to the Apprentice Program, shall be tested for the presence of illegal drugs and controlled substances and, where indicated, alcohol. The applicant will:

- a. Sign an “Informed Consent” (Appendix A, Attachment A) for substance abuse testing, including alcohol (Appendix A, Attachment B), which includes notice that results of the medical evaluation will be provided to the Board of Trustees or its designated representative;
- b. Receive notice that failure to consent to the test will result in the remainder of the preadmission examination not being completed, and the Board of Trustees will be notified;
- c. Furnish a biological sample collected at the time of examination;
- d. Be informed that a failure to pass a drug and/or alcohol screen, or a refusal to provide a biological sample as required, shall result in rejection of the application for admission to the Apprentice Program.

The Family Education Rights and Privacy Act of 1974

The Federal Family Educational Rights and Privacy Act (FERPA) of 1974 regulate a wide range of privacy related activities including:

- Management of student records maintained by the School
- Regulations regarding who has access to student records
- For which purposes access to student records is granted

School officials will release educational information upon receipt of a signed, dated, written consent of the student which must specify the records that may be disclosed and identify the party to whom the disclosure may be made, including:

- Parents of a dependent student, as defined by the Internal Revenue Code of 1954, Section 152 and who supply supporting documentation, may be granted access to a student's educational record under some circumstances.
- In connection with Financial Aid, to organizations who are conducting studies that are on behalf of educational agencies;
- To Federal or State educational authorities;
- To accrediting organizations;
- In compliance with a lawfully issued subpoena;
- In connection with a health or safety emergency.

Non-School individuals (including parents except as described above) *may not have access* to educational records other than Directory Information unless authorization from the student is obtained or a lawful subpoena/court order is issued to the School. Examples of records not released are grades; grade point average; the specific number of hours/credits enrolled, passed, or failed; Social Security Number; student ID number; name of parents or next of kin; and/or residency status.

Students must complete a form authorizing the Administrator's Office to permit employers to view the student's academic record. Notification of advancement letters to employers includes the students' GPA as well as their advancement rate of pay.

Tuition and Fees

There is NO tuition for students who have been accepted into the apprenticeship program. Some textbook and PPE fees are required.

Refund Policy

The only monies collected are a non-refundable application and testing fee. Since there is no tuition, there is NO refund.

Cost of Attendance Budget

The cost of attendance budget is an estimate of the total amount of money it will cost a student to attend school per academic year. The cost of attendance budget includes: tools, consumables, Teacher and administrative salaries and Building expenses. The estimated TOTAL costs for each program over the 5 year period are as follows:

Steamfitter	\$27,845.00
HVAC Service	\$27,845.00

Veteran's Benefits

The School is pleased to participate in the Veteran's Benefits program. The Director can assist you in the certification of your benefits agreement. For further information, please see Appendix E.

Academic Services

The Steamfitter Local Union 420 Training Center has developed unique programs and curriculum designed to achieve the highest standards of performance in our industries. The successful completion of these programs will enable the student to have a successful career and multiple opportunities within the industry.

Admissions:

Steamfitter Building Trades Program & Mechanical Equipment Service(MES) Programs

Steamfitter Local Union 420 Training Center APPRENTICESHIP APPLICATION INSTRUCTIONS

ALL APPLICANTS MUST BE AT LEAST 18 YEARS OF AGE.

PLEASE READ THIS VERY CAREFULLY. The following items must be returned to the training center in order to complete your application:

- 1. PIPE TRADES APPRENTICESHIP FORM #1** – Complete Pages 1 and 2 of the application form.
- 2. COPY OF BIRTH CERTIFICATE** - A COPY of your birth certificate is required. Do NOT send in the original document.
- 3. COPY OF HIGH SCHOOL DIPLOMA OR COPY OF GED CERTIFICATE**- A COPY of your high school diploma is required. If you have a GED, a COPY of your GED certificate is required. Do NOT send in the original documents.

4. **OFFICIAL HIGH SCHOOL TRANSCRIPTS AND COPY OF GED TEST RESULTS** - High school transcripts must be an official copy and must be mailed directly from your high school to the training center. If you did not graduate from a high school, a COPY of your GED test results are required **AND** official high school transcripts must still be mailed by any high school you attended for the grades you completed. A Transcript Release Form has been provided to you in the application packet for you to complete and give to your high school for the release of your transcripts. Also, **IF** you attended a Philadelphia public high school, the School District of Philadelphia's application form has been included in the application packet for you to complete and send to the school district. Transcripts must be mailed directly to: JOINT PIPEFITTING APPRENTICESHIP COMMITTEE, 14420 TOWNSEND ROAD, SUITE C, PHILADELPHIA, PA 19154.

5. **APPLICATION FEE** - A \$25.00 non-refundable check or money order (DO NOT SEND CASH) must be returned with your application. Please make payment payable to **JOINT PIPEFITTING APPRENTICESHIP COMMITTEE**.

6. **DRUG AND ALCOHOL POLICY** – You must read, sign, and return **ATTACHMENT B** (Pre-Admission Permission for Urinalysis) and **ATTACHMENT C** (Pre-Admission Permission for Alcohol Testing) with your application. A friend or family member can sign as a witness on these attachments. Attachment A describes the Drug and Alcohol Policy and is to be kept by the applicant.

7. **COPY OF DD-214 FORM (if applicable)** – **IF** you had active time in the military, a COPY of your discharge form is required. Do **NOT** send in the original document.

8. **Valid Driver's License – MES (HVAC&R Service) Applicants** Must provide a copy of a valid driver's license. A clean driving record is required for employability and therefore completion of the program.

9. **Employee Eligibility Verification – MES (HVAC&R Service) Applicants** must complete the I-9 form as required by the U.S/Dept. of Justice Immigration & Naturalization Service.

If you have additional information that you want to include (copies of certificates, resume, etc.), they may be included when you return your application. Please do not send in original documents with your application for they will not be returned and the training center does not make copies. Any transcripts from schools you attended must be official and must be mailed to the training center directly from the school.

COMPLETED applications must be received by **November 15th** for the February class and by **May 15th** for the August class. Applicants who graduate high school in June need transcripts to date and will be given until June 30th to send in their final high schools transcripts and high school diploma.

**PLEASE MAIL THE COMPLETED APPLICATION AND THE ABOVE REQUIRED DOCUMENTS TO:
JOINT PIPEFITTING APPRENTICESHIP COMMITTEE**

**14420 TOWNSEND ROAD, SUITE C
PHILADELPHIA, PA 19154-1028**

Applicants with completed applications will be notified by **certified mail** for the Mechanical and Spatial Aptitude Test. Applicants notified for the testing must appear at their scheduled date and time (**NO EXCEPTIONS**). After taking the aptitude test, all eligible applicants will be notified by **certified mail** for an interview. The scores from the test and interview will determine acceptance into the apprenticeship program.

The recruitment, selection, employment, and training of apprentices during their apprenticeship shall be without discrimination because of race, color, religion, national origin, sex, or non-job-related disability. The sponsor shall take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30 and equal employment opportunity regulations of the commonwealth.

If you have any questions regarding the application process, please call the training center office at (267) 350-2610.

Enrollment

Once a student has been notified of their acceptance to the program they must complete BOTH the enrollment agreement document (See Appendix B) and the apprenticeship agreement documents (See Appendices C and D). Until these documents have been completed, no student may start the program.

Registration

Students enrolled in the apprenticeship programs are automatically registered for technical classes each term. Any Journeyperson wishing to take Continuing Education classes must register by the published deadlines listed on the Steamfitter Local Union 420 Training Center website. Students registering for classes with partnership institutions, e.g., Washtenaw Community College are responsible for meeting the registration deadlines of those institutions.

Job Placement

Students in the apprenticeship program are automatically placed on a job. Once they have graduated, journeyworkers receive placement assistance from the union. Work placement from the union is continuous until retirement.

Graduation Requirements

Students who complete all of their coursework will receive a diploma from the Steamfitter Local Union 420 Training Center. Students who have completed the core curriculum, all technical courses in their program and have completed 10000 hours of on-the-job training are eligible for graduation from the apprenticeship program. They receive an apprenticeship completion certificate from the US Department of Labor. Additionally, students who have completed the academic requirements from WCC are eligible for graduation from that program. Graduation ceremonies are held twice a year in January and July.

Certificates and Diplomas

Students who complete all of their coursework will receive a diploma from the Steamfitter Local Union 420 Training Center. Students who complete the apprenticeship program also receive an apprenticeship completion certificate from the US Department of Labor. The Steamfitter Local Union 420 Training Center does not offer degree programs at this time but does have a cooperative agreement with Washtenaw Community College. For more information on the WCC program, speak with your coordinator.

Transfer of Credits

Currently, Steamfitter Local Union 420 Training Center is developing articulation agreements with several colleges to accept all credits earned through our programs. There is no guarantee that any other college will accept these credits.

Transfer Between Programs and from other Institutions

Students who wish to transfer to another trade program must go through the admissions process for that program. If they are accepted only safety classes and general studies classes can be transferred to the other program. Transfer of Students from another region of the UA would require a transcript from that program and assessment by the director. Students may transfer general studies and safety classes from other colleges and institutions upon receipt of transcript and evidence of a passing grade.

Withdrawal Policy/Leaves of Absences

Students who wish to withdraw from the program should send a request in writing to their director. A leave of absence may be granted for personal or medical reasons at the discretion of the Committee. If the Committee believes that the student should be granted a leave of absence, the student will be notified in writing.

Attendance

Each apprentice is bound by their Agreement to attend all classroom hours for the entire length of their Apprenticeship. The Apprentice Committee may, at their discretion, allow excused absences for good cause with written explanation and doctor's note required, if appropriate. In any case, absences in excess of 16 hours in any one period will require that period be repeated.

Lateness' will not be tolerated. This is a time based business and we are bound by the UA standard of Excellence. Arrive to class on time and ready to learn. If you choose to be late you will be docked 2 hours minimum per infraction in addition to writing a letter to the JATC explaining your issue. The time will be made up before you are permitted to advance to the next period. It will be made up at the discretion of the Instructors and Director.

In the event an Apprentice misses more than five (5) days total or 40 hours of classroom time during their apprenticeship, the excess beyond the 40 hours must be made up in classroom instruction before the Apprentice is eligible to graduate.

Continuing Education Programs

The Steamfitter Local Union 420 Training Center is pleased to offer a number of courses and certificate programs for the journey worker in the field. Whether you are interested in updating your skills, learning something new or working towards advancement, these courses are designed with you in mind. A schedule of classes is posted on the LU420.com website.

Grading

A - *A student performs at 90-100% level*

B - *A student performs at 80-89% level*

C - *A student performs at 70-79% level*

Fail (F) - *A student performs at a level which is lower than 70% if a required course is failed, the course must be repeated or an equivalent one taken. No Credit is accrued with a grade of F. When a student repeats a course or takes an equivalent after failure, both grades will be recorded on the permanent record.*

Incomplete (I) - In exceptional cases, where an unanticipated event beyond their control interferes with a student's completion of course requirements, a letter grade of "I" (Incomplete) may be given to a student, at the instructor's discretion. Responsibility for completion of work rests with the student and must be completed within one year.

Administrative Withdrawal (AW) - This code is used on grade reports when a student either never attended or attended no more than two classes but did not officially drop or withdraw. (Leave of Absence falls into this category)

Students should refer to the individual course syllabi to determine how their grade will be assessed.

Satisfactory Academic Progress

Students must maintain a 70% average in all classes to make satisfactory academic progress. Students who fall below this standard will be notified and required to do remedial work until they meet this standard. They will be eligible to repeat (1) time only throughout the five-year apprenticeship if their grade falls between 65% and 69%. They will be dropped if they fall below 65% or if they fall between a 65%-69% a second time during the apprenticeship

Remedial Assistance

Students who enter the program are required to read at the 9th grade level. Approximately, 90-95% of all reading material is at that level. Some texts and manuals have higher reading levels because of the technical nature of the industry. Students who have difficulty comprehending these materials have two options for remedial assistance as described below:

- Peer-to-peer assistance-Through the faculty, students who need assistance in technical subject areas may be assigned a peer counselor, who will work with them to master a particular skill or reading requirement.
- Teacher to Student assistance. Our students will be offered to work with instructors on remedial issues.

Advisement

Staff is available for consultation on student progress, professional development and remediation requirements. Please check posted office hours to meet with a faculty member or call to schedule an appointment.

The director and the staff are available to provide general advisement on available services, partnership programs and continuing education opportunities. Schedule an appointment to discuss these services.

Computer Services

The Steamfitter Local Union 420 Training Center has a computer lab which is open to students according to the hours posted. When using this service during class, the following rules apply.

Electronic media cannot be used for knowingly transmitting, retrieving, or storing any communication that is:

- Discriminatory or harassing;
- Derogatory to any individual or group;
- Obscene, sexually explicit or pornographic;
- Defamatory or threatening;
- In violation of any license governing the use of software; or
- Engaged in for any purpose that is illegal or contrary to Steamfitter Local Union 420 Training Center policy or business interests.

Generally, electronic information created and/or communicated by a student using e-mail, word processing, utility programs, spreadsheets, voicemail, telephones, Internet and bulletin board system access, and similar electronic media is not reviewed by the Steamfitter Local Union 420 Training Center. However, the Steamfitter Local Union 420 Training Center reserves the right, at its discretion, to review any student's electronic files and messages to the extent necessary to ensure electronic media and services are being used in compliance with the law, this policy, and other Steamfitter Local Union 420 Training Center policies. Students should not assume electronic communications are completely private. Accordingly, if students have sensitive information to transmit, they should use other means.

Library/Media Services

The Steamfitter Local Union 420 Training Center maintains a curricular support library on campus, which functions as a resource center for the courses offered. Within this library, we maintain all required and supplemental texts and readings for all courses, a collection of reference guides, collections of journal, periodicals related to the piping and service trades and a variety of videos and cd's related to craft specialization and labor history. The School also has access to a number of online databases in the construction field and an academic research database.

Students enrolled in the degree programs at Washtenaw Community College have access to the on-line libraries of the institutions.

Transcripts and Student Records

Students may request a copy of their transcript at any time. Official copies of their transcripts are available at a cost of \$5.

Students wishing to obtain a copy of their student records can do so by filling out an appropriate "record request form" (supplied by Instructor, Office Manager, and or Director of Training). Once the form is complete and turned in with a \$5 processing fees, the record will be made available to the student.

Degree Completion through Washtenaw Community College

In addition to completing their apprenticeship, students must complete the following classes through WCC to earn their associates degree. This is an optional program and hours for these classes are not included in the overall hours necessary to earn the diploma or apprenticeship certificate.

Areas of Concentration

The Steamfitter Local Union 420 Training Center offers two apprenticeship programs which are described below. More information on individual glasses can be found in the course descriptions section of this handbook.

Building Trades Steamfitter Diploma CIP Code 46.0502

A program that prepares individuals to design, install, and test industrial and commercial piping systems and automatic fire and exposure protection systems. Includes instruction in water systems, steam systems, heating and cooling systems, lubricating systems, piping materials, installation tools operation and maintenance, valve installation and repair, technical mathematics, blueprint interpretation, and applicable codes and standards.

The Building Trades Steamfitter Program takes 5 years to complete with a total 880 hours of class time and lab time and 10,000 hours of internship as follows:

YEAR ONE, PERIOD ONE

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
HUMA101	Intro to the Trade	8		
HLSF100	Safety: PSM and OSHA10	10		
MATH100	Mathematics	17.5		
PHYS101	Basic Physics	17.5		
ARCH100	Mechanical Drawing	17.5		

WELD100	Welding		17.5	
	TOTALS	70.5	17.5	1000

YEAR ONE, PERIOD TWO

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
MATH101	Mathematics	22		
PHYS102	Basic Physics	22		
ARCH101	Mechanical Drawing	22		
WELD101	Welding		22	
	TOTALS	66	22	1000

YEAR TWO, PERIOD THREE

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
HUM102	Heritage Training	8		
MATH102	Mathematics	20		
PHYS103	Basic Physics	19		
ARCH102	Mechanical Drawing	19		
WELD102	Welding		19	
HLSF101	Safety Refresher	3		
	TOTALS	69	19	1000

YEAR TWO, PERIOD FOUR

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
MATH103	Mathematics	22		
SCIE101	Science	17		
ARCH103	Mechanical Drawing	15		
WELD103	Welding		22	
HLSF220	Introduction to Rigging	8	4	
	TOTALS	62	26	1000

YEAR THREE, PERIOD FIVE

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
MATH200	Mathematics	22		
SCIE102	Science	22		
ARCH200	Mechanical Drawing	22		
WELD200	Welding		19	
HLSF102	Safety Refresher	3		
	TOTALS	69	19	1000

YEAR THREE, PERIOD SIX

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
MATH201	Mathematics	22		
SCIE103	Science	22		
ARCH201	Mechanical Drawing	22		
WELD201	Welding		22	
	TOTALS	66	22	1000

YEAR FOUR, PERIOD SEVEN

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
MATH202	Mathematics	22		
SCIE104	Science	22		
ARCH202	Mechanical Drawing	22		
WELD202	Welding		19	
HLSF103	Safety Refresher	3		
	TOTALS	69	19	1000

YEAR FOUR, PERIOD EIGHT

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
ARCH220	Blueprint Reading	22		
MATH203	Mathematics	22		
ARCH230	Fabrication	11	11	
WELD203	Welding		22	
	TOTALS	55	33	1000

YEAR FIVE, PERIOD NINE

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
MATH204	Mathematics	22		
SCIE201	Science	22		
CTMG100	Floor Layout	4		
WELD204	Welding		37	
HLSF104	Safety Refresher	3		
	TOTALS	51	37	1000

YEAR FIVE, PERIOD TEN

Course Number	Course Name	Class Hours	Lab Hours	Internship Hours
SCIE202	Science	22		
WELD205	Welding		40	
OSHA30	OSHA 30 Training	30		
HLSF210	Qualified Rigging and Signalperson Instruction	18		
	TOTALS	70	40	1000

Course Descriptions Building Trades Steamfitter Program

ARCH100 Basic architectural and mechanical drawing skills are introduced. Basic drafting skills are emphasized. Topics Include: Use and identification of Light construction lines, Use and identification of Dark permanent Object lines, Use and Identification of projection lines to complete 1 of 3 views. Identify the relations between the Plan view, Front elevation view and the right end elevation view. How to read a ruler to full scale. 3 view orthographic drawings are drawn.

ARCH101 Continuation of First Period Drawing with emphasis on scale and interpretation. Introduction of 45 degree piping drawings.

ARCH102 Continuation of 45 degree piping drawings with the addition of pipe fittings and odd angles.

ARCH103 Odd Angle Pipe Drawings.

CTMG101 Floor Layout

OSHA 30

HLSF100 Process Safety Management and **OSHA 10**. Topics Include: Lock out tag-out, Fall protection, Introduction to OSHA, Excavation awareness, Soil composition, PPE, MSDS, Scaffolds Electrical Safety, Confined Space, Asbestos awareness.

HLSF101 Process Safety Management and **OSHA 10** Topics Include: Lock out tag-out, Fall protection, Introduction to OSHA, Excavation awareness, Soil composition, PPE, MSDS, Scaffolds Electrical Safety, Confined Space, Asbestos awareness

ARCH200 Introduction of Isometric Piping Drawing.

ARCH201 Continuation of Isometric Piping Drawing.

ARCH202 Introduction of Drawing Templates for Mitered Fittings. Concentration on 2 and 3-piece mitered 90. Full size Mitered tee's, Reducing Mitered tee's and 45 degree mitered laterals.

ARCH220 Introduction to Building Plans, Drawing Symbols, Use of Builders level, Understanding of Elevations.

ARCH230 Introduction and execution of Pipefitting problem solving without the use of Mathematics. By use of sketching on a Table top or floor area we can acquire the needed dimensions to lay out the fittings to suit any given need.

HLSF102 Process Safety Management and **OSHA 10** Topics Include: Lock out tag-out, Fall protection, Introduction to OSHA, Excavation awareness, Soil composition, PPE, MSDS, Scaffolds Electrical Safety, Confined Space, Asbestos awareness

HLSF103 Process Safety Management and **OSHA 10** Topics Include: Lock out tag-out, Fall protection, Introduction to OSHA, Excavation awareness, Soil composition, PPE, MSDS, Scaffolds Electrical Safety, Confined Space, Asbestos awareness

HLSF104 Process Safety Management and **OSHA 10** Topics Include: Lock out tag-out, Fall protection, Introduction to OSHA, Excavation awareness, Soil composition, PPE, MSDS, Scaffolds Electrical Safety, Confined Space, Asbestos awareness

HLSF210 Participate in and test for an NCCCO Rigging and Signal Person Certification

HLSF220 Introduction to Rigging. Identification and inspection of correct Equipment is stressed.

HUMA101 This class is designed to acquaint students with the labor movement, unions, apprenticeship, the school, the program, the requirements of apprenticeship and their job requirements and benefits.

HUMA102 Study of the History of the Labor movement.

MATH100 Basic mathematical and algebraic equations are taught. These equations and theories are in conjunction with the theories taught in 1st period science. Topics Include: Square Roots, Algebraic Equations, and Basic Mathematic Equations such as addition, subtraction, multiplication and division of Whole numbers, Mixed Numbers, Fractions, and Decimals, Volumes, Densities, and Pressures.

MATH101 Continuation of First Period Math with the addition of Piping Schemes and Geometric Theories. Pipe fittings, take-offs, Face to Centers, Step aheads and Rolling Offsets.

MATH102 Basic Trigonometry and angle functions.

MATH103 Continuation of Trigonometric Functions. Introduction to Odd angle fitting and offsets

MATH200 Introduction of odd angle rolling offsets and Mitered Fittings. Problems are solved with use of Trigonometric Functions.

MATH201 Continuation of Trigonometric Functions to solve Odd angle rolling offsets and Mitered Fittings.

MATH202 Continuation of Trigonometric Functions with concentration in Tubing Bending.

MATH203 Trigonometric Functions. Odd Angle Rolling Offsets, Piping Offsets, Odd Angle Trench problems, Multiple Header and Odd Angle offsets.

MATH204 Review of all math 2nd period through 8th period. Odd angle offsets, trench Problems, Simple 45 degree rolling Offsets, Tank problems.

PHYS101 Basic physical science theories are taught. These theories are presented in conjunction with skills, which are being taught in the field. Topics include: Pressure, Force, Density, Specific Weight, Volume, Area, PSI, Properties of Matter, States of Matter, Energy, Gas Laws (Boyle's law) hydraulics, Mechanical Advantage, Buoyancy, Liquid displacement, Distance, Work, Atmospheric Pressure, Barometers, and Absolute Pressure.

PHYS102 Basic physical Science continued. Topics Include; Temperature, Specific Heat, BTU, Expansion and Contraction of Solids and Liquids, Evaporation and Transfer of Heat.

PHYS103 Basic studies of Metallurgy as it applies to Welding, Brazing and Soldering.

SCIE101 Hydronic heating. Topics include Gravity Hot Water Systems, Forced Flow Hot Water Systems, One-Pipe Systems, Two pipe Systems, Series-Loop Systems, and Required Equipment for each system, Safety Devices, and Sizing of Systems using BTUH's.

SCIE102 Principles of Steam heating. Topics include Steam Separators, Pressure Reducing Stations, Vacuum Breakers, Vacuum heating Pumps, Expansion joints, Water Hammer, and Safety Devices.

SCIE103 Principles of Refrigeration. Topics include Refrigeration Tonnage, Absolute Zero, Vapor Compression Cycle, Evaporator, Condenser, Metering Device, Compressor, BTU, Enthalpy, Latent Heat, Sensible Heat, Condense, Sub Cool, Desuperheat, Heat of Rejection, Liquid Receivers, Desiccants, and Oil Separators.

SCIE104 Principles of Air Conditioning and Controls. Topics include Air Conditioning Calculations, Pneumatic Controls, Air Pressure, Direct acting and Reverse acting Thermostats, Dry-Bulb and Wet-Bulb , humidity, Ventilation, Chemical Humidifiers, R-Factors, U-Factors and External Restrictors.

SCIE201 Instrumentation and Controls

SCIE202 Instrumentation Calibration Preparation for UA Star Exam.

WELD100 Safety and Knowledge of Oxygen and acetylene torch cutting for both plate and pipe are taught. Soldering, Brazing, Screwed Pipe, Victaulic processes are taught.

WELD101 Introduction to Arc Welding. Topics include: Arc welding basics, Ground clamp, Stinger, welding machine knowledge, heat settings, Polarity, and Plate Welding.

WELD102 Continuation of Plate Welding in multiple positions.

WELD103 Continuation of Arc Welding. Introduction to Pipe Welding.

WELD200 Continuation of Pipe Welding. Concentration in the 5G and 2G position.

WELD201 Continuation of Pipe Welding. Concentration in the 5G position.

WELD202 Continuation of Pipe Welding, concentration in 5G position.

WELD203 Continuation of Pipe Welding. 5G, 2G and intro to 6G test position.

WELD204 Continuation of 5G, 6G and 2G welding positions. Introduction to Orbital Welding, Certification in Butt Fusion welding and Saddles.

WELD205 Acquire Brazing Certifications, Prepare for and participate in a UA/NCPWB welding session to acquire any of the many UA welding certifications.

Mechanical Equipment Service Program Diploma
CIP Code 47.0201

A program that prepares individuals to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. Includes instruction in diagnostic techniques, the use of testing equipment and the principles of mechanics, electricity, and electronics as they relate to the repair of heating, air conditioning and refrigeration systems.

The Mechanical Equipment Service Program takes 5 years to complete with a total 10,000 hours which includes 880 hours of combined classroom and lab time as follows:

YEAR ONE, PERIOD ONE

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
HUMA110	Orientation, Intro to Heritage, Intro to Trade, etc.	4	2	
HLSF110	Safety: PSM and OSHA10	12	2	
MATH110	Mathematics Intro & Exercises	12		
SCIE110	Science & Physics	14	2	
MESP100	Psychrometrics I (Fundamental prop. of Air)	4		
MESP101	Basic Vapor Compression Refrigeration Cycle	10	2	
WELD110	Soldering and Brazing	4	12	
ELEC100	Elec I (Intro to Basic Electricity)	3	1	
	1 st period core proficiencies\ 1 st period EXAM	4		
	TOTALS	67	21	1,000

YEAR ONE, PERIOD TWO

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
HLSF111	Refrigeration & Trade Safety	3	2	
ELEC101	Electrical Safety I (Intro to Elec Hazards)	2	1	
MESP102	Tools & Equipment \ Intro to Recovery I	6	2	
ELEC102	Electric II (Intro: ohms law, DC, meters)	14	1	
ELEC103	Electric III (Motors, relays, starters)	14	2	
MESP103	Refrigeration Cycle I Basic PE \ Press\temp	12	3	
MESP104	TXV Fundamentals	2	2	
HUMA111	Union Heritage & Labor History	8		
MESP105	Intro to Recovery II	8	2	
	2 nd period core proficiencies\2 nd period EXAM	4		
	TOTALS	73	15	1,000

YEAR TWO, PERIOD THREE

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
MESP106	Refrigeration Cycle II Basic PE \ Press\temp	6	1	
MESP107	Recovery III (intermediate)	8	2	
HLSF112	EPA 608 Certification Preparation & EXAM	5		
MESP108	Refrigeration & Air Conditioning System Components Overview	2	1	
MESP109	Refrigerant Metering Devices	10	2	
MESP110	Evaporators	8	1	
MESP111	Compressors	16	4	
MESP112	Condensers	6	2	
MESP113	Cooling Towers and Evaporation Condensers	4	2	
MESP114	Ductless Systems I (Intro\Overview)	4		
	3 rd period core proficiencies\3 rd period EXAM	4		
	TOTALS	73	15	1,000

YEAR TWO, PERIOD FOUR

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
MESP115	Compressor Failures \ Clean-up, etc.	8	4	
MESP116	System Protectors – Filter Driers	2		
MESP117	Refrigerant Control Devices	10	4	
MESP118	Refrigerant Piping Accessories	4		
MESP119	Refrigerant Piping, Sizing and Design	16		
MESP120	Evacuation and Dehydration	8	4	
MESP121	Intro to Commercial Refrigeration & Supermarket Refrigeration	16		
MESP122	Psychrometrics II (Intermediate Applications)	8		
	4 th period core proficiencies\4 th period EXAM	4		
	TOTALS	76	12	1,000

YEAR THREE, PERIOD FIVE

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
HLSF210	Electrical Safety II (LOTO & NFPA 70E)	8	2	
ELEC200	Controls I (Electric Control Systems)	8		
ELEC201	Controls II (Relays & Switches, etc)	4		
ELEC202	Controls III (Auxiliary Control Equipment)	4		
ELEC203	Electrical Diagrams I (Components)	8		

ELEC204	Motors I (Starters and Contactors)	3	2	
ELEC205	Motors II (Large Starters - wye-delta, etc.)	3	1	
ELEC206	Motors III (Winding temps & Diagrams, etc.)	3	2	
ELEC207	Motors IV(imbalance, insul classes, etc.)	4		
ELEC208	Motors V (Insulation\Megger Testing)	3	2	
ELEC209	Motors VI (Single Phase Starting Circuits)	2	1	
ELEC210	Electrical Diagrams II (Intermediate)	8		
ELEC211	Electrical Troubleshooting	4	8	
ELEC212	Controls IV (Intro: Valves and Dampers)	4		
	5 th period core proficiencies\5 th period EXAM	4		
	TOTALS	70	18	1,000

YEAR THREE, PERIOD SIX

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
MESP201	General Chiller Operation	10	2	
MESP202	Centrifugal Compressor Chillers & Compressor Overhauls	14	3	
MESP203	Absorption System Chillers	8		
MESP204	Refrigerant Transfer & Recovery, System Dehydration and Evacuation	9	2	
MESP205	Flow Analysis, Pressure Drops and Heat Balance	10	2	
MESP206	Logs, System Analysis, Oil and Vibration Analysis	12		
HLSF211	Rigging and Crane Signals	12		
	6 th period core proficiencies\6 th period EXAM	4		
	TOTALS	79	9	1,000

YEAR FOUR, PERIOD SEVEN

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
ELEC213	Controls V (Electronic Concepts)	12		
ELEC214	Controls VI(Pneumatic Control Fundamentals)	10	2	
ELEC215	Controls VII (Intermediate Pnuematics)	10	2	
ELEC216	Controls VIII (DDC Systems)	12	2	
ELEC217	Control Diagrams	16		
HLSF212	Elec Safety \NFPA70 Refresher	1	1	
ELEC218	Motors VII (dual voltage\Power Factor, etc.)	2	2	
MESP207	VFD Training	8	4	
	7 th period core proficiencies\7 th period EXAM	4		
	TOTALS	75	13	1,000

YEAR FOUR, PERIOD EIGHT

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
MESP208	Heat Pumps: Air\Water\Geothermal	16	2	
MESP209	Furnaces \ Elec Heaters, etc.	8	2	
MESP210	Electric Heaters	4		
MESP211	Steam Training	4	4	
MESP212	Valves & Dampers	6		
MESP213	Flame Safeguard Controls for Heating Equip	6	2	
MESP214	Combustion Burners Gas and Oil	8		
MESP215	Boilers I (Intro to Boilers)	4		
MESP216	Boilers II (Boiler Operation)	8		
MESP217	Large Boiler Operation	4		
MESP218	Combustion Tuning	4	2	
	8 th period core proficiencies\8 th period EXAM	4		
	TOTALS	76	12	1,000

YEAR FIVE, PERIOD NINE

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
SCIE210	Science & Physics Fundamentals Review	8		
MESP219	Advanced Psychometrics	8		
MESP220	Ducts and Pressure Drop	4		
MESP221	Fans, Measurements and Curves	8		
MESP222	Shop Basic Airside Measurements		8	
MESP223	Motor Brake HP Measurements & Calculations	2	2	
ELEC219	Advanced Electrical Analysis	8		
MESP224	Fundamental Balancing	6	6	
MESP225	Ductless Systems & VRF	12	4	
MESP226	Shop Complete Airside & Start-Up		8	
	9 th period core proficiencies\9 th period EXAM	4		
	TOTALS	60	28	1,000

YEAR FIVE, PERIOD TEN

Course Number	Course Name	Class Hours	Lab Hours	Total Hours
HLSF213	Job Safety Refresher	3		
MESP227	Measuring Instruments and Alignment	5	6	
MESP228	Fluid Flow in Pipes and Piping Design	12		
MESP229	Flows & Pressure Drop Exercises and Calculations	8		
MESP230	Pumps & Pump Curves	8	2	

MESP231	Flow Measuring Devices & Balancing Valves	8	4	
MESP232	Shop Exercise	2	8	
MESP233	ID101 Develop Opps & Customer Service	8		
	10 th period core proficiencies\10 th period EXAM	3	2	
HLSF214	STAR Certification Review	6		
	STAR Exam	3		
	TOTALS	66	22	1,000

Mechanical Equipment Service (MES) Program

The curriculum for the Five Year Mechanical Equipment Service Program is presented in five separate years which are comprised of two (2) periods each. Apprentices attend 88 hours of classroom instruction per apprentice period for a total of 176 hours of instruction per year.

The course outlines for each year have been carefully arranged to provide apprentices with a course of instruction which follows a natural and sequential progression as it advances through the years of apprenticeship.

At a glance, it may appear that many inadvertent duplications of course material have been made throughout the five year course of instruction. This was intentionally done, for there are many topic areas within the curriculum which, very simply, do not lend themselves to being taught as units. Refrigeration theory, electronic theory and their application, to name several, are presented at progressively intense levels of sophistication over the five year period.

This approach to teaching air conditioning and refrigeration theory to apprentices recognizes that not all apprentices receive field exposure to all aspects of the trade and will, in all probability, encounter various elements of the trade at different times. It is the intention and responsibility of this training program to insure that all apprentices receive a meaningful exposure to all aspects of the trade when it has some relevant meaning to him or her. To that end, these course outlines have been developed in an attempt to satisfy that very ambitious objective.

In addition to learning the basics of the trade, apprentices must receive as much instruction as is possible on the importance of exercising safety on the job. They must be made to truly believe that job safety is something which requires their continuing conscious attention.

It is the overall objective of this apprentice training program to develop the most highly skilled and productive Union craftsmen possible. As this trade continues its rapid growth in all areas, and especially in the electronics and the green technology field, it will become increasingly difficult to include everything an apprentice ought to learn in a five year time period. It is for this reason that curriculum development must be an ongoing function of this training program in order that we may meet this challenge in years to come.

The course outline assembled herein should not be used as a definitive schedule which is “cast in stone”, but rather, as a general guide to the instructor. No one can possibly anticipate or predict the many spontaneous opportunities to learn which occur in the classroom. Instructors must be free to follow their instincts and use their own judgment in the allocation of time to be spent in any one area.

Course Descriptions Mechanical Equipment Service Program

ELEC 100 Intro to Basic Electricity: Fundamental Electrical theory is introduced including and introduction into ohms law, types of electrical motors, etc.

ELEC101 Electrical Safety I (Intro to Elec Hazards): Electrical Safety such as fatal current, Hazard classes and LOTO(Lockout-Tagout) are presented and demonstrated.

ELEC102 (Intro: ohms law, DC, meters): Electrical theory is expanded to include exercises in ohms law, series and parallel circuits, AC\DC and meters for HVAC&R.

ELEC 103 (Motors, relays, starters): The fundamentals of electrical motors, relays and motor starters are introduced.

ELEC200 Controls I (Electric Control Systems): Electric Control Systems, Essential Parts, Types of Control Action and Fundamentals of Measurement are studied.

ELEC201Controls II (Relays & Switches, etc): Types & applications of relays and switches and the role of these devices in troubleshooting is explored.

ELEC202 Controls III (Auxiliary Control Equipment): Auxiliary contacts of starters and devices as well as other Interlocks like flow switches, & HOA's are introduced.

ELEC203 Electrical Diagrams I (Components): Electrical Diagrams& Components, Fuses Control Circuits, Ladder\schematic Diagrams are introduced.

ELEC204 Motors I (Starters and Contactors): Construction, Application, Maintenance and Service & Troubleshooting of Starters & Contactors are studied.

ELEC205 Motors II (Large Starters - wye-delta, etc.): Starters for Large Motors, Lock-Rotor Current\Torque\Reduced Voltage & Solid State Starters are studied.

ELEC206 Motors III (Winding temps & Diagrams, etc.): Operating conditions\winding temperature and diagrams for various winding configurations is presented.

ELEC207 Motors IV(imbalance, insul classes, etc.): Evaluating motor voltage and current imbalance and the exponential impact on winding temperatures along with the insulation classes(A-B-F-H) on motor windings is studied.

ELEC208 Motors V (Insulation\Megger Testing): Insulation Testing & Instruments.

ELEC209 Motors VI (Single Phase Starting Circuits): Single Phase Motor Starting Circuits, Identification, Capacitors, Troubleshooting and Service are presented.

ELEC210 Electrical Diagrams II (Intermediate): Complex wiring diagrams, developing schematics and understanding sequences is practiced.

ELEC211 Electrical Troubleshooting: Troubleshooting techniques are practiced.

ELEC212 Controls IV (Intro: Valves and Dampers): Valves and Dampers 101 includes basic control concepts enhanced with final control elements.

ELEC213 Controls V (Electronic Concepts): A refresher on control fundamentals and the basics of electronic control concepts including types of loops and various inputs\outputs is presented.

ELEC214 Controls VI(Pneumatic Control Fundamentals): The fundamentals of pneumatic control loops is presented.

ELEC215 Controls VII (Intermediate Pneumatics): Students complete exercises on pneumatic loops, controllers and auxiliary equipment.

ELEC216 Controls VIII (DDC Systems):

Direct digital control concepts are studied including building automation concepts, operator interfaces and overviews of common controls in the industry.

ELEC217 Control Diagrams: Enhanced control diagrams are presented including student exercises

ELEC218 Motors VII (dual voltage\Power Factor, etc.): Students receive a refresher session on motor winding terminals for dual voltage and\or part winding start, etc., and study the theory of power factor, including the basic algebraic formulations and the impacts of power factor on motors and facilities.

ELEC219 Advanced Electrical Analysis: Exercises on electrical analysis to plot and approximate performance and to troubleshoot fan performance.

HLSF110 Safety: PSM and OSHA10: Process Safety Management and OSHA10 criteria is presented.

HLSF111 Refrigeration & Trade Safety: Safety considerations required around refrigerants and oils and general safety consideration not specific to OSHA or PSM are presented.

HLSF112 EPA 608 Certification Preparation & EXAM: Students register for EPA CFC Certification EXAM and complete practice quizzes and reviews prior to EXAM date.

HLSF210 Electrical Safety II (LOTO & NFPA 70E): Electrical Safety is expanded upon including Lockout Tag-out(LOTO) requirements\hazard Categories(CAT levels)\ ARC Flash hazards\NFPA 70E\PPE and boundary requirements.

HLSF211 Rigging and Crane Signals: The fundamentals of hoisting, rigging, knots, and crane signals are presented and studied.

HLSF212 Elec Safety \NFPA70 Refresher: Students receive a

refresher session on electrical safety in the work place.

HLSF213 Job Safety Refresher:

Students are refreshed and demonstrate safety skill competency.

HLSF214 STAR Certification Review:

Students prepare for the UA HVAC STAR Mastery examination including four sections of practice tests and review of those tests.

HUMA110 Orientation, Intro to Heritage, Intro to Trade, etc.: UA Standard of Excellence, work ethics, personal skills, and apprentice responsibilities at the training center and on the job are presented. Labor History Intro, Union Heritage introduction and HVAC&R Trade related information is presented.

HUMA111 Union Heritage & Labor History:

Union Heritage and Labor History are both expanded upon and studied as students continue the first year.

MATH110 Mathematics Intro & Exercises:

Mathematics such as manipulating fractions, decimals, linear measurement, ratios and proportions, area and volume, and force and pressure are introduced.

MESP100 Psychrometrics I (Fundamental prop. of Air): The thermodynamic properties of moist air such as dry bulb, wet bulb, dewpoint, enthalpy, specific volume, density, specific humidity and relative humidity are introduced along with the difference between sensible and latent heat.

MESP101 Basic Vapor Compression

Refrigeration Cycle: The basic refrigeration cycle along with pressure temperature relationships, analysis of pressure enthalpy diagram, and latent heat of vaporization and condensation are introduced.

MESP102 Tools & Equipment \ Intro to Recovery

I: Tools and equipment required for the HVAC trade are introduced including specialty equipment required to handle and recovery refrigerants.

MESP103 Refrigeration Cycle I Basic

PE\Press\temp: Refrigeration theory and the refrigeration cycle is expanded upon, including exercises and calculations utilizing the Pressure Enthalpy charts and Pressure enthalpy tables.

MESP104 TXV Fundamentals: The fundamentals of metering devices such as the thermal expansion valve is introduced to complete the concept of the refrigeration cycle using flash gas at theoretically constant enthalpy at the valve outlet to enable the cooling of the refrigerant for the repeat of the cycle.

MESP105 Intro to Recovery II: The concept of refrigerant recovery and introduction of EPA 608 requirements are expanded upon to include lab demonstration of recovery equipment and hook-up

**MESP106 Refrigeration Cycle II Basic PE **

Press\temp(p/t): Students review and enhance their abilities to plot the refrigerant cycle and use the PE diagram as a service & troubleshooting tool along with a more thorough understanding of de-superheating, superheat, sub-cooling utilizing the p/t tables.

MESP107 Recovery III (intermediate): Students are presented with the complete background and requirements for Refrigerant handling, recovery, recycling and reclaim in accordance with EPA requirements defined in section 608.

MESP108 Refrigeration & Air Conditioning

System Components Overview: An Overview\Preview of the major refrigerant system components and their functions as well as the various applications are included in this presentation. This presentation previews the theme of the 3rd Period curriculum.

MESP109 Refrigerant Metering Devices:

Refrigerant metering devices such as thermal expansion valves, orifices, capillary tubes, floats, etc. are presented with visits from Manufacturers representing Sporlan Valve and Danfoss.

MESP110 Evaporators: The detailed function of various evaporators is explored including flooded type water chillers, air conditioning and refrigeration DX evaporators, etc.

MESP111 Compressors: The various types, applications and functions of compressors used in the industry are presented. Students study several manufacturers and perform hands on disassembly of semi-hermetic compressor in the lab and take readings on live and simulated operating systems prior to plotting the cycle on the PE diagram for a thorough understanding of the compression cycle, compression ratio, COP, etc.

MESP112 Condensers: The heat rejection component of the system is presented including various types and applications of air and water cooled refrigerant condensers.

MESP113 Cooling Towers and Evaporative

Condensers: Students study the theory of operation and the impact of cooling towers and evaporative condensers and their effect on the efficiency\COP of the system.

MESP114 Ductless Systems I (Intro\Overview):

Basic "Ductless Systems are introduced to students often including an Overview from a manufacturer's representative.

MESP115 Compressor Failures \ Clean-up, etc.:

Identifying compressor failures and the causes & impact and the diagnostic investigation of compressor failures are explored along with the methods of cleaning up the contaminated refrigerant circuit and the methods for future protection and prevention of repeat failures.

MESP116 System Protectors – Filter Driers:

System contaminants are studied and the function of system protectors such as filter driers and the various types and applications presented including the role of these devices in system clean-up. Typically a brief visit from the manufacturer's representatives to share the technology and applications of these products is included.

MESP117 Refrigerant Control Devices:

Specialty refrigerant control devices such as EPR's, CPR's etc. are presented. A visit from the manufacturer's representatives to share the technology and applications of these products is included.

MESP118 Refrigerant Piping Accessories: Other system accessories such as vibration isolators, accumulators, mufflers, receivers, oil separators are presented.

MESP119 Refrigerant Piping, Sizing and Design: Students study the critical requirements for refrigerant and oil miscibility in the system and the balance of pressure drop and velocity vs. oil management and efficiency. The fundamentals of pipe sizing are included, and exercises on piping design and layout are completed.

MESP120 Evacuation and Dehydration: The difference between evacuation and dehydration is emphasized including the application of cold traps, the operation and care of vacuum pumps and micron gauges and a thorough understanding of proper techniques and evaluation is included. Lab demonstrations of these functions are included with student participation.

MESP121 Intro to Commercial Refrigeration & Supermarket Refrigeration: The specifics of refrigeration such as low temperatures, defrost, compression ratios, oil management, supermarket racks, evaporator control, head pressure control are presented and studied. Typically a session visit from our Journeymen Refrigeration Instructor is included highlighting the latest technologies in commercial and supermarket refrigeration. Typically a brief visit from the refrigeration specialty manufacturer's to share the technology and application of these products is included.

MESP122 Psychometrics II (Intermediate Applications): Students perform exercises and calculations. See Psychometrics I for details.

MESP201 General Chiller Operation: The fundamentals of water chilled systems is studied including the various types and applications in the industry.

MESP202 Centrifugal Compressor Chillers & Compressor Overhauls: The theory & operation of various centrifugal compressors is presented along with an overview of disassembly and overhaul.

MESP203 Absorption System Chillers: The fundamentals of absorption chillers are studied

including the basics of analyzing and maintaining single and double effect systems.

MESP204 Refrigerant Transfer & Recovery, System Dehydration and Evacuation: High tonnage refrigerant handling, recovery & transfer and dehydration & evacuation are presented.

MESP205 Flow Analysis, Pressure Drops and Heat Balance: Analyzing Capacity and heat balance from field measurements that provide pressure and temperature differentials utilizing formulas to determine flow is presented. Students complete exercises utilizing formulas and techniques to analyze system performance.

MESP206 Logs, System Analysis, Oil and Vibration Analysis: Proper maintenance and performance monitoring is presented via logs along with predictive type analysis for long term trending.

MESP207 VFD Training: Variable Frequency Drives as pertains to fans, pumps and compressors are presented. Theory and fundamental operation along with setup and start-up parameters and basic troubleshooting is studied.

MESP208 Heat Pumps:
Air\Water\Geothermal: Refrigerated heat pump systems are presented including air to air, water to air, and geothermal heat pumps including demonstrations and log readings on air source and geothermal heat pump trainers in the lab.

MESP209 Furnaces \ Elec Heaters, etc.: Fundamentals of furnaces including electric heat and the application of ohms law and power formulas to determine capacity vs kW, etc.

MESP210 Electric Heaters: Types of electric heat and applications of mathematics for considering single & three phase wye & delta connected heat.

MESP211 Steam Training: The fundamentals of steam properties at various pressures and temperatures are studied. Lab time with Steam and condensate trainer trailer is included.

MEP212 Valves & Dampers: Training on Valves and dampers is extended.

MESP213 Flame Safeguard Controls for Heating Equip: Electronic and microprocessor based combustion controls used for furnaces, boilers, etc. are studied.

MESP214 Combustion Burners Gas and Oil: The theory and fundamentals of atomizing and combustion of fossil fuels in burners for heating equipment is presented.

MESP215 Boilers I (Intro to Boilers): The various types and applications of hydronic water heaters and steam boilers are introduced.

MESP216 Boilers II (Boiler Operation): The safety codes and standards that apply to water boilers along with the required auxiliary equipment and typical accessories is presented.

MESP217 Large Boiler Operation: The requirements for operation, maintenance and service of a large boiler plant are presented.

MESP218 Combustion Tuning: The theory and adjustments required for adjusting the fuel and air ratios of combustion equipment is presented.

MESP219 Advanced Psychometrics: The thermodynamic properties of moist air such as dry bulb, wet bulb, dew point, enthalpy, specific volume, density, specific humidity and relative humidity are utilized for plotting and analysis including detailed calculations of sensible, latent heat and total heat.

MESP220 Ducts and Pressure Drop: Friction loss, pressure drops and fluid

flow dynamics of air is presented including student exercises.

MESP221 Fans, Measurements and Curves: Centrifugal and axial fans, fan law calculations, fan curves and fan analysis is presented including student calculation exercises and student lab time measuring fan performance.

MESP222 Shop Basic Airside Measurements: Students demonstrate measurements of total, static and velocity pressures utilizing conventional and digital manometers.

MEP223 Motor Brake HP Measurements & Calculations: Students study methods of approximating Horsepower draw and demonstrate skills in the lab measuring power consumption and calculating horsepower draw.

MESP224 Fundamental Balancing: Students study and demonstrate the fundamentals of setting up and performing a duct traverse air flow measurement\troubleshooting.

MESP225 Ductless Systems & VRF: Students are trained on ductless VRF systems including manufacturer certification when possible.

MESP226 Shop Complete Airside & Start-Up: Students demonstrate a complete airside start-up and analysis including traverse, fan performance measurement & plotting, horsepower measurement & approximation and documentation.

MESP227 Measuring Instruments and Alignment: Students study tools and instruments for measurements and tolerances and complete exercises demonstrating this skill. Shaft alignment as pertains to pumps and\or compressors is presented. Students complete shaft alignment lab exercises.

MESP228 Fluid Flow in Pipes and

Piping Design: Students study hydronic system types and applications along with fluid flow, pressure drop and hydronic design types.

MESP229 Flows & Pressure Drop

Exercises and Calculations: Students complete exercises utilizing fundamentals and formulas for hydronics and water properties.

MESP230 Pumps & Pump Curves:

Centrifugal pump types and applications are examined. Pump law calculations, pump curves, pump measurements and analysis is presented including student calculation exercises and student lab time measuring pump performance.

MESP231 Flow Measuring Devices &

Balancing Valves: The fundamentals of flow measurement and associated devices along with circuit balancing valves and software utilized in the field are presented. Exercises include selection of valves for specific applications and utilizing software for friction loss preset and flow meter gauge readings.

MESP232 Shop Exercise: Students demonstrate hydronic analysis and

troubleshooting skills in the lab including pump performance and balancing valve measurements.

MESP233 ID101 Develop Opps & Customer Service:

Students are presented with this session on identifying & developing opportunities including customer service skills and enhancement products & services for customers.

SCIE110 Science & Physics: Basic Science and physical properties related to HVAC&R such as temperature, specific heat, density, weight, pressure, Atmospheric Pressure, Gas Laws, and fundamental properties of heat and heat exchange are presented.

SCIE210 Science & Physics

Fundamentals Review: Physics and Science of fluid properties and temperature pressure relationships relative to fluid movement and/or heat transfer analysis are reviewed, enhanced and studied.

WELD110 Soldering and Brazing: The fundamentals of working with copper including, cutting, swedging, flaring, preparation and soldering, brazing are introduced along with the safe handling and use of torches and compressed gases, etc.

Administration and Full-Time Faculty

Peter Klein Director of Training Building Trades Programs
Edwin Engel Director of Training Mechanical Equipment Service Program
Brett Cutler Mechanical Equipment Service Instructor
Peter Iannozzi Building Trades Instructor
Greg Beck Building Trades Instructor
William Coleman Building Trades Instructor
Francis McGrath Mechanical Equipment Service Instructor
Paul Kirk Mechanical Equipment Service Instructor
Monica Perrone Administrative Professional
Ann Marie Callahan Administrative Professional

Evening Continuing Education Part-Time Faculty

Building Trades

Greg Beck Medical Gas Installation Instructor
Vince Parme CAD Design Instructor
Ron Falkenstein Instrumentation Eprl Level I/II, PSM, OSHA Instructor
Robert Bogardus Instrumentation Level I/II
Michael Jones PSM, OSHA, Med Gas Installation Instructor
Dan Malloy Estimating, Planning and Scheduling Instructor
Mike Hutnick Welding Instructor
Chris Gottschall Welding Instructor
Joseph Wampole Welding Instructor
Marc Leonard Welding Instructor

Mechanical Equipment & Service

Winfield Culp Start,Test and Balance Air Side & HVAC Controls Instructor
Brett Cutler Commercial & Supermarket Refrigeration Instructor
John DeJoseph Start,Test and Balance Water Side/ Hydronics and Chillers/ UA Star/
Paul Kirk Fundamentals & Chillers / NATE Training Instructor
Domenic Roberto Chiller Instructor
Joseph Sestito Boilers/ Burners & Chiller Instructor

John Thorton

HVAC Controls / NATE Instructor

Appendix A

Drug and Alcohol Forms

PRE-ADMISSION PERMISSION FOR URINALYSIS

I hereby give permission for analysis of the urine specimen which I am voluntarily giving. I have been told that the urine will be analyzed for drugs. I also give permission for disclosure of test results to the Joint Apprenticeship Training Committee, Steamfitters' Local Union 420, and its representatives realizing that such results will be used in the final decision concerning my application for admission. Failure to sign this consent discontinues the application process.

I have been given a copy of the Committee's Drug and Alcohol Policy. I have read and understand it. The following is a list of all prescription medications or over-the-counter medications I have taken in the past thirty (30) days:

NAME OF DRUG	CONDITION FOR WHICH TAKEN	PRESCRIBING PHYSICIAN/ OVER-THE-COUNTER
_____	_____	_____
_____	_____	_____
_____	_____	_____

PRE-ADMISSION PERMISSION FOR ALCOHOL TESTING

I hereby give permission for analysis of the Biological Specimen (blood, breath, or saliva) which I am voluntarily giving. I have been told that the specimen will be analyzed for alcohol. I also give permission for disclosure of test results to the Joint Apprenticeship Training Committee, Steamfitters Local Union 420 and its representatives realizing that such results will be used in the final decision concerning my apprentice application.

I have been given a copy of, read, and understand the Committee’s Drug and Alcohol Policy.

Signature

Name (Typed or Printed)

Date

Witness

Date

Appendix B

ENROLLMENT AGREEMENTS

**ENROLLMENT AGREEMENT
Steamfitter Local Union 420 Training Center
Building Trades Program
14420 Townsend Road
Philadelphia, PA 19154
267-350-2610
www.lu420.com**

This is an agreement between the Steamfitter Local Union 420 training Center and Student Name: _____ to enroll in the Building Trades Program. This program consists of 880 clock hours of classroom, laboratory and on-the-job training over a five-year period. At the end of this program, you will receive an apprenticeship completion certificate from the United States Department of Labor. and will become a Journey worker in the Building Trades field. There are no tuition or fee costs for this program. Students will be provided tools at no cost. This program begins in July _____(Year). Your estimated completion date is June _____ (Year).

Should you decide to leave the program or if you are asked to leave the program, please refer to the policies and procedures regarding termination that can be found in the Student Handbook and Catalog. Since there are no tuition charges for this program, there will be no refund due to the student. The one-time \$25 application fee is non-refundable. Students may be required to purchase books over the course of the program - costs for this will not exceed \$500.

At the end of the program, you will become eligible for employment through the Steamfitters, Local Union 420. PERMANENT EMPLOYMENT CANNOT BE GUARANTEED. However, you will be part of an employment placement service through the union that will be available to you until you retire. Should you have any questions or concerns regarding this enrollment agreement, please contact Peter Klein, Director. A copy of the Steamfitter Local Union 420 Training Center complaint procedure can be found in the Student Handbook and Catalog.

By signing this document, I certify to the following: that I have received and read the Student Handbook and Catalog and I further certify that I have read and understand this enrollment agreement.

This agreement is effective this _____ day of _____, 20____.

Student

School Representative

ENROLLMENT AGREEMENT
Steamfitter Local Union 420 Training Center
Mechanical Equipment Service Program

14420 Townsend Road
Philadelphia, PA 19154
267-350-2610
www.lu420.com

This is an agreement between the Steamfitter Local Union 420 Training Center and Student Name: _____ to enroll in the Mechanical Equipment Service Program. This program consists of 880 clock hours of classroom, laboratory and on-the-job training over a five-year period. At the end of this program, you will receive an apprenticeship completion certificate from the United States Department of Labor and will become a Journey worker in the Mechanical Equipment Service field. There are no tuition or fee costs for this program. Students will be provided tools at no cost. This program begins in July _____ (Year). Your estimated completion date is June _____ (Year).

Should you decide to leave the program or if you are asked to leave the program, please refer to the policies and procedures regarding termination that can be found in the Student Handbook and Catalog. Since there are no tuition charges for this program, there will be no refund due to the student. The one-time \$25 application fee is non-refundable. Students may be required to purchase books over the course of the program - costs for this will not exceed \$500.

At the end of the program, you will become eligible for employment through the Steamfitters, Local Union 420. **PERMANENT EMPLOYMENT CANNOT BE GUARANTEED.** However, you will be part of an employment placement service through the union that will be available to you until you retire. Should you have any questions or concerns regarding this enrollment agreement, please contact Peter Klein, Director. A copy of the Steamfitter Local Union 420 Training Center complaint procedure can be found in the Student Handbook and Catalog.

By signing this document, I certify to the following: that I have received and read the Student Handbook and Catalog and I further certify that I have read and understand this enrollment agreement.

This agreement is effective this _____ day of _____, 20____.

Student

School Representative

Appendix C

US DEPARTMENT OF LABOR
APPRENTICESHIP AGREEMENTS

**REGISTRATION AGENCY
PENNSYLVANIA APPRENTICESHIP AND TRAINING COUNCIL
APPRENTICESHIP AGREEMENT
BETWEEN APPRENTICE AND SPONSOR**

<p><i>This AGREEMENT may be terminated by either of the parties, citing cause(s) with notification to the registration agency, in compliance with Title 34, Part IV, Chapter 83.</i></p>		<p align="right"><small>PRIVACY ACT STATEMENT</small></p> <p><i>The information requested herein is used for apprenticeship program statistical purposes and may not be otherwise disclosed without the express permission of the undersigned apprentice.</i></p> <p align="right"><small>Privacy Act of 1974 - P.L. 93-502</small></p>					
1. AGREEMENT BETWEEN APPRENTICE AND- ("X" one) a. <input type="checkbox"/> Employer b. <input checked="" type="checkbox"/> Joint Committee c. <input type="checkbox"/> Non-Joint Committee	2. PROGRAM NUMBER 002420001	3. NAME OF APPRENTICESHIP STANDARDS (Name & Address of Sponsor) Joint Pipefitting Apprenticeship Training Committee 14420 Townsend Road, Suite C Philadelphia, PA 19154-1028					
The program sponsor and apprentice agree to the terms of the apprenticeship standards as 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 Section 30.3, Code of Federal Regulation, Part 30.							
4. NAME OF APPRENTICE (Last, First, Middle)		5. DATE OF BIRTH (Mo., Day, Year)	6. SEX ("X" one) a. <input type="checkbox"/> Male b. <input type="checkbox"/> Female				
7. SOCIAL SECURITY NO.		8. APPRENTICE'S ADDRESS (No., Street, City, County, State, ZIP Code)					
9a. RACE ("X" one or more) a. <input type="checkbox"/> Am. Indian or Alaskan Nat. b. <input type="checkbox"/> Asian c. <input type="checkbox"/> Black or African American d. <input type="checkbox"/> Native Hawaiian or other Pacific Islander e. <input type="checkbox"/> White	9b. ETHNIC GROUP ("X" one) a. <input type="checkbox"/> Hispanic or Latino b. <input type="checkbox"/> Not Hispanic or Latino	10. VETERAN STATUS ("X" one) a. <input type="checkbox"/> Non-Veteran b. <input type="checkbox"/> Veteran	11. HIGHEST EDUCATION LEVEL ("X" one) a. <input type="checkbox"/> 8th grade or less b. <input type="checkbox"/> 9th to 12th grade c. <input type="checkbox"/> GED d. <input type="checkbox"/> High School or greater				
12. CAREER LINKAGE OR DIRECT ENTRY ("X" one) <input type="checkbox"/> None <input type="checkbox"/> Incumbent Worker <input type="checkbox"/> Adult Job Corps <input type="checkbox"/> Youth Dislocated Worker <input type="checkbox"/> HUD/STEP-UP <input type="checkbox"/> Direct Entry: <input checked="" type="checkbox"/> School-to-Registered-Apprenticeship							
13. SIGNATURE OF APPRENTICE		DATE	14. SIGNATURE OF PARENT/GUARDIAN (if minor)				
15a. TRADE Steamfitter		15b. FIAIS Code 862381018	16. TERM (Hours, Months, Years) 5 years				
17. PROBATIONARY PERIOD (Hours, Months, Years) 12 Months		20. DATE APPRENTICESHIP BEGINS (Indenture Date)					
18. CREDIT FOR PREVIOUS EXPERIENCE (Hrs., Mos., Yrs.) 0		19. TERM REMAINING (Hrs., Mos., Yrs.) 5 Years	21. RELATED INSTRUCTION TRAINING (No. Hrs. per Yr.) 176				
22. RELATED INSTRUCTION SOURCE Joint Pipefitting Apprenticeship Training Committee 14420 Townsend Road, Suite C Philadelphia, PA 19154-1028		23. APPRENTICE WAGES FOR RELATED INSTRUCTION TRAINING ("X" one) a. <input type="checkbox"/> will be paid b. <input checked="" type="checkbox"/> will not be paid					
24. PRESENT JOURNEYMAN'S HOURLY WAGE RATE \$		25. APPRENTICE WAGES: <i>The apprentice schedule of pay shall be listed for each advancement period. The work processes listed in the standards (Items 3 above) are a part of this agreement.</i>					
PERIOD a.	TERM (Mo./Yr.) b.	% c.	DOLLAR AMOUNT (in dollars & cents) d.	PERIOD a.	TERM (Mo./Yr.) b.	% c.	DOLLAR AMOUNT (in dollars & cents) d.
1	6 Months	%	\$	6	6 Months	%	\$
2	6 Months	%	\$	7	6 Months	%	\$
3	6 Months	%	\$	8	6 Months	%	\$
4	6 Months	%	\$	9	6 Months	%	\$
5	6 Months	%	\$	10	6 Months	%	\$
26. SIGNATURE OF SPONSOR REPRESENTATIVE a.		DATE SIGNED		27.			
SIGNATURE OF SPONSOR REPRESENTATIVE b.		DATE SIGNED		28. SIGNATURE (Director, Pennsylvania Apprenticeship & Training Council)		DATE REGISTERED	

**REGISTRATION AGENCY
PENNSYLVANIA APPRENTICESHIP AND TRAINING COUNCIL
APPRENTICESHIP AGREEMENT
BETWEEN APPRENTICE AND SPONSOR**

This AGREEMENT may be terminated by either of the parties, citing cause(s) with notification to the registration agency, in compliance with Title 34, Part IV, Chapter 83.		PRIVACY ACT STATEMENT The information requested herein is used for apprenticeship program statistical purposes and may not be otherwise disclosed without the express permission of the undersigned apprentice. Privacy Act of 1974 - P.L. 93-502	
1. AGREEMENT BETWEEN APPRENTICE AND- ("X" one) a. <input type="checkbox"/> Employer b. <input checked="" type="checkbox"/> Joint Committee c. <input type="checkbox"/> Non-Joint Committee		2. PROGRAM NUMBER PA002690001	
3. NAME OF APPRENTICESHIP STANDARDS (Name & Address of Sponsor) Joint Conference Board 14420 Townsend Road, Suite C Philadelphia, PA 19154-1028			
The program sponsor and apprentice agree to the terms of the apprenticeship standards as 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 Section 30.3, Title 29, Code of Federal Regulation, Part 30.			
4. NAME OF APPRENTICE (Last, First, Middle)		5. DATE OF BIRTH (Mo., Day, Year)	6. SEX ("X" one) a. <input type="checkbox"/> Male b. <input type="checkbox"/> Female
7. SOCIAL SECURITY NO. [][]-[][]-[][][][]		8. APPRENTICE'S ADDRESS (No., Street, City, County, State, ZIP Code)	
9a. RACE ("X" one or more) a. <input type="checkbox"/> Am. Indian or Alaskan Nat. b. <input type="checkbox"/> Asian c. <input type="checkbox"/> Black or African American d. <input type="checkbox"/> Native Hawaiian or other Pacific Islander e. <input type="checkbox"/> White	9b. ETHNIC GROUP ("X" one) a. <input type="checkbox"/> Hispanic or Latino b. <input type="checkbox"/> Not Hispanic or Latino	10. VETERAN STATUS ("X" one) a. <input type="checkbox"/> Non-Veteran b. <input type="checkbox"/> Veteran	11. HIGHEST EDUCATION LEVEL ("X" one) a. <input type="checkbox"/> 8th grade or less b. <input type="checkbox"/> 9th to 12th grade c. <input type="checkbox"/> GED d. <input type="checkbox"/> High School or greater
12. CAREER LINKAGE OR DIRECT ENTRY ("X" one) <input type="checkbox"/> None <input type="checkbox"/> Incumbent Worker <input type="checkbox"/> Adult Job Corps <input type="checkbox"/> Youth Dislocated Worker <input type="checkbox"/> HUD/STEP-UP <input type="checkbox"/> Direct Entry <input checked="" type="checkbox"/> School-to-Registered-Apprenticeship			
13. SIGNATURE OF APPRENTICE		DATE	14. SIGNATURE OF PARENT/GUARDIAN (if minor)
15a. TRADE Refrigeration and Air Conditioning Mechanic	15b. RAIS Code 637261014	16. TERM (Hours, Months, Years) 5 Years	17. PROBATIONARY PERIOD (Hours, Months, Years) 12 Months
18. CREDIT FOR PREVIOUS EXPERIENCE (Hrs., Mos., Yrs.) 0	19. TERM REMAINING (Hrs., Mos., Yrs.) 5 years	20. DATE APPRENTICESHIP BEGINS (Indenture Date)	21. RELATED INSTRUCTION TRAINING (No. Hrs. per Yr.) 176
22. RELATED INSTRUCTION SOURCE Joint Conference Board 14420 Townsend Road, Suite C Philadelphia, PA 19154-1028		23. APPRENTICE WAGES FOR RELATED INSTRUCTION TRAINING ("X" one) a. <input type="checkbox"/> will be paid b. <input checked="" type="checkbox"/> will not be paid	24. PRESENT JOURNEYMAN'S HOURLY WAGE RATE \$
25. APPRENTICE WAGES: The apprentice schedule of pay shall be listed for each advancement period. The work processes listed in the standards (item 3 above) are a part of this agreement.			
PERIOD	TERM (Mo./Yr.)	%	DOLLAR AMOUNT (in dollars & cents)
a.	b.	c.	d.
1	6 Months	%	\$
2	6 Months	%	\$
3	6 Months	%	\$
4	6 Months	%	\$
5	6 Months	%	\$
26. SIGNATURE OF SPONSOR REPRESENTATIVE		DATE SIGNED	
a.			
SIGNATURE OF SPONSOR REPRESENTATIVE		DATE SIGNED	
b.			
27.		28. SIGNATURE (Director, Pennsylvania Apprenticeship & Training Council)	
		DATE REGISTERED	

Appendix D

SUPPLEMENT TO THE
APPRENTICESHIP AGREEMENTS

**SUPPLEMENT TO APPRENTICESHIP AGREEMENT
BETWEEN**

APPRENTICE AND JOINT APPRENTICE COMMITTEE

THIS AGREEMENT, made this 1st day of August/February , by and between STEAMFITTERS' LOCAL NO. 420 APPRENTICESHIP TRAINING FUND (hereinafter referred to as "APPRENTICESHIP FUND") and _____ (hereinafter referred to as "APPRENTICE").

WITNESSETH:

WHEREAS, APPRENTICESHIP FUND AND APPRENTICE understand and that the APPRENTICESHIP FUND will expend significant sums of money for the training of the APPRENTICE in the specialized skills necessary for employment in the industry covered by Collective Bargaining Agreements between employers and Steamfitters' Local Union No. 420; and

WHEREAS, APPRENTICE understands and agrees that those sums of money will result in a substantial direct benefit as well as a substantial indirect and intangible benefit, to the APPRENTICE from this training; and

WHEREAS, the APPRENTICE understands that the training for the APPRENTICE is a benefit which will lead to greatly increased expected life earnings by the APPRENTICE; and

WHEREAS, the APPRENTICE hereby understands and agrees that the APPRENTICE assumes certain obligations arising out of the training provided by APPRENTICESHIP FUND, including the obligation to repay the monies expended by the APPRENTICESHIP FUND on the training provided to the APPRENTICE, during all of the years of the Apprenticeship Training; and

WHEREAS, APPRENTICE recognizes and acknowledges that Employer has made substantial contributions to the APPRENTICESHIP FUND for purposes of Apprentice's training; and

WHEREAS, the parties hereto are desirous of setting forth their understanding.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein and intending to be legally bound hereby the parties hereto do agree as follows:

1. The parties agree that the costs of the training, including books, manuals, necessary equipment, instructors' salaries, related materials and all other factors and expenses going into the training of APPRENTICE for the five (5) years of training covered by this Agreement is approximately \$xxxxxxx, and that the first year cost is \$xxxxxxx, and that the APPRENTICE will execute this Agreement and the Promissory Note in that amount, attached hereto as Exhibit "A," and deliver such executed Agreement and Promissory Note to the APPRENTICESHIP FUND. The parties hereby agree that the costs of the training, including books, manuals, necessary equipment, instructors' salaries, related material and all other factors going into the training of the APPRENTICE for each subsequent year of training shall be calculated by APPRENTICESHIP FUND on or before the anniversary date of this Agreement. That calculation shall be the amount of a new Agreement and Promissory Note that the APPRENTICE shall execute for that year of training. A separate Agreement and Promissory Note shall be signed for each year of training.

2. The APPRENTICE agrees that in the event Apprentice withdraws from the Apprentice Program, or upon completion of the Apprentice Program, that he or she will not seek or accept employment from any employer engaged in, nor become an employer engaged in the

type of work customarily and historically performed by contractors in a Collective Bargaining relationship with Steamfitters' Local Union No. 420, within the jurisdictional areas served by Steamfitters' Local Union No. 420, that does not have a Collective Bargaining Agreement with Steamfitters' Local Union No. 420, for a period of time equal to the period of time spent in the Apprenticeship Program, but in no event less than two (2) years after the execution of the within Agreement.

3. APPRENTICE hereby acknowledges that any breach of any of the covenants contained in Article 2 will result in irreparable injury to Apprenticeship Fund for which money damages alone could not adequately compensate APPRENTICESHIP FUND. In the event of any such breach, APPRENTICESHIP FUND shall be entitled, in addition to any other rights and remedies which it may have at Law or in equity, to have an injunction issued by any competent Court enjoining and restraining APPRENTICE and/or any other person involved therein from continuing such breach. The existence of any claim or cause of action which APPRENTICE may have against APPRENTICESHIP FUND or any other person will not constitute a defense or a bar to the enforcement of any of the provisions of this Agreement. If APPRENTICESHIP FUND must resort to the Courts for enforcement of any of the terms of this Agreement, or if any of the terms of this Agreement are otherwise the subject of litigation between the APPRENTICESHIP FUND and APPRENTICE or any such other person, then the duration of such covenant shall be extended for a period of time equal to the period of time consumed until the issuance of a final Court Order, without further right of an Appeal, acknowledging the validity of such term of the Agreement.

4. In the event the APPRENTICE shall breach the Agreement contained herein in Paragraph 2, in addition to all other remedies, the APPRENTICESHIP FUND may require the APPRENTICE to reimburse the committee for all costs incurred by the committee as is more fully set forth in the Judgment Note attached hereto and made a part hereof and marked Exhibit

“A.”

5. The parties agree that the obligation contained in Paragraph 2 above shall, in no event bind the APPRENTICE for less than two (2) years, or for a period of time as set forth in Paragraph 2 above, whichever period of time is longer, immediately following the withdrawal or completion of Apprenticeship Training and in a geographical area commensurate with that of Steamfitters' Local Union No. 420 except for any extension of said period of time brought about by the application of Paragraph 3 above.

6. If any portion of this Agreement or the application thereof is construed to be invalid or unenforceable, then the other portions(s) of the terms of this Agreement or the application thereof will not be affected thereby and shall be given full force and effect without regard to the invalid or unenforceable portion(s). If any of the terms of this Agreement are determined to be unenforceable because of the geographical area covered thereby, the duration thereof or the scope thereof, then the Court making such determination shall have the power to reduce such area and/or duration; and/or to limit such scope, and such term of this Agreement shall then be enforceable in its reduced form.

7. RESPONSIBILITIES OF APPRENTICES – The apprentice must demonstrate commitment and assume certain responsibilities for being afforded the opportunity to serve in an apprenticeship program. The purpose of this section is to outline these commitments and responsibilities.

During the term apprenticeship, the apprentice shall:

- A. Perform diligently and faithfully the work of the trade and such other duties as be assigned in accordance with these Standards.**
- B. Respect the property of the contractor and abide by the working rules and regulations of the JATC/JCB, the local union, and the contractor.**
- C. Attend and complete satisfactorily the required hours of instruction in subjects**

related to the trade, as provided under these standards.

- D. Maintain such records of on-the-job training and related instruction as required by the local JATC/JCB.
- E. Develop and practice safe working habits, and work in such a manner as to assure his or her personal safety and that of other workers.
- F. Conduct him or herself at all times in a credible, ethical, and moral manner.
- G. Any other such policies or procedures established by the local JATC/JCB.

8. This Agreement shall be construed and enforced in accordance with the Laws of the Commonwealth of Pennsylvania.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

APPRENTICESHIP FUND

BY Anthony Gallagher (SEAL)
Chairman or Vice-Chairman

[Signature] (SEAL)
Secretary

Apprentice (SEAL)

Appendix E

VETERAN'S BENEFITS INSTRUCTIONS

Memo

To: Apprentices Applying for VA Benefits

From: Local Union 420 Steamfitters' Training Center

Application for VA Benefits

All apprentices applying for VA Benefits must pick-up and complete the following forms and return them to the apprentice training office:

1. Please read and complete the *Application for VA Education Benefits (VA Form 22-1990)*.

A copy of your DD-214 is also required to be returned with your application packet.

Approved Apprentices for VA Benefits

All apprentices approved to receive G.I. Bill benefit checks from the Department of Veterans Affairs through their approved enrollment with Local Union 420 Steamfitters' Training Center, must provide the apprentice training office with the following documents:

1. You must submit a copy of your *Letter of Eligibility* for VA benefits to the training office for your apprentice file.
2. The VA Office will send you a *Monthly Certification of On-The-Job and Apprenticeship Training (VA Form 22-6553d-1)* form on a regular basis. These forms must be submitted to the apprentice training office with your signature and date on items 8a and 8b only. The School Certifying Official will sign and date items 9a and 9b. This form CANNOT be signed by your contractor employer. A SAMPLE of the form is attached.
3. You are to submit a copy of your pay stubs for each month to the apprentice office, so we can request your financial benefits in a timely matter.

Please be advised that if the above documents are not received, the training office will be unable to process your monthly certification forms with the Department of Veterans Affairs, in order for you to receive your G.I. benefit checks. Thank you for your cooperation.

For more information or questions about your benefits or eligibility, please visit www.gibill.va.gov or call 1-888-442-4551.

Appendix F

EMPLOYMENT VERIFICATION FORM

REQUIRED FOR INTERNSHIP

INSTRUCTIONS

PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE COMPLETING THIS FORM.

Anti-Discrimination Notice. It is illegal to discriminate against any individual (other than an alien not authorized to work in the U.S.) in hiring, discharging, or recruiting or referring for a fee because of that individual's national origin or citizenship status. It is illegal to discriminate against work eligible individuals. Employers **CANNOT** specify which document(s) they will accept from an employee. The refusal to hire an individual because of a future expiration date may also constitute illegal discrimination.

Section 1 - Employee. All employees, citizens and noncitizens, hired after November 5, 1985, must complete Section 1 of this form at the time of hire, which is the actual beginning of employment. The employer is responsible for ensuring that Section 1 is timely and properly completed.

Preparer/Translator Certification. The Preparer/Translator Certification must be completed if Section 1 is prepared by a person other than the employee. A preparer/translator may be used only when the employee is unable to complete Section 1 on his/her own. However, the employee must still sign Section 1.

Section 2 - Employer. For the purpose of completing this form, the term "employer" includes those recruiters and referrers for a fee who are agricultural associations, agricultural employers or farm labor contractors.

Employers must complete Section 2 by examining evidence of identity and employment eligibility within three (3) business days of the date employment begins. If employees are authorized to work, but are unable to present the required document(s) within three business days, they must present a receipt for the application of the document(s) within three business days and the actual document(s) within ninety (90) days. However, if employers hire individuals for a duration of less than three business days, Section 2 must be completed at the time employment begins. **Employers must record:** 1) document title; 2) issuing authority; 3) document number; 4) expiration date, if any; and 5) the date employment begins. Employers must sign and date the certification. Employees must present original documents. Employers may, but are not required to, photocopy the document(s) presented. These photocopies may only be used for the verification process and must be retained with the I-9. **However, employers are still responsible for completing the I-9.**

Section 3 - Updating and Reverification. Employers must complete Section 3 when updating and/or reverifying the I-9. Employers must reverify employment eligibility of their employees on or before the expiration date recorded in Section 1. Employers **CANNOT** specify which document(s) they will accept from an employee.

- If an employee's name has changed at the time this form is being updated/ reverified, complete Block A.
- If an employee is rehired within three (3) years of the date this form was originally completed and the employee is still eligible to be employed on the same basis as previously indicated on this form (updating), complete Block B and the signature block.

- If an employee is rehired within three (3) years of the date this form was originally completed and the employee's work authorization has expired or if a current employee's work authorization is about to expire (reverification), complete Block B and:
 - examine any document that reflects that the employee is authorized to work in the U.S. (see List A or C).
 - record the document title, document number and expiration date (if any) in Block C, and complete the signature block.

Photocopying and Retaining Form I-9. A blank I-9 may be reproduced, provided both sides are copied. The instructions must be available to all employees completing this form. Employers must retain completed I-9s for three (3) years after the date of hire or one (1) year after the date employment ends, whichever is later.

For more detailed information, you may refer to the INS Handbook for Employers, (Form M-274). You may obtain the handbook at your local INS office.

Privacy Act Notice. The authority for collecting this information is the Immigration Reform and Control Act of 1986, Pub. L. 99-603 (8 USC 1324a).

This information is for employers to verify the eligibility of individuals for employment to preclude the unlawful hiring, or recruiting or referring for a fee, of aliens who are not authorized to work in the United States.

This information will be used by employers as a record of their basis for determining eligibility of an employee to work in the United States. The form will be kept by the employer and made available for inspection by officials of the U.S. Immigration and Naturalization Service, the Department of Labor and the Office of Special Counsel for Immigration Related Unfair Employment Practices.

Submission of the information required in this form is voluntary. However, an individual may not begin employment unless this form is completed, since employers are subject to civil or criminal penalties if they do not comply with the Immigration Reform and Control Act of 1986.

Reporting Burden. We try to create forms and instructions that are accurate, can be easily understood and which impose the least possible burden on you to provide us with information. Often this is difficult because some immigration laws are very complex. Accordingly, the reporting burden for this collection of information is computed as follows: 1) learning about this form, 5 minutes; 2) completing the form, 5 minutes; and 3) assembling and filing (recordkeeping) the form, 5 minutes, for an average of 15 minutes per response. If you have comments regarding the accuracy of this burden estimate, or suggestions for making this form simpler, you can write to the Immigration and Naturalization Service, HQPDI, 425 I Street, N.W., Room 4034, Washington, DC 20536. OMB No. 1115-0136.

**EMPLOYERS MUST RETAIN COMPLETED FORM I-9
PLEASE DO NOT MAIL COMPLETED FORM I-9 TO INS**

Form I-9 (Rev. 11-21-91)N

Employment Eligibility Verification

Please read instructions carefully before completing this form. The instructions must be available during completion of this form. **ANTI-DISCRIMINATION NOTICE:** It is illegal to discriminate against work eligible individuals. Employers **CANNOT** specify which document(s) they will accept from an employee. The refusal to hire an individual because of a future expiration date may also constitute illegal discrimination.

Section 1. Employee Information and Verification. To be completed and signed by employee at the time employment begins.

Print Name: Last	First	Middle Initial	Maiden Name
Address (Street Name and Number)		Apt. #	Date of Birth (month/day/year)
City	State	Zip Code	Social Security #

I am aware that federal law provides for imprisonment and/or fines for false statements or use of false documents in connection with the completion of this form.

I attest, under penalty of perjury, that I am (check one of the following):

A citizen or national of the United States

A Lawful Permanent Resident (Alien # A, _____)

An alien authorized to work until ____/____/____ (Alien # or Admission #) _____

Employee's Signature _____ Date (month/day/year) _____

Preparer and/or Translator Certification. (To be completed and signed if Section 1 is prepared by a person other than the employee.) I attest, under penalty of perjury, that I have assisted in the completion of this form and that to the best of my knowledge the information is true and correct.

Preparer's/Translator's Signature _____	Print Name _____
Address (Street Name and Number, City, State, Zip Code) _____	
Date (month/day/year) _____	

Section 2. Employer Review and Verification. To be completed and signed by employer. Examine one document from List A OR examine one document from List B and one from List C, as listed on the reverse of this form, and record the title, number and expiration date, if any, of the document(s).

List A	OR	List B	AND	List C
Document title: _____		_____		_____
Issuing authority: _____		_____		_____
Document #: _____		_____		_____
Expiration Date (if any): ____/____/____		____/____/____		____/____/____
Document #: _____		_____		_____
Expiration Date (if any): ____/____/____		____/____/____		____/____/____

CERTIFICATION - I attest, under penalty of perjury, that I have examined the document(s) presented by the above-named employee, that the above-listed document(s) appear to be genuine and to relate to the employee named, that the employee began employment on (month/day/year) ____/____/____ and that to the best of my knowledge the employee is eligible to work in the United States. (State employment agencies may omit the date the employee began employment.)

Signature of Employer or Authorized Representative _____	Print Name _____	Title _____
Business or Organization Name _____		Date (month/day/year) _____
Address (Street Name and Number, City, State, Zip Code) _____		

Section 3. Updating and Reverification. To be completed and signed by employee.

A. New Name (if applicable) _____ B. Date of birth (month/day/year) (if applicable) _____

C. If employee's previous grant of work authorization has expired, provide the information below for the document that establishes current employment eligibility.

Document Title: _____ Document #: _____ Expiration Date (if any): ____/____/____

I attest, under penalty of perjury, that to the best of my knowledge, this employee is eligible to work in the United States, and if the employee presented document(s), the document(s) I have examined appear to be genuine and to relate to the individual.

Signature of Employer or Authorized Representative _____ Date (month/day/year) _____

LISTS OF ACCEPTABLE DOCUMENTS

LIST A	OR	LIST B	AND	LIST C
Documents that Establish Both Identity and Employment Eligibility		Documents that Establish Identity		Documents that Establish Employment Eligibility
1. U.S. Passport (unexpired or expired)		1. Driver's license or ID card issued by a state or outlying possession of the United States provided it contains a photograph or information such as name, date of birth, gender, height, eye color and address		1. U.S. social security card issued by the Social Security Administration <i>(other than a card stating it is not valid for employment)</i>
2. Certificate of U.S. Citizenship (<i>INS Form N-560 or N-561</i>)		2. ID card issued by federal, state or local government agencies or entities, provided it contains a photograph or information such as name, date of birth, gender, height, eye color and address		2. Certification of Birth Abroad issued by the Department of State (<i>Form FS-545 or Form DS-1350</i>)
3. Certificate of Naturalization (<i>INS Form N-550 or N-570</i>)		3. School ID card with a photograph		3. Original or certified copy of a birth certificate issued by a state, county, municipal authority or outlying possession of the United States bearing an official seal
4. Unexpired foreign passport, with <i>I-551</i> stamp or attached <i>INS Form I-94</i> indicating unexpired employment authorization		4. Voter's registration card		4. Native American tribal document
5. Permanent Resident Card or Alien Registration Receipt Card with photograph (<i>INS Form I-151 or I-551</i>)		5. U.S. Military card or draft record		5. U.S. Citizen ID Card (<i>INS Form I-197</i>)
6. Unexpired Temporary Resident Card (<i>INS Form I-688</i>)		6. Military dependent's ID card		6. ID Card for use of Resident Citizen in the United States (<i>INS Form I-179</i>)
7. Unexpired Employment Authorization Card (<i>INS Form I-688A</i>)		7. U.S. Coast Guard Merchant Mariner Card		7. Unexpired employment authorization document issued by the INS <i>(other than those listed under List A)</i>
8. Unexpired Reentry Permit (<i>INS Form I-327</i>)		8. Native American tribal document		
9. Unexpired Refugee Travel Document (<i>INS Form I-571</i>)		9. Driver's license issued by a Canadian government authority		
10. Unexpired Employment Authorization Document issued by the INS which contains a photograph (<i>INS Form I-688B</i>)		For persons under age 18 who are unable to present a document listed above:		
		10. School record or report card		
		11. Clinic, doctor or hospital record		
		12. Day-care or nursery school record		

Illustrations of many of these documents appear in Part B of the Handbook for Employers (M-274)