

HANDS ON

HVAC SCHOOL

Course Catalog

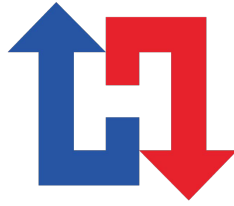
Licensed & Regulated by
Louisiana Board of Regents

Licensed and Regulated by ESCO for EPA Section
608 Universal Technician Certification

Rev. 05/14/2024

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HANDS ON

HVAC SCHOOL

Address: 3907 Shed Rd.
Bossier City, LA 71111
Phone: (318) 239-9164
Fax: (737) 277-5279
Email: info@handsonhvacschool.com

Identifying Data

Volume 13

05/14/2024

Effective Date: 2023-2024

Text Book

Modern Refrigeration and Air Conditioning Book

Volume Number: 21st edition

Date of Publication: 2021

Founded in Irving, Texas over 12 years ago, our school is proud to offer affordable, practical, hands-on training in HVAC and Refrigeration. Our instructors have immense knowledge and many years of real world experience in the field. Our passion is helping students gain the knowledge and confidence needed to succeed in the industry, whether entering into the HVAC profession for the first time or to expand on existing skills for technicians already in the field. We take a hands on approach using our interactive lab alongside theory and lecture lessons in an interactive classroom setting.

Ripple Learning LLC d/b/a **Hands On HVAC School** is licensed by the **LA Board of Regents** and adheres to the rules and regulations of the **LA Proprietary Schools Commission**.

Facilities and Equipment

Reception Area • Director's Office • Classroom • Lab (hands-on class)
Two Restrooms (handicap accessible) • break room

EQUIPMENT

Air Handlers (Gas & Electric) • Condensers • Commercial Cooler
Portable Oxyacetylene Tanks
Voltmeters • Ammeters • Recovery Machine /Recovery Cylinders • Nitrogen
Vacuum Pump • Charging Manifolds • Handtools • Safety Equipment Practice
Wiring Electrical Trainers

Key Staff

Director: Branton Harden
Owner: Ripple Learning LLC

Fees and Tuition

Registration Fee: \$150

Tuition: \$2550

Total Tuition: \$2700

Minimum Deposit of \$200.00 required to reserve space
(applied to balance at time of full payment)

School Calendar

HOLIDAYS OBSERVED:

New Years Day • 4th of July • Memorial Day • Labor Day Thanksgiving •
Christmas

Enrollment Periods

Monday through Friday: 9:00 a.m.-6:00 p.m.
Saturday and After hours by Appointment

Class (Beginning & Ending Periods)

FULLTIME (2 WEEK):

Mon-Friday 8:00 a.m. to 6:00 p.m. 100 Hrs Total Course Time

NIGHT (10 WEEK):

Mon-Thurs 7:00 p.m.to 9:30 p.m. 100 Hrs Total Course Time

NIGHT (5 WEEK):

Mon-Fri 7:00 p.m. to 11:00p.m. 100 Hrs Total Course Time

NIGHT (12 WEEK):

M/W or T/TH, 7-11p, 100 Hrs Total Course Time

SATURDAY (10 WEEK):
Saturdays 8:00 a.m. to 6:00 p.m.
100 Hrs of Total Course Time

*Max class size is 15 students.

Scheduled Vacation for School

The school will take an annual vacation from its scheduled curriculum during the Christmas/New Years holiday period. At all other times classes will be scheduled throughout the calendar. During the “full-time” class periods, in the event that a scheduled class day is superceded by a scheduled holiday (i.e. The Fourth of July, Memorial Day, Labor Day, or Thanksgiving) that class day will be “made-up” on the Monday which follows the scheduled two (2) week class. In other words, the Monday class period that is taken up for Memorial Day, will be rescheduled for the following Monday which would normally be an “open” day in the regular “full-time” scheduled week.

This same formula will be followed for the evening “part-time” classes whereby the class which would normally be held on Thanksgiving evening will be postponed until the following Friday. The same would apply for the Fourth of July, as well as the other holiday periods.

Therefore, irrespective of any holiday period, all classes will run and be completed without a significant break in the subject matter which we will be teaching.

We apologize for any inconvenience which this might cause.

Normal Hours of Operation

Office Hours: Monday through Friday 9:00 a.m. to 6:00 p.m.

Saturday by appointment only

School Hours: Monday through Friday 8:00 a.m. to 11:00 p.m.

Saturday Classes: 8:00 a.m. to 6:00 p.m.

Breaks and Mealtimes

“Full-Time Classes” and Saturday classes will have a 10 minute break at 10:30 a.m. and a mealtime break from 12:50 until 1:10 each day. The next scheduled break will be at 3:30 p.m. for an additional 10 minutes in the afternoon sessions. “Night Classes” will have a 10 minute break at 8:30 p.m. and 10 p.m., if applicable.

Admission/Enrollment Criteria

Minimum age: 18 years

Specific entrance requirements include a high school education or G.E.D. or you may take the school’s entrance test which will test your

ability to read and gain comprehension of the principals to be covered. This entrance exam will concern itself with basic reading and math and will require a score of 70% to qualify for enrollment in the program.

Policy for Granting Enrollment Credit

The school will review prior training in HVAC, the electrical field, motor industry or general maintenance. Our school admissions team will interview applicant to discuss prior training in order to determine his ability to complete necessary school requirements before granting enrollment credit.

Program Title and Description

Heating, Ventilation & Air Conditioning (HVAC)

The HVAC program is designed to teach students the basics in refrigeration, air conditioning and heating through an understanding of thermodynamics and the pressure/temperature relationship. Students will also learn the basics in the electrical system and acquire a general working knowledge of motors through diagnosis of the problems they can encounter and the use of tools of the trade in their repair. The HVAC program will take theory and mechanical action to the level of comprehensive understanding for students enrolled here at our school. Students will be able to find jobs such as those noted on page five (5) under “obtainable skills.”

Program Outline

<u>Subject</u>	<u>Class</u>	<u>Lab</u>
Theory	08	00
Electrical (Basic)	07	03
Motors	03	05
Metering Controls (Super Heat)	05	05
Condensing Cycle (Subcooling)	06	04
EPA Studies	06	00
Furnaces	05	05
Refrigerant Recovery	03	07
Tools of the Trade	02	08
Charging (Techniques)	02	08
R-410A (Safety/Techniques)	03	07
Total = 100	48	52

Time required to complete the HVAC program is two (2) weeks full-time, five (5) weeks for 5 WK Night, and ten or twelve (10/12) weeks for 10 WK Night and ten (10) weeks for Saturday.

Obtainable Skills

Licensed Technician

Continue your education in HVAC to become a licensed technician and operate your own HVAC business.

Service Technician

Continue your education as a service technician for HVAC systems on a commercial or residential level.

Installer

Continue your education to further understand the duties of an installer of air handlers and condensers on new construction and retro-fit.

Maintenance Worker

Continue your education to advance your career growth in the field of HVAC for maintenance work in the apartment building supervisor field.

Motors

Continue your education to obtain a basic understanding of motors for employment with motor shops in rewinding and rebuilding commercial motors.

Counter Sales

Continue your education to increase your working knowledge of HVAC equipment for counter sales with HVAC suppliers .

Auto Industry

Continue your education to increase your knowledge of automobile air conditioning compressors for employment as a service tech in the auto industry.

Synopsis of Each Subject

THEORY

Students learn about application of latent heat—Pressure/temperature Relationship—Heat transfer—Sensible Heat—Understanding a unit of heat (Btu)

Pre-requisites—None

Class—08 hrs./Lab—00 hrs.

EPA Certification 608 Test Studies

Students prepare for EPA 608 Certification test and review the EPA Study guide in detail.

Pre-requisites - None

Class - 06 hrs./Lab - 00 hrs.

ELECTRICAL (BASIC)

Students learn about diagnose and repair problems in the system—electromagnetism—how it works—where do we use this magnetic field.

Pre-requisites—Theory

Class—7 hrs./Lab—3 hrs.

MOTORS

Students learn the types of motors and windings used in Hermetic compressors, how to diagnose the windings, where to install components.

Pre-requisites—Electrical

Class—3 hrs./Lab—5 hrs. 5

METERING CONTROLS (Super Heat)

Students will learn pressure and temperature relationship with refrigerants (PT Chart)—How does a refrigerant control meter work and what is its relationship to the evaporator (what is “superheat”).

Pre-requisites—Theory/motors

Class—5 hrs./Lab—5 hrs.

TOOLS OF THE TRADE (Brazing/Vacuum Pumps)

Students learn to safely use the right tools for the job from calibrating gauges—vacuum (non-condensibles)—to keeping the internal system clean when brazing. Students will learn how to repair leaks and pressure test the system before charging.

Pre-requisites—Theory/electrical/motors

Class—2 hrs./Lab—8 hrs.

CONDENSING CYCLE (Subcooling)

Students acquire an understanding of head pressure and the effects it has on condensing temperature and evaporator temperature and what is meant by the term “subcooling”.

Pre-requisites—Theory/metering controls/

Class—4 hrs./Lab—4 hrs.

Tools of the trade/electrical/motors

FURNACES

Students learn the danger of carbon monoxide and how to vent such gases outside and what causes such gases to form. They also learn how to diagnose a fan control board on a furnace and how to replace the safety devices put there by the manufacturer.

Pre-requisites—Electrical/motors/ Tools of the trade

Class—5 hrs./5 hrs.

REFRIGERANT RECOVERY

Students learn why we recover refrigerant from a closed system and they learn the method of safely recovering refrigerants from a system..

Pre-requisites—Theory/tools of the trade

Class—3 hrs./Lab—7 hrs.

CHARGING (Techniques)

Students learn different methods of safely charging a system and how to diagnose the status of the system before charging.

Pre-requisites—Theory/electrical/motors/

Class—2 hrs./Lab—8 hrs.

Tools of the trade/refrigerant recovery

R-410A (Safety and Techniques)

Students learn the safety factors of the refrigerant replacing R-22 and the fractionation potential of this zeotropic refrigerant and they also learn recovery and charging methods.

Pre-requisites—Theory/tools of the trade

Class—3 hrs./Lab—7 hrs.

Refrigerant Recovery/Charging

Course Length

Full-Time (2 Week) Classes are for 10 hours per day Monday thru Friday (8:00 a.m. - 6:00 p.m.)for two (2) weeks Total length of class is 100 hours.

Night (10 Week) Classes run for two and a half (2½) hours per night (7:00-9:30 p.m.) from Monday through Thursdays for 10 weeks. **Night (5 week) Classes** run for 5 weeks for 4 hours per night (7:00 -11:00p) from Monday thru Friday. Total length of class is 100 hours.

Night (12 Week) Classes: are on M/W or T/Th, from 7 to 11p. Total length is 100 hours.

Saturday (10 Week) Classes are for 10 hours for 10 Saturdays from 8:00 a.m. to 6:00 p.m.Total length of class is 100 hours.

Grading and Marking System Used

The School grading period is weekly. Students will be given a total of two (2) tests. A passing grade will be mastery of no less than 80% of the subject matter on each test. Students will have the opportunity to take each test twice (if needed) to receive a passing grade.

Full time classes will take a multiple choice test on week one (1) covering theory, motors and the HVAC electrical system. On the second week, they will take a “true and false” test on furnaces and safety for a total of two (2) tests.

Part time classes will take a multiple choice test on week four (4) on theory, the HVAC electrical system and motors; and on the ninth week they will take a final “true false” test on furnaces and safety for a total of two (2) tests.

Policy Concerning Satisfactory Attendance

Students will be expected to pay attention at all times during classroom periods and their participation will be required in this HVAC course. If the instructor deems that any student is failing to pay attention or is not participating in the class activities, a “unsatisfactory progress” report will be issued and entered into the student’s file. A second such report may lead to probation and/or termination of the student’s enrollment. Any student thus terminated can request an interview with the director of the school to determine his suitability for readmission to class. If readmission is granted student will be awarded the next class position available on the subject(s) needed for graduation assuming that the school’s financial record indicates that the student is paid in full.

School’s Attendance Policy

Instructor will be responsible for entering student’s name in the attendance record at the beginning of class. Any student enrolled in school course who is tardy to class more than three (3) times during the duration of the course will be placed on “probationary status.” Any student who is tardy to class after being put on probation will be marked as “absent” and any subsequent tardiness will be considered cause for termination. Please note that if more than 10% of class time is missed due to absences or tardiness, a student will be terminated and will not graduate with his class. As is school policy, any such student may request an interview with the director of the school and ask for readmission based on a determination of satisfactory commitment to finishing the course requirements without further interruption. Any student so readmitted will be awarded the next available space and may graduate with that class provided that the student’s financial obligations with the school have been met and that he has mastered 80% of the course material.

Any student who becomes sick or ill or has a sickness or death in the family will be given the opportunity to take a leave of absence and rejoin the next scheduled class (dependent upon space availability) and graduate with the new class. Any student who has been granted a leave-of-absence or otherwise experiences a

break in school attendance and is paid-in-full with the school's financial record will be awarded the first open space in class availability and will graduate with this new class.

Makeup Days: If a class is canceled due to weather/unforeseen circumstances, the makeup day will be held on the following Saturday or Sunday. If a student misses class due to factors other than classes being canceled due to weather/unforeseen circumstance, the student must schedule time with the instructor to make up the missed time, usually on the following Saturday or Sunday.

Policy Regarding Student Conduct

Rules of student conduct, recorded at the end, of this booklet will be signed by both student and director. Student conduct rules will be enforced at all times to ensure the safety of students, faculty and school property. Breaking certain rules will be cause for immediate termination while breaking others will result in possible probation. Any student terminated due to non-adherence to the rules may request a review of his actions by the director in order to gain reinstatement in to the school program; if granted, this reinstatement will be to the next available opening in class space, and his/her completion of the course and graduation shall be subject to to the student's financial record with the school and mastery of 80% of the school's course material.

Awarding of Diploma

Each student upon completion of the course will receive their diploma which states that he or she has completed 100 hours of classroom and laboratory study in Heating, Ventilation & Air Conditioning and has satisfactorily passed the prescribed examinations of proficiency.

Each diploma will be signed by both the course instructor and the school director.

Requirements for Graduation

Students will be required to complete 90% class time in order to graduate with his or her class, whether on a full- or part-time schedule and maintain an 80% or better grade point average on all required tests.

The 90% class time requirement amounts to approximately one (1) day for the full-time course or one (1) week for the part-time course.

Prior to graduation, student shall also be required to have met all financial obligations he has incurred with the school.

Placement Assistance Policy

Our school is committed to helping graduates with employment by reaching out to the industry through advertising on the web page and in local newspapers. Our school will work closely with each graduate to aid in the search for job placement.

Policy Concerning School Tests

Any student who fails to obtain a passing grade on either of the school's tests after his final opportunity to take such test will be terminated from the school's curriculum. Any student so terminated will receive an interview with the school's director to review his progress report. The Director will determine the suitability of the student for readmission in the next available class covering the subjects still needed for graduation dependent on the students fulfillment of financial obligations to the school. If the Director does not grant the student readmission to class, refund will be prorated to correspond with the date of termination.

Student Progress Report

A "Progress Report" will be kept on each student and will be a part of the school's files. Each student will receive a student progress report based on individual testing and participation in hands-on classes. Reports will be distributed to each student on a timely basis at the Director's discretion after each of the school's tests (in week's one (1) and two (2) for full-time students and weeks four (4) and nine (9) for part-time students).

Policies & Procedures to Resolve Student Grievances

Student complaints relative to actions of school officials shall be addressed to the Louisiana Board of Regents, Proprietary School Section, P.O. Box 3677, Baton Rouge, LA 70821-3677, Phone 225/342-7084, only after the student has unsuccessfully attempted to resolve the matter with the school after having first filed a written and signed complaint with the school's officials.

Approved and Regulated by Louisiana Board of Regents, Proprietary Schools Section, P.O. Box 3677, Baton Rouge, LA 70821-3677.

The information contained in this catalog is true and correct to the best of my knowledge.

Ripple Learning LLC d/b/a Hands On HVAC School

Branton Harden

Branton Harden , Director

Cancellation Policy

A full refund will be made to any student who cancels the enrollment contract within 3 business days after the enrollment contract is signed. A full refund will also be made to any student who cancels enrollment within the student's first three scheduled class days, except that the school may retain not more than \$150 in any administrative fees charged, as well as items of extra expense that are necessary for the portion of the program attended and stated separately on the enroll agreement. Appropriate refunds shall be made within 30 days of the start of the quarter, term, or semester.

Refund Policy

1. After a student has completed less than 15% of the program, the institution shall refund at least 80% of the tuition, less the registration fee, thereafter;
2. After a student has completed less than one fourth of the program, the institution shall refund at least 70% of the tuition, less the registration fee, thereafter;
3. After a student has completed one fourth, but less than one half of the program, the institution shall refund at least 45% of the tuition, less the registration fee, thereafter;
4. After a student has completed one half or more of the program, the institution may retain 100% of the stated course price.

Any unused portion of the book fee will be refunded.

EPA 608 TECHNICIAN CERTIFICATION TRAINING

EPA 608 Certification tests will be held during the last week of class or scheduled for a later testing appointment if approved by the instructor. EPA 608 course is taken through ESCO.

OBJECTIVE

To prepare individual(s) for EPA 608 certification exam so that the person can handle refrigerants according to the rules of the EPA.

EPA CERTIFICATE

Upon passing the EPA core, Type I (Small Appliances) , Type II (High Pressure and Very High Pressure Appliances), and Type III (Low Pressure Appliances) sections, students will earn the EPA Section 608 Universal Technician Certification.

The test contains four sections: the Core, and sections I, II, and III. Each section contains twenty-five (25) multiple-choice questions. A technician **MUST** achieve a minimum passing score of 70 percent in each group/section in which they are to be certified. For example, a technician seeking Universal certification must achieve a minimum score of 70 percent, or 18 out of 25 correct, on each section of the test.

If a technician fails one or more of the sections, they may retake the failed section(s) without retaking the section(s) in which they earned a passing score. In the meantime, the technician will be certified in the Type for which they received a passing score. There is one exception; a technician **MUST** achieve a passing score on the Core plus anyone Type to receive any certification.

EPA CERTIFICATION RETAKE COSTS

The cost of the EPA 608 Certification course will be included in the tuition. The class includes the one (1) EPA test and course with a workbook that identifies important areas covered by the test. Each additional test (retesting) will cost \$45.00 administrative fee regardless of whether you take one section or all sections.

Hands On HVAC School

RULES OF STUDENT CONDUCT

1. No guns, knives or illegal drugs on school property. Violation will result in immediate termination
2. All students will respect each other students space and failing to do so will result in probation.
3. All students will respect school property at all times or probation may result.
4. Fighting of a verbal or physical nature will not be tolerated and will be deemed sufficient cause for immediate termination.
5. Students will obey and respect instructors at all times or be placed on probation.
6. All students will be on time for class or may be placed on probation.
7. No smoking in classrooms and only in designated areas and at specified times on school property. Smoking on campus may result in probation.
8. Cheating will not be tolerated during exams and on school assignments and may result in probation.
9. Stealing of school property or the property of other students will be cause for immediate termination.
10. No talking during exams. You may be placed on probation.
11. Mistreatment of equipment can be dangerous; therefore "horseplay" on school grounds and during school periods will be frowned upon and can be cause for immediate termination.
12. Students will clean up after themselves and maintain an orderly personal space during lab periods and at break times or will be placed on probation.
13. Students will obey and be aware of all safety rules of the school or will be subject to probation.
14. Students will wear all safety apparel and observe all safety protocols when advised or will be subject to probation.
15. Alcohol will not be allowed on school property and alcohol consumption before, during or after class periods is forbidden. Drinking on campus will result in immediate termination
16. Cell phones will be turned off during class. No video or audio recording allowed. Violation will result in probation.

PROFESSIONALISM AND INTEGRITY WILL APPLY AT ALL TIMES

Student

School Official

Date

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