

North American Heating & Air Conditioning Training Center
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Looking Into Tomorrow

When a student enters one of our programs we ask them to develop a recognizable quality to think creatively, solve problems, and make decisions. They are introduced to technical and communications skills to reach quality performance objectives. Acquiring along the way, knowledge and skills which will help to prepare them for the challenging workplace they will encounter.

The most critical issue faced is persuading those who enter the program the world has changed and they must in turn, change with it. Each student starts by setting goals; organize strategies and finally developing a vision of the future as they see it. Along the way they learn to invest their skills to compete in a global economy by focusing on long-term knowledge investment, quality, and technical skill leadership.

This education and training strategy is built upon each individual's preferences. Only an individual may acquire knowledge and skills. Gaining this knowledge and skill is the source of individual growth. Individual growth then requires a time horizon far longer than that developed through a few months of training. Investment in each individual's education and training must include a plan to keep up with changing technologies. We envision recognizing a lifetime of education and so, we offer this to those who are successful in our program. Finally, each must weigh their objectives to balance education's long-term investment with current consumption. Being recognized by our possessions, positions, and lifestyles, is part of personal balance visible to those around us. What is remaining beyond this is the ability to understand our own individual ethical values and knowledge resources, which we apply. This allows us to reach conclusions beneficial to our community and ourselves. In those actions each individual has the ability to develop an entrepreneurial and interdisciplinary discipline; setting high, but reachable goals focusing on ethical values and quality as the primary objective.

We therefore, look upon our students as bringing increased value to their community. Each is challenged to be more and to do more than they may have originally expected when they started in our center program. As they look into tomorrow we ask them to believe in themselves, value their community, and be able to lead where others may be satisfied with following.

Craig Pfeifer
President

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Community Information

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Postsecondary Education P.O. Box 980818 W. Sacramento, CA. 95833, physical address 2535 Capital Oaks Drive, Suite 400 Sacramento, CA. 95833 (www.bppe.ca.gov.com), Phone Number 1-916-431-6959
Fax number 1-916-263-1897

As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

A student or any other member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (toll-free 1-888-370-7589) or by completing a complaint form which can be obtained on the bureau's Internet WEB site

The Center

The North American Heating and Air Conditioning Training Center, Inc, a privately supported Center for technology training, helps individuals develop knowledge and skills to engage the most challenging problems in the air conditioning, refrigeration, and electrical services industries. The Center provides education and training to those students that are motivated and helps them to become leaders and creative members in their communities.

Center programs help fill the critical need for educated and trained service technicians and business leaders. These programs may also lead students into programs of advanced technical and leadership training. Students develop ethical rules of conduct, valuable customer service skills, and superior technical knowledge and skills.

The Center was incorporated in November 1985 to provide occupational training in the air conditioning and refrigeration service industry. The Center is today one of the leading southwestern resources for skilled industry training and education in the services of air conditioning, refrigeration, and electricity. The Center is located in Redlands, California and is easily accessible by freeway to all parts of Southern California.



The following individuals are executive officers of the Corporation;

Craig Pfeifer

President

Yvonne Pfeifer . . .

Secretary/Treasure

Approval to Operate

The Center is private institution approved to operate by the Bureau for Private Postsecondary BPPE Education in accordance with provisions of the California Education Code. This approval means that the center is in compliance with Minimum State standards and does not imply any endorsement or recommendation by the State or Bureau.

Accreditation

The Center is accredited through the national organization, HVAC Excellence, an organization dedicated to the education and proper training of future industry leaders. HVAC Excellence offers additional competency assessment verifying that current information and proper training has been offered to each individual. Completion of HVAC Excellence competency examinations are accepted by many employing industry employers as evidence an applicant meets entering training requirements.

The following certificate programs offered are accredited by this national organization.

- ◆ Heating, Air Conditioning, Refrigeration, and Electrical Technology
- ◆ Air Conditioning, Refrigeration, Electricity, and Control Technology
- ◆ (HVAC) Construction and Operating Equipment Technology

Center Mission

The mission of the center is to provide vocational education and training in technologies built upon the knowledge of electricity and thermodynamics and their application to construction and maintenance industries, as well as instill the importance of business and leadership skills in providing quality performance in their working environment. The center works hard to provide quality instruction that will guide individuals (staff and students) to a commitment of superior achievement and recognition that they are a vital part and valued citizen in their community.

Philosophy

The philosophy of the North American Heating and Air Conditioning Training Center, Inc. is built upon the mission of the Center. The philosophy is one of beliefs and concepts, which are continually being defined and redefined in the light of social, economic, and technological changes in our society. The philosophy of the Center is viewed in this perspective.

The staff of the Center believes that students take into the community a commitment to individual achievement and recognition by realizing that the community is a vital part of the student's future. We believe each student must be challenged to prepare for a better tomorrow. Each student is looked upon as a valued citizen in the community. It is therefore, the Center's belief that enrolled students must accept a responsibility for developing their own individual abilities.

The training programs are a plan of education that realistically meets the occupational demands of the Center's market area. The programs orientated toward a cluster of related occupations, prepares student graduates with marketable skills at the time of graduation. The programs help prepare students for technical service jobs and can also helping lead some students into programs of advanced vocational and technical education.



Campus Location

The Center is located off the Interstate 10 freeway and California Street exit in Redlands. The Center occupies a 4,650 square foot facility that includes classroom, library, equipment laboratory, and administrative offices. Off street parking is available.

Campus Holidays

The Center observes the holiday's of: New Year's Day, Memorial Day, Independence Day, Martin Luther King Day, Presidents Day, Labor Day, Veterans Day, Thanksgiving, and Christmas.

Admissions

The Center requires all applications for admission to be made at the Center's admission office located at 2025 West Park Avenue Suite #1 Redlands, California. Admissions office hours are 8:00a.m. - 4:00p.m. Monday through Thursday and evenings by appointment. Those who wish to register for Certification Examinations only may reserve an examination space by calling the Center at (909) 307-5770. Registration must be completed on campus prior to beginning the examination process.

First Time Applicant Requirements

To be admitted a student must be a high school graduate or its equivalent, or show knowledge of program prerequisites by successfully completing the Center's Academic Ability Test and be favorably evaluated through the Center's interview process.

The Center advises prospective students to supply complete and accurate information on the application for admission and any questionnaire and financial aid forms in order to expedite the enrollment process. Further, applicants must submit true and authentic copies of all documents requested by the Center. Failure to file complete, accurate, and authentic application documents may result in denial of admission, suspension, or exclusion.

Continuous (Open) Enrollment

The Center allows students to enroll and begin studies at various times. There is no requirement that the student progress through the program from a specific starting subject. Start dates are set forth in the Center's class calendar and used to advise students of available enrollment dates.

Readmission

Students on academic or attendance suspension may appeal to be readmitted to the Center. Such students will be enrolled on a probationary status and as such may be required to enroll in the Center's Directed Study hours in addition to regular class scheduled hours. Thereafter, the student must complete the probationary period with at least a "C" (2.0) accumulative grade average for that period. This procedure applies only to dismissals caused by lack of satisfactory progress and will never be granted more than once. It does not apply to voluntary withdrawals.

Students reentering after a lapse of two or more units of instruction will be charged at the current tuition rate for newly entering students. Amounts paid during their first period of enrollment may be credited to this account if the account is current and not in default.

Nondiscrimination

The Center is open to all applicants without discrimination on the basis of sex, race, ethnic origin, or religion. There are no mental or physical limitations on those students who desire to enter the training program. The Center is handicap accessible. However, some employment restrictions may exist. Those desiring information on the Center on-site Job analysis should call Admissions (909) 307-5770.

Veteran Benefits

With the cooperation of the Department of Veteran's Affairs, the Center's program section leading to the Certificate of Applied Technology is approved for qualifying veterans with little or not cost for themselves through the use of GI benefits. Veteran's enrolling in a program has rights and privileges afforded them because of their service in the United States Armed Forces. These privileges are described in the Veteran's Progress Policy in the catalog attachments.

Mission for Program Students

Each student must accept the responsibility to complete our programs at an acceptable level of competency, by demonstrating the necessary knowledge of industry equipment, tools, and safety practices and by acquiring the ability to diagnose and remedy equipment-operating problems. As well as troubleshoot parts and systems and demonstrate acceptable customer service practices. All students are expected to perform to Center standards and strive to perform class activities at, or above, a level that will help them maintain industry employment. Students should develop a recognizable quality to think creatively, solve problems, make decisions, and communicate effectively in critical technologies acquiring the knowledge and skills that will help position them for long-term growth.

Critical Success Factors

- ◆ Attending all class sessions.
- ◆ Arriving at class prepared to participate in scheduled activities.
- ◆ Following Center safety rules.
- ◆ Having voluntarily chosen this program of study accepting the responsibility to complete assigned work activities at a level of competency acceptable in the industries for which the Center trains.
- ◆ Accepting and applying new rules of technology and organization.
- ◆ Cultivating and practicing a value system that supports ethical rules of conduct, valuable customer service, and superior technical skills and knowledge.

Steps in Achieving the Center Mission

- ◆ Develop strategies and tasks to increase understanding and critical thinking related to the important technical issues covered.
- ◆ Provide activities improving individuals ability to research and evaluate complex ideas.
- ◆ Combine communications activities with technical education and training.
- ◆ Develop individual abilities to address specific audiences, particularly non-technical audiences, on topics related to technical craft service. While at the same time, learning to consider differences among audiences and cultures as they apply to the most effective communications and technical processes strategies.
- ◆ Devote a significant portion to business ethics. Exploring real-world ethical dilemmas for business and technical service.
- ◆ And by realizing that time is needed to develop all of these abilities, so it is necessary to provide a reasonable, but challenging, knowledge and skill development process.

Start up strategy

The practical most critical issue is persuading ourselves – the world and the way it functions is constantly changing and we must therefore change with it. To begin this change, each person must develop a clear vision of the future along with a practical workable plan to get to where they wish to be. This can be achieved by setting goals, organizing strategies, and developing a vision of the future as they see it and by investing in skills that will compete in a global economy.

Each individual must realize that many concepts are critical to their development. First, it must be realized that gaining knowledge and skills is the source of individual growth. It must also be realized that knowledge and skills may take far longer to develop than a few months of training.

While training provides the foundation many skills may only be completely developed through real world experiences. And finally, individuals must include a plan to keep up with changing technology, it is the only way to remain successful in the global market.

LIFETIME Training

In order to help our students meet the demands of the ever-changing industry technology, the Center offers the opportunity for LIFETIME training. All students upon graduation are eligible for LIFETIME recapture training in the Center's Applied Technology section of the program. To continue eligibility in the program a student must maintain current payment on student loans and all other financial contracts entered into to enroll in the Center's training program.

Educational Process

The Center's educational process combines classroom instruction and related laboratory experiences with repeated practices by each student. Emphasis is placed on students developing behavior and vocational skills in preparation for employment where the basic skills of their education, self-management, and technology are required. The administration and staff believe our purpose involves developing the entire individual as well as teaching a salable skill.

The staff believes a truly outstanding education demands an unwavering commitment to not only meet but anticipate student needs, to not only work hard in preparing to reach the goal of superior education but to succeed where others may be satisfied with less.

Classroom Laboratory Procedures

Safety is first and foremost here at the Center and even more so at any job site. We require students who have enrolled in the centers program to include on a daily basis:

- ◆ Close toed shoes
- ◆ Safety Goggles

Through study and laboratory experiences the student is introduced to a set of experiences he is expected to find as he progresses from his first day on the job. These experiences place each student in a situation where he is expected to know:

- ◆ How each piece of equipment works when operating properly
- ◆ How to check the equipment or part to determine if it is operating properly
- ◆ How to return any malfunctioning equipment to its proper working order

Each new principle is introduced through classroom participation and exercises. Early in each module students are introduced to the principles required to master the program material. Students develop their knowledge through experience with the completion of exercises that require students to use problem solving, data gathering and decision making techniques.

Equipment Available for Program Instruction

The Center has available for use by its students, industry equipment including; refrigeration display cases, packaged heating and cooling units, heat pumps, and other industry equipment. Along with electrical construction/activity boards, control devices, power equipment and parts. As well as tools and instruments necessary for servicing and maintaining electrical equipment and parts, refrigeration and air conditioning equipment and parts, and other trade tools and instruments necessary for service and maintenance. Also available in the Center's Library are industry audio-visual materials, design and maintenance manuals, workbooks, curriculum guides, and software.

Center Library

The Center Library collection includes technical, business, and general education volumes along with a number of periodicals. Additionally, audio-visual slides and videos are available. Because of the nature of the Center's instruction schedule, and continued use of the materials, these volumes and audio-visual materials are restricted to on campus use only. The library is open during all scheduled instruction hours.

Language of Instruction

All classes at the Center are conducted in English. Prospective students with limited proficiency in English should have completed classes in English as a Second Language (ESL)

Applied Technology Study

The Center offers all qualified students enrollment into an Applied Technology program of study. Studies at the Applied Technology level embrace the concept of "Beginners Mind." All programs at the Center are offered in an atmosphere of unique and interrelated study developing knowledge and skills to lead the "beginners mind" to engage in challenging problems in technology while educating outstanding students to become leaders and productive members in the international community.

General Requirements for the Certificate

The Applied Technology Certificate requires the satisfactory completion of the program section hours of study at a satisfactory grade of 2.0 or better. The awarding of a program certificate is intended to represent more than an accumulation of hours in attendance. It is to symbolize a successful attempt on the part of the Center to lead the student through patterns of learning experiences designed to develop certain capabilities and insights. As well as to state that the student has a basic understanding of the concepts they have been introduced to in their time at the center.

Graduation Requirements

The Center requires a student maintain a grade average of 2.0 or better to graduate from an Applied Technology section of a program. Students must attend a minimum of 90% of all classes, not to exceed a total completion time of one and one-half the total length of the program section. A student upon meeting both of these requirements will be awarded the Center's Certificate of Applied Technology.



Honors at Graduation

The Center recognizes superior achievement by awarding those graduating students with outstanding attendance or academic record a certificate of outstanding achievement. A certificate is awarded when a student maintains a 100% attendance or achieves a grade average of 4.0 for the entire training program.

National Honors Award

A student who successfully passes all required program approved competency examinations in an Applied Technology program at or before the time of graduation, will earn the National Honors Award and will be so noted on their certificate.

Credit Evaluation Policy

Students with previous training in a course to be pursued will be tested upon enrollment and given appropriate credit. Evaluation will be based upon a written examination, an oral examination, or both. Credit allowed would be recorded on enrollment record and the length of the course will be shortened proportionately. In addition, the student and Department of Veteran's Affairs (if applicable) shall be notified.

(NOTE: ALL PRIOR TRAINING WILL BE VERIFIED AND EVALUATED.)

Programs Offered at the Center

Heating, Air Conditioning, Refrigeration, and Electrical Technology (540 hours)

Covers electricity and thermodynamics and their application to air conditioning and refrigeration equipment used in residential, commercial, and industrial buildings, and construction projects. Graduates gain a technical working knowledge of trade fundamentals, learn proper safety practices, acquire working skills to service and maintain industry equipment, and gain the ability to demonstrate to an employer that they meet a level of competency acceptable for employment. In this program students may demonstrate their competency by passing Center approved competency examinations in the program to earn the "National Honors Award" endorsement on the Certificate of Applied Technology.



Air Conditioning, Refrigeration, Electricity, and Control Technology (624 hours)

Covers electricity, thermodynamics, and control technology and their application to the environmental equipment associated services industries. Graduates gain a technical working knowledge of the trade fundamentals, learn safety practices used in these industries, and acquire working skills to service and maintain industry equipment. In this program students may demonstrate their competency by passing Center approved competency examinations in the program to earn the "National Honors Award" endorsement on the Certificate of Applied Technology.

Certification Examinations

Certification is an examination process designed to evaluate competencies acquired through training and experience demonstrating competency at a nationally recognized standard. The Center currently offers reviews and certification examinations at the HVAC Excellence standard. When successfully passing a certification examination you:

- ◆ Measure up to a nationally recognized performance standard
- ◆ Prove your level of proficiency to employers
- ◆ Show customers at a glance that they are dealing with a professional
- ◆ Gain the competitive edge to market your skills.

Registration into Certification and Examination Reviews

The Center currently administers certification examinations for the ESCO Institute and HVAC Excellence. A major commitment of the Center is to provide examination review classes throughout the year for students, graduates, and industry tradesman. Certification examinations and reviews currently administered by the Center are:

- ◆ ESCO Institute - EPA Technician Certification Examination
- ◆ AC&R Safety Coalition- Certification for equipment service technicians in the proper safety, handling, and application of R410A refrigerant. This examination certifies a technician's skill and knowledge in the transition to environmentally safer refrigerants and oils while keeping the public and technician out of harms way.
- ◆ HVAC Excellence - Offering a group of certification examinations including electricity, air conditioning, refrigeration, heat pumps, gas heating, and electric heating, and AC&R Safety Coalition
- ◆ COSA- Carbon Monoxide Examination

Admissions into Certificate Examinations and Reviews

Admission into Certification Examinations is open to all applicants. When one or more review sessions are scheduled before the examination, registration may be completed at class start. When there is a charge for the review session a receipt of payment from the Center Business Office must be presented to complete registration and enter class. Information on class fees, required personal identification information, and examination procedures will be given when reserving an examination date.

EPA Technician Certification Examinations

Examination dates are scheduled at the Center for the EPA Technician, R-410/A, and the COSA- Carbon Monoxide Certification Examination. Examinations are offered throughout the year. All students registered in a center program requiring the service and maintenance of operating equipment using refrigerant may participate in examination reviews and are scheduled for these examinations as they near the completion of their study for the Certificate of Applied Technology.

***** COSA- Carbon Monoxide Examination- is optional and offered at an additional fee*****

HVAC Excellence Examinations

HVAC Excellence examinations are offered throughout the year at the Center. Examination review studies, with practice examinations, are scheduled during class time each month to prepare enrolled students for the examination.

*****Employment ready certification in Electricity & Air Conditioning are Included in program Tuition*****

Program Tuition and Fees

Students enrolling in a program at the Center are charged tuition and fees for textbooks, tests and scheduled instruction hours. When an enrolling student enters a program of study leading to the Certificate of Applied Technology they must arrange to pay or finance the full program amount through the Center's business office. .

Program	Registration Fee	Textbook Test Fee	Program Tuition	Total
Heating, Air Conditioning, Refrigeration, and Electrical Technology (540 hours)	\$90.00	\$910.00	\$6,500.00	\$7,500.00
Air Conditioning, Refrigeration, Electricity, and Control Technology (624 hours)	\$90.00	\$910.00	\$6,500.00	\$7,500.00

*****Program tuition and other associated fees are subject to change without notice*****

Examination Fees

The first attempt at the EPA technician certification, R-410/A certification, and Employment Ready Certifications in Electricity and Air Conditioning are included in the course tuition. However, for additional attempts and for non-student participants, the prices are listed below.

Examination and Fee	
ESCO Institute- EPA Technician Certification Examination	\$85.00
AC&R Safety Coalition- R-410/A Examination	\$85.00
HVAC Excellence Competency Examination	\$70.00
COSA- Carbon Monoxide/Combustion Analysis Examination	\$70.00

*****Examination fees are subject to change without notice*****

Tuition Financing

The Center offers financing that will combine the registration fee, tuition, textbooks, and Examinations into one financing program for the Certificate of Applied Technology section of the program. These programs are available through financial institutions to students requesting the Center assist and accommodate their particular financial abilities. The Center therefore assists applicants in preparing a complete financial application and upon completion, will participate in evaluating the applicant's ability to fulfill these tuition loan obligations.

To prevent any delay in enrolling, a financial application may be completed and submitted when starting the enrollment process.

All students entering the program who apply for scholarships, veteran's certification, or other guarantee loan programs must complete the enrollment contract and specify a loan payment schedule.

The schedule is the applicant's agreement to make payments towards their tuition until the scheduled contract completion date. When a scholarship, certification, or other guarantee payment is made it will be applied to the contract on the date received and loan balance adjusted to reflect the remaining balance.

Debts owed the Center

It is the student's responsibility to repay loans obtained for all programs of instruction received. A student obtaining a loan to finance tuition and fees has the responsibility to repay the full amount of the loan plus interest, less the amount of any refund. Any outstanding debts encountered by students owed to North American Heating and Air Conditioning Training Center, Inc. shall be handled by legal means according to California law.

The student shall pay all attorneys' fees if legal action is required

Refund Policy

The Center maintains a refund policy for the unused portion of tuition fees and other charges. When a student does not register for the period of attendance or otherwise fails to complete the period of enrollment a refund of tuition is made. Should a student withdraw from the program, the Center will refund the amount paid for institutional charges based on the pro-rata refund policy within thirty days from date of student's withdrawal determination.

Example: If a student completes 50% or 270 hours of a 540 hour program with a tuition of \$6,590.00 the student would be obligated to pay an hourly tuition rate of \$12.21 (\$6,590.00 divided by 540 hours.) Tuition of \$3,296.70 plus a registration fee of \$90.00 or \$3,386.70 will be charged.

Books and tests issued to the student will be accounted for and added to the computation.

540 hour program example - Tuition (\$6,480) plus Registration Fee (\$75) is \$6,555.						
Percent of training completed	Hours of program completed	Tuition charged	Tuition school may retain	Registration fee (retained by the school)	Total funds retained by the school	Tuition returned to or credited
10%	54	\$648.00	\$648.00	\$75.00	\$723.00	\$5,832.00
25%	135	1,620.00	1,620.00	75.00	1,695.00	4,860.00
50%	270	3,240.00	3,240.00	75.00	3,315.00	3,240.00
60%	324	3,888.00	3,888.00	75.00	3,955.00	2,600.00
75%	405	5,130.00	5,130.00	75.00	5,205.00	1,350.00
100%	540	6,480.00	6,480.00	75.00	6,555.00	000.00

Student Tuition Recovery Fund

California law requires that, upon enrollment, a fee be assessed by the institution in relation to the cost of tuition (Education Code Section 94909 (a) (15). These fees support the Student Tuition Recovery Fund (STRF). This is a special fund established by the California Legislature to reimburse students who might otherwise experience a financial loss as a result of (a) the closure of the institution; (b) the institution's breach or anticipatory breach of the agreement for the course of instruction; or (c) a decline in the quality or value of instruction. The Fund protects only California students. Institutional participation is mandatory.

It is important that enrollees keep a copy of any enrollment agreement, contract, or application to document enrollment and to keep tuition receipts or canceled checks to document the total amount of tuition paid. Such information may substantiate a claim for reimbursement from the STRF, which must be filed within one year of the Council's service on the student of their rights under the STRF. If no notice of rights is served to the student it is required within four years of the institution's closure. For further information or instructions, contact:

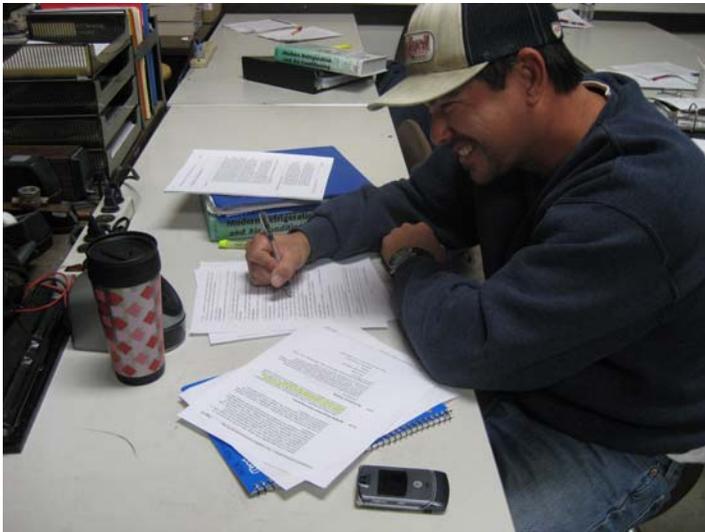
**Bureau for Private Postsecondary Education
P. O. Box 980818
West Sacramento, CA 95798-0818**

Grading System

Each Student's progress is evaluated throughout each unit of instruction. A final grade in each unit is based upon attendance, classroom participation, home study assignments, laboratory activities, class quizzes, and final examinations.

A = Outstanding skills. Displays Outstanding potential.	4.0 Grade Points
B = Skilled. Displays ability To work independently.	3.0 Grade Points
C = Moderately skilled. Requires Limited supervision.	2.0 Grade Points
D = Limited skills. Requires Close supervision.	1.0 Grade Points
F = Very little understanding.	0.0 Grade Points

A final grade is awarded when each unit of instruction is completed. Should a student withdraw from the program during a unit of instruction no final grade will be awarded.



Final Examination

Final examinations are required in each unit of instruction. All students must take the final examination at the scheduled time and place. Any exception in time or place must receive the written approval of the Center Director.

Grade Point Average

The grade point average (GPA) is computed by dividing the total number of grade points earned by the total number of units attempted. A GPA of 2.0 or better is required to receive the Certificate of Applied Technology.

Class Completion

Upon completion of each unit of instruction the student grade records are closed. The student has one week after unit of instruction completion to submit any missing course work for grading.

Grade Report

Grade reports are issued after each unit of instruction is complete. An individual progress record is maintained by the Center for each student. All final grades reported by the instructor are included in the record and are available to the student upon request.

Student Responsibilities and Standards of Conduct

Students enrolled at the Center assume an obligation to conduct themselves in a manner compatible with the Center's function as an educational institution. Students shall refrain from conduct that significantly interferes with the Center's teaching or administration, endangers the health or safety of the members of the Center's community, interferes with visitors to the campus or related activities. Misconduct on the part of students is just cause for disciplinary action, which may be exclusion from the Center's training programs.

Students enrolled in a Center program may be dismissed from the program and denied readmission when student misconduct is judged, by the Center administration, as unacceptable.

Attendance

All students pursuing a Certificate of Applied Technology are expected to attend every session of the program in which they are enrolled and scheduled for attendance. Failure to do so may indicate lack of serious purpose. However, when the student must be absent from class, for any cause, the class instructor should be informed.

The Center Director must approve requests for excused or extended absences.

Students who do not participate in scheduled class quizzes or do not submit scheduled assignments when due will receive a grade of zero on those missed quizzes and assignments. Any late assignments and make-up quizzes may require student attendance in Directed Studies hours. Students attending Directed Studies hours to make up assignments for grading must attend at least two hours for each missed assignment. All late assignments, submitted for grading, will be accepted only after completion of Directed Studies hours. In classes requiring a minimum attendance a student is considered in attendance when he/she signs the class attendance record during the scheduled class hours. Only those hours recorded in class attendance or in the Directed Study record will be considered when determining overall attendance.

Tardiness

Students are expected to be on time for each class and remain in class for the scheduled time. A student may be dropped from the course or have their graduation delayed for excessive tardiness. Students are considered tardy when they arrive later than thirty minutes after class begins.

Absence

A student must be in attendance 90% of the time to satisfactorily complete an Applied Technology Program. Students who do not maintain satisfactory attendance progress by the end of each unit of instruction or miss more than three days during any unit of instruction will be placed on attendance probation. Thereafter the student must achieve an overall attendance of 90% by the end of the succeeding two units of instruction or they will risk being dismissed from the program.

Excused Absence

A student may be excused from class under the following circumstances: illness, death, or birth in the immediate family, and other valid reasons substantiated in writing and at the discretion of the Director. All other absences will be considered unexcused. Students with an unexcused absence will not be allowed to apply make up hours to attain perfect attendance.

Leave of Absence

The Center realizes extenuating circumstances may arise where an extended leave of absence may be necessary. In such instances a leave of absence may be granted. Only one leave of absence up to sixty days may be granted during a program. A student on probation at the time a leave of absence is granted will be returned to active status as a probationary student. A student must request a leave of absence in writing from student services. A leave of absence indicates that the student sincerely intends to resume education at the Center. The student will be dropped from the active roll if he/she does not re-enroll at the start of the next academic period.

Probation

To be considered making satisfactory progress toward the Certificate of Applied Technology the student must achieve a "C" (2.0) grade average and attendance of ninety percent (90%). A student not achieving these standards after the completion of any instruction will be placed on probation beginning the next unit of instruction. Thereafter any student not achieving accumulative grade of "C" (2.0) or better and ninety percent (90%) attendance by the end of two additional units of instruction will be withdrawn from the program.

Procedure to remove probation

To rescind probationary status, a student must meet appropriate condition described as follows:

- ◆ Student on academic probation for a grade point deficiency shall be removed from probation when the students accumulated grade point average is "C" (2.0) or higher.
- ◆ Student on attendance probation shall be removed from probation when, through attendance in Directed Studies hours, student attains an overall attendance in scheduled and Directed Studies hours of 90% or higher.

Standards for Dismissal

Students failing to maintain satisfactory academic and attendance progress may be dismissed under conditions as follows:

- ◆ Students on academic probation shall be subject to dismissal if he or she does not achieve an over all grade point average of "C" (2.0) or higher within two units of instruction from the time placed on academic probation.
- Students on attendance probation shall be subject to dismissal if he or she does not achieve an overall attendance of 90% or higher, by attending Directed Studies hours, within two calendar months from being placed on attendance probation. **Graduate Directed Study**

This enrollment procedure is only offered to graduates of an Applied Technology section of a program returning for recapture study. A certificate may be issued only when a graduate attends a previously completed class and completes all of the class assignments in the current course work

Nontraditional Study Options

Nontraditional study options are available for students claiming "special circumstances." These study options must be approved by a Center Director and may not apply to certain tuition financed programs.

Students Rights

Privacy Rights of Students

The Family Educational Rights and Privacy Act enables all students to review their academic records, including grades, attendance, and counseling records. Student records are confidential and only such agencies or individuals authorized by law are allowed access without written permission of the student.

A student has the right to examine his records during regular business hours. A student's record, therefore, is not released to any third party without the prior written approval of the student to release information from the record. A student's request to release information to interested third parties must be made in writing at the Center during regular business hours.

Academic Appeal

If a student is terminated from the Center either for academic conduct or attendance, the student has the right to appeal the termination. The appeal must be submitted in writing to the Director within ten days of the termination date.

Complaint Procedure

Persons seeking to resolve problems or complaints should first contact the instructors in charge. Requests for further action may be made to the President, North American Heating and Air Conditioning Training Center, Inc. See the Complaint Procedure in the attachments to the General Catalog.

Procedures and Regulations

It is the student's responsibility to understand all rules and regulations. The Center reserves the right to make changes in any area of the Center to include, but not limited to, curriculum, faculty, location, equipment, rules and regulations. Any change made deemed to be in the best interest of the Center at large and only after careful consideration to the effect on the student body.

Petition for waiver of regulations

Rules and regulations in this catalog and other operating procedures have been adopted by the Center to maintain appropriate academic standards and facilitate the administration of the Center. Students who believe that extenuating circumstances might justify the waiver of a particular regulation or requirement may file a petition with the Center's Director for consideration.

Graduating Student Survey

All graduating students are asked to complete a Graduating Student Survey. Students who have arranged tuition financing through the Center should schedule an interview with the Center's Director for Business Services to review all tuition financing payment requirements.

Withdrawal procedure

Any student wishing to withdraw from the Center should contact the Director of Business Services. These meetings are necessary to resolve all academic, financial, and other pertinent business the student may have with the Center. Withdrawing students who maintain current payments on their tuition-financing contract retain eligibility for Center Services. See: Program Services Eligibility in the attachments to the General Catalog.

Student records

The Center has established a policy that it shall maintain records for each student, whether or not a student completes the training program, for a period of five years after the date of the student's graduation, withdrawal, or termination.



Transfer of courses and training

Notice concerning transferability of credits and credentials earned at the institution “The transferability of credits you earn at (name of institution) is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the (degree, diploma, or certificate) you earn in (name of educational program) is also at the complete discretion of the institution to which you may seek to transfer. If the (credits or degree, diploma, or certificate) that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending North American Heating and Air Conditioning Training Center, Inc. to determine if your certificate will transfer.”

Articulation Agreement

At this time the Center has not entered into an articulation agreement with any other educational institution

Satisfactory Progress

All students pursuing the Certificate of Applied Technology at the Center are required to maintain satisfactory progress toward the completion of their program of study. In order to be considered to be making satisfactory academic progress toward a certificate, a student must maintain a specified grade point average as well as process through the program at a pace leading to completion in specified time frame.

Satisfactory academic progress is defined as meeting acceptable performance standards based upon predetermined objectives of the Center, which are as follows:

- ◆ Maintaining accumulative grade average of "C" (2.0), or serving an academic probationary period.

- ◆ Maintaining a minimum attendance record of 90% of scheduled classes, or serving an attendance probationary period.
- ◆ At Graduation achieved:
 - A. Accumulative grade average of "C" (2.0), or higher
 - B. An attendance record of 90% or higher

Program Completion

Student academic progress is evaluated at the end of each unit of instruction. The maximum time frame for completion is one and one half the contracted length of the program of study. Periods during which the student has formally requested and received a leave of absence or has officially withdrawn from the Center will not be considered in calculating the attendance rate or maximum time frame.

Requirements under which a student graduates

Unless the Center's Director grants exception in writing, students enrolling for the first time must meet certificate requirements specified in the catalog ***in effect at the time of entrance***. Students who remain in attendance during regular sessions, Directed Study, or leave of absence will meet the graduation requirements in effect at the time of original entrance in the program.

Document received upon graduation

Upon satisfactory completion of a Center program a graduate will receive a certificate signifying successful completion of their program of study.

Career and Graduate Services

Career and Graduate Services is one services offered to current and previous students by the Center. While the Center offers no guarantee of employment it does offer services and training to all student and graduates who maintain current payment on student loans and all other financial contracts entered into. These services are:

Career Services:

- ◆ Staffing. Placement and employment services available to all students and graduates.
- ◆ Career Exploration. Career counseling and planning.
- ◆ "CenterNet" - Technology Training for a Lifetime. The center's technology services support network.
- ◆ Workforce Education Studies. Remedial general education studies.

Graduate Services:

Graduate Directed Study. Continuing recapture study available in courses previously completed at the Center (See "LIFETIME Training").

The Center Community

Housing Services

The Center does not provide on-campus housing. Housing assistance will be provided when requested. Service is limited to providing assistance in locating neighborhood housing. No rating or inspection service is provided and the Center does not arbitrate negotiations between householders and prospective tenants.

Special Community and Study Activities

The Center is committed to various objectives as part of the community. The Center supports activities to foster student interaction for learning purposes. The primary objective of these groups is to serve the Center's instructional program by providing students with opportunities to interact in informal study groups in the community. Under guidance of the instruction staff the Center offers study activities to students and members of the community who would benefit from interactive study. Currently the Center offers community study activities for:

- ◆ Environmental Protection Agency (EPA) Technician Certification Examination.
- ◆ Student interview classes where, under approval of the Center Director, a prospective student may attend class sessions to help determine their ability to successfully participate in the Center's program and earn the Certificate of Applied Technology.
- ◆ By invitation, participate in Professional Development Workshops.



Alumni

A growing number of graduates are a vital and active catalyst in the growth of the Center. Alumni activities are arranged to keep graduates in contact with each other and assist the Center in representing its self to the community.

Program Studies

Applied Technology Studies

Technical Instruction

Required of all students pursuing the Certificate of Applied Technology. Students who change career objectives or program of study after beginning class may be required to extend graduation date to meet program objectives.

Air Conditioning, Refrigeration, Electricity, and Control Technology

Requirements for the Certificate

All students pursuing the Certificate of Applied Technology in Air Conditioning, Refrigeration, Electricity, and Control Technology must be enrolled for a minimum of 624 hours and successfully complete Center approved competency examinations to earn the certificate and National Honors Award.

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR200	2.4	Electricity (96 Hours)
ACR250	2.4	Commercial and Industrial Buildings (96 hours)
ACR240	2.4	Heating, Gas, Hydronic, and Heat Pumps (96 Hours)
ACR260	2.4	Controls, Heating, Air Conditioning, & Refrigeration (96 Hours)
ACR220	2.4	Air Conditioning (96 Hours)
ACR230	2.4	Refrigeration (96 Hours)
ACR270	0.6	Technical Discovery (24 Hours)
ACR272	0.6	Technical Discovery (24 Hours)

Heating, Air Conditioning, Refrigeration, and Electrical Technology

Requirements for the Certificate

All students pursuing the Certificate of Applied Technology in Heating, Air Conditioning, Refrigeration, and Electrical Technology must be enrolled for a minimum of 540 hours.

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR300	1.6	Electricity, Fundamentals, and Circuits (64 Hours)
ACR355	1.6	Commercial and Industrial Buildings (64 Hours)
ACR340	1.6	Heating, Gas and Hydronic (64 Hours)
ACR320	1.6	Comfort Air Conditioning and Controls (64 Hours)
ACR325	1.6	Commercial and Industrial Air Conditioning and Controls (64 Hours)
ACR330	1.6	Domestic Refrigeration and Controls (64 Hours)
ACR335	1.6	Commercial Refrigeration and Controls (64 Hours)
ACR390	1.6	Industrial Refrigeration and Electronic Technology (64 Hours)
ACR370	0.4	Technical Discovery (16 Hours)
ACR372	0.4	Technical Discovery (16 Hours)

Electrical Technology

Requirements for the Certificate

All students pursuing the Certificate of Applied Technology in Electrical Technology must be enrolled for a minimum of 624 hours and successfully complete Center approved competency examinations to earn the certificate and National Honors Award. All classes in this program require study in one or more sections of the National Electrical Code.

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ETS200	2.4	Mathematics and Electrical Circuits Laboratory I (96 hours)
ETS205	2.4	Electrical Fundamentals I and Electrical Circuits Laboratory II (96 hours)
ETS210	2.4	Introduction to the National Electrical Code and Electrical Circuits Laboratory III (96 hours)
ETS220	2.4	Electricity Fundamentals II and Electrical Applications Laboratory I (96 hours)
ETS225	2.4	Electrical Wiring I and Electrical Applications Laboratory II (96 hours)
ETS230	2.4	Electrical Wiring II and Electrical Applications Laboratory III (96 hours)
ETS270	0.6	Technical discovery (24 hours)
ETS272	0.6	Technical Discovery (24 hours)

Construction and Operating Equipment Technology

Requirements for the certificate

All students pursuing the Certificate of Applied Technology in Construction and Operating Equipment Technology must be enrolled for a minimum of 320 hours and receive instructor approval of their Capstone Project prior to their Capstone Project registration.

<u>Class</u>	<u>Units</u>	<u>Subject</u>
CET400	1.0	Electricity Fundamentals and Applications (40 hours)
CET405	1.0	Operating Equipment Maintenance and Operation (40 hours)
CET410	1.0	Electrical Processes and Applications (40 hours)
CET420	1.0	Mechanical Processes and Applications (40 hours)
CET430	1.0	Control theory and Applications (40 hours)
CET440	1.0	Construction and Operating Equipment Code (40 hours)
CET496	1.0	Capstone Project-Construction and Construction and Operating Equipment Technology* (40 hours)
CET498	1.0	Capstone Project-Construction and Construction and Operating Equipment Technology* (40 hours)

*Study Options Electricity or Air Conditioning/Refrigeration design applications

Technical Craft Management Study (320 Hours)

Study in Technical Craft Management is a commitment on the part of the Center to prepare managers in small business who oversee field workers performing one or more technical operations. These managers may also coordinate the business operations, act as salesman and estimators, and perform activities to increase market share.

Requirements for the certificate

All students pursuing the Certificate of Applied Technology in Technical Craft Management must be enrolled for a minimum of 320 hours and receive instructor approval of their Capstone Project prior to their Capstone Project registration.

<u>Class</u>	<u>Units</u>	<u>Subject</u>
TCM414	1.0	Modern Technical Service Industry (40 hours)
TCM420	1.0	Automated Industry Systems (40 hours)
TCM462	1.0	Managing a Technology Service Business (40 hours)
TCM440	1.0	Supervising on-the-job Activities (40 hours)
TCM464	1.0	Organization and Supervision of Customer Service (40 hours)
TCM460	1.0	Business Finance and Job Costing (40 hours)
TCM490	1.0	Capstone Project - Technical Craft Management (40 hours)
TCM491	1.0	Capstone Project - Technical Craft Management (40 hours)

Courses of Instruction

Air Conditioning, Refrigeration, Electricity, and Control Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR200	2.4	Electricity (96 hours) Fundamental theory and concepts of electricity. Construction and analysis of circuits. Electrical Circuits Laboratory.
ACR220	2.4	Air Conditioning (96 hours) Principles of air conditioning, air movement, and air control. Parts identification. System troubleshooting.
ACR230	2.4	Refrigeration (96 hours) Principles of refrigeration. Application to servicing and troubleshooting equipment.
ACR240	2.4	Heating; Gas, Hydronic, and Heat Pumps (96 hours) Fundamentals, theory, and concepts of heating. Servicing and troubleshooting.
ACR250	2.4	Commercial and Industrial Buildings (96 hours) Service and maintenance of commercial and industrial buildings. Understanding the critical thinking and human resources vital to the operation and maintenance of these buildings.
ACR260	2.4	Controls; Heating, Air Conditioning and Refrigeration (96 hours) Fundamentals of controls and control systems. Servicing and troubleshooting control systems.
ACR270	0.6	Technical Discovery, Day class plan (24 hours) Completion of assigned performance tasks. On-the-job problem solving skills.
ACR272	0.6	Technical Discovery, Day class plan (24 hours) Completion of assigned performance tasks. On-the-job problem solving skills.
ACR290	0.6	Electronic Technology (24 hours) Fundamentals of electricity as applied to electronic devices. Identification of electronic parts.
ACR295	0.6-2.4	Directed Study, Air Conditioning, Refrigeration, Electricity, and Control Technology program plan. May be repeated for credit.

Heating, Air Conditioning, Refrigeration, and Electrical Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR300	1.6	Electricity; Fundamentals and Circuits (64 hours) Fundamentals, theory, and concepts of electricity. Electrical Circuits Laboratory.
ACR320	1.6	Comfort Air Conditioning and Controls (64 hours) Principles of air conditioning, air movement, and air control. Identify, service, and troubleshoot parts and systems. Air conditioning controls.
ACR325	1.6	Commercial and Industrial Air Conditioning and Controls (64 hours) Maintenance and service of commercial and industrial systems. Troubleshooting procedures.
ACR330	1.6	Domestic Refrigeration and Controls (64 hours) Fundamentals of small refrigeration equipment. Maintenance and troubleshooting procedures. Control system techniques.
ACR335	1.6	Commercial Refrigeration and Controls (64 hours) Fundamentals of commercial refrigeration equipment. Maintenance and troubleshooting procedures. Control system techniques.
ACR340	1.6	Heating: Gas and Hydronic and Controls (64 hours) Fundamentals, theory, and concepts of heating. Maintenance and troubleshooting procedures. Control system techniques.
ACR355	1.6	Commercial and Industrial Buildings (64 hours) Service and maintenance of commercial and industrial buildings. Understanding the critical thinking and human resources vital to the operation and maintenance of these buildings.
ACR370	0.4	Technical Discovery, Evening class plan (16 hours) Completion of assigned performance tasks. On-the-job problem solving skills.
ACR372	0.4	Technical Discovery, Evening class plan (16 hours) Completion of assigned performance tasks. On-the-job problem solving skills.
ACR390	1.6	Industrial Refrigeration and Electronic Technology (64 hours) Introduction to the industrial refrigeration process. Fundamentals of electricity as applied to electronic devices. Identification of electronic parts.

Class Units
Subject ACR395 0.4-1.6

Directed Study, Heating, Air Conditioning, Refrigeration, and Electrical Technology program plan. May be repeated for credit

Electrical Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ETS200	2.4	Mathematics and Electrical Circuits Laboratory I (96 hours) Practical problems in mathematics and their application to the electrical maintenance and service industry. Layout and construction of electrical circuits.
ETS205	2.4	Electricity Fundamentals I and Electrical Circuits Laboratory II (96 hours) Direct current fundamentals, concepts, and applications. Layout and construction of electrical circuits.
ETS210	2.4	Introduction to the National Electrical Code (NEC) and Electrical Circuits Laboratory III (96 hours) Introduction to the layout and organization of the NEC. Using the NEC to plan and check circuit layouts. Layout and construction of electrical circuits.
ETS220	2.4	Electricity Fundamentals II and Electrical Applications Laboratory I. (96 hours) Alternating current fundamentals. Mathematics applications to the understanding of alternating current circuits. Alternating current theories and applications. NEC applications to wiring residential units. Reading residential house plans to gain practical experience laying out wiring and making service entrance calculations.
ETS225	2.4	Electrical Wiring I and Electrical Applications Laboratory II. (96 hours) Wiring and layout of circuits for residential and equipment applications.
ETS230	2.4	Electrical Wiring II and Electrical Applications Laboratory III (96 hours) Wiring and layout of circuits for commercial applications. Reading commercial plans to gain practical experience wire sizing, calculating loads, and over current protection.
ETS270	0.6	Technical Discovery. (24 hours)
ETS272	0.6	Technical Discovery. (24 hours)
ETS295	0.6-2.4	Directed Study Electrical Technology. May be repeated for credit.

Construction and Operating Equipment Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
CET400	1.0	Electricity Fundamentals and Applications. (40 hours) Study in the Use of electricity to operate and control power equipment systems and provide electrical service in residential and commercial buildings.
CET405	1.0	Operating Equipment Maintenance and Operation (40 hours) Study in design and operation of power operating equipment for environmental control, commercial and industrial processes, and facilities.
CET410	1.0	Electrical Processes and Applications (40 hours) Electrical theory and processes to design, operate, and control simple to complex electrical systems.
CET420	1.0	Mechanical Processes and Applications (40 hours) mechanical technology theory and processes to design, operate, and control simple to complex systems.
CET430	1.0	Control Theory and Applications (40 hours)
CET440	1.0	Construction and Operating Equipment Code* (40 hours) Practical introduction to code's. Learning to locate and apply information to solve all types of building, electrical, and mechanical challenges.
CET 496	1.0	Capstone Project - Construction and Operating Equipment Technology * (40 hours) Independent study project.
CET498	1.0	Capstone Project - Construction and Operating Equipment Technology * (40 hours) Independent study project.
*Study Options:		Electricity or Air Conditioning/Refrigeration design applications

Air Conditioning, Refrigeration, Electricity, and Control Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR200	2.4	Electricity (96 hours) Fundamental theory and concepts of electricity. Construction and analysis of circuits. Electrical Circuits Laboratory.
ACR220	2.4	Air Conditioning (96 hours) Principles of air conditioning, air movement, and air control. Parts identification. System troubleshooting.
ACR230	2.4	Refrigeration (96 hours) Principles of refrigeration. Application to servicing and troubleshooting equipment.
ACR240	2.4	Heating; Gas, Hydronic, and Heat Pumps (96 hours) Fundamentals, theory, and concepts of heating. Servicing and troubleshooting.
ACR250	2.4	Commercial and Industrial Buildings (96 hours) Service and maintenance of commercial and industrial buildings. Understanding the critical thinking and human resources vital to the operation and maintenance of these buildings.
ACR260	2.4	Controls; Heating, Air Conditioning and Refrigeration (96 hours) Fundamentals of controls and control systems. Servicing and troubleshooting control systems.
ACR270	0.6	Technical Discovery, Day class plan (24 hours) Completion of assigned performance tasks. On-the-job problem solving skills.
ACR272	0.6	Technical Discovery, Day class plan (24 hours) Completion of assigned performance tasks. On-the-job problem solving skills.
ACR290	0.6	Electronic Technology (24 hours) Fundamentals of electricity as applied to electronic devices. Identification of electronic parts.
ACR295	0.6-2.4	Directed Study, Air Conditioning, Refrigeration, Electricity, and Control Technology program plan. May be repeated for credit.

Heating, Air Conditioning, Refrigeration, and Electrical Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR300	1.6	Electricity; Fundamentals and Circuits (64 hours) Fundamentals, theory, and concepts of electricity. Electrical Circuits Laboratory.
ACR320	1.6	Comfort Air Conditioning and Controls (64 hours) Principles of air conditioning, air movement, and air control. Identify, service, and troubleshoot parts and systems. Air conditioning controls.
ACR325	1.6	Commercial and Industrial Air Conditioning and Controls (64 hours) Maintenance and service of commercial and industrial systems. Troubleshooting procedures.
ACR330	1.6	Domestic Refrigeration and Controls (64 hours) Fundamentals of small refrigeration equipment. Maintenance and troubleshooting procedures. Control system techniques.
ACR335	1.6	Commercial Refrigeration and Controls (64 hours) Fundamentals of commercial refrigeration equipment. Maintenance and troubleshooting procedures. Control system techniques.
ACR340	1.6	Heating; Gas and Hydronic and Controls (64 hours) Fundamentals, theory, and concepts of heating. Maintenance and troubleshooting procedures. Control system techniques.
ACR355	1.6	Commercial and Industrial Buildings (64 hours) Service and maintenance of commercial and industrial buildings. Understanding the critical thinking and human resources vital to the operation and maintenance of these buildings.
ACR370	0.4	Technical Discovery, Evening class plan (16 hours) Completion of assigned performance tasks. On-the-job problem solving skills.
ACR372	0.4	Technical Discovery, Evening class plan (16 hours) Completion of assigned performance tasks. On-the-job problem solving skills.

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR390	1.6	Industrial Refrigeration and Electronic Technology (64 hours) Introduction to the industrial refrigeration process. Fundamentals of electricity as applied to electronic devices. Identification of electronic parts.

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ACR395	0.4-1.6	Directed Study, Heating, Air Conditioning, Refrigeration, and Electrical Technology program plan. May be repeated for credit

Electrical Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ETS200	2.4	Mathematics and Electrical Circuits Laboratory I (96 hours) Practical problems in mathematics and their application to the electrical maintenance and service industry. Layout and construction of electrical circuits.
ETS205	2.4	Electricity Fundamentals I and Electrical Circuits Laboratory II (96 hours) Direct current fundamentals, concepts, and applications. Layout and construction of electrical circuits.
ETS210	2.4	Introduction to the National Electrical Code (NEC) and Electrical Circuits Laboratory III (96 hours) Introduction to the layout and organization of the NEC. Using the NEC to plan and check circuit layouts. Layout and construction of electrical circuits.
ETS220	2.4	Electricity Fundamentals II and Electrical Applications Laboratory I. (96 hours) Alternating current fundamentals. Mathematics applications to the understanding of alternating current circuits. Alternating current theories and applications. NEC applications to wiring residential units. Reading residential house plans to gain practical experience laying out wiring and making service entrance calculations.
ETS225	2.4	Electrical Wiring I and Electrical Applications Laboratory II. (96 hours) Wiring and layout of circuits for residential and equipment applications.
ETS230	2.4	Electrical Wiring II and Electrical Applications Laboratory III (96 hours) Wiring and layout of circuits for commercial applications. Reading commercial plans to gain practical experience wire sizing, calculating loads, and over current protection.
ETS270	0.6	Technical Discovery. (24 hours)
ETS272	0.6	Technical Discovery. (24 hours)

<u>Class</u>	<u>Units</u>	<u>Subject</u>
ETS295	0.6-2.4	Directed Study Electrical Technology. May be repeated for credit.

Construction and Operating Equipment Technology

<u>Class</u>	<u>Units</u>	<u>Subject</u>
CET400	1.0	Electricity Fundamentals and Applications. (40 hours) Study in the Use of electricity to operate and control power equipment systems and provide electrical service in residential and commercial buildings.
CET405	1.0	Operating Equipment Maintenance and Operation (40 hours) Study in design and operation of power operating equipment for environmental control, commercial and industrial processes, and facilities.
CET410	1.0	Electrical Processes and Applications (40 hours) Electrical theory and processes to design, operate, and control simple to complex electrical systems.
CET420	1.0	Mechanical Processes and applications (40 hours) mechanical technology theory and processes to design, operate, and control simple to complex systems.
CET430	1.0	Control Theory and Applications (40 hours)
CET440	1.0	Construction and Operating Equipment Code* (40 hours) Practical introduction to code's. Learning to locate and apply information to solve all types of building, electrical, and mechanical challenges.
CET 496	1.0	Capstone Project - Construction and Operating Equipment Technology * (40 hours) Independent study project.
CET498	1.0	Capstone Project - Construction and Operating Equipment Technology * (40 hours) Independent study project.

*Study Options: Electricity or Air Conditioning/Refrigeration design applications

Technical Craft Management

<u>Class</u>	<u>Units</u>	<u>Subject</u>
TCM414	1.0	Modern Technical Service Industry (40 hours) Growth, development and organization of the technical service industry. Results of technological and legislative development on urban environment and the effect of the service enterprise. Case study and independent research.
TCM 420	1.0	Automated Industry Systems (40 hours) Introduction to the theory and application of equipment efficiency and system installation. Emphasis on environmental systems and controls.
TCM440	1.0	Supervising on-the-job Activities (40 hours) Leadership, interpersonal relationships in work, and building organizational effectiveness. Supervising technical craft activities.
TCM460	1.0	Business finance & Job Costing. (40 hours) Planning and managing cash flow and business records. Performing project estimates.
TCM462	1.0	Managing a Technology Service Business. (40 hours) Principles of organization and management. Using case study method to build and manage small technical services business.
TCM464	1.0	Organization and Supervision of Customer Service. (40 hours) Organizing small customer service enterprise for quality service and long-term operation. Investigation of business enterprise through case studies. Techniques and approaches to managing organizations. Emphasis on improving quality of workforce productivity.
TCM490	1.0	Capstone Project - Technical Craft Management I (40 hours)
TCM491	1.0	Capstone Project - Technical Craft Management II (40 hours)