



1110 Technology Circle - Suite D
Anaheim, CA 92805
(714) 774-9443

BROWNSON TECHNICAL SCHOOL

CATALOG

(1/1/19 to 12/31/19)

www.brownson.edu

Accredited by:



BROWNSON TECHNICAL SCHOOL
1110 Technology Circle, Suite D
Anaheim, CA 92805
(714) 774-9443 Fax: (714) 774-5025
E-mail: info@brownsontechnicalschool.com

STAFF AND FACULTY

William D. Brown Director
Patti Gallagher Financial Aid Director
Faith Rolla Admissions Director
Dodie Hall..... Career Services Director
Paula Lock..... Registrar/Student Services
Chelsea Hall..... Receptionist
Randall Albright Instructor/Operations Officer
Joe Keleman Lead Instructor
Gus Balbuena..... Instructor
Bob Kler Instructor
Shane Matucci Instructor
Randy Righetti Instructor
Ken Sato Instructor
Andrew Smith..... Instructor
Scott Taylor Instructor
Michael Ghaeli Blended lab Instructor
John Taylor Blended lab Instructor
John Thomson Blended lab Instructor
Scott Oakley..... Blended program mentor

ADVISORY BOARD

John Dalton..... Universal Air Conditioning, Operations Manager
Jerry Hernandez Greenlink Mechanical, Owner
Charles Nance..... CCCC Heating & Air Conditioning, Co-Owner
Dave Highland..... Local 105, Sheet Metal Workers Union, Instructor, retired
Bob Wiseman Canoga Park Heating & Air Conditioning, President
Nick Laushkin..... Climate Pro Mechanical, Inc., Co-owner
Jayme Carden..... Maximum Performance Housing, Inc., Owner
John Gilmore Online Training-eXtreme Performance
Mike Griffin..... Air Flow Specialties, HERS Rater/HVAC Contractor
Scott Johnson..... National Comfort Institute, West Coast Director of Training, retired

Revised January 1, 2019

Brownson Technical School is operated by Brownson Technical School Inc., a closely held Corporation owned by Donald P. Brown and William D. Brown.

APPROVAL DISCLOSURE STATEMENT

Brownson Technical School was founded in 1984 and achieved its initial accreditation in 1986. Currently, the school is accredited by the Accrediting Commission of Career Schools and Colleges (A.C.C.S.C.), located in Arlington, Virginia. The Accrediting Commission of Career Schools and Colleges is listed by the U.S. Department of Education as a nationally recognized accrediting agency.

Brownson Technical School is a private institution approved to operate by the California Bureau for Private Postsecondary Education. Approval to operate means the institution is compliant with the minimum standards contained in the California Private Postsecondary Education Act of 2009 (as amended) and Division 7.5 of Title 5 of the California Code of Regulations.

In 2016, Brownson Technical School achieved Programmatic accreditation from HVAC Excellence. Programmatic accreditation is an independent third party review of an educational program. The process validates that established standards of excellence for HVACR programs are met.

Brownson Technical School is approved for the training of veterans and eligible persons under the provisions of Title 38, United States Code. (For Veteran's information, please see Veteran's Handout) The school is also approved by several WIB/WIA offices. In addition, Brownson Technical School trains injured workers being retrained by Worker's Compensation insurance or the State Department of Rehabilitation and private clients paying with their own funds or sponsored by an employer.

STATEMENTS

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 Private Postsecondary Education at 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833, www.bppe.ca.gov, toll-free telephone number (888) 370-7589 or by fax (916) 263-1897.

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

A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 toll-free or by completing a complaint form, which can be obtained on the bureau's internet web site www.bppe.ca.gov.

Brownson Technical School has never filed for bankruptcy petition, operated as a debtor in possession or had a petition of bankruptcy filed against it under Federal law.

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MISSION STATEMENT

Brownson Technical School's (BTS) mission is to make a positive change in someone's life through vocational training. At the heart of our mission is the desire to address the divergent needs and aspirations of the variety of adult learners who come to us from a wide range of educational, occupational, and experiential backgrounds, all of whom have chosen to acquire new technical skills so as to change or advance their individual careers and lifestyles.

PHILOSOPHY AND OBJECTIVES

Our objective is to provide training and placement assistance in the fields of Heating, Ventilation, Air Conditioning and Refrigeration.

Brownson Technical School provides comprehensive training to both men and women in the fields of commercial/domestic refrigeration, air conditioning and heating repair and service. This training focuses on preparing students for employment as entry level service technicians by combining job specific training with both academic and hands-on instruction. Curriculum, equipment, and texts used in our programs allow for individual differences and the implementation of new technology as it becomes available. School policy allows students to complete their training and to prepare for employment in the shortest time possible while maintaining high industry and academic standards.

HISTORY

Brownson Technical School (BTS) is a private postsecondary vocational institution that offers training in the fields of commercial/domestic refrigeration, air conditioning and heating. BTS was founded in 1984 by Donald and William Brown. Both gentlemen continue to function as the administrator and school director, respectively, and play an active role in the day to day operations of the school.

Brownson Technical School has been accredited since 1986. At present, the school is accredited through the Accrediting Commission of Career Schools and Colleges (A.C.C.S.C.). In addition, BTS is an eligible training provider for numerous private and governmental agencies such as WIOA, TRA/TAA, Vocational Rehabilitation, State Rehabilitation, Veterans Administration, Employers, and the private sector. BTS is approved for participation in Title IV funding.

FACILITIES

Brownson Technical School has been located at 1110 Technology Circle - Suite D, Anaheim, and CA. since 1987. All class sessions are held at this location. The school occupies a 20,000 sq. ft. modern industrial building with plenty of free parking. The campus is within easy access of the 5, 57 and 91 freeways. Labs, classrooms, library, offices and student lounge areas are well ventilated and well lighted to provide a good learning environment and comfortable accommodations. The student lounge is equipped with a refrigerator, vending machines, and microwave ovens. Classrooms range in size from a minimum capacity of 8 to a maximum capacity of 25 students. BTS offers a 25:1 maximum student to instructor ratio. All work areas are well equipped with ample quantities and types of tools/training aids such as refrigerators, freezers, condensing units, furnaces, coils, drink dispensing machines, multimeters, air acetylene and OXY/acetylene torches, and

ample supplies such as various refrigeratants, welding materials, recovery units, soldering guns/copper tubing, and more.

This institution, the facilities it occupies, and the equipment it utilizes, fully comply with any and all federal, state and local ordinances and regulations, including those requirements as to fire safety, building safety, and health. Brownson Technical School's facilities are accessible to a number of handicaps.

HANDICAP ACCESSIBILITY and TRAINING OPPORTUNITIES

Brownson Technical School makes its facilities accessible to the disabled and/or the handicapped. A student deemed to have the Ability to Benefit with regard to physical or other handicaps can enroll in the training program. Those with lifting restrictions and other injuries that will *not* impair their safety and employability are encouraged to apply.

NON-DISCRIMINATION POLICY

The school does not discriminate on the basis of race, color, religion, national or ethnic origin, sex, sexual orientation, gender identity or status, marital, parental, familial, veteran or military service status, political belief or affiliation, age, or disability. The school complies with all local, state, and federal laws barring discrimination. Accordingly, equal opportunity for employment and admission shall be extended to all persons. All inquiries or complaints regarding these laws and regulations should be directed to the School Director, who will provide students or employees with procedures available for resolving complaints relating to alleged unlawful discriminatory actions.

DRESS CODE

Students are expected to practice good grooming habits and to dress as they would for work. Brownson Technical School tee shirt/sweat shirt, long pants, and closed-toed shoes are required. Students may not wear sandals, shorts, tank tops, torn or thread bare clothing. Long hair is to be tied back, and protective eye wear must be worn at all times when working in the shop/lab area. Clothing that is indecent, suggestive, provocative, obscene or creates a safety hazard will not be permitted. Sunglasses are not permitted to be worn inside the building at any time. Any student that does not adhere to this policy will be asked to leave the facility.

ADMISSIONS

ADMISSION REQUIREMENTS

Admissions requirements are based largely upon the student's ability to meet the requirements of his/her chosen occupational goal. Strong motivation to learn and a desire to pursue a career are important considerations. In general, applicants are admitted as regular students with a high school diploma or a General Equivalency Certificate (GED). The school also admits as regular students, persons who are beyond the age of compulsory school attendance in California and who have the ability to benefit from the training offered. The applicant must have a valid California Driver License with a demonstrated adequate driving record.

Ability-to-benefit students (those without a high school diploma or General Equivalency Certificate (GED) are referred to the independent test administrator prior to the start of class by the admissions department to take the

Wonderlic Basic Skills Test (WBST). Required passing scores are 200 Verbal and 210 Quantitative.

In all cases, an approved aptitude test is administered and a personal interview is conducted to assess test results, prior education, motivation, work experience, placement potential, and general aptitude for the chosen career field. Each case is judged individually. An Admissions Committee may be utilized to make appropriate determinations in special cases.

Prospective students requesting enrollment in the blended distance education program must complete a distance education questionnaire and have a device capable of getting on the internet that will work with Adobe “Flash” and that has access to high speed internet. Virtually all Desktop, Laptop/Notebook, Microsoft “Tablet” devices, and Apple Mac will work. Apple iPads and iPhones currently will not work and Google “Android” devices (phones, tablets, and laptops) may not work. If there are questions, the school will direct any interested person to the website to see how their device works.

Brownson Technical School does not offer visa services to prospective students from other countries or English language services. Brownson Technical School does not offer English as a Second Language instruction. All instruction occurs in English. English language proficiency is documented by:

1. The admissions interview;
2. Receipt of prior education documentation as stated in the admission policy; and
3. Ability to be Trained (ATBT) entrance exam.

ADMISSION PROCEDURES

To begin the admission process, each applicant completes a questionnaire regarding his/her personal, educational, and employment histories as well as his/her occupational interests. Once completed, the applicant is interviewed by an admissions representative in an effort to better assure BTS’s training will satisfy the applicant’s needs as well as to provide detailed information regarding the curriculum, school services and expectations. In conjunction with the interview, applicants receive a catalog, school performance fact sheet, tour of the facility, which includes classroom, lab, library, and student lounge areas.

An ability-to-benefit student’s independent test administrator notifies Brownson Technical School if the prospective student has passed or failed (unofficial) the exam at which time a Brownson staff member will contact Wonderlic to verify the official results, print out the results and notify admissions of the pass or fail.

Applicants expressing an interest in enrolling are given an Ability to be Trained (ATBT) entrance exam. A minimum passing score of 14 is required and documents English language proficiency. Applicants are usually notified of their test scores immediately upon completion of the test.

Once an applicant is considered eligible for enrollment, he/she participates in an orientation session where school policy and procedure are discussed along with class schedules, graduation requirements, and other pertinent information. Necessary paperwork is completed and the student’s file is created. Applicants that do not provide documentation of a High School diploma, its equivalent or a GED are not eligible to apply for Title IV financial aid funding. See page 16 for additional information.

Brownson Technical School considers a student to be enrolled when the enrollment agreement has been signed, and a financial payment arrangement has been made. WIB/WIOA applicants are not considered enrolled until BTS receives authorization from the sponsoring case manager. Students sponsored by an injured worker

program are considered to be enrolled when their Letter of Authorization is received. An enrollment agreement is executed upon receipt of authorization.

ACADEMIC POLICIES

DRUG FREE SCHOOL AND WORKPLACE POLICY

The unlawful manufacture, distribution, dispensing, possession or use of drugs, alcohol or other controlled substances on school property or during school activities is strictly prohibited. Any employee or student found in violation of this policy shall immediately be terminated and reported to the appropriate law enforcement agency. In the case of reasonable doubt, the school reserves the right to request drug testing by an appropriate licensed agency. Students and employees alike are required, as a condition of enrollment and/or employment, to abide by this policy.

CREDIT FOR PRIOR EDUCATION OR TRAINING

A student who wishes to transfer credit(s) from another institution must submit verified copies of his/her transcript to the Admissions Office for review. Upon review of the transcript and competency testing, BTS may, at its discretion, accept credits for those courses which are equivalent to courses offered by BTS, up to a maximum of 15 semester credits. BTS does not provide credit for challenge examinations, achievement tests or experiential learning. The institution has not entered into an articulation or transfer agreement with any other college or university. Veterans must submit military and college transcripts for evaluation.

TRANSFERABILITY OF CREDITS

“NOTICE CONCERNING TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION”

The transferability of credits you earn at Brownson Technical School is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the diploma you earn in HVAC/R Technology is also at the complete discretion of the institution to which you may seek to transfer. If the credits or diploma that you earn at this institution are not accepted at the institution 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 Brownson Technical School to determine if your credits or diploma will transfer.

LAPTOP COMPUTERS AND CELL PHONES

Laptop computers are not allowed in the facility. Cell phones must be turned off or set to vibrate at all times and are not to be used in the classrooms at any time.

SEMESTER CREDIT HOURS

Programs are measured in semester credit hours. Each academic semester credit hour is made up of thirty (30) contact hours in lab or fifteen (15) contact hours in classroom instruction. Each semester credit for Title IV Federal Financial Aid is based on 37.5 hours of instructor and out of class work, if applicable. Brownson Technical School defines an academic year as twenty four (24) semester credits over a thirty (30) week period.

ACADEMIC HOUR DEFINITION

Attendance is measured in academic hours. An academic hour is 50 minutes of training and a 10- minute break.

MAKE UP WORK

Students will be required to make up all assignments, exams, or other work missed as the result of any absence. The student must make arrangements with the instructor to ensure that all work is made-up before the end of the module in which the work was missed. The instructor may assign additional outside make-up work if deemed appropriate. Arrangements to take a missed exam are made with the instructor on an individual basis.

BREAKS

Every one hundred (100) minutes of training will be followed by a twenty (20) minute break. The break schedule is posted on the student bulletin board.

CHANGE OF PROGRAM

All requests must be made before the end of the second week of training to be considered. A student must attend all classes in which originally enrolled until the requested change of program is officially authorized by the Director.

ATTENDANCE POLICY

Students are expected to attend classes the same as they would be expected to be present for work. All absences and tardiness will be recorded in the student's file. Any absence within any module will result in an automatic lowering of the grade by 2 points for each full day absent and 1 point for a half day absent. A tardy or early departure will result in a 1/2 point penalty for each occurrence. Hours missed due to an approved Leave of Absence are not considered in the overall attendance.

Failure to attend class for 15 consecutive scheduled class days will result in immediate termination.

A student may be placed on probation if his/her attendance drops below 90%. Failure to satisfactorily complete attendance probation may result in termination.

TARDINESS

Tardiness is a disruption of a good learning environment and is strongly discouraged. If the student fails to notify the instructor of his/her late arrival, the student will be considered absent for that day.

Excessive tardiness adversely affects grades.

GRADING

All grading is done by the instructors. Students are evaluated at the end of each module to determine if the student is progressing satisfactorily. Grades are based on a combination of oral, written and practical tests, attendance, and instructor evaluations.

Grading Policy:

Written Tests.....50%
Practical Applications50%
Absence Penalty Points deducted

Grading Scale:

100% - 96% = A+ 95% = A 94% - 90% = A-
89% - 86% = B+ 85% = B 84% - 80% = B-
79% -76% = C+ 75% = C 74% - 70% = C-
69% or less= F Incomplete = I

Students are encouraged to attend 90% or more of their scheduled class hours as grades are directly influenced by attendance. Students receiving an overall score of 69% or lower are considered failing. If a student fails to receive a passing score, in any module, he/she will have to repeat that module. If a student cannot complete the

course within 1.5 times the normal program length, he/she will be terminated from school. Please refer to the chart on page 12.

A grade of “Incomplete” will be issued when a student has not satisfactorily completed the required assignments within a given module. An “Incomplete” grade must be resolved prior to the completion of the next module or prior to graduation, whichever comes first. In the event an assignment is not completed, an evaluation of zero will be awarded and factored in to the overall grade for that module. The semester credits associated with a module are not considered earned until the “Incomplete” grade is resolved.

Students’ participating in the blended learning distance education program will have lessons and projects evaluated within 7 business days of the school’s receipt.

SATISFACTORY PROGRESS

Students are expected to maintain a minimum performance standard. To be considered in satisfactory progress, students must, upon completion of each module:

- 1) achieve an overall grade average of 70%
- 2) maintain 90% attendance

Grades are issued upon completion of each module. At that time, the student’s satisfactory progress is determined and credit hours for the module are considered earned.

While satisfactory progress is officially determined at the end of each module, periodic monitoring of attendance and grades occurs through out the program. In the event a student’s attendance and/or grades are clearly going to fall below the required minimum, the student may be advised at that time, receive a probation warning letter and/or be placed on immediate probation. Students will be required to make up missed hours that exceed 10% of the module.

Students who fail to complete all assignments within 1.5 times their normal program length will be terminated.

PROBATION

Probation allows a student time to comply with school policies without being terminated immediately.

A student may be placed on probation for unsatisfactory attendance, unsatisfactory academic progress, and/or a special issue as determined by the school Director. The usual probation period for unsatisfactory attendance is 30 days. The usual probation period for unsatisfactory academic progress is the time needed to complete one module. During academic probation, the student will be scheduled for additional instruction.

If, at the end of the probation period, the student has not satisfactorily met the conditions of probation, he/she may be terminated from school.

Students will be considered in satisfactory progress while on probation. Students receiving financial aid must successfully pass academic probation or otherwise lose their eligibility to continue participation in the financial aid program. A student who wishes to appeal the determination of his/her eligibility for student aid based on mitigating circumstance may write a letter to the school Director and provide supporting documentation.

Exceptions to the school’s policies may be made on an individual basis when applying professional judgement. Students wishing consideration of their individual situation may do so in writing to the school Director. Any exception to the school’s policy is at the discretion of the school Director. The school Director’s decisions are

final.

REINSTATEMENT

A student wishing to appeal his/her termination for unsatisfactory attendance or unsatisfactory academic progress may submit a letter with supporting documentation to the school Director. Once the letter is received, the Director will review the letter and then arrange an interview with the student. The interview will be scheduled within a timely manner and serve as an opportunity for the student and Director to discuss the matter. Following the interview, the Director will decide on the appeal and submit a decision in writing to the student. If the student is reinstated, he/she will be enrolled for a probationary period upon re-entry. Students can re-establish eligibility by successfully attending 90% of the scheduled hours and/or attaining a 70% GPA by the end of the next incremental review period. Financial aid may be reinstated once the student re-establishes his/her eligibility. A student may be paid for the grading period in which he/she regains satisfactory progress, but not for those payment periods when the student was not making satisfactory progress.

Students who have been terminated for reasons other than unsatisfactory progress (academic and/or attendance) may appeal the Director's decision by submitting a written letter along with all necessary support documents to the Board of Directors. Upon review, the Board of Directors will make a final ruling on the termination. Once the Board of Directors has made a final ruling, no further appeal efforts will be recognized.

GRADUATION REQUIREMENTS

Students who successfully meet the following graduation requirements will receive a diploma:

- 1) achieve an overall grade point average of 70% or higher
- 2) achieve an overall attendance average of 90% or higher
- 3) fulfill all financial obligations to the school, and
- 4) complete the program within 1.5 times the normal program length

Examples of 1.5 times the normal program length are as follows:

<u>Program Title</u>	<u>Maximum Time</u>
HVAC/R Technology (days and blended)	60 weeks
HVAC/R Technology (nights)	132 weeks

LEAVE OF ABSENCE POLICY

A Leave of Absence (LOA) may only be granted in cases of emergency and must comply with the following:

- 1) LOA may not exceed 180 days in any 12-month period
- 2) Failure to return from an LOA as scheduled will result in immediate termination
- 3) The return date from an LOA must coincide with the current class schedules

In order for an LOA to be considered for approval, the student must submit a written request signed and dated in advance, unless there is an unforeseen circumstance, specifying the reason for the LOA to the School Director. Once the request is reviewed, the Director will issue a decision in writing to the student. No additional institutional charges will be assessed for the LOA.

The minimum scheduled return date from an LOA will be approximately 5 weeks for a day student and 11 weeks for an evening student. This requirement will allow the student to be merged into a class that is at the same level in the curriculum. The LOA and waiting time to return may not exceed 180 days in any 12-month period.

Hours missed as a result of an approved Leave of Absence are not considered in the elapsed hours of attendance; therefore they are not considered in a refund calculation or in satisfactory attendance calculations.

CONDUCT AND DISMISSAL

Students are expected to conduct themselves in an appropriate manner which reflects favorably upon the school both in and out of the classroom. Students will be dismissed from school for the following incident(s):

- intoxicated or drugged state of behavior
- possession of drugs or alcohol on school premises or during school activities
- possession of weapons upon school premises
- behavior creating a safety hazard to himself/herself or other persons
- disobedient or disrespectful behavior and/or language toward others
- excessive tardiness or absences
- cheating on exams
- destruction or damage of school property
- misuse of school computers
- violation of school policies and regulations
- failure to maintain satisfactory progress
- failure to meet financial responsibilities to the school, or
- any other determined infraction of conduct

GRIEVANCE PROCEDURE

Students seeking to resolve a problem or file a complaint should first contact the instructor in charge. If the problem cannot be resolved, a written request for further action should be made to the Director (William Brown). If the problem is not resolved through the Director in a reasonable time frame, the Board of Directors should be contacted. If a student feels the school has not made an attempt to resolve the concern or complaint(s), the student should contact:

- his/her sponsor (WIB/WIOA case manager, Rehab counselor, etc.)
- the Bureau for Private Postsecondary Education, 2535 Capitol Oaks Dr., Suite 400, Sacramento, CA 95833, (888) 370-7589 toll free, www.bppe.ca.gov
- the Accrediting body as discussed below:

Schools accredited by the Accrediting Commission of Career Schools and Colleges must have a procedure and operational plan for handling student complaints. If a student does not feel that the school has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints considered by the Commission must be in written form, with permission from the complainant(s) for the Commission to forward a copy of the complaint to the school for a response. The complainant(s) will be kept informed of the status of the complaint as well as the final resolution by the Commission. Please direct all inquiries to:

Accrediting Commission of Career Schools and Colleges
2101 Wilson Blvd., Ste. 302
Arlington, VA 22201
(703) 247-4212
www.accsc.org

A copy of the Commission's Complaint Form is available at the school and may be obtained by contacting Patti Gallagher, Financial Aid Director.

STUDENT RECORDS

Student records will be maintained at the school site for five years from the last date of attendance. Transcripts are maintained permanently.

STUDENT RIGHTS OF PRIVACY

The Federal Educational Rights to Privacy Act enables students to; 1) review/inspect their educational records; 2) seek to have educational records amended, and; 3) control the disclosure of information from the records. Student records are confidential and only such agencies or individuals authorized by law are allowed access without written permission of the student. State law requires the school to maintain these records for no less than a five (5) year period. Students may request a review of their records by writing to the Director of the School. All such reviews will be scheduled during regular school hours under appropriate supervision.

Student records may be disclosed to the following BTS staff for the educational interests stated:

- 1) Registrar monitoring student progress, maintaining records
- 2) Financial Aid determining eligibility, processing financial aid, maintaining records
- 3) Placement determining appropriate employment, assisting with placement
- 4) Ofc. Manager monitoring state, federal and accrediting agency compliance, student progress
- 5) Instructor verify test scores
- 6) Director quality control and compliance monitoring

ACADEMIC REVIEW PROCEDURES

1. Challenging the record for purposes of amending any of its contents must be requested in writing, stating fully the reason for the change, the specific record to be amended, and the requested action.
2. All requests will be reviewed by the Director. The Director may seek consultation with appropriate staff as well as with the student. A determination will be made as soon as possible and the student will be notified in writing.
3. The student may meet with the Director to review the conclusions.
4. Should further review be requested by the student, a neutral third-party with competence in the program will be asked to review the student's records and findings, and make a recommendation to the Director for final action.
5. Parental access to records is not permitted unless the student provides BTS with written authorization as stated in FERPA regulations. In this case, all items in numbers 3 and 4 shall apply to parents.

LIABILITY

Brownson Technical School is not responsible for any loss of or damage to personal property, or for personal injury which may occur while on the school grounds or on field trips. Any personal property left on the premises for longer than 30 days, will be considered abandoned, and will be disposed of at the student's expense.

STUDENT SERVICES

ADVISING

BTS provides tutoring and academic advising. All other counseling needs are directed to outside services.

Please see the Student Services Department for additional information.

HOUSING

Brownson Technical School does not assume responsibility for student housing, does not have dormitory facilities under its control, nor offers student housing assistance. According to rentals.com for Anaheim, CA rental properties start at approximately \$750 per month. Please see the Student Services Department for additional information.

TRANSPORTATION

It may be possible to arrange for transportation with other students if schedules are compatible. Ride sharing, freely agreed upon by students, is very much encouraged whenever possible. The school is located 100 yards from public transportation and one mile from a metro-rail station.

REFERENCE MATERIALS

The School maintains a library of reference books, magazines, and other pertinent publications. Reference materials are kept for use on the school premises, but can be checked out by special permission from the library staff. In these cases, all materials must be signed for by the student and returned the next school day unless otherwise arranged between the library staff and student. The computer lab is also available for research.

TOOLS AND EDUCATIONAL SUPPLIES

All books required for training are issued during the second week of class. Supplies are distributed as needed in each class/shop session. The optional tool kit is issued approximately 3 weeks after the class start date, provided all financial arrangements have been made. If a student is on probation prior to distribution of the tool kit, it will not be issued until the student has satisfied the terms of probation. Students are expected to bring these tools to the shop everyday. If a student did not purchase a tool kit from the school, they must bring their own tools. Shop grades will be lowered if the student fails to have the proper tools. A complete list of the required tools is available in the Admission's Department.

EMPLOYMENT ASSISTANCE

BTS maintains an active employment assistance program. Placement department staff assists with job leads and coordination of interviews between graduates and prospective employers. Additional services include resume preparation and interview preparation. Referrals are handled on an individual basis. Placement efforts usually begin within a month of the student's anticipated graduation date. The School does not guarantee employment.

CHILD CARE

BTS does not provide childcare accommodations. Childcare facilities are available locally. Please see the Student Services Department for additional information.

TUITION POLICIES

TUITION AND FEE POLICIES

Tuition varies for each program depending upon its length and the cost to provide the training. Specific charges for tuition, fees and supplies may be found on the course description pages for each individual course. Prospective students who wish to assess the appropriateness of program length, tuition and fees of Brownson Technical School courses relative to others in this industry may do so by obtaining a listing from ACCSC. Prospective students may call or write the ACCSC office (see page 13 for address and telephone number) to

review the member directory of all member ACCSC schools containing this information and assess for themselves the appropriateness of program length, tuition and fees. All financial arrangements are required to be made prior to the start of class. Students participating in the school's monthly payment plan are expected to make timely payments. Failure to make payments on time may result in termination.

FINANCIAL ASSISTANCE

Brownson Technical School offers students several options for payment of tuition. All students are encouraged to apply for financial assistance if unable to meet educational costs on their own. Brownson Technical School participates in several types of Title IV programs, most of which are based on financial need. Students seeking financial assistance must first complete the Free Application for Federal Student Aid, available in the financial aid office. The schools Financial Aid Office uses this form to determine students' eligibility and assist them in deciding what resources are best suited to their circumstances. Depending upon program length, student eligibility, and need, the amount of available Title IV funding varies. The following criteria are used in determining student eligibility:

- Financial need
- High school graduation or its equivalent or proof of enrollment in an eligible postsecondary program prior to July 1, 2012 and pass a nationally recognized ability to benefit test
- Satisfactory academic progress towards graduation
- Registration with selective service when 18 - 25 years old (if required by law)
- Valid SSN
- Status as-a U.S. citizen or eligible non citizen
- Enrollment in an eligible program with regular student status
- Signature on a statement that financial aid will be used for educational purposes
- Signature on a statement that student is not in default or owes a refund for previous federal student loan/grant

Federal Direct Stafford Loans (subsidized and unsubsidized) and Federal Direct PLUS Loans are also available to Title IV participants. Interested individuals should contact the Financial Aid Office for more details pertaining to loan eligibility and terms for repayment. Information is also available on the Department of Education's web site www.ed.gov/studentaid.

The following is a description of the financial aid programs available at Brownson Technical School. Additional information can be obtained through the Financial Aid Office.

FINANCIAL AID PROGRAMS

Federal PELL Grant: The Federal PELL grant program provides a foundation of assistance to which other forms of aid may be added. Unlike loans, grants do not have to be paid back.

Federal Supplemental Educational Opportunity Grant (FSEOG): FSEOG's are awarded to students with exceptional financial need with priority given to students who receive Federal Pell Grants. Grants are based on funds available and do not have to be repaid. Need is determined by the financial resources of the student and parents and the cost of attending school.

Federal Direct Stafford Loan (Subsidized): Federal Direct Subsidized Stafford Loans are loans for students. Interest is not charged while the student is in school at least half- time, during student's grace period or during

deferment periods. To receive a Direct Subsidized Loan, a student must have financial need.

Federal Direct Stafford Loan (Unsubsidized): Federal Direct Unsubsidized Stafford Loans are loans for students. Interest is charged during all periods, including while the student is in school and during grace and deferment periods.

Federal Direct PLUS Loans: Federal Direct PLUS loans are unsubsidized loans for parents to help pay for the cost of a dependant student's education. Interest is charged during all periods.

Applicants interested in enrolling at BTS may qualify for funding through other agencies such as WIB/WIOA, EDD, TRA/TAA, Vocational Rehab, and Veterans Administration. Lastly, BTS offers a private payment plan. Under this plan, students are usually required to make a down payment and then arrange a monthly payment plan. No interest will be charged for the loan, which must be paid in full prior to graduation. Delinquent accounts and fees, as described in the enrollment agreement, may be managed by a collection agency or third party.

REFUND POLICY

STUDENT'S RIGHT TO CANCEL

1. You have the right to cancel your program of instruction, without any penalty or obligations, through attendance at the first class session or the seventh calendar day after enrollment, whichever is later. After the end of the cancellation period, you also have the right to stop school at any time; and you have the right to receive a pro rata refund if you have completed 60 percent or less of the scheduled hours in the current payment period in your program through the last day of attendance.
2. Cancellation may occur when the student provides a written notice of cancellation at the following address: Brownson Technical School, 1110 Technology Circle - Suite D, Anaheim, CA 92805. This can be done by mail or by hand delivery.
3. The written notice of cancellation, if sent by mail, is effective when deposited in the mail properly addressed with proper postage.
4. The written notice of cancellation need not take any particular form and, however expressed, it is effective if it shows that the student no longer wishes to be bound by the Enrollment Agreement.
5. If the Enrollment Agreement is cancelled the school will refund the student any money he/she paid, less a registration or administration fee not to exceed \$250.00, and less any deduction for equipment not returned in good condition, within 45 days after the notice of cancellation is received.

WITHDRAWAL FROM THE PROGRAM

You may withdraw from the school at any time after the cancellation period (described above) and receive a pro rata refund if you have completed 60 percent or less of the scheduled hours in the current payment period in your program through the last day of attendance. The refund will be less a registration or administration fee not to exceed \$250.00, and less any deduction for equipment not returned in good condition, within 45 days of withdrawal. If the student has completed more than 60% of the period of attendance for which the student was charged, the tuition is considered earned and the student will receive no refund.

For the purpose of determining a refund under this section, a student shall be deemed to have withdrawn from a program of instruction when any of the following occurs:

- The student notifies the institution of the student's withdrawal or as of the date of the student's withdrawal, whichever is later.
- The institution terminates the student's enrollment for failure to maintain satisfactory progress; failure to abide by the rules and regulations of the institution; absences in excess of maximum set forth by the institution; and/or failure to meet financial obligations to the School.
- The student has failed to attend class for 15 consecutive days.
- Failure to return from a leave of absence.

For the purpose of determining the amount of the refund, the date of the student's withdrawal shall be deemed the last date of recorded attendance. The amount owed equals the hourly charge for the program (total institutional charges, minus non-refundable fees, divided by the number of hours in the program), multiplied by the number of hours scheduled to attend, prior to withdrawal. For the purpose of determining when the refund must be paid, the student shall be deemed to have withdrawn at the end of 15 consecutive days.

For programs beyond the current "payment period," if you withdraw prior to the next payment period, all charges collected for the next period will be refunded. If any portion of the tuition was paid from the proceeds of a loan or third party, the refund shall be sent to the lender, third party or, if appropriate, to the state or federal agency that guaranteed or reinsured the loan. Any amount of the refund in excess of the unpaid balance of the loan shall be first used to repay any student financial aid programs from which the student received benefits, in proportion to the amount of the benefits received, and any remaining amount shall be paid to the student.

If the student has received federal student financial aid funds, the student is entitled to a refund of moneys not paid from federal student financial aid program funds.

Effective 10/7/02, all financial aid (Title IV) recipients who withdraw and have completed 60% or less of the payment period for which they have been charged, are subject to the new federal refund regulations per 34 CFR 668, 682 & 685, published 11/1/99.

If a student obtains a loan to pay for the course of instruction, the student will have the responsibility to repay the full amount of the loan plus interest, less the amount of any refund, and that, if the student has received federal student aid funds, the student is entitled to a refund of the moneys not paid from federal student financial aid program funds. If the student is eligible for a loan guaranteed reinsured by the state or federal government and the student defaults on the loan, the federal or state government or the loan guarantee agency can take action against the student, including applying any income tax refund to which the person is entitled to reduce the balance owed on the loan; and the student may not be eligible for any other federal financial assistance for education at a different school or for government housing assistance until the loan is repaid.

FEDERAL REFUND REQUIREMENTS VS. STATE REFUND REQUIREMENTS

In addition to the federal refund requirements for Title IV recipients, the institution is required to calculate a 60% pro-rata refund for all students who withdraw, regardless of whether or not the student received Title IV funds, as per California regulations, section 94870 of the California Private Postsecondary Education Act of 2009. However, the federal formula for return of Title IV funds may result in a larger refund than the state refund policy, in which case, the institution and the student must return the sum that result in the larger of the two calculations to the appropriate Title IV program. Therefore, the student may, after Title IV funds are returned, owe a balance to the institution.

DATE OF DETERMINATION

The student's withdrawal date is the last date of attendance as determined by the institution from its attendance records. The withdrawal date for a student who does not return from an approved leave of absence is set retroactively to the last date of attendance, as determined by the institution's attendance records. The date of determination will be the date the school first becomes aware that the student will not continue. The school has 45 days from the date of determination to issue a refund.

NOTE: A student who is on an approved leave of absence retains in-school status for purposes of Title IV loans. However, the student should be aware that if he or she does not return from a leave of absence that some or all of the grace period of the loan could have been used up, as the withdrawal date is set retroactively.

RETURN OF TITLE IV FUNDS POLICY

Federal regulations state that the amount of a Title IV refund is based on the percentage of Title IV funds earned by the student at the time of withdrawal. In order to determine whether Title IV funds must be returned, the school must calculate the following:

1. To determine the percentage of the payment period completed, the number of days* attended in the payment period is divided by the total days* in the payment period. **Days=calendar days for purposes of this formula, and therefore include weekends and holidays. Only scheduled breaks of 5 days or more, and approved leave of absences are excluded.*
2. The net amount of Title IV funds disbursed, and that could have been disbursed for the payment period is multiplied by the percentage of the payment period completed. The result is the amount of earned Title IV aid.
3. The earned aid is subtracted from the aid that was actually disbursed to, or on behalf of the student.
4. The institution will return the lesser of the total earned aid or the unearned institutional charges for the payment period.
5. Unearned aid is allocated back to the Title IV programs in the following order as specified by law:
 1. Unsubsidized Federal Stafford Loan Program
 2. Subsidized Federal Stafford Loan Program
 3. Federal Perkins Loan Program
 4. Federal PLUS Program
 5. Federal Pell Grant Program
 6. Federal Seog Program
 7. Other assistance awarded under this title for which return of funds is required.

NOTE: After the institution has allocated the unearned aid, any amount owed by the student to a grant program is reduced by 50%. Unearned loan funds received by the student are paid back as per the terms of the borrower's promissory note.

After 60% of the payment period has passed the student has earned all aid.

STATE OF CALIFORNIA STUDENT TUITION RECOVERY FUND*

You must pay the state-imposed assessment for the Student Tuition Recovery Fund (STRF) if all of the following applies to you:

1. You are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition either by cash, guaranteed student loans, or personal loans, and
2. Your total charges are not paid by any third-party payer such as an employer, government program or other payer unless you have a separate agreement to repay the third party.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if either of the following applies:

1. You are not a California resident, or are not enrolled in a residency program, or
2. Your total charges are paid by a third party, such as an employer, government program or other payer, and you have no separate agreement to repay the third party.

The State of California created the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic losses suffered by students in educational programs who are California residents, or are enrolled in a residency program, attending certain schools regulated by the Bureau for Private Postsecondary Education.

You may be eligible for STRF if you are a California resident or are enrolled in a residency program, prepaid tuition, paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The school closed before the course of instruction was completed.
2. The school's failure to pay refunds or charges on behalf of a student to a third party for license fees or any other purpose, or to provide equipment or materials for which a charge was collected within 180 days before the closure of the school.
3. The school's failure to pay or reimburse loan proceeds under a federally guaranteed student loan program as required by law or to pay or reimburse proceeds received by the school prior to closure in excess of tuition and other cost.
4. There was a material failure to comply with the Act or this Division within 30 days before the school closed or, if the material failure began earlier than 30 days prior to closure, the period determined by the Bureau.
5. An inability after diligent efforts to prosecute, prove, and collect on a judgment against the institution for a violation of the Act.

- The state is not currently imposing the assessment fee

INSTRUCTOR QUALIFICATIONS

William Brown	Mr. Brown has over 35 years of experience in the fields of appliance repair and HVAC/R as a technician, owner, customer service representative and sales. 30 years experience as an instructor. Certified OSHA trainer, C-38 and C-20 contractors' license, EPA certified Universal.
Scott Oakley	Mr. Oakley has over 35 years of experience in the commercial and residential HVAC/R industry as a service technician and owner of an HVAC/R company installing, service, sales and HVAC design. C-20 and C-38 contractor's license, EPA certified Universal and HVAC Excellence Certified Master HVAC Educator.
Joe Keleman	Mr. Keleman has over 30 years of experience in the HVAC/R industry as a service engineer, building automation system representative, plant engineer and field service engineer and instructor. EPA certified Universal.
Randy Albright	Mr. Albright has over 18 years of experience in building maintenance, installation and repair of various food processing, oven, conveyor, packaging equipment, plumbing, water processing and electrical equipment. EPA certified Universal and HVAC Excellence Certified Master HVAC Educator.
Randy Righetti	Mr. Righetti has over 40 years of experience as a licensed contractor in the field of Heating and Air Conditioning, specialized ventilation, architectural and general metal fabrication. C-20 and C-43 contractor's license, EPA certified Universal and HVAC Excellence Certified Master HVAC Educator.
Ken Sato	Mr. Sato has over 16 years of experience in the HVAC/R industry as an instructor, proctor, Industrial Maintenance Technician, residential HVAC installation and repair. C-20 contractor's license, EPA certified Universal and HVAC Excellence Certified Master HVAC Educator.
Robert Kler	Mr. Kler has over 37 years of experience in the HVAC/R industry as an Operations Manager, Construction Superintendent, Service Technician and Instructor. C-20 contractor's license, EPA certified Universal and HVAC Excellence Certified Master HVAC Educator.
Scott Taylor	Mr. Taylor has over 10 years of experience in the HVAC/R industry as an installer for new home construction and commercial equipment, service technician and sales. EPA certified Universal.
Andrew Smith	Mr. Smith has over 16 years of experience in the HVAC/R industry as a service technician, installer, sales consultant and instructor. EPA certified Universal.
Shane Matucci	Mr. Matucci has over 40 years of experience in the HVAC/R industry as a service technician, parts sales and shipping and owner of an HVAC and appliance repair company. EPA certified Universal.
Gus Balbuena	Mr. Balbuena has over 25 years of experience in the HVAC/R industry as a service technician and building engineer for residential and commercial companies. EPA certified universal.

CLASS SCHEDULES-2019/2020

HVAC/R TECHNOLOGY-DAY 40 WEEKS & HVAC/R TECHNOLOGY -BLENDED 40 WEEKS		HVAC/R TECHNOLOGY-EVENING 88 WEEKS	
START DATE	END DATE	START DATE	END DATE
1/14/19	10/23/19	2/11/19	10/28/20
2/19/19	11/27/19	4/29/19	1/27/21
3/25/19	1/15/20	7/15/19	4/14/21
4/29/19	2/19/20	9/30/19	6/30/21
6/3/19	3/25/20	12/16/19	9/15/21
7/8/19	4/29/20		
8/12/19	6/3/20		
9/16/19	7/8/20		
10/21/19	8/12/20		
11/25/19	9/16/20		

EPA LECTURE/EXAM SCHEDULE - 2019

DAY		EVENING (2-3 nights per week)	
LECTURE	EXAM	LECTURE	EXAM
1/14/19-1/16/19	1/17/19	2/11/19-2/20/19	2/25/19
2/19/19-2/21/19	2/25/19	4/29/19-5/7/19	5/8/19
3/25/19-3/27/19	3/28/19	7/15/19-7/23/19	7/24/19
4/29/19-5/1/19	5/2/19	9/30/19-10/8/19	10/9/19
6/3/19-6/5/19	6/6/19	12/16/19-1/7/20	1/8/20
7/8/19-7/10/19	7/11/19		
8/12/19-8/14/19	8/15/19		
9/16/19-9/18/19	9/19/19		
10/21/19-10/23/19	10/24/19		
11/25/19-11/27/19	12/2/19		

Holiday/Break Schedule

Holidays and breaks observed by Brownson Technical School are as follows:

New Year's Day	Labor Day
Martin Luther King Jr. Day	Veterans Day
President's Day	Thanksgiving Day and Day After
Memorial Day	Christmas Day

Independence Day	Additional days between Christmas and New Year's
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HVAC/R Technology

Days: 1040 Hours, Monday through Thursday, 8:00am –2:30pm, 40 semester credit hours, 40 weeks

Nights 1040 Hours, Monday, Tuesday, Wednesday, 6:00pm – 10:00pm, 40 semester credit hours, 88 weeks
(DOT CODE: 637.261-026/ 827.261-010)

Students who satisfactorily complete this program will be able to diagnose, service, install and repair heating, ventilation, air conditioning equipment, as well as understand the reasons for buildings to gain or lose heat and to help mitigate the impact on energy usage, training also includes systems utilizing direct digital control (DDC). The overall scope of the training seeks to prepare graduates to understand the reasons why the HVAC/R equipment is needed inside structures and how to get the most performance from it, in an entry level position. This, in many ways is a different approach than has been traditionally done. It sees the building as a system and the HVAC/R equipment as a sub-system of that system. As California moves toward “net-zero” energy usage for new homes and businesses the focus is on bringing existing buildings up to energy efficiency standards. This effects homes, businesses and industrial settings of all kinds, including but not limited to hospitals, offices, food storage, ice making applications, and numerous highly technical applications. Work is year around and may require indoor as well as outdoor work.

Module Code	Module Title	Classroom Clock Hours	Lab Clock Hours	Total Clock Hours	Semester Credit Hours
201R	Basic Thermodynamics, Refrigeration, and Copper Works	65	65	130	5
202R	Electrical	65	65	130	5
203R	Customer Service, Major System components and basic HVAC/R competency review	65	65	130	5
301C	Residential and light Commercial Air Conditioning and Gas Heat	65	65	130	5
302C	Commercial Refrigeration	65	65	130	5
303C	Controls, Heat Pumps, Ice Machines and EPA	65	65	130	5
321DDC	Direct Digital Controls	65	65	130	5
311BP	Building Performance	65	65	130	5
Total:		520	520	1040	40

Program Cost

Tuition	\$15,600.00
Books/Supplies	\$250.00
Lab Fee	\$480.00
EPA Test.....	\$65.00
Osha Certification	50.00
Uniform Fee.....	\$100.00
Tools (optional)	<u>\$675.00</u>
Total Program Cost.....	\$17,220.00*

* Estimated charges for the period of attendance and the entire program.

Additional Fees, if applicable: Diploma Replacement Fee \$20.00, Return Check Fee \$25.00

Graduates may seek entry level employment in the fields of:

Air Conditioning Mechanic
Air Conditioning Technician
Maintenance Repair (Building)
Maintenance Repair Helper
Air Conditioning Installation/Service
Sales Representative

Textbook/Supplies

Modern Refrigeration and Air Conditioning -
Text book, lab manual and workbook bundle..... \$150.00
Fundamentals of HVAC Direct Digital Control \$60.00
Handouts.....\$40.00

Brownson Technical Schools' curriculum is presented in a lecture and lab format. A significant portion of the course length is dedicated to hands-on training. Written and practical exams contribute to the evaluation of each student's progress. Students can expect to devote approximately 6 1/2 hours per week for homework.

***Module (Course) Descriptions:**

- 201R **Basic Thermodynamics, Refrigeration, and Copper Works.** Covers the fundamentals of the refrigeration, cycle and operating components, the laws of thermodynamics, copper works (including brazing) & refrigeration tools, materials and usage, compression systems and compressors, refrigerant controls, electro-mechanical fundamentals, troubleshooting, charging by superheat and sub-cooling.
- 202R **Electrical.** Covers electrical motors – types and troubleshooting, electric circuits and controls, schematics, proper use of instrumentation. Includes work with actual circuits constructed in class as well as work performed on actual HVAC equipment.
- 203R **Major System Components, Residential AC System Installation, Service Fundamentals, and Customer Service.** This module covers repair, installation and troubleshooting of residential HVAC systems. Various types of ductless systems, which include mini-split systems and PTAC's will be discussed. Major emphasis of the shop work will include electrical troubleshooting, refrigeration system troubleshooting and component troubleshooting. Proper charging procedures will be extensively practiced. Students will be trained in customer service. Review of the competencies learned in the previous two modules will be reinforced.
- 301C **Residential & Light Commercial AC and Gas Heating Fundamentals**
This module covers forced air heating fundamentals and the operation, troubleshooting and repair air conditioning and gas fired heating systems. Absorption and evaporative cooling systems, and hydronic systems will also be included. Air movement and measurement will be extensively covered in relationship to proper HVAC Operation. Class will diagnose and troubleshoot air related problems, based on correctly taking and interpreting measurements.
- 302C **Commercial Refrigeration Systems.**
This class covers commercial refrigeration components, function, operation, service and installation, heat loads and piping, reach in & walk in refrigeration and freezers. The student will learn about electrical components and symbols used in commercial refrigeration systems. The student will also study various ladder and schematic diagrams and work with hand tools to install or service basic mechanical components in various systems. The students will learn industry standards for temperature and pressure in refrigeration. They perform simple to complex electrical trouble shooting techniques using a digital meter and other electrical testing devices for refrigeration. Refrigeration system diagnostics and troubleshooting will also be covered.
- 303C **Controls, Heat Pumps, and Ice Machines, and EPA.** This class covers the function, operation, troubleshooting, and repair of heat pumps, supplemental electric heat, and light commercial air conditioning systems. Advanced brazing and copper works will be performed. This course covers EPA and 410A review and testing to obtain a Universal EPA Certification. Also covered is the design, troubleshooting, and repair of commercial ice making equipment.
- 321DDC **Direct Digital Controls.** Covers fundamentals, system design, installation, and troubleshooting, software & computer controls, energy management strategies, programming and commissioning.
- 311BP **Building Performance.** Covers the Whole Building concept to understanding the effects of external conditions to the heat distribution system known as the building or structure whose environment we are attempting to control. This course covers various building designs and insulations and their effect on the energy required to keep the structure comfortable inside. Hands-on application of various instruments such as “duct blasters,” “blower door testing,” “thermal imaging,” and other methods that are intended to inform the student of Title 24 (California) and ACCA standards that are essential to achieve energy efficiency. The module also includes work ethics and communication, a 10 hour OSHA safety training card and NATE core preparation and test.

*Classes are usually taken in this sequence; however, the school reserves the right to modify the sequence as needed

HVAC/R Technology – Blended Learning

Nights: 1040 Hours, Residential Lab Hours Monday, Tuesday, Wednesday, 5:40pm-10:00pm, 40 semester credit hours, 40 weeks
(DOT CODE: 637.261-026/827.261-010)

Students who satisfactorily complete this program will be able to diagnose, service, install and repair heating, ventilation, air conditioning equipment, as well as understand the reasons for buildings to gain or lose heat and to help mitigate the impact on energy usage, training also includes systems utilizing direct digital control (DDC). The overall scope of the training seeks to prepare graduates to understand the reasons why the HVAC/R equipment is needed inside structures and how to get the most performance from it, in an entry level position. This, in many ways is a different approach than has been traditionally done. It sees the building as a system and the HVAC/R equipment as a sub-system of that system. As California moves toward “net-zero” energy usage for new homes and businesses the focus is on bringing existing buildings up to energy efficiency standards. This effects homes, businesses and industrial settings of all kinds, including but not limited to hospitals, offices, food storage, ice making applications, and numerous highly technical applications. Work is year around and may require indoor as well as outdoor work.

The training methodology for this program consists of an online training program in lieu of a traditional classroom experience. Hands-on training at the school is an integral part of the curriculum making this a true “Blend” of online and hands-on training. A 50-50 ratio is felt to be most desirable though there could be some minor fluctuation depending upon how long an individual spends actually doing the online portion. A student needs to have adequate computer skills to benefit from this training as well as access to a computer hooked up to a high speed Internet connection. The school can help an interested candidate for training determine whether or not they possess the requisite skills for this. This program is attractive for those living great distances from the physical location of the school, as well as those that can only spend a limited time at the training facility. This program is not offered “online only”. It is only offered as part of the blended online/hands-on program.

Module Code	Module Title	Classroom Clock Hours	Lab Clock Hours	Total Clock Hours	Semester Credit Hours
201RB	Basic Thermodynamics, Refrigeration, and Copper Works	65	65	130	5
202RB	Electrical	65	65	130	5
203RB	EPA, Safety, Customer Service, and basic HVAC/R Competency Review	63	67	130	5
301CB	Commercial Refrigeration	65	65	130	5
302CB	Residential and light Commercial Air Conditioning and Gas Heat	65	65	130	5
303CB	Controls, Heat Pumps, and Ice Machines	65	65	130	5
321DDCB	Direct Digital Controls	65	65	130	5
311BPB	Building Performance	65	65	130	5
Total:		518	522	1040	40

Program Cost

Tuition	\$15,600.00
Books/Supplies	\$250.00
Lab Fee	\$480.00
EPA Test.....	\$65.00
OSHA Certification	50.00
Uniform Fee.....	\$100.00
Tools (optional)	<u>\$675.00</u>
Total Program Cost.....	\$17,220.00*

* Estimated charges for the period of attendance and the entire program.

Additional Fees, if applicable: Diploma Replacement Fee \$20.00, Return Check Fee \$25.00

Graduates may seek entry level employment in the fields of:

Air Conditioning Mechanic

Air Conditioning Technician

Maintenance Repair (Building)

Maintenance Repair Helper

Air Conditioning Installation/Service

Sales Representative

Textbook/Supplies

Modern Refrigeration and Air Conditioning -

Text book, lab manual and workbook bundle..... \$150.00

Fundamentals of HVAC Direct Digital Control \$60.00

Handouts..... \$40.00

Brownson Technical Schools' curriculum is presented in a lecture and lab format. A significant portion of the course length is dedicated to hands-on training. Written and practical exams contribute to the evaluation of each student's progress.

***Module (Course) Descriptions:**

- 201RB **Basic Thermodynamics, Refrigeration, and Copper Works.** Covers the fundamentals of the refrigeration, cycle and operating components, the laws of thermodynamics, copper works (including brazing) & refrigeration tools, materials and usage, compression systems and compressors, refrigerant controls, electro-mechanical fundamentals, troubleshooting, charging by superheat and sub-cooling.
- 202RB **Electrical.** Covers electrical motors – types and troubleshooting, electric circuits and controls, schematics, proper use of instrumentation. Includes work with actual circuits constructed in class as well as work performed on actual HVAC equipment.
- 203RB **Safety, Customer Service, and basic HVAC/R Competency Review.** Covers HVAC safety and leads to an OSHA 10 hour HVAC safety training card. In addition covers Customer Service training, as well as review of the competencies learned in the previous two modules. These competencies are then practiced in the shop/lab area with various home appliances such as home refrigerators and window Air Conditioning. Major emphasis of the shop work is on electrical troubleshooting, the refrigeration system components, and proper charging procedures. Includes Section 608 EPA and 410A review and testing.
- 301CB **Commercial Systems.** This course covers commercial refrigeration components, function, operation, service and installation, heat loads and piping, reach in & walk in refrigeration and freezers.
- 302CB **Residential and light Commercial Air Conditioning and Gas Heat Fundamentals.** Covers the function, operation, troubleshooting, and repair of residential and light commercial air conditioning gas heating & Air Conditioning systems.
- 303CB **Controls, Heat Pumps, and Ice Machines.** Covers heat pumps, electric heat, and air conditioning systems – function & operation, components, heat load calculations, trouble shooting. Includes intro to Air Distribution. Also covers design, troubleshooting, and repair of ice making equipment.
- 321DDCB **Direct Digital Controls.** Covers fundamentals, system design, installation, and troubleshooting, software & computer controls, energy management strategies, programming and commissioning.
- 311BPB **Building Performance.** Covers the Whole Building concept to understanding the effect of external conditions to the heat distribution system known as the building or structure whose environment we are attempting to control. This course covers various building designs and insulations and their effect on the energy required to keep the structure comfortable inside. Hands-on application of various instruments such as “duct blasters,” “blower door testing,” “thermal imaging,” and other methods that are intended to inform the student of Title 24 (California) and ACCA standards that are essential to achieve energy efficiency. Work ethics and communication and Nate core preparation and testing.

*Classes are usually taken in this sequence; however, the school reserves the right to modify the sequence as needed

Master Commercial/Domestic Refrigeration and Air Conditioning Technician

Days: 910 Hours, Monday through Thursday, 8:00am –2:30pm, 35 semester credit hours, 35 weeks

Nights 910 Hours, Monday, Tuesday, Wednesday, 6:00pm – 10:00pm, 35 semester credit hours, 77 weeks
(DOT CODE: 637.261-026/ 827.261-010)

Students who satisfactorily complete this program will be able to diagnose, service, install and repair heating, ventilation, air conditioning equipment, as well as understand the reasons for buildings to gain or lose heat and to help mitigate the impact on energy usage. The overall scope of the training seeks to prepare graduates to understand the reasons why the HVAC/R equipment is needed inside structures and how to get the most performance from it, in an entry level position. This, in many ways is a different approach than has been traditionally done. It sees the building as a system and the HVAC/R equipment as a sub-system of that system. As California moves toward “net-zero” energy usage for new homes and businesses the focus is on bringing existing buildings up to energy efficiency standards. This effects homes, businesses and industrial settings of all kinds, including but not limited to hospitals, offices, food storage, ice making applications, and numerous highly technical applications. Work is year around and may require indoor as well as outdoor work.

Module Code	Module Title	Classroom Clock Hours	Lab Clock Hours	Total Clock Hours	Semester Credit Hours
201R	Basic Thermodynamics, Refrigeration, and Copper Works	65	65	130	5
202R	Electrical	65	65	130	5
203R	Customer Service, Major System components and basic HVAC/R competency review	65	65	130	5
301C	Residential and light Commercial Air Conditioning and Gas Heat	65	65	130	5
302C	Commercial Refrigeration	65	65	130	5
303C	Controls, Heat Pumps, Ice Machines and EPA	65	65	130	5
311BP	Building Performance	65	65	130	5
Total:		455	455	910	35

Program Cost

Tuition	\$13,650.00
Books/Supplies	\$185.00
Lab Fee	\$420.00
EPA Test.....	\$65.00
Osha Certification	50.00
Uniform Fee.....	\$100.00
Tools (optional)	\$675.00
Total Program Cost.....	\$15,145.00*

* Estimated charges for the period of attendance and the entire program.

Additional Fees, if applicable: Diploma Replacement Fee \$20.00, Return Check Fee \$25.00

Graduates may seek entry level employment in the fields of:

Air Conditioning Mechanic
Air Conditioning Technician
Maintenance Repair (Building)
Maintenance Repair Helper
Air Conditioning Installation/Service
Sales Representative

Textbook/Supplies

Modern Refrigeration and Air Conditioning -
Text book, lab manual and workbook bundle..... \$150.00
Handouts.....\$35.00

Brownson Technical Schools’ curriculum is presented in a lecture and lab format. A significant portion of the course length is dedicated to hands-on training. Written and practical exams contribute to the evaluation of each student's progress. Students can expect to devote approximately 6 1/2 hours per week for homework.

***Module (Course) Descriptions:**

- 201R **Basic Thermodynamics, Refrigeration, and Copper Works.** Covers the fundamentals of the refrigeration, cycle and operating components, the laws of thermodynamics, copper works (including brazing) & refrigeration tools, materials and usage, compression systems and compressors, refrigerant controls, electro-mechanical fundamentals, troubleshooting, charging by superheat and sub-cooling.
- 202R **Electrical.** Covers electrical motors – types and troubleshooting, electric circuits and controls, schematics, proper use of instrumentation. Includes work with actual circuits constructed in class as well as work performed on actual HVAC equipment.
- 203R **Major System Components, Residential AC System Installation, Service Fundamentals, and Customer Service.** This module covers repair, installation and troubleshooting of residential HVAC systems. Various types of ductless systems, which include mini-split systems and PTAC’s will be discussed. Major emphasis of the shop work will include electrical troubleshooting, refrigeration system troubleshooting and component troubleshooting. Proper charging procedures will be extensively practiced. Students will be trained in customer service. Review of the competencies learned in the previous two modules will be reinforced.
- 301C **Residential & Light Commercial AC and Gas Heating Fundamentals**
This module covers forced air heating fundamentals and the operation, troubleshooting and repair air conditioning and gas fired heating systems. Absorption and evaporative cooling systems, and hydronic systems will also be included. Air movement and measurement will be extensively covered in relationship to proper HVAC Operation. Class will diagnose and troubleshoot air related problems, based on correctly taking and interpreting measurements.
- 302C **Commercial Refrigeration Systems.**
This class covers commercial refrigeration components, function, operation, service and installation, heat loads and piping, reach in & walk in refrigeration and freezers. The student will learn about electrical components and symbols used in commercial refrigeration systems. The student will also study various ladder and schematic diagrams and work with hand tools to install or service basic mechanical components in various systems. The students will learn industry standards for temperature and pressure in refrigeration. They perform simple to complex electrical trouble shooting techniques using a digital meter and other electrical testing devices for refrigeration. Refrigeration system diagnostics and troubleshooting will also be covered.
- 303C **Controls, Heat Pumps, and Ice Machines, and EPA.** This class covers the function, operation, troubleshooting, and repair of heat pumps, supplemental electric heat, and light commercial air conditioning systems. Advanced brazing and copper works will be performed. This course covers EPA and 410A review and testing to obtain a Universal EPA Certification. Also covered is the design, troubleshooting, and repair of commercial ice making equipment.
- 311BP **Building Performance.** Covers the Whole Building concept to understanding the effects of external conditions to the heat distribution system known as the building or structure whose environment we are attempting to control. This course covers various building designs and insulations and their effect on the energy required to keep the structure comfortable inside. Hands-on application of various instruments such as “duct blasters,” “blower door testing,” “thermal imaging,” and other methods that are intended to inform the student of Title 24 (California) and ACCA standards that are essential to achieve energy efficiency. The module also includes work ethics and communication, a 10 hour OSHA safety training card and NATE core preparation and test.

*Classes are usually taken in this sequence; however, the school reserves the right to modify the sequence as needed

LICENSURE

CALIFORNIA CONTRACTOR LICENSE

Brownson Technical School offers programs/courses in Heating, Ventilating, Air-Conditioning, and Refrigeration that prepare students/graduates for entry-level employment as an employee who is paid wages by a licensed contractor. **As an employee a student/graduate is not required to be licensed** to work in the State of California. Brownson Technical School does not and cannot promise or guarantee either employment or level of income or wage rate to any student or graduate. One must work for a Contractor or other legal entity long enough to qualify for Licensure. This is typically for a minimum of four years as a Journeyman prior to application.

Should a student/graduate wish to become a licensed contractor there are several requirements/items that may be required or considered, if applicable, based on years of experience in the field, having a “qualifying individual” attest to experience, an examination, business ownership, project fees, etc.

To obtain the details on a contractor’s license please visit the following site:

**Department of Consumer Affairs
Contractors State License Board**

<http://www.cslb.ca.gov/Applicants/ContractorsLicense/ExamApplication/BeforeApplyingForLicense.asp>

License Exemption: An employee who is paid wages is exempt from having to obtain a State of California Contractor’s license.

Are there any financial requirements to meet in order to qualify for a contractor’s license?

Yes. All applicants for a new contractor’s license, other than those applying for a joint venture license, must have more than \$2,500 worth of operating capital. Operating capital is defined as your current assets minus your current liabilities.

Will a conviction for a criminal offense prevent a person from being licensed as a contractor or from serving as a qualifying individual?

The CSLB's applications and other forms include questions regarding criminal convictions. The CSLB may deny a license if the crime is substantially related to the duties, functions and qualifications of a contractor. Failure to disclose the requested information may, in and of itself, be grounds for denial of a license.

Even if a crime is found to be substantially related to the duties, functions and qualifications of a contractor, an individual may be licensed if he or she has demonstrated sufficient rehabilitation. See Rule 869 in Chapter 13 of the California Contractors License Law & Reference Book.

In 2005, the Legislature mandated that all applicants for licenses and home improvement salesperson registrations would be required to submit fingerprints with each application. All new applicants for licensure, including each officer, partner, owner and responsible managing employee; and all home improvement salespersons will have to submit fingerprints.

Fingerprints are not required for:

- Individuals who are currently licensed by the CSLB, as long as they do not apply for any changes to their licenses; and
- Applicants for joint venture licenses.



Current Brownson Technical School Tool Set

Brownson Technical School HVAC Kit, 2.1.11

<u>Mfr.</u>	<u>Model # Description</u>
MVL	CB-1118 CLC 1163 w/ Brownson school Logo embroidered on the tool tote
Blackhawk	1323ANB 23 Pc. 1/4" & 3/8" Socket Set
PT	W1061 - 11pc. SAE Combo Wrench Set
Klein	32477 - 10 - in - 1 Klein Screwdriver
Channellock	337 - 7 1/2 " Diagonal Pliers
Channellock	317 - 7" Long Nose Pliers
Channellock	526 - 6" Slip Joint Pliers
Channellock	420 - 9 1/2" Arc Joint Pliers
Stanley	87-367 - 6" Adjustable Wrench
Stanley	87-369 - 8" Adjustable Wrench
GreatNeck	511C - Cold Chisel, 5/8"
Stanley	54-012 - Ball Peen Hammer, 12oz.
GreatNeck	HCT16X - 6" Slim Tapered File
GreatNeck	125PC - 1.5" Putty Knife
Channellock	908 - Wire Strippers
JB	T20275 Flaring / Swaging Kit with Case
JB	T20128A Mini Tube Cutter
JB	T20274P Tube Cutter
Uniweld	QS8N5SMA Manifold Gauge Set with anti-blowback Hose, 404A-R22-410A
MALine	AF2200-M Valve Core Remover
UEI	T160 Pocket Thermometer, -40 + 160
Bramac	9061 Inspection Mirror
JB	T21127 Service Valve Wrench
AOSafety	11326 Safety Glasses
Sporlan	T/P Chart, Temperature & Pressure
Fieldpiece	SC640 Multimeter