

# **the Trade School**

SHASTA BUILDERS' EXCHANGE

## **2018 - 2019 Craft Training Catalog**



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## **Brief History**

The Shasta Builders' Exchange (SBE) is a member operated, non-profit corporation established in 1955 to serve the local construction industry of N. California. Being member driven, the SBE provides benefits and services to its members through information, education, community involvement, positive government relations and the promotion of ethical and professional practices in the construction industry.

Our membership is comprised of general contractors, sub contractors, manufacturers, suppliers, architects, engineers and many other businesses associated either directly or indirectly with construction. We provide a means of communication between all of these essential segments of the construction industry.

In 2017 the Board of Directors authorized the formation of a new corporation to serve as a nonprofit charitable foundation. Titled the Trade School at SBE and governed by a board of industry experts and educational experts.

The Trade School was created by the construction industry for the advancement of the existing workforce through continuous education, training, and safety programs and as a means to increase awareness of the career opportunities within the construction industry.

## **Organizational Configuration**

The Trade School Board

Jay Gibson, President

Mike Stuart

Lane Carlson

Joe Rodola

Charles Smith

Cynthia Stephens

John Jones

Trade School Administrative Staff and Faculty

Tracy Lokstadt, Trade School Director of Education

Stephen Baczowski, Faculty

Jordan Reed, Faculty

Christopher Harrington, Faculty

Richard Anderson, Faculty

Responsibility for the financial oversight and general direction of the Trade School Responsibility for policy, curriculum, and program development

relevant to the Trade School Craft Training program directly lies with the Director of Education (DE). The Director of Education reports directly to the Shasta Builders Exchange Executive Director (ED) and the ED reports directly to the Trade School Board.

The day-to-day administrative duties are charged to the Trade School Director of Education. Administrative responsibilities include those areas directly related to training and accreditations.

Training will be performed by NCCER Certified Instructors, and/or Performance Evaluators as appropriate. It is the responsibility of NCCER Certified Instructors, and/or Performance Evaluators to ensure that all training information will be forwarded to the Trade School Director of Education as required by policy.

It is the responsibility of the Trade School Director of Education to ensure that proper recordkeeping procedures are in place and adhered to concerning training results for the individual participants. In addition, the Trade School Director of Education will be responsible for appropriate certification and training of appropriate personnel.

## **California Authorized Electrical Training**

In partnership with the Shasta-Trinity ROP, the Trade School at the Shasta Builders' Exchange is recognized as a State of California authorized training provider (school #107) offering electrical courses in safety, tools, materials and handling, construction math, electrical theory, code requirements, conductors, conduit, raceways, panel boards and switchboards, lighting systems, over current devices, grounding systems, prints and specifications, motors, motor controllers and process controllers, generators and power supplies, transformers, personal development, testing, and fire alarm systems. Although jobsite management; security alarms; voice, data, TV, & signaling systems; lightning protection systems; and fiber optic systems are not covered under the state approved electrical training program they as well as others are offered in other journeyman upgrade training courses available at the Trade School.

## **NCCER Accredited Construction Training**

The National Center for Construction Education & Research (NCCER) is the source of Accreditation for these programs providing the Trade School with a nationally recognized standard for training (craft, management & safety). As the Sponsor

Representative for Trade School, the Director of Education will oversee the accreditation regulations & process. The Director of Education is recognized by the National Center for Construction Education & Research (NCCER) and is the official liaison between the Trade School and the NCCER for accreditation process issues.



Tracy Lokstadt

Director of Education

The Trade School at Shasta Builders' Exchange

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By written agreement with the NCCER, the Director of Education provides assurance that the Trade School will abide by the program conditions as described by the NCCER in their Guidelines for the Standardized Craft Training. Any entity wishing to operate as a training unit under the Trade School Accreditation must contact the Trade School Director of Education.

As a NCCER Accredited Construction Training Facility, the Trade School will serve as a sponsoring body for craft training for off-site training units as requested and approved. Approved training units will receive a letter of approval signed by the Director of Education. The policies and procedures explained in this document apply specifically to the Training Programs of and under the Trade School. As such, policies stated within this document can be understood to apply to any NCCER certifiable training conducted by authorized off-site training units that are sponsored to operate under the Trade School Accreditation.

All providers of training services under sponsorship with the Trade School will be expected to conduct those services under these policies and procedures.

Special conditions within an Trade School authorized training unit may warrant exceptions, variations or additions to Trade School policies. Exception to these policies may be requested in writing and submitted to the Trade School Director of Education. If approved, the exceptions apply only where specified in writing.

Program Goals:

For Trade School participants, the NCCER Accredited Construction Training has these goals:

- Provide a standardized training and

measurement system that will encourage both new entrants and established craft professionals to develop their skills and increase their competencies

- Provide participants with an official, verifiable record of achievements and capabilities in a specified set of craft skills and knowledge

Program Benefits:

For the construction workforce, Trade School's participation in the NCCER Accredited Construction Training will:

- Provide the opportunity to participate in training that will develop or improve their craft knowledge and skills
- Allow experienced construction students to earn Craft Training program credits through test-out without attending formal training classes
- Provide a means for craft participants to document their proven skill capabilities through training in transcript form with the NCCER National Registry

Facilities:

The Trade School consists of one standard size classroom, and a 2,216 square foot shop. Both the shop and our classroom have mobile white boards. The main classroom has television screen for viewing. The shop has movable projector and screen. All training rooms have media carts that include laptops, internet access, and projectors. An adequate supply of materials, tools and equipment needed to support the class size and instructional content is available with over \$300,000 in tools and equipment stocked in the shop.

The physical facilities are well maintained and organized to have capacity for teaching / learning activities such as lectures, discussions, laboratory work and testing. The nature of craft training imposes a need for special types of space and equipment to provide for realistic construction methods and procedures. It's important that the facilities be arranged to encourage participant and instructor interaction as warranted. The physical facilities must meet all regulatory and the Trade School safety and health requirements. It is the responsibility of the instructor to ensure that the tools and materials are picked up, and the classroom/lab area is clean for other classes that follow.

Appropriate instructional support services and resources will be available to the instructors for use in class/lab with their students. Instructors must allow a reasonable amount of time for material, equipment, tool, teaching aides, supplies and copy requests – a minimum of 2 weeks is suggested. Any questions concerning the above should be submitted to the Trade School Director of Education.

#### Policy And Procedure Changes:

The policies and procedures for administering these programs are subject to change by the Trade School or by the NCCER. When the NCCER initiates changes, they will communicate them to the Director of Education who is responsible for ensuring that all policy or procedural alterations are communicated and followed by the Trade School. The Trade School operates from a “continuous improvement” perspective and may initiate changes, within NCCER guidelines, that promote a high-quality learning environment.

Prior to policies amendments, the Director of Education will supply such changes to the Trade School faculty for review and comment. Any policy changes shall be in writing and amended into this document by the Trade School Director of Education.

#### Open Access Policy:

The policy of this institute is that, unless specifically exempted by statute or regulation, every course, course section, or class shall be fully open to enrollment and participation by any person who has been admitted to the institute and who meets such prerequisites as may be established pursuant to regulations.

#### ADA, EEO, Harassment Policies:

The Shasta Builders’ Exchange Training Center does not tolerate any form of employee or student harassment, either verbal or physical, based on race, color, religion, gender, sexual orientation, national origin, age, physical handicap, medical condition, or marital status. Trade School’s policies covering these issues apply to all individuals employed by Trade School or participating in its training programs. Trade School is committed to full compliance with applicable federal, state and local laws. Harassment of any kind by any instructor, student, Trade School employee, contractor or supplier is improper and will not be tolerated. All participants of Trade School training programs are provided with a copy of these policies.

#### Sexual Harassment:

Trade School strives to provide a learning environment free of sexual harassment. Harassment on the basis of sex is a violation of Section 703 of Title VII of The Civil Rights Act of 1964. It is a policy of Trade School that sexual harassment of employees or students is regarded as unprofessional and improper conduct. Sexual harassment is defined as unwelcome sexual advances, request for sexual

favours, and other verbal or physical conduct of a sexual or otherwise offensive nature. Conduct of this nature is improper whether:

- Submission to the conduct is either an explicit or implicit term or condition of employment or student status;
- Submission to or rejection of the conduct is used as a basis of employment or student standing;
- The conduct has the effect of substantially interfering with an individual’s work or academic performance; or
- The sexually suggestive conduct or language has the effect of causing an uncomfortable learning or working conditions.

All employees and students of Trade School are expected to avoid any behavior or conduct toward any other employee or student that could be interpreted as sexual harassment.

#### Reporting Harassment:

Students who believe they have been the victim of sexual or other harassment should immediately report the matter to the Trade School Director of Education. Any faculty member or administrator who has received a complaint from an employee or student alleging harassment should immediately notify the Trade School Director of Education. Similarly, any administrator, faculty member, or supervisor who becomes aware of a situation involving potential harassment of an employee or student should contact the Trade School Director of Education. All complaints of harassment will be investigated promptly and will be kept confidential. Appropriate disciplinary action up to and including termination from academic study or employment will be taken against any employee or student found to have engaged in harassment.

#### Drugs And Alcohol Policy:

The unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in all locations on the property of, or as part of any of the activities of Trade School. We recognize the dangers of drug and alcohol abuse in the workplace and it is our official policy to make our facility free of drug and alcohol abuse.

The Trade School strives to ensure a safe learning environment. In this effort, the Trade School requires that the test results of a basic 7-panel workplace drug screen be provided by interested participants prior to the start of classes. Eligibility for participation in the Trade School training

programs will be determined on a case by case basis. Participants may be allowed to take part in only non-safety sensitive training for a probationary period of one month.

Any employee or participant, who is using prescription or over-the-counter drugs that may impair their ability to safely perform in the Trade School training programs, or affect the safety or well-being of others, must notify the instructor and/or the Trade School Director of Education of such use before taking part in any safety sensitive activities.

Post-accident drug testing is mandatory. Drug testing will also be utilized in cases of reasonable suspicion as it pertains to safety sensitive program activities that concern the health of the individual as well as others on the Trade School premises. To ensure continued safety, the Trade School reserves the right to random drug test any and all participants of the Trade School craft training program. The right to random drug test will be exercised and may include up to 20% of the student population.

All students are subject to unannounced random Alcohol and Controlled Substance Testing. The individuals are randomly selected through a computer generated program by social security number. North State Drug Testing Consortium will test up to twenty percent (20%) of the Trade School Craft Training student body for controlled substances. These random percentages can be adjusted if it is deemed necessary. For definition pertaining to the Trade School Drug Testing policies please refer to Attachment A.

As a condition of admission or employment by Trade School, students and employees agree to abide by the terms of this policy. The Trade School will take appropriate action consistent with local, state and federal law against a student or employee who violates the standards of conduct contained herein, up to and including termination from academic study or employment, and referral for prosecution for violations of the standards of conduct described above.

#### Safety Policy:

Trade School is firmly committed to operating all of its facilities and projects in a safe, efficient manner and in compliance with all applicable safety, health and environmental regulations. Our goal is to provide an injury free learning environment where facilities and projects are free of recognized hazards;

and people, equipment and the environment are not placed at unreasonable risk of injury or damage.

Students should immediately report health, safety hazards or injuries to their instructor. All instructors are required to have on hand student's emergency information. Instructors will be provided an information form to be completed by their students at the first class. Any accident or injury, no matter how slight, must also be reported immediately. Any injury that occurs at the Trade School facility must be documented by the instructor and submitted to the Director of Education.

#### Employment:

Employment in the student's respective field of study is vital to obtaining a successful journey-level career in the construction industry. Recognizing the importance of on-the-job experience, employment assistance is available to currently enrolled students of the craft training program.

The Trade School, while it does not guarantee employment, makes every effort to help students get into the field. Students are encouraged to pursue employment in their trade of choice on their own behalf. Students are expected to notify the Trade School of employment that they may obtain whether through a referral from the Trade School or through their own efforts.

At the beginning of each semester the Trade School Director of Education will survey the students of all classes to monitor employment history and advancement for future statistical and/or reporting purposes.

#### Ethical Code Of Conduct:

Students are expected to conduct themselves in an ethical, professional, and civil manner. One of our core values at the Trade School is the individual's responsibility to the classroom community. This entails not only being attentive and respectful in class, but also helping each other toward success. Classroom teamwork means "no one left behind": being proud that the whole class worked together to get everyone to the finish line.

Each student, while in attendance at the Trade School, assumes the responsibility of becoming familiar with and abiding by the general standards of conduct expected by the Trade School. The following actions are violations of the Code of Conduct:

1. Academic dishonesty of any kind with respect

to examinations or course work. This includes any form of cheating and plagiarism from the internet.

2. Falsification or alteration of the Trade School documents, records, or identification cards.
3. Using the computer password of another or in any way accessing computer files other than one's own.
4. Forgery, issuing bad checks, or not paying financial obligations to the Trade School.
5. Theft or the deliberate damaging or misusing of property belonging to others or the property of the Trade School.
6. The manufacture, possession, use, or distribution of any form of alcoholic beverages or illegal drugs while on the Trade School property.
7. Possession, display, or use of any dangerous instrument, weapon, or explosives.
8. Deliberate interference with academic freedom, or freedom of speech.
9. Participation in any activity that disrupts or interferes with the education of others or the orderly operation of the Trade School.
10. Discrimination towards any individual or group, verbal or nonverbal.

#### The Student:

- 1) Will abide by all local, state and federal laws.
- 2) Will abide by all Trade School policies.
- 3) Will maintain safe practices.
- 4) Will assist other students with clean-up of lab, classroom and other areas used for instruction.
- 5) Will abide by all conditions of Trade School warning, probation or suspensions.

### **Administrative Policy & Procedure**

Training itself may consist of formal classroom setting, hands-on lab, computer-based learning, distance learning, self-study or any combination of delivery methods. In all cases a certified instructor as approved or designated by the Trade School Director of Education will be responsible for the training and documented results.

#### Admissions:

One is not guaranteed admission by meeting the minimum requirements. There are often more applicants than available seats in a given program. Program seats will be awarded on a 1st come, 1st serve basis only to those who have submitted ALL of the required admissions paperwork including the minimum tuition down payment. Until an applicant has submitted all of the required documents and paid the tuition either in full or agreed to the Trade

School payment plan terms, the applicant will not be considered for a seat in the program. Upon processing applicant's admission paperwork if it is determined that there is no seat currently available the applicant's tuition payment will be promptly returned.

#### Admission Requirements:

Applicants should apply to the Trade School as soon as possible in order to officially be accepted for a specific program and its relevant starting date. Completed enrollment applications (including all required documentation) should be received at least 1 week prior to the start of class. To begin the application process, the applicant should write, phone, visit <http://www.shastabe.com/trade-school-training/> or the Trade School office to obtain an application.

In order to become enrolled at Trade School, an applicant must:

1. Provide proof of high school graduation, its equivalent, proof of current enrollment for HS diploma or its equivalent, or completion certificate from a post-secondary institution
2. Pass a drug test (at own cost)
3. Pay tuition or pay a down payment and sign payment plan agreement. See Enrollment Fees
4. Sign Enrollment Contract
5. Sign NCCER Release & Registration
6. Sign Substance Abuse Consent Form
7. Sign Student Conduct Agreement
8. Sign Enrollment Status Release
9. Sign for Catalog Receipt
10. Be physically able to safely perform job duties
11. Provide transcripts of all previous Trade School/NCCER work (if applicable)
12. Sign Electrical Trainee Registration Form (Electrical Only)

Enrollment by students is required for each semester. Active students who have successfully complete the previous semester are not required to complete the full application packet to re-enroll for their subsequent semester.

To re-enroll they are required to submit the following:

1. Signed Enrollment Contract
2. Signed Payment Plan Agreement (if applicable)
3. Minimum down payment of tuition.

#### Admission Process:

A student may choose to walk into the Trade School and complete the enrollment packet during normally



scheduled business hours or by appointment. Office hours are Monday through Friday from 8am to 5pm except on holidays. Although applications may be given to Trade School staff, only the Director of Education has the authority to officially enroll a new student into the program so appointments are recommended.

First time students and students who are returning after having been exited from the program for more than a semester are required to apply using the full admissions application and process. Returning students who have successfully completed the previous semester are only required to complete a new enrollment agreement and payment plan agreement (if applicable).

Once the application has been completed and the initial down payment has been tendered the Director of Education will supply the applicant with a referral for a drug screen, their course schedule and text ordering information. If a student is applying for the electrical program they will also receive the CA Electrical Trainee registration paperwork and instructions.

Once the student has taken and passed the drug screen and supplied any additional required documents such as proof of education to their completed application they will be assigned a seat in the class. All enrollments are on a 1st come 1st serve basis and enrollment will continue to be taken until the class is full.

**Enrollment Fee:**

Current cost to enroll in any of the craft training programs per semester is \$600 for tuition, \$25 registration fee, and \$30 lab fee for a total of \$655. The Trade School offers enrollment assistance through its payment plan program as well as scholarship opportunities for returning students who qualify.

**Payment Plan:**

Students must pay a minimum down payment of \$235.00 to enroll. The remaining balance of \$420 must be paid in 3 monthly installments of \$140 due, by the third Friday of each month following the beginning of the semester no later than 5:00 P.M.

Students are allowed a one-week grace period to make their payment as agreed. Students making payments later than the allowed grace period will be charged a \$15 late fee that will be automatically added to their account balance owed. Account

balances, including all charges, must be promptly paid and brought current.

Students having a past-due balance will not receive a final grade report nor be able to enroll in any courses with the Trade School until the balance that is due has been repaid. Students who have opted to utilize the Trade School payment plan option are financially responsible for the agreed tuition regardless of the reason they are no longer in the program. If a student either withdraws or is removed from the Trade School program they must pay their remaining account balance in full before they may re-enroll into the program. Accounts that have a past balance due over 90 days old will be sent to collections.

**Refund Policy:**

Refunds of enrollment fees paid are available as indicated below. Students exiting the craft training program for any reason later than the sixth week will not receive any refund. *An official written and dated request for withdrawal from the program will be required for any refunds.* Based on either the administrative drop date or the date that the student withdrawal notice is received by the Trade School office, the refund will be as follows:

**Cancellations / Refund Policy**

Withdraw prior to or no show **\$130 Non-Refundable**  
 1st Week **\$166 Non-Refundable**

*Weeks 2 - 6 are pro-rated as indicated below:*

<b># of Wks Attended</b>	<b>= % of Program Attended</b>	<b>x Tuition Paid</b>	<b>+ 10% of remaining tuition paid</b>	<b>+ \$100 Administration Fee = Non-Refundable Tuition Paid</b>
<b># of Wks Scheduled</b>				
2nd Week	0.125	\$81.88	\$139.19	<b>\$239.19</b>
3rd Week	0.1875	\$122.81	\$176.03	<b>\$276.03</b>
4th Week	0.25	\$163.75	\$212.88	<b>\$312.88</b>
5th Week	0.3125	\$204.69	\$249.72	<b>\$349.72</b>
6th Week	0.375	\$245.63	\$286.56	<b>\$386.56</b>
7th - 16th Weeks			<b>\$655 Non-Refundable</b>	

Refund checks are issued only twice a month and will be mailed to the address indicated on the withdrawal notice.

### Course Challenges:

Those individuals who have gained knowledge and/or experience prior to entering the Trade School training program may request to “test out” of the course(s) by passing all of the required written and performance examinations. One request/attempt will be allowed for each student and failure to pass any of the components will require that individual to attend the required standard instruction.

Written request to “test out” must be submitted to the Director of Education a minimum of three weeks prior to the start of class along with a complete enrollment application. Requests must be accompanied with previous work or relevant training documentation. Without previous formal training, students will be required to provide written documentation of a minimum of 1,040 hours of on the job training per semester of requested test out. For example, a request to “test out” of courses 1A and 1B would require 2,080 hours of 3rd party verifiable “in-field” experience. Upon receipt of the required test-out request documents and fee of \$100 the student will be scheduled to take the written exams of the course(s) being challenged. The student must take and pass all written exams with a 75% or better to successfully complete the first step of testing out. Upon successful completion of the written portion of the test-out the student will be scheduled to take the performance “hands-on” practical exams. All performance exams must be passed for the student to successfully challenge the course. If one written or performance test is not passed the attempt to test-out is considered to be unsuccessful and the student will be required to take the standard course of study.

“Testing out” will only be allowed for up to 50% of the total length of the training program. For example, in a 4-year program a student cannot “test out” for more than 2 years of that program. “Testing out” will not be permitted where training is required as the result of failing to make the cut score of an authorized skills assessment.

Test results will be entered into the participant’s record. Those results will be maintained by the Director of Education for a period of no less than 3 years from completion. All test results are entered by the Director of Education into the Trade School training database and NCCER national registry.

### Adv. Standing / Credit Transfer:

A request for credit for prior training or experience will be evaluated by the Director of Education.

Requests for credit must be submitted, in writing, no later than 3 weeks prior to the start of class. Applicable official NCCER transcripts and the previous NCCER Training facilities contact information must accompany the request to determine applicable training credit. A student must complete at least 50% of their training at Trade School in order to receive a certificate from the Trade School.

Trade School does not guarantee non NCCER credit transfer into the craft training program or out of the program to other schools. Transferability is always at the discretion of the receiving school. At the Trade School, the transfer of incoming credit obtained by means other than NCCER standardized training may be given only at the discretion of the Director of Education and is based on the verifiable documentation provided with the written request. All relevant and officially documented NCCER training completions will be honored by the Trade School as well as other NCCER accredited training facilities.

### Student Records:

All student records kept and maintained by the Trade School are the property of the Trade School. Student records will be kept a minimum of 5 years. Students may request, in writing, copies of their training records. Requests will be granted within reason at a rate of \$0.10 per page. No copies of exams will be allowed but may be reviewed by the student by appointment only with the Trade School Director of Education.

Progress reports for grade and/or attendance are available upon request by the individual student. To request that information the student should use the “Student Record Request” form to officially make that request and should allow a reasonable amount of time for the request to be processed. The Trade School staff will generate grade progress reports for entire classes as often as time will allow, typically twice a month. Final grade reports are generally available two weeks, sometimes sooner, after the conclusion of a class. Final grade reports will not be mailed out and should be picked up by the student.

### Release Of Training Records:

All trainees will be asked to sign an NCCER Registration & Release form authorizing the Trade School Director of Education to verify training information to and from NCCER. This release form will also authorize the NCCER to verify this

information to other NCCER Sponsors as appropriate and requested. Signature of this release form will hold harmless the National Center for Construction Education and Research as well as the Trade School at Shasta Builders' Exchange and its member companies for this verification process.

Outside of NCCER communications for training recognition, the Trade School will not provide training records or information of any student who participated in the Trade School training programs without prior written request and consent from the student. If you choose to designate an individual as authorized to access your training records please use the Privacy Release Form found in the Appendix.

#### Reporting:

Regularly, upon the successful completion of NCCER written and/or performance exams the Trade School Director of Education will ensure that the relevant information is recorded into the Trade School Training database and made available to the students through secure online access. At the conclusion of each semester the Director of Education will submit successful training completions into the NCCER National Registry.

Original NCCER transcripts and wallet cards are sent to the Director of Education, who in turn shall maintain copies in the student's record and forward the originals to the student. Students can anticipate receiving completion documentation after the conclusion of each semester.

#### Training Evaluation:

All training sponsored by the Trade School must include an evaluation method or testing process that will demonstrate successful completion of the training.

In the case of Trade School craft training this will consist of the following tests:

- A written module test with an achieved score of 70% or higher.
- Successful completion of the module performance (hands on) test. The instructor is to use the criteria provided by the NCCER in making his / her evaluation. This is a pass/fail evaluation and all individual tasks must be passed for the evaluation to be scored as passed.
- Annual comprehensive practical application (hands-on) evaluation may be implored at the discretion of the instructor to ensure that students are prepared to advance to the next

level of training. This is a pass/fail examination.

Successful completion of each semester is a prerequisite to the next. Trainees are evaluated for successful completion of a semester based on attendance, grades and payment of semester class fees. If any of these items have not been satisfactorily completed the student will not be allowed to advance to the next semester.

#### Program Evaluation:

It shall be the responsibility of the Trade School Faculty to meet at least once per year for the purpose of evaluating the program's effectiveness.

To assist with the evaluation process:

- Trade School instructors will be evaluated by the Trade School Director of Education or designee at least once each year
- Trainees will fill out evaluations of the training program at least once a year. As applicable, this evaluation will also include trainee evaluation of the instructor. A copy of this evaluation shall be retained for review with the instructor and another forwarded to the Trade School Training Panel for review during the annual program evaluation.
- Instructors will evaluate the program
- The Trade School Director of Education will evaluate the locally sponsored training facilities annually.

In cases where an authorized training facility is conducting training under the Trade School NCCER Accreditation, Trade School will retain the right to observe and evaluate its training sessions, those instructors, the site's administration, as well as the materials and facilities used. Sponsored participants will be required to complete an evaluation of the training provided. These evaluations will be used by the Trade School Director of Education to help determine the effectiveness and desirability of maintaining the training unit as an authorized training facility.

#### Appeal Process:

The student may submit a written appeal of his/her dismissal within five calendar days of their receipt of the dismissal notice. The appeal should be addressed to the Director of Education. The appeal must be accompanied by documentation of the mitigating circumstances that have prevented the student from attaining satisfactory academic progress. Only extraordinary circumstances will be considered, such as death or severe illness in the

immediate family.

The Director of Education will assess all appeals, and determine whether the student may be permitted to continue in school on a probationary status, despite not meeting the satisfactory progress requirements. The student will be sent the written decision within ten days of the Institute's receipt of the appeal. The decision of the Director of Education is final.

Students reinstated upon appeal are on probationary status for the next evaluation period, during which time they must meet the terms and conditions set out in the Director of Education's letter granting the appeal. At the end of the evaluation period, and at the end of every evaluation period thereafter, the student's academic status will be reviewed. The student may continue on probation as long as he or she meets the terms of the probation, until such time as satisfactory academic progress status is regained. The student reinstated after dismissal and appeal is not eligible for financial aid until he or she regains satisfactory progress status by meeting the minimum Satisfactory Academic Progress standards.

In the event a student/participant has an issue involving the Training Program, Facilities, Instructor, or Trade School policies, he/she should discuss the situation with their instructor at an appropriate time. If the problem cannot be resolved the participant should submit a written statement describing the issue to the Trade School Director of Education who will review the statement, research the issue and provide a decision within 15 working days. If satisfactory results are not obtained by the participant they can then submit the statement to the Trade School Executive Director for resolution. The Trade School Executive Director will review the statement and may confer with members of the Trade School Board and a final decision will be provided within 15 working days.

If the issue involves NCCER training and is still not resolved it may be submitted in writing to the NCCER within 60 days from written notice of the adverse decision. At that time, a copy of the letter to the NCCER must be given to Trade School. The NCCER must respond to the participant and the Trade School within 60 days of receipt of the appeal. The NCCER's decision is final with no further appeals possible.

The Trade School at Shasta Builders' Exchange  
5800 Airport Rd.  
Suite C  
Redding, CA 96002

NCCER  
13614 Progress Boulevard  
Alachua, FL 32615

## **Student Progress**

Minimum Attendance Standard:

With each semester being a pre-requisite to the next the SBE Training Center requires the following minimums for successful completion of each semester and subsequent graduation: a minimum cumulative of 40 class/lab hours and 36 online hours each semester. Please refer to the grading/scale section in this catalog for more details on minimum academic standards.

Students are required to coordinate the makeup of any exams and/or time missed. Written exams may be administered only by the instructor or the Trade School Director of Education. Performance (Hands-On) exams must be administered by the instructor. Students can only make up the equivalent time of one class session (5 hours) in any one semester and must contact the Director of Education to do so.

Satisfactory Academic Progress:

The institution's program is 648 clock hours (81 hours per semester). Satisfactory progress is evaluated twice a year, each at the end of a semester, throughout the duration of the program. The student is required to make quantitative progress toward program completion. To be making satisfactory academic progress, a student must attend at least 93% of the scheduled class hours on a cumulative basis during each evaluation period (semester).

The student's academic average is reviewed to determine qualitative progress. The minimum required is 75% at the conclusion of each evaluation period. It should be noted that in order for a student to receive national recognition for coursework completed each chapter's written exam and performance exam must be passed.

Incomplete grades are awarded to students who have successfully completed 78% or more of the required coursework but have either not achieved a

75% overall grade, have missed two classes or both. Students who receive an incomplete must satisfy their deficiencies and achieve course completion before advancing to their next course. Delaying the advancement into the next course may adversely impact a student's academic progress in terms of the maximum time frame.

Fail grades are awarded to students who have successfully completed less than 78% of their coursework, have missed more than two classes or both. These students will be required to repeat and successfully complete the full course before advancing to the next course. Course work repeated may adversely affect a student's academic progress in terms of the maximum time frame.

Students withdrawn from the program will receive a grade of 0% in each class interrupted by the withdrawal. All interrupted classes must be repeated upon readmission to the institution.

#### Academic Probation:

If a student fails to meet the 75% overall grade average for any evaluation period will be placed on probation for the next evaluation period. Failure to achieve a 75% overall grade average at the end of the probationary evaluation period will result in the administrative withdrawal of the student.

Students will be notified in writing when they are placed on probation and the steps necessary to be removed from probationary status. Students will also receive attendance or academic counseling, from the Director of Education, as appropriate, when they are placed on probation.

The institution will notify a student by certified mail if he or she is being administratively withdrawn for unsatisfactory academic progress.

#### Maximum Time Frame:

All program requirements must be completed within a maximum time frame of 1.5 times the normal program length, as measured in calendar time. The craft training program, 48 months in length, must be completed within 72 months. Time spent on an approved leave of absence is not counted against the maximum time frame. Students exceeding the maximum time frame will be administratively withdrawn.

#### Time Frame - Transfer / Re-Admitted Students:

Transfer students from outside the Trade School will be evaluated qualitatively only on the work

completed while at the Trade School. The maximum time frame of student progress is reduced for transfer students, based upon the remaining length of the program in which they enroll. If the student transfers in having completed some of the NCCER curriculum they will receive credit for all NCCER material previously completed, and therefore must only complete what the remaining coursework.

For example, if a student transfers in with two months of the first semester work complete they will begin mid-semester and only be required to take the class work that they have not yet completed. The maximum time frame that they have to complete the program would be adjusted as:  $48 \text{ months} - 2 \text{ months} = 46 \text{ months} \times 1.5 = 69 \text{ months}$  to complete the program.

#### Change Of Student Status:

Dismissal from participation in any training program is based on objective criteria. Some reasons for considering the dismissal of a participant include, but are not limited to, the following:

- A participant is repeatedly absent from scheduled class sessions. This is an indication that the participant is unable or unwilling to attend regularly. Please refer to the attendance policies.
- A participant demonstrates an unwillingness to study, learn, or participate in class activities.
- A participant's conduct violates the Trade School Training Program guidelines. Please see the Code of Conduct policy.

There may be other reasons that warrant consideration of dismissal. Determination to dismiss participants from training will be made by the Director of Education in accordance with the policies. Some circumstances may be straight forward with the participant in full agreement. Others may be controversial. The participant may disagree with the alleged reason(s) for dismissal. In all cases, the Director of Education will document their position and ensure that participants are clearly informed of the reason(s) for dismissing them from training.

The Director of Education will provide participants an "open door" to discuss dismissal from participation in the Training Program. If a student offers information that could potentially reverse the decision, the information will be accepted and given due consideration by the Director of Education. Any new information must be offered for consideration within 5 business days of the

decision to dismiss a participant. If the student does not receive satisfaction at this level, an appeal may be made following the appeal procedures listed in this catalog.

Upon withdrawal or dismissal from the Electrician Trainee program the Trade School will notify both the student's employer of record as well as the DIR of the State of California that the student is no longer an active student of the program.

#### Re-Admission Process:

Students who have withdrawn from the Trade School must re-apply for admission. These applicants must re-submit the enrollment documents required by the program to which they are re-applying, including enrollment fee.

A student whose application has been declined for reasons other than limited seating or students that have been removed from the program must wait 5 months before re-applying to the program. When re-applying, applicants must re-submit the enrollment documents required by the program to which they are re-applying, including enrollment fee. Re-enrollees that were removed from the Trade School program for policy violation(s) will not be considered eligible for the SBE Scholarship Program for a period of two semesters.

### **Attendance Policy**

As an institution, the Trade School at Shasta Builders' Exchange expects students to attend every class session. When you miss class, you not only fall behind on new material, but you miss the hands-on practical experience that is important in learning and developing your skills. Your future employer is looking for students with perfect or near-perfect attendance. In addition, in the state of California any un-certified electrical workers must be enrolled in a recognized training program that maintains a 90% attendance rate.

The Craft Training program consists of 45 class/lab hours and 36 online hours each semester. Students must acquire no less than 150 hours of related instruction each year (75 hours per semester). Any make-up hours required must be fulfilled before advancing to the next semester.

#### Tracking:

Attendance is tracked in every class period through the use of a sign-in sheet that is submitted to the Director of Education after each class. It is the

student's responsibility to ensure they have signed the sheet. If you miss more than 45 minutes of any class period, you will be marked absent for the entire class.

Each day the teacher submits the class attendance records to the Director of Education, who records the data in the student's electronic records. The attendance information is contained on the progress report that is supplied to all students a minimum of once a month. If you do not agree with any of the attendance data, you must submit a written request for review to the Director of Education within two weeks of the progress report availability. After 30 days has passed from the class date missed, the attendance data becomes permanent and can no longer be challenged.

#### Tardiness And Early Departures:

As an institution, the Trade School at Shasta Builders' Exchange expects students to be in class on time as scheduled. When you arrive late to class you not only miss the material that has been presented, but you disrupt both the instructor and your fellow students. If you arrive late for class, your instructor will record your time of arrival. If you leave before the instructor dismisses class, the instructor will record your time of departure. If you miss 45 minutes or more of your class you will be marked as absent.

#### Make-Up Hours:

Make-up hours must be prearranged with the Director of Education, and must be completed outside of normally scheduled class hours. Only time spent on approved activities will count as make-up hours. Such activities may include completing class exercises, viewing class tapes, or other course-related assignments. A student can make up no more than 10% of the semester hours.

#### Consecutive Absences:

A student who is absent for three consecutive class days without an approved leave of absence will be terminated.

#### Attendance Violation - Dismissal:

Any student dismissed for attendance related reasons—consecutive absences, failure to maintain the 93% cumulative attendance, excessive tardiness or early departures, or failure to return from a leave of absence—may restart classes in the next semester only with the Director of Education's authorization.

### Leave Of Absences:

A leave of absence (LOA) is a temporary interruption in a student's program of study. LOA refers to the specific time period during a program when a student is not in attendance. An LOA must meet certain conditions to be counted as a temporary interruption in a student's education instead of being counted as a withdrawal or dismissal requiring a school to perform a Title IV (federal Stafford loans, subsidized and unsubsidized) return calculation.

Students must utilize the official LOA request form (see Appendix) to officially request a LOA. The request must be submitted to the Director of Education for approval before a second class has been missed. The Director of Education will evaluate the impact of granting the requested LOA and approve it if feasible. Determinations will be communicated in writing within two weeks of the request. Student who have been granted a LOA are responsible for contacting the Director of Education no later than two weeks prior to the expected return date to obtain the necessary schedule / class details. Students who do not return as scheduled will be considered to have withdrawn from the program.

In order for an LOA to qualify as an approved LOA for Title IV return calculations:

1. There must be a reasonable expectation that the student will return from the LOA; the LOA together with any additional leaves of absence **MUST NOT EXCEED** a total of 180 days (6 months) in any 12-month period; This 12-month period begins on the first day of the student's initial LOA.
2. A student returning from an LOA must resume training at the same point in the academic program that he or she began the LOA; and
3. The institution may not assess the student any additional institutional charges, the student's need may not increase, and therefore, the student is not eligible for any additional Federal Student Aid (Title IV funds);
4. If the student is a Title IV loan recipient, the school must explain to the student the effects that the student's failure to return from an LOA may have on the student's loan repayment terms, including the expiration of the student's grace period.

A student granted an LOA that meets the criteria

in this section is not considered to have withdrawn or been dismissed, and no Return calculation is required. If the student does not meet the criteria in this section, the student is considered to have ceased attendance and to have withdrawn from the school, requiring the school to perform a Title IV return calculation.

### Grade Structure

The Trade School recognizes that a quality education program involves many components. For this reason the Trade School requires that students attend class regularly and actively participate both during lecture and lab projects. In the effort to encourage these principles the following grading scale has been defined:

A	93 – 100
B	84 – 92
C	75 – 83
NP	0 – 74

**ALL** online work is required to be completed prior to class. If less than 80% of a chapter's online work has not been completed by the scheduled date of class students will incur a 10 point grade reduction from their official exam grade not to drop below 75%. Students will have a 1 week grace period from the scheduled date of class to ensure all online work is completed.

#### Make-Up Exams:

Students are required to coordinate the makeup of any exams missed. Written exams may be administered only by the instructor or the Director of Education. Performance exams must be administered by the instructor. All students are required to complete all of their Pearson My Lab and Mastering online coursework including all quizzes and review exams before they will receive credit for their officially proctored makeup exams.

Failed written exams may be re-taken after a minimum waiting period of 48 hours. Written re-testing/make-up must be scheduled by the student with either the instructor or the Director of Education. Written exams that are taken after the initial in-class offering of the exam are graded on a pass/fail basis. Passing grades will be reduced to 75%.

Those failing the performance test may retest immediately or at a later time as designated by the instructor. Students who must make-up or re-test

for their performance exam after the initial in-class offering will be charged a \$20 fee per performance exam to cover Trade School costs. Failure to successfully complete missed or failed written or performance exams will likely result in the student receiving an incomplete for the semester.

Although it is highly recommended that students complete their necessary makeup work within two weeks of the scheduled exam, all makeup work must be successfully completed within 15 business days of the conclusion of the semester. All grades become final on the 16th business day after the last class meeting.

## Craft Training Calendar

### SPRING SEMESTER 2018

Jan. 22 - INSTRUCTION BEGINS  
May 21 - Semester Ends

### FALL SEMESTER 2018

Aug. 13 - INSTRUCTION BEGINS  
Sept. 3- Labor Day Holiday  
Dec. 17- Semester Ends

### SPRING SEMESTER 2019

Jan. 21 - INSTRUCTION BEGINS  
May 20 - Semester Ends

### FALL SEMESTER 2019

Aug. tbd - INSTRUCTION BEGINS  
Sept. tbd - Labor Day Holiday  
Dec. tbd - Semester Ends

## Course Structure & Content

### ***Electrical***

648 RTI HOURS / 48 MONTHS

The objectives of this program are both to assist the construction industry in acquiring skilled workers as well as the student in developing their individual careers as Electricians in the construction industry.

This program is designed in a manner that allows students to progress through sequenced coursework that increase in complexity and necessary skill level from entry level to journey person.

The curriculum sequence is designed to complement the average progression of a new employee in the

field. Ideally, as a student progresses through the program so should they be progressing in the field.

In this fashion, job titles associated with this training would be Electrical Trainee (enrolled in the the Trade School At Shasta Builders' Exchange training program) and then certified journey level Electrician (Journey level after completion of training). The state of California requires that anyone not currently in training take and pass the state exam to become certified as an Electrician.

The electrician curriculum used in the SBE Electrician program is nationally recognized and is regularly reviewed and updated by subject matter experts from across the United States. The current 2014 edition being used is due for revision and updating in 2017 and follows the cycle of the changing National Electrical Code.

### SEMESTER COURSES:

Electrical 1A – 81 Hours  
Covers: COR101 – ELEC103  
Prerequisite: Core

Electrical 1B – 81 Hours  
Covers: ELEC104 – ELEC112  
Prerequisite: Electrical 1A

Electrical 2A – 81 Hours  
Covers: ELEC201 – ELEC205  
Prerequisite: Electrical 1B

Electrical 2B – 81 Hours  
Covers: ELEC206 – ELEC212  
Prerequisite: Electrical 2A

Electrical 3A – 81 Hours  
Covers: ELEC301 – ELEC306  
Prerequisite: Electrical 2B

Electrical 3B – 81 Hours  
Covers: ELEC307 – ELEC312  
Prerequisite: Electrical 3A

Electrical 4A – 81 Hours  
Covers: ELEC401 – ELEC405  
Prerequisite: Electrical 3B

Electrical 4B – 81 Hours  
Covers: ELEC406 – ELEC411  
Prerequisite: Electrical 4A

### ***Core: Introductory Craft Skills***

#### ***COR101 Basic Safety***

Explains the safety obligations of workers, supervisors, and managers to ensure a safe workplace. Discusses the causes and results of accidents and the dangers of rationalizing risk. Reviews the role of company policies and OSHA



regulations. Introduces common job-site hazards and protections.

#### **COR102 *Introduction to Construction Math***

Reviews basic mathematical functions such as adding, subtracting, dividing, and multiplying whole numbers, fractions, and decimals, and explains their applications to the construction trades. Explains decimal-fraction conversions and the metric system using practical examples. Also reviews basic geometry as applied to common shapes and forms.

#### **COR103 *Introduction to Hand Tools***

Introduces trainees to hand tools that are widely used in the construction industry, such as hammers, saws, levels, pullers, vises, and clamps. Explains the specific applications of each tool and shows how to use them properly. Also discusses important safety and maintenance issues related to hand tools.

#### **COR104 *Introduction to Power Tools***

Provides detailed descriptions of commonly used power tools such as drills, saws, grinders, and sanders. Reviews applications, proper use, safety, and maintenance. Many illustrations show power tools used in on-the-job settings.

#### **COR105 *Introduction to Construction Drawings***

Familiarizes trainees with basic blueprint terms, components, and symbols. Explains the different types of blueprint drawings (civil, architectural, structural, mechanical, plumbing/piping, and electrical) and instructs trainees on how to interpret and use drawing dimensions. Two oversized drawings are included.

#### **COR106 *Basic Rigging***

Explains how ropes, chains, hoists, loaders, and cranes are used to move material and equipment from one location to another on a job site. Describes inspection techniques and load-handling safety practices. Also reviews American National Standards Institute (ANSI) hand signals.

#### **COR107 *Basic Communication Skills***

Provides trainees with techniques for communicating effectively with co-workers and supervisors. Included practical examples that emphasize the importance of verbal and written information and instruction on the job. Also discusses effective telephone and e-mail communication skills.

#### **COR108 *Basic Employability Skills***

Identifies the roles of individuals and companies in the construction industry. Introduces trainees

to critical thinking and problem solving skills and computer systems and their industry applications. Also reviews effective relationship skills, effective self-presentation, and key workplace issues such as sexual harassment, stress, and substance abuse.

#### **COR109 *Introduction to Material Handling***

Recognizes hazards associated with materials handling and explains proper materials handling techniques and procedures. Also introduces materials handling equipment, and identifies appropriate equipment for common job-site tasks.

### ***Electrical Level One***

#### **ELEC101 *Orientation to the Electrical Trade***

Provides an overview of the electrical trade and discusses the career paths available to electricians.

#### **ELEC102 *Electrical Safety***

Covers safety rules and regulations for electricians. Teaches the necessary precautions to take for various electrical hazards found on the job. Also covers the OSHA-mandated lockout/tagout procedure.

#### **ELEC103 *Introduction to Electrical Circuits***

Offers a general introduction to the electrical concepts used in Ohm's law applied to DC series circuits. Includes atomic theory, electromotive force, resistance, and electrical power equations.

#### **ELEC104 *Electrical Theory***

Introduces series, parallel, and series-parallel circuits. Covers resistive circuits, Kirchoff's voltage and current laws, and circuit analysis.

#### **ELEC105 *Introduction to National Electrical Code***

Provides a navigational road map for using the NEC. Introduces the layout of the NEC and the types of information found within the code book. Allows trainees to practice finding information using an easy-to-follow procedure.

#### **ELEC106 *Device Boxes***

Covers the hardware and systems used by an electrician to mount and support boxes, receptacles, and other electrical components. Covers NEC fill and pull requirements for device, pull, and junction boxes under 100 cubic inches.

#### **ELEC107 *Hand Bending***

Provides an introduction to conduit bending and installation. Covers the techniques for using hand-operated and step conduit benders, as well as cutting, reaming, and threading conduit.

### **ELEC108 *Raceways and Fittings***

Introduce the types and applications of raceways, wire ways, and ducts. The appropriate NEC® requirements are stressed.

### **ELEC109 *Conductors and Cables***

Focuses on the types and applications of conductors and covers proper wiring techniques. The appropriate NEC® requirements are stressed.

### **ELEC110 *Basic Electrical Construction Drawings***

Focus on electrical prints, drawings, and symbols. Teaches the types of information that can be found on schematics, one-lines, and wiring diagrams.

### **ELEC111 *Residential Electrical Services***

Cover the electrical devices and wiring techniques common to residential construction and maintenance. Trainees also practice making service calculations. Stresses appropriate NEC® requirements.

### **ELEC112 *Electrical Test Equipment***

Focuses on proper selection, inspection, and use of common electrical test equipment, including voltage testers, clamp-on ammeters, ohmmeters, multimeters, phase/motor rotation testers and data recording equipment. Also covers safety precautions and meter category ratings.

## ***Electrical Level Two***

### **ELEC201 *Alternating Current***

Focus on forces that are characteristic of alternating-current systems and the application of Ohm's law to AC circuits.

### **ELEC202 *Motors: Theory and Application***

Cover AC and DC motors including the main components, circuits, and connections.

### **ELEC203 *Electrical Lighting***

Introduces the basic principles of human vision and the characteristics of light. Focuses on the handling and installation of various types of lamps and lighting fixtures.

### **ELEC204 *Conduit Bending***

Cover all types of bends in all sizes of conduit up to 6 inches. Focus is placed on mechanical, hydraulic, and electrical benders.

### **ELEC205 *Pull and Junction Boxes***

Driven by the NEC this module explains how to select and size pull boxes, junction boxes, and handholes.

### **ELEC206 *Conductor Installations***

Covers the transportation, storage, and setup of cable reels; methods of rigging; and procedures for complete cable pulls in raceways and cable trays.

### **ELEC207 *Cable Tray***

Focus on NEC® installation requirements for cable tray, including cable installations.

### **ELEC208 *Conductor Terminations & Splices***

Describes methods of terminating and splicing conductors of all types and sizes, including preparing and taping conductors.

### **ELEC209 *Grounding and Bonding***

Focuses on the purpose of grounding and bonding electrical systems. Thoroughly covers NEC requirements.

### **ELEC210 *Circuit Breakers and Fuses***

Describes fuses and circuit breakers along with their practical applications. Also covers sizing.

### **ELEC211 *Control Systems & Fundamental Concepts***

Give basic descriptions of various types of contactors and relays, along with their practical applications.

## ***Electrical Level Three***

### **ELEC301 *Load Calculations - Branch Circuits***

Explains how to calculate branch circuit and feeder loads for various residential and commercial applications.

### **ELEC302 *Conductor Selection and Calculations***

Cover the various factors involved in conductor selection, including insulation types, current-carrying capacity, temperature ratings, and voltage drop.

### **ELEC303 *Practical Applications of Lighting***

Covers specific types of incandescent, fluorescent, and HID lamps, as well as ballasts, troubleshooting, and various types of lighting controls.

### **ELEC304 *Hazardous Locations***

Covers the NEC requirements for equipment installed in various hazardous locations.

### **ELEC305 *Overcurrent Protection***

Explains how to size and select circuit breakers and fuses for various applications. Also covers short circuit calculations and troubleshooting.

### **ELEC306 *Distribution Equipment***

This module introduces methods and procedures related to distribution equipment, including grounding, switchboard testing and maintenance, ground fault sensing, and interpreting electrical drawings.

#### **ELEC307 *Transformers***

This module introduces the methods and procedures used in selecting and wiring transformers.

#### **ELEC308 *Commercial Electrical Services***

Covers the components, installation considerations, and NEC requirements for various commercial services.

#### **ELEC309 *Motor Calculations***

Covers calculations required to size conductors and overcurrent protection for motor applications.

#### **ELEC310 *Voice, Data, and Video***

Covers installation, termination, and testing of various voice, data, and video cabling systems.

#### **ELEC311 *Motor Controls***

Provide information on selecting, sizing, and installing motor controllers. Also covers control circuit pilot devices and basic relay logic.

### ***Electrical Level Four***

#### **ELEC401 *Load Calculations Feeders and Services***

Topics include basic calculation procedures for commercial and residential applications.

#### **ELEC402 *Health Care Facilities***

Covers the installation of electric circuits in health care facilities, including the requirements for life safety and critical circuits.

#### **ELEC403 *Standby and Emergency Systems***

Explains the NEC® requirements for electric generators and storage batteries.

#### **ELEC404 *Basic Electronic Theory***

Explain the function and operation of basic electronic devices, including semiconductors, diodes, rectifiers, and transistors.

#### **ELEC405 *Fire Alarm Systems***

Cover fire alarm control units, Digital Alarm Communicator Systems (DACS), wiring for alarm initiating and notification devices, and alarm system maintenance.

#### **ELEC406 *Specialty Transformers***

Cover various types of transformers and their

applications. Also provide information on selecting, sizing, and installing these devices.

#### **ELEC407 *Advanced Motor Controls***

Discusses applications and operating principles of solid-state controls, reduced-voltage starters, and adjustable frequency drives. Also cover basic troubleshooting procedures.

#### **ELEC408 *HVAC Controls***

Provides a basic overview of HVAC systems and their controls. Also covers electrical troubleshooting and NEC® requirements.

#### **ELEC409 *Heat Tracing and Freeze Protection***

Cover various heat tracing systems along with their applications and installation requirements.

#### **ELEC410 *Motor Operation and Maintenance***

Covers motor cleaning, testing, and preventative maintenance. Also describe basic troubleshooting procedures.

#### **ELEC411 *Medium-Voltage Terminations and Splices***

Offers an overview of the NEC® and cable manufacturers' requirements for medium-voltage terminations and splices.

#### **ELEC412 *Special Locations***

Describes the NEC requirements for selecting and installing equipment, enclosures, and devices in various special locations including places of assembly, theaters, carnivals, agricultural buildings, marinas, temporary installations, wired partitions and swimming pools.

#### **ELEC413 *Fundamentals of Crew Leadership***

Teaches basic leadership skills required to supervise personnel. Discusses principles of project planning, scheduling, estimating, management, and presents several case studies for student participation.

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\*Documents required for admission to the the Trade School at Shasta Builders'  
Exchange Craft Training program