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# Spring 2020
## Course Registration Form

All information is required. You may also register online at www.ntcef.org

This form may be duplicated.

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Ethnicity (check one): □ White, Non Hispanic □ Asian or Pacific Islander □ Black, Non Hispanic □ American Indian or Alaskan Native □ Hispanic or Mexican American □ Other (please specify)

Independent Students (If you’re paying for the course(s) yourself): Please sign here:

How did you hear about CEF? □ Your Company □ Fax or Email □ Web Site □ Friend □ Other (specify)

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Method of Payment:

□ Company Credit Card (MasterCard, Visa, American Express, Discover)

□ Personal Credit Card (MasterCard, Visa, American Express, Discover)

□ Deduct from CEF Trust Fund Account

□ Check (or Money Order) enclosed for $____________ Driver’s License # __________________________ State_____

(required to be processed) Please mail or deliver your check with the registration form and note a processing fee will be charged for all returned checks.

□ Invoice Sponsoring Association Members Only  ASA TEXO

By signing this form, you acknowledge that you have read and understand the Important Information below:

Company Authorized Name (please print) | Title
---|---

Company Authorized Signature (Mandatory for invoicing & Trust deductions) | Date
---|---

Card Number | Expiration Date
---|---

Cardholder Address: | Street Address | City | State | Zip
---|---|---|---|---

Cardholder Name (please print) | Cardholder Signature
---|---

By signing this registration form, you agree to the registration, payment, book/materials returns, and course drop polices as they are stated in the current CEF Catalog. If you have any questions please don’t hesitate to contact our office, 972.574.5200

Send completed registration form along with payment to:

Construction Education Foundation (CEF), Inc
PO Box 612107 • DFW Airport TX 75261-2107 • Fax 972.574.3440

Register online at www.ntcef.org or in person at the DFW Education Center, 1401-A Royal Lane, DFW Airport TX 75261

For Office Use Only:

□ CC Registration □ CC Rollover

□ CC Accting □ CC Scholarship

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972.905.7206
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CEF Calendar

**Spring 2020**

- January 17: Books & Materials Refund Cutoff
- January 20: Martin Luther King Jr Holiday
- January 21: Spring 2020 Semester Begins
- January 31: Withdrawal Refund Cutoff
- March 16-20: Spring Break
- April 16: Last Day to Withdraw with a Grade of "W"
- May 11-14: Career Development Courses Final Week
- May 18-21: Craft Apprenticeship Courses Final Week
- May 25: Memorial Day

**Departments: 972.574.5200**

**8:00am-5:00pm**

- Accounting Department: Denise
- Books & Materials: James
- Scholarships: Raelee
- Enrollment: Brooke
- Grades, Certificates: Beth
- Facilities - Room Rental, Property Tour: Lori
- Federal Registration, Davis Bacon & VA: Patty
- In-House/Customized Training: Jonna
- Instructor Contact: Lori
- NCCER Liaison: Jonna
- Assessment Testing: Lily
- Testing: Lori

**North Lake**

- North Lake DFWEC Office: 972.860.7873
- Student Counsel for Degree Programs: 972.860.7873

**Our Training Environment**

CEF promotes a safe environment for both the employee and the employer. Every effort is made to ensure that the employee/trainee abides by the safety guidelines in the classroom and shop areas. CEF also takes every precaution to protect employers from losing their employees/students to other companies. One such policy states that should a CEF instructor participate in any activities to recruit student(s) for his company and or another company, this is grounds for immediate termination. More information is available in both the Student and Instructor Manuals which are available online.

**Equal Education Opportunity Policy**

Construction Education Foundation, Inc. (CEF) is committed to providing equal educational opportunities regardless of gender, race, color, religion, age, national origin or disability. CEF provides equal opportunity in accordance with federal and state laws.

**Confidentiality Statement**

All student and class data hard copies are kept in a locked filing cabinet located in the CEF offices. The student data is kept on a secured server and is protected by a monitored security and firewall system. All reports containing confidential data are shredded prior to their disposal. Companies who sponsor their employees' training, can access their employees' training history, attendance, and grades via the CEF website. In order to access this feature, a company must first complete an application and assign a designated contact from their company. Once the application is approved by CEF, the designated contact is given a personalized access code, which allows them to view only their employees’ records from the website.

Students requesting a copy of their transcripts must provide their social security number and other pertinent information to verify that they are that student. Transcripts and other data will not be released to anyone other than the student without a signed authorization form, except if the requesting person is the designated company contact.

**Disclaimer**

This catalog contains policies, regulations, procedures, prices and course information (classes, books & materials and instructors) in existence at the time the publication went to press. CEF reserves the right to change or alter the statements and procedures in this catalog to reflect current Board policies, administrative regulations and procedures, as well as applicable state and federal laws and regulations. The changes may include, but are not limited to, the days and times courses are offered, instructors who teach the courses, books, fees, tuition, and the cancellation of courses. This catalog is for informational purposes only. It is not a contract and is subject to change.

**Inclement Weather Policy**

Please tune to one of the following local news weather reports for inclement weather notification and school closings for the Dallas County Community College District (DCCCD):

- Channel 4 (KDFW)
- Channel 5 (KXAS)
- Channel 8 (WFAA)
- Channel 11 (KTVT)

You may also call the CEF Office at 972.574.5200 or visit our website at www.ntcef.org

**How To Register**

**PAYMENT IS DUE IN FULL AT TIME OF REGISTRATION**

**In Person:** You may come to the CEF office located inside the DFW Education Center at 1401-A Royal Lane, DFW Airport, TX Monday-Thursday from 8:00am-5:00pm, and Friday from 8:00am-12:00pm.

**Mail:** Complete a registration form (inside front) for the course desired and indicate your preferred payment method. Mail your registration form with your payment to the CEF Office at PO Box 612107, DFW Airport, TX 75261-2107. You will receive
confirmation of your registration by mail if you have registered within two weeks prior to start date.

Fax: You may register by faxing your registration form to 972.574.3440, unless paying by check, cash or money order. You will receive confirmation of your registration by mail if you have registered within two weeks prior to start date.

Internet: This option is available only if you are using the payment options of Credit Card or for those companies who have filled out the proper paperwork and have online access with CEF can use Credit Card, Trust or Invoice Payment. Visit our website at www.ntcef.org to register on-line. You will receive an e-mail confirmation of your registration.

Methods of Payment

Payment is required before or at the time of registration. If your company is a Sponsoring Association Member, your company can be invoiced upon approval by an authorized company representative. In addition, a company’s CEF Trust Account can be debited upon signed approval by an authorized company representative.

Invoice: Sponsoring Association Members Only (ASA, TEXO) Signature from an authorized representative of your company is required on the Registration Form. Please indicate the name of your company’s Sponsoring Association in the slot provided on the registration form. Due upon receipt. Accounts delinquent over 60 days may have future credit suspended until balance becomes current.

CEF Trust Account Debit: CEF Trust Account Holders Only Requires signature from an authorized representative of your company on the Registration Form. Deductions cannot exceed the required minimum balance of $50.00.

Other Methods of Payment

• Money Order
• Credit Card (We accept American Express, MasterCard, Visa, and Discover Credit Cards.)
• Cash
• Check (A processing fee will be charged for all returned checks.)

Out-of-State & Out-of-County Fees
North Lake College charges an additional $345.00 fee for students who have lived in the State of Texas for less than one year.

North Lake College charges an additional $156.00 fee for students who live outside of DFW Metroplex. If either of these conditions apply, additional charges will be invoiced.

Books and Materials

Most courses require the purchase of books and/or materials. This information is noted in the course description pages of this catalog in alphabetical order by class. A shipping and handling charge is included in all quoted costs. If there is no book listed, none is required for that class. Book prices listed on the schedule pages refer to books you would need for that level only. It does not reflect materials or books you may have received in a previous level. Be sure to indicate on your registration form the exact cost (add 8.25% tax) of your required books and materials for accurate billing purposes.

All advertised books and materials are subject to change.

NOTE: Replacement book costs are the responsibility of the student. Companies will not be invoiced for replacement books without prior authorization.

Testing Information

To meet course pre-requisites or to test out of various courses you must set an appointment by calling 972.574.5200. Testing is done Monday-Thursday from 8:00am-3:00pm, and Friday from 8:00am-12:00pm. Testing must be completed before the semester start date.

Credit Course Requirements

Admissions paperwork is required to be completed by January 10, 2020. If this paperwork is not completed by the required deadline, the student will be transferred to a continuing education course.

Withdrawal Information & Refunds

Semester Courses:
Semester Courses refer to courses 48 hours or more in length. Students who drop a course two (2) working days before the course start date will be issued a full tuition credit, minus the cost of books and materials. After this time, a $100.00 administrative fee will be charged, plus any applicable book and/or material fees. Books and materials are non-refundable unless course is dropped prior to January 17, 2020. Students who drop after January 31, 2020, will be billed in full for course tuition and books and materials.

IMPORTANT NOTE: You must call the CEF office by the above dates in order to be credited for any part of your tuition, materials and/or books.

All Other Courses:
“All Other Courses” refers to all courses and seminars that are less than 48 hours in length. Students who drop a course two (2) working days before the course start date will be issued a full tuition credit, minus the cost of books and materials. After that, no part of the tuition will be credited.

NOTE: Non-refunded books/materials will be available to the student or an authorized company representative by request only, and must be picked up within 30 days following the course start date. CEF will not ship or mail non-refunded books/materials. Non-refunded books/materials will not be distributed after the 30 days.

Course Cancellations

A course is cancelled if an insufficient number of registrations have been received two (2) days prior to the first course meeting. You will be notified if the course is cancelled, therefore it is important to have current contact information for you, including phone number and/or email address. Refunds are processed automatically. Occasionally, we are not able to reach a student
before the first course meeting, signs will be posted. We encourage you to register early to ensure a place in the course and to prevent the cancellation of a course due to insufficient enrollment.

**Student Handbook**

As a student of CEF, you are bound by the policies and procedures in the student handbook. It is your responsibility to familiarize yourself with the guidelines. The student handbook is available at www.ntcef.org and paper copies are available.

**Attendance Policy**

Companies receive weekly employee attendance reports.

There are NO “EXCUSED ABSENCES”. However, if the following steps are taken, the governing council will take all reasons for absences into consideration if a reinstatement review is requested by the student or company:

- Good attendance is important for the success of any training program. Absences could affect your grade. If you must be absent, it is your responsibility to contact your instructor and/or a staff member in the CEF office before the start of class to let them know you are going to be absent and the reason for your absence. An excuse must be given for each absence.

As a courtesy, during the first two weeks of registration, you and your company will receive a call from CEF, in addition to an email or fax, reporting any absences. It is your responsibility to provide CEF with a correct address, telephone number or other contact information.

Drops are determined by the number of absences based on your course hours.

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**Assurance / Tax / Consulting**

Not unlike the Construction Education Foundation of North Texas, we at Lane Gorman Trubitt are constantly looking for ways to continue educating our staff and community, monitoring ever-changing regulations and global finance requirements, and providing invaluable services to businesses to further their own success.

For further information about our upcoming CPE events, visit us online at www.lgt-cpa.com
Construction Education Scholarship
Jerry Junkins Minority Scholarship Fund of Communities Foundation of Texas

Dallas County Community College District (DCCCD) Foundation offers this scholarship to assist students enrolled in construction and construction-related classes in Dallas County or Tarrant County community colleges and state (Texas) universities, by awarding annual scholarships to deserving students who intend to pursue, or are pursuing, a baccalaureate degree in Construction Management or Construction Technology, leading to a career in the construction industry here in North Texas.

On a more individual level, the purpose of the scholarship is to allow the recipient to improve his or her talents and skills in the area of construction without the worry of how he or she will fund such education. The selection criteria shall include scholastic achievement, school and community participation, as well as financial need as determined by the selection committee. This scholarship is open to all students. However, preference will be given to women and ethnically diverse students. The scholarship is awarded on an annual basis, and requires that students be enrolled for at least SIX (6) credit hours per semester.

The North Texas construction industry has created this fund in memory of Jerry Junkins, CEO, President and Chairman of Texas Instruments, to herald his tireless efforts in promoting minority participation in the business community. The Industry’s expectation is that Jerry Junkins scholars, upon completing their college education, will join the Dallas/Fort Worth construction industry where they will work towards management and leadership positions.

Contact the DCCCD Foundation at 214-378-1531 and for scholarship renewals call Ella Shaw at DCCCD Foundation 214-378-1533.

**Application Deadlines:**
- Fall Semester: June 1
- Spring Semester: November 1
- Summer Semester: Not Available

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**Additional Construction Industry Scholarship Sources**

Contact CEF at 972.574.5200 for additional Construction Industry Scholarship Resources. Most scholarship deadlines are anywhere from 6 to 12 months before a semester begins. So, be sure to contact us early!

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**CEF Mission Statement**

The purpose of Construction Education Foundation, Inc. is to provide the construction industry with the most qualified, technically trained people at all levels.

Our target is construction excellence.
Office of Apprentice Federal Registration

Some of our CEF Craft Courses are currently approved by the U.S. Department of Labor, Office of Apprenticeship (OA). The curriculum used in all of these courses is competency based and task oriented.

Students who are federally registered apprentices must work for companies that have a signed agreement with CEF. Companies that are interested in becoming part of our Federally Registered Program and enrolling employees in a qualified trade may contact CEF for more information regarding requirements. Companies will be asked to sign an agreement with CEF to comply with the federally approved standards of the program. Most Apprentice Training courses start in the fall semester of each year. Companies must be registered with CEF and have a signed agreement prior to August 15th, (before the fall classes commence). This is imperative because students entering into a program are required to fill out paperwork, take prerequisite testing (usually a reading and math test) as well as an interview to evaluate them for the program. Companies will be charged for each apprentice registered with the OA program. If for any reason a student is deregistered and reinstated to the OA program, a fee of $150.00 will be charged to the company. For more information, please contact Patricia Scroggins at CEF at 972.574.5200 x108.

Registered Veterans

Craft Apprenticeship Veterans

Veteran’s who are enrolled in a four-year apprenticeship training program may use their GI Bill to train at CEF. Applications may be submitted to the VA Department year round. CEF is authorized to assist you in registering for your benefits. This aid is available to only those that qualify as determined by the VA office in Muskogee, OK. You will also be required to be registered with the Office of Apprenticeship & Training U.S. Department of Labor. Please call CEF between the hours of 8:30am–5:30pm for more information. You may also call 888.442.4551 and speak directly with a VA specialist.

Career Development Veterans

Non-Craft Apprenticeship Veterans may call the North Lake College VA Specialist at 972.273.3322.

Equal Education Opportunity Policy Construction Education Foundation, Inc. (CEF) is committed to providing equal educational opportunities regardless of gender, race, color, religion, age, national origin or disability. CEF provides equal opportunity in accordance with federal and state laws.

Training Partners and Participating Associations

• Asian-American Contractors Association
• Black Contractors Association
• CitySquare
• Drywall & Acoustical Contractors Association (DACA)
• National Association of Women in Construction (Dallas and Fort Worth Chapters)
• National Fire Sprinkler Association
• North American Crane Bureau, Inc.
• Plumbing Heating Cooling Contractors Association of Texas
• Regional Hispanic Contractors Association
• Texas Fire Sprinkler Contractors Association

The above Participating Associations promote and publicize training through CEF at their membership meetings, events, and in their publications.
### EXECUTIVE COMMITTEE

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Company/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Peck</td>
<td>Chairman 2017-2020</td>
<td>J.E. Dunn</td>
</tr>
<tr>
<td>Tim McNew</td>
<td>Past Chairman</td>
<td>Blue Factory</td>
</tr>
<tr>
<td>Mark Rutledge</td>
<td>Past Past Chairman</td>
<td>Momentum Mechanical</td>
</tr>
<tr>
<td>Eddie Corbitt</td>
<td>Treasurer</td>
<td>Prism Electric</td>
</tr>
<tr>
<td>James Belota</td>
<td>Officer</td>
<td>DynaTen Corporation</td>
</tr>
<tr>
<td>Louis Schindler</td>
<td>Officer</td>
<td>MEDCO</td>
</tr>
<tr>
<td>Bruce Helm</td>
<td>Chairman's Advisor</td>
<td>Northstar Builders Group</td>
</tr>
</tbody>
</table>

### BOARD OF DIRECTORS

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Company/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fred Wilshusen</td>
<td>Legal Counsel</td>
<td>Thomas Feldman &amp; Wilshusen</td>
</tr>
<tr>
<td>Johnny Barnes</td>
<td>Director</td>
<td>Baker Triangle</td>
</tr>
<tr>
<td>Jon Grime</td>
<td>Director</td>
<td>Polk Mechanical</td>
</tr>
<tr>
<td>Daniel Harris</td>
<td>Director</td>
<td>Osburn Contractors, Inc</td>
</tr>
<tr>
<td>John Hinson</td>
<td>Director</td>
<td>Marek Bros.</td>
</tr>
<tr>
<td>Walter Johannsen</td>
<td>Director</td>
<td>Fluor Corporation</td>
</tr>
<tr>
<td>Mike Kotubey</td>
<td>Director</td>
<td>TDIndustries</td>
</tr>
<tr>
<td>Dennis Lewis</td>
<td>Director</td>
<td>Potter Concrete</td>
</tr>
<tr>
<td>David Masterson</td>
<td>Director</td>
<td>Dee Brown</td>
</tr>
<tr>
<td>Bill Mitchell</td>
<td>Director</td>
<td>JMEG</td>
</tr>
<tr>
<td>Rusty Vaughn</td>
<td>Director</td>
<td>Texas AirSystems</td>
</tr>
</tbody>
</table>

### SPONSORING ASSOCIATION REPRESENTATIVES

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Company/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Randy Humphrey</td>
<td>TEXO Chairman</td>
<td>Humphrey &amp; Associates</td>
</tr>
<tr>
<td>Meloni Raney</td>
<td>TEXO CEO</td>
<td>TEXO Association</td>
</tr>
<tr>
<td>Jack Baxley</td>
<td>TEXO VP Ops</td>
<td>TEXO Association</td>
</tr>
<tr>
<td>Jason Wroblewski</td>
<td>ASA President</td>
<td>Haley-Greer, Inc</td>
</tr>
<tr>
<td>Beverly Reynal</td>
<td>ASA Exec Dir</td>
<td>ASA North Texas</td>
</tr>
</tbody>
</table>
Testing Form

All information is required. This form may be duplicated. You may also register online at www.ntcef.org.
Testing hours are Monday-Thursday 8:00am-3:00pm, call 972.574.5200 for an appointment

Please select the test(s) that you need to take. Where a testing fee is required, prior authorization is mandatory.

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Passing requirement</th>
<th>Test Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Field Engineering</td>
<td>70%</td>
<td>$100</td>
</tr>
<tr>
<td>Applied Construction Math Test</td>
<td>70%</td>
<td>$0</td>
</tr>
<tr>
<td>Blueprint Reading Test</td>
<td>85%</td>
<td>$100</td>
</tr>
<tr>
<td>Construction Materials, Methods &amp; Equipment Test</td>
<td>70%</td>
<td>$100</td>
</tr>
<tr>
<td>English as a Second Language I</td>
<td>Level I: 18 (20 max)</td>
<td>$0</td>
</tr>
<tr>
<td>Intro to Construction Test</td>
<td>70%</td>
<td>$100</td>
</tr>
<tr>
<td>TABE Math Test (English or Spanish)</td>
<td>70%</td>
<td>$0</td>
</tr>
<tr>
<td>TABE Reading Test (English or Spanish)</td>
<td>70%</td>
<td>$0</td>
</tr>
</tbody>
</table>

Testing may be done Monday-Thursday, 8:00am-3:00pm. To test outside these times you must call ahead.

Note: Time limits have been set for all tests. Students will not be allowed to test beyond these limits.

Math/Reading Test - Students are allowed ONE retest if they score within 10 points below the required passing grade. This may be done at least 48 hours AFTER the first attempt. If student is still unable to achieve a passing grade a Math class must be completed with a passing grade.

Name: 
Social Security Number: 
Date of Birth: 
Gender: □ Male  □ Female 
Home Address: 
Home City/State/Zip: 
Work Phone: 
Work Fax: 
Home Phone: 
Cell Phone: 
Email: 
Date Today: 

Independent Students (If you’re paying for the course(s) yourself): Please sign here:

Method of Payment:
Credit Card
□ Company Credit Card (MasterCard, Visa, American Express, Discover)
□ Personal Credit Card (MasterCard, Visa, American Express, Discover)
□ Deduct from CEF Trust Fund Account
□ Check (or Money Order) enclosed for $_________________________ Driver’s License # ___________________________ State_____
(required to be processed) Please mail or deliver your check with the registration form and note a processing fee will be charged for all returned checks.
□ Invoice Sponsoring Association Members Only  ASA TEXO

By Signing this form, you acknowledge that you are responsible for payment of services rendered.

Company Authorized Name (please print) 
Title

Company Authorized Signature (Mandatory for invoicing & Trust deductions) 
Date

Card Number 
Expiration Date

Cardholder Address: 
Street Address 
City 
State 
Zip

Cardholder Name (please print) 
Cardholder Signature

See catalog Craft and Career Testing pages for time limits on each test and additional testing information
Fax form to 972.574.3440 or mail to PO Box 612107, DFW Airport TX, 75261-2107
### Craft Apprenticeship Tests & Pre-requisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Mandatory Pre-requisite</th>
<th>Test-Out Option*</th>
<th>Time+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Carpentry I</td>
<td>English or Spanish TABE Math Test or Math Class or mandatory concurrent enrollment in Math Class and English or Spanish TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
<tr>
<td>Commercial Field Engineering I</td>
<td>English or Spanish TABE Math Test or Applied Construction Math Class &amp; English or Spanish TABE Reading Test</td>
<td>Field Engineering Placement</td>
<td>TABE Reading 1 hr; FE Placement 1 hr</td>
</tr>
<tr>
<td>Commercial HVAC Service I</td>
<td>English TABE Math Test or Class &amp; English TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
<tr>
<td>Electrical I English &amp;</td>
<td>English or Spanish TABE Math Test or Math Class or mandatory concurrent enrollment in Math Class and English or Spanish TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
<tr>
<td>Electrical I Double Time</td>
<td>English TABE Math Test or Class &amp; English TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
<tr>
<td>Pipe Fitting Accelerated I</td>
<td>English TABE Math Test or Class &amp; English TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
<tr>
<td>Plumbing I English</td>
<td>English TABE Math Test or Class &amp; English TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
<tr>
<td>Sheet Metal I</td>
<td>English TABE Math Test or Class &amp; English TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
<tr>
<td>Welding I</td>
<td>English TABE Math Test or Class &amp; English TABE Reading Test</td>
<td>None</td>
<td>TABE Math 1.5 hr; TABE Reading 1 hr</td>
</tr>
</tbody>
</table>

**Note:** Time limits have been set for all tests. Students will not be allowed to test beyond these limits.

- **Math/Reading Test** - Students are allowed ONE retest if they score within 10 points below the required passing grade. This may be done at least 48 hours AFTER the first attempt. If student is still unable to achieve a passing grade a Math class must be completed with a passing grade.

- **Spanish TABE Tests** - If the TABE tests are administered in Spanish the ESL Placement test must be administered to see which ESL class will be taken.

### Career Development Tests & Pre-requisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Mandatory Pre-requisite</th>
<th>Test-Out Option*</th>
<th>Time+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backflow Prevention Assembly Tester Certification (BPAT)</td>
<td>2-years experience in a water-related industry such as plumbing, sprinkler fitting, fire alarm, irrigation, etc</td>
<td>None</td>
<td>NA</td>
</tr>
<tr>
<td>Commercial Blueprint Reading &amp; Specifications</td>
<td>English TABE Reading Test or if little or no construction experience it is <strong>strongly recommended</strong> to take the Commercial Materials Methods Test or Class</td>
<td>Blueprint Reading &amp; Specifications Test (in two parts)</td>
<td>TABE Reading 1 hr; BPR 3.5 hr</td>
</tr>
<tr>
<td>Note: The BPR test-out can now be used for college credit for a fee. Call North Lake College at 972.860.7873 for details</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Construction Methods Materials</td>
<td>English TABE Reading test and it is recommended that a student complete the Introduction to Construction course and or have at least four years experience prior to this course</td>
<td>Commercial Construction Methods Materials Test</td>
<td>TABE Reading 1 hr; Comm CMM 2 hr</td>
</tr>
<tr>
<td>Commercial Mechanical Electrical Plumbing</td>
<td>English TABE Reading test</td>
<td>None</td>
<td>TABE Reading 1 hr</td>
</tr>
<tr>
<td>Electrical License Prep (Journeyman or Master)</td>
<td>3-years experience in Electrical Trade, preferably with some classroom hours; &amp; Basic Math skills with ability to solve simple algebraic equations</td>
<td>None</td>
<td>NA</td>
</tr>
<tr>
<td>English as a Second Language (ESL)</td>
<td>None</td>
<td>ESL Level I</td>
<td>ESL I - ½ hr</td>
</tr>
<tr>
<td>Introduction to Construction Industry</td>
<td>English TABE Reading test</td>
<td>Introduction to Construction Industry Test</td>
<td>TABE Reading 1 hr; Intro to Construction Industry 2 hr</td>
</tr>
<tr>
<td>Project Scheduling</td>
<td>Commercial Blueprint Reading class is recommended prior to this course</td>
<td>None</td>
<td>NA</td>
</tr>
</tbody>
</table>
**Pass-Through Testing**

$1223.00 per level; which includes the written and practical exams. Text books not included. Pass-through testing requires taking the entire written and performance tests for that level - just as you would if you attended the class. A certified instructor must administer the performance tests. No college credit will be received. This will be recorded with NCCER.

*Note:* If it is important for the apprentice to get college credit, there will be an additional charge of $175.00. See testing pages for information.

**Documentation Administrative Fee**

$100.00 per level per student

This fee is for any craft training done at a company or a company job site. The company is responsible for providing and paying for a qualified instructor to be certified through the NCCER instructor training course and to maintain all necessary record keeping. The apprentice taking this training receives credit from NCCER, but receives no college credit.

*Note 1:* Federally registered apprentices will require more documentation sent to the CEF Office. This will therefore cost $200.00 per level.

*Note 2:* If it is important for the apprentice to get college credit, there will be an additional charge of $175.00 per level.

**Individual Module Testing Fee**

$175.00 per module per student

This is for skilled craftsmen who would like to take just one specific craft module. The cost of taking a specific module is based on a formula per contact hour. Trainees test results are submitted to NCCER.

---

Get connected to the largest network of commercial contractors in DFW.

TEXO

UNIFY. ADVOCATE. ADVANCE.

texo@texoassociation.org  www.texoassociation.org

TEXO is the largest commercial contractors association in Texas, comprised of member companies who do more than $15B of work annually in North & East Texas. Representing the leading general and specialty contractors in the region, TEXO and its members are critical to the economic growth and improvement of the area.
Commercial Carpentry

One of the oldest trades but one of the most important in building any type of finished project is the field of carpentry. With a shortage of journeymen on the horizon the construction industry working along with CEF has developed a two year commercial carpentry program. This two year program is designed to help industry by providing knowledgeable and skilled trades people.

Legend: M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

<table>
<thead>
<tr>
<th>Course</th>
<th>Instructor</th>
<th>Day</th>
<th>Tuition</th>
<th>Books w/tax</th>
<th>Total w/books</th>
<th>Start Time</th>
<th>End Time</th>
<th>Start Date</th>
<th>End Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Carpentry I - General</td>
<td>Carrington</td>
<td>T</td>
<td>$1,223.00</td>
<td>$176.45</td>
<td>$1,399.45</td>
<td>4:30 PM</td>
<td>9:30 PM</td>
<td>1/21</td>
<td>5/19</td>
<td>DFWEC</td>
</tr>
<tr>
<td>Commercial Carpentry II - Form Work</td>
<td>-</td>
<td>-</td>
<td>$1,223.00</td>
<td>$141.81</td>
<td>$1,364.81</td>
<td>Available Fall 2020</td>
<td>DFWEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Carpentry III - Framing</td>
<td>-</td>
<td>-</td>
<td>$1,223.00</td>
<td>$185.11</td>
<td>$1,408.11</td>
<td>Available Spring 2021</td>
<td>DFWEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Carpentry IV - Advanced General</td>
<td>-</td>
<td>-</td>
<td>$1,223.00</td>
<td>$141.81</td>
<td>$1,364.81</td>
<td>Available Fall 2021</td>
<td>DFWEC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Commercial Carpentry I-General

**Prerequisite:** English or Spanish TABE Math Test or Applied Construction Math Class and English or Spanish TABE Reading Test and ESL Placement test.


**Books & Materials for Commercial Carpentry I-General**

1. Core Curriculum English 5th Ed $73.00
2. Carpentry Level 1 5th Ed $90.00
Add 8.25% tax to your total cost

### Commercial Carpentry II-Form Work

**Prerequisite:** Commercial Carpentry I

Consists of 80 hours including labs. Course topics are: Commercial Drawings, Trenching & Excavating, Handling and Placing Concrete, Properties of Concrete, Reinforcing Concrete, Foundations and Slab-on-Grade, Vertical Formwork, Rigging Equipment, Rigging Practices, and Horizontal Formwork.

**Books & Materials for Commercial Carpentry II-Form Work**

Carpentry Level 3 5th Ed $131.00
Add 8.25% tax to your total cost

### Commercial Carpentry III-Framing

**Prerequisite:** Commercial Carpentry I

Consists of 80 hours including labs. Course topics are: Cold-Formed Steel Framing, Drywall Installation, Door and Door Hardware, Drywall Finishing, Suspended Ceilings, Thermal & Moisture Protection, Window, Door, Floor, and Ceiling Trim, Roofing Applications, Exterior Finishing, Commercial Drawings, and Cabinet Installation.

**Books & Materials for Commercial Carpentry III-Framing**

1. Carpentry Level 2 5th Ed $131.00
2. Framing and Layout Level One $40.00
Add 8.25% tax to your total cost

### Commercial Carpentry IV-Advanced General

**Prerequisite:** Commercial Carpentry I


**Books & Materials for Commercial Carpentry IV-Advanced General**

Carpentry Level 4 5th Ed $131.00
Add 8.25% tax to your total cost
Commercial Field Engineering

The New Commercial Field Engineering Program will have an emphasis on commercial layout. The courses will focus on beginning the project with property line information, set primary control for utilities, and location of the new building. A Field Engineer will be involved in the job 85% to 90%, starting with laying out the building foundation, Structural (concrete and steel layout) according to the Structural Drawings, interior/exterior finish layout using Architectural and Structural Drawings. At the end of the project a Field Engineer exterior layout which includes parking lot and landscape that’s about 10% to 15% of surveying layout, with the Civil Drawings.

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

<table>
<thead>
<tr>
<th>Course</th>
<th>Instructor</th>
<th>Day</th>
<th>Tuition</th>
<th>Books w/tax</th>
<th>Total w/ books</th>
<th>Start Time</th>
<th>End Time</th>
<th>Start Date</th>
<th>End Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Field Engineering I</td>
<td>Cardenas</td>
<td>R</td>
<td>$1,176.00</td>
<td>$235.99</td>
<td>$1,411.99</td>
<td>4:30 PM</td>
<td>8:00 PM</td>
<td>1/23</td>
<td>5/21</td>
<td>DFWEC</td>
</tr>
<tr>
<td>Commercial Field Engineering II</td>
<td>-</td>
<td>-</td>
<td>$1,223.00</td>
<td>$474.14</td>
<td>$1,697.14</td>
<td>Available Fall 2020</td>
<td>DFWEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Field Engineering III</td>
<td>Howton</td>
<td>M</td>
<td>$1,223.00</td>
<td>$189.44</td>
<td>$1,412.44</td>
<td>4:30 PM</td>
<td>9:30 PM</td>
<td>1/27</td>
<td>5/18</td>
<td>DFWEC</td>
</tr>
<tr>
<td>Commercial Field Engineering IV</td>
<td>Rodriguez</td>
<td>T</td>
<td>$1,223.00</td>
<td>$0.00</td>
<td>$1,223.00</td>
<td>4:30 PM</td>
<td>9:30 PM</td>
<td>1/21</td>
<td>5/19</td>
<td>DFWEC</td>
</tr>
<tr>
<td>Commercial Field Engineering V</td>
<td>-</td>
<td>-</td>
<td>$1,223.00</td>
<td>$0.00</td>
<td>$1,223.00</td>
<td>Available Fall 2020</td>
<td>DFWEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial Field Engineering VI</td>
<td>Perrin</td>
<td>W</td>
<td>$1,223.00</td>
<td>$74.69</td>
<td>$1,297.69</td>
<td>4:30 PM</td>
<td>9:30 PM</td>
<td>1/22</td>
<td>5/20</td>
<td>DFWEC</td>
</tr>
</tbody>
</table>

Commercial Field Engineering I

Prerequisite: English or Spanish TABE Reading Test and English or Spanish TABE Math Test or Applied Construction Math Class and ESL Placement test

The course will introduce the students with a working knowledge of the materials, methods, and equipment including drawings used in construction buildings today. Using the Construction Materials, Methods, and Techniques as a guide, the course topics include: Introduction to Field Engineering; Building Structures System, Construction, Standards; Material, Building Site, Soils Foundations; Concrete, Cast in place concrete, Precast; Masonry Mortars, Masonry Construction; Metals, Steel Frame Construction, Wood Plastic and Composites; Thermal Moisture Protection, Roofing Systems; Glass, Doors, Windows, Interior Finishes, Floors; Specialties, Equipment and Conveying Systems; Plumbing, Mechanical, Electrical; Division 01 to Division 05 Structural Drawings; Division 06 to Division 10 Structural and Architectural Drawings; and Division 11 to Division 16 Architectural Drawings.

Books and Materials for Commercial Field Engineering I

Item 1 purchased in Level I and used in Levels I-III-V
1. Blueprints, North Lake (North Campus half size) $18.00
2. Construction Materials Methods & Techniques 4th Ed $184.00
3. Calculator, TI 30Xa Scientific Programmable $16.00
Add 8.25% tax to your total cost

Commercial Field Engineering II

Prerequisite: Commercial Field Engineering I

This course covers the basic mathematical principles used for field surveying and measurement as applied to basic construction field engineering. Topics include: Dimensional; Conversions to Decimal Equivalents Unit Conversion, Algebra, Geometry-Perimeters, Area, Volumes; Trigonometry-Sine, Cosine & Tangents Right triangles; Law of Sine, Cosine Solving Oblique triangles; Instrument Setup Level Loops Records & Documentation Cut Fill Computation; Coordinate Geometry; Traverse Computations; Traverse Data Collection, Instrument set up; Horizontal Curves; and Vertical Curves.

Books and Materials for Commercial Field Engineering II

Item 1 purchased in Level I and used in Levels II-V
1. Calculator Programmable HP35S $128.00
2. Introductory to Technical Mathematics 7th Ed $310.00
Add 8.25% tax to your total cost

Commercial Field Engineering III

Prerequisite: Commercial Field Engineering II

The course is an overview of the Surveying Field practices as it applies to the Field Engineering profession. It will start with proper equipment, daily schedules, good notes, communicating and end with using the laser properly. The course topics include: Construction Surveying, Communication, Fieldwork Practices, Distance Measurement-Chaining, Angle Measurement, Total Station, Leveling, and Lasers.

Books and Materials for Commercial Field Engineering III

Item 1 purchased in Level I and used in Levels I and III-V
1. Blueprints, North Lake (North Campus half size) $18.00
2. Calculator Programmable HP35S $128.00
3. Scale, Engineering $14.00
4. T-41 Template $2.00
5. Engineering Computation Pad $10.00
6. Specification, North Lake Memory Stick $15.00
7. Construction Surveying & Layout 3rd Ed $121.00
8. Field Book $13.00
Add 8.25% tax to your total cost

Commercial Field Engineering IV

Prerequisite: Commercial Field Engineering III

This course including lab covers an overview of the surveying profession as it applies to Field Engineering. Part two covers the Office Work and the Calculations. The course topics include: Equipment Calibration, Office Practice, Math Essentials, Chain
Corrections, Traverse Computations, and Coordinate Geometry.

**Books and Materials for Commercial Field Engineering IV**

Item 1 purchased in Level I and used in Levels I and III-V
1. Blueprints, North Lake (North Campus half size) $18.00
2. Calculator Programmable HP35S $128.00
3. Scale, Engineering $14.00
4. T-41 Template $2.00
5. Engineering Computation Pad $10.00
6. Specification, North Lake Memory Stick $15.00
7. Construction Surveying & Layout 3rd Ed $121.00
8. Field Book $13.00

Add 8.25% tax to your total cost

**Commercial Field Engineering V**

*Prerequisite: Commercial Field Engineering IV*

This course including lab covers the advanced mathematical principles used for field surveying and measurement as applied to construction field engineering. The course topics include: Horizontal Curves, Vertical Curves, Quantities, Layout Techniques, Construction Control, One-Person Surveying, and Field Observations.

**Books and Materials for Commercial Field Engineering V**

Item 1 purchased in Level I and used in Levels I and III-V
1. Blueprints, North Lake (North Campus half size) $18.00
2. Calculator Programmable HP35S $128.00
3. Scale, Engineering $14.00
4. T-41 Template $2.00
5. Engineering Computation Pad $10.00
6. Specification, North Lake Memory Stick $15.00
7. Construction Surveying & Layout 3rd Ed $121.00
8. Field Book $13.00

Add 8.25% tax to your total cost

**Commercial Field Engineering VI**

*Prerequisite: Commercial Field Engineering V*

This course including lab covers an overview of the automated processes of office and field work commonly used by Field Engineers on construction sites today. This practical application of theory will focus on the handling of large amounts of design and as-built data using total station, data collector, and engineering & drafting computer software. Topics include: job setup, working with CAD files, generating point files, uploading and downloading points to the data collector, coordinate geometry routines, and 3-D stakeout.

**Books and Materials for Commercial Field Engineering VI**

1. Principles & Practice - An Integrated Approach to Engineering Graphics and AutoCAD 2020 $54.00
2. Specification, North Lake Memory Stick $15.00

Add 8.25% tax to your total cost
Construction Management/Technology

The CONSTRUCTION EDUCATION FOUNDATION, INC. (CEF) is an educational partner with NORTH LAKE COLLEGE (NLC) of the DALLAS COUNTY COMMUNITY COLLEGE DISTRICT. North Lake College also offers credit certificates and Associates in Applied Science (AAS) degrees in Construction Management, Construction Technology, and Electrical Technology. The AAS degree program in Construction Management is also accredited nationally by the American Council for Construction Education. If you desire to leverage your coursework taken through CEF into any additional educational credentials through North Lake College please call (972) 860-7835 or (972) 860-7873 for additional information.

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC-N=North Lake College North Campus, NLC-M=North Lake College Main Campus

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Commercial Blueprint Reading & Specifications

Prerequisite: English TABE Reading Test and if you have little or no construction experience, it is strongly recommended that you take the Commercial Materials Methods class or test out prior to taking the Blueprint Reading course.

This course consists of 48 hours and covers Commercial Blueprint Reading & Specifications with emphasis on the interrelationship between drawings, specifications and construction project. Topics include: Evolution of a Construction Project; Construction Documents; Plan Views; Elevations and Related Views; Sections, Details, Symbols, Schedules. Emphasis is given to Civil Architectural, Structural, Mechanical, Electrical Drawings and Specifications.

Note: Test-out option available. See Testing page for details.

Books & Materials for Commercial Blueprint Reading & Specifications
1. Print and Specifications Reading for Construction $134.00
2. Specification, North Lake Memory Stick $15.00
3. Blueprints North Lake (North Campus half size) $18.00
Add 8.25% tax to your total cost

Introduction to Construction Industry

Prerequisite: English TABE Reading Test

The student will identify construction organizational structures; identify and explain purposes for various construction documents; and describe construction office and field responsibilities & operations. The student will define and identify safety agencies & regulations, and the various construction crafts and trades. Course topics include: industry organization and hierarchy; contractor organization; subcontractors; contract documents; insurance and bonds; labor; elements of estate; job organization; and safety.

Books & Materials for Introduction to Construction Industry
1. Construction Management Jump Start/2nd the Best First Step to A Career in Construction Management $49.00
2. Specification, North Lake Memory Stick $15.00
3. Blueprints North Lake (North Campus half size) $18.00
Add 8.25% tax to your total cost

Project Scheduling

Prerequisite: The Commercial Blueprint Reading class is recommended prior to enrolling in this class.

This course will teach the student to prepare project schedules using logical construction sequence dependency diagrams, update these schedules and to prepare short time look-ahead schedules. Microsoft Project scheduling software will be used as the computer-based program for creating Gnatt and bar charts.

Books & Materials for Project Scheduling
1. Real World Construction Project Scheduling 2nd Ed $128.00
2. Microsoft Project 2013 Real World Scheduling $89.00
3. Blueprints North Lake (North Campus half size) $18.00
4. Memory Stick 8 GB $8.00
Add 8.25% tax to your total cost

STP Unit 6: Risk Management & Problem Solving

Prerequisite: None Required

This course will cover the roles and responsibilities of a construction supervisor in accident prevention and loss control. Topics include: Safety leadership, communication and expectations; Planning for site safety, Site safety management; Site security and protection; Multi-employer jobsite safety; Construction risk management; Safety and human resources; and Regulatory procedures, record keeping and documents.

Books & Materials for STP Unit 6: Risk Management & Problem Solving
STP Unit 6 Risk Management and Problem Solving 2015 Ed $122.00
Add 8.25% tax to your total cost
Drawing & Blueprint Reading

Courses that cover the development of the owner’s ideas into a multi-view sets of drawings or blueprints and specifications that will be used as the step by step guide in construction process of residential, commercial and industrial buildings and structures.

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

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Basic Commercial Blueprint Reading

Prerequisite: None Required
This course is designed for office, in the field personnel and is recommended for professional support staff for specialty and general contractors. Topics include: Evolution of the Construction Project—The Development of the Drawings & Specifications; Background Principles (Cracking the Code); Drawing Types Used in All Categories of Drawings; Reading Drawings for Information; Overview of Architectural & MEP Drawings; and Specifications.

Books & Materials for Basic Commercial Blueprint Reading
1. Print and Specifications Reading for Construction $134.00
2. Specification, North Lake Memory Stick (North Campus) $15.00
3. Blueprints, North Lake (North Campus half size) $18.00
Add 8.25% tax to your total cost

Commercial Blueprint Reading & Specifications

Prerequisite: English Reading Test and if you have little or no construction experience, it is strongly recommended that you take the Commercial Materials Methods course prior to taking the Commercial Blueprint Reading course.
This course covers Commercial Blueprint Reading and Specifications with emphasis on the interrelationship between the drawings, specifications and the construction project. Topics include: the evolution of a construction project; construction documents; plan views; elevations and related views; sections, details, symbols, and schedules. Emphasis is given to civil architectural, structural, mechanical, electrical drawings and specifications.

Books & Materials for Commercial Blueprint Reading & Specifications
1. Print and Specifications Reading for Construction $134.00
2. Specification, North Lake Memory Stick (North Campus) $15.00
3. Blueprints, North Lake (North Campus half size) $18.00
Add 8.25% tax to your total cost

Intermediate Building Systems Design using AutoCAD

Prerequisite: Introduction to Building Systems Using AutoCAD
This course provides AutoCAD users a continued understanding of AutoCAD’s features and limitations. Upon completion of this course students will be able to create advanced 2D and 3D Autocad drawings using advanced drafting techniques; layers, dimensioning, 3D modeling, rendering and plotting. Students will learn intermediate skills in addition to more advanced techniques for drawing setup and productivity which is crucial for today’s AutoCAD users in the construction industry.

Books & Materials for Intermediate Building Systems Design using AutoCAD
Items 1-2 purchased in Introduction to Building Systems Design Using AutoCAD used in both AutoCAD classes
1. 2020 AutoCAD and It’s Application Comprehensive 27th Ed $174.00
2. Memory Stick 8GB $8.00
Add 8.25% tax to your total cost

Piping Isometric

Prerequisite: None Required
This class defines an Isometric Drawing, it incorporates commercial drawings, mechanical pipe and plumbing details and shows how to draw in an isometric format. Emphasis is stressed on how to utilize isometrics in Construction day to day operations, including planning of material take offs, scheduling manpower, equipment and etc.

Books & Materials for Piping Isometric
1. Isometric Pad w/75 $38.00
2. Ruler, Angle 30-60 Degree $7.00
3. Ruler, Architect $8.00
Add 8.25% tax to your total cost
Electrical

Level I of the Electrical program is started in the Fall or Spring (Double-Time) semesters. All other levels are started in the Fall semester only.

NOTE: Semester “A” is the first semester of each level. Semester “B” is the second semester of each level.

PLEASE NOTE: The Electrical I-A class that starts in the Spring Semester requires the student to be enrolled in Electrical I-A and Electrical I-B concurrently.

Legend: M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

### Electrical Program

Note: Students are required to pass the Electrical Journeyman Exam to complete the Electrical Program.

#### Electrical I-B

**Prerequisite:** Electrical I-A

**Electrical I-A:** Consists of 80 hours per semester, including labs. Course topics are: Orientation to the Electrical Trade, Basic Safety, Electrical Safety, Introduction to Construction Math, Introduction to Hand Tools, Introduction to Power Tools, Electrical Test Equipment, Hand Bending, Introduction to Basic Rigging, Device Boxes, Introduction to Electrical Circuits, Basic Communication Skills and Basic Employability Skills.

**Electrical I-B:** Consists of 80 hours per semester, including labs. Course topics are: Electrical Theory, Introduction to Materials Handling, Introduction to NEC, Raceways, and Fittings, Conductors and Cables, Introduction to Construction Drawings; Basic Electrical Construction Drawings, and Residential Electrical Services.

Note: 1. Students must have a copy of the 2017 NEC edition.

Note: 2. All Electrical students are required to attend the following scheduled classes:

- a. Scissor lift and Forklift training 8 hrs Saturday class TBA
- b. CADweld Demo/license 4 hr class TBA
- c. Bluebeam Demo 4 hr class TBA

#### Books & Materials for Electrical I-A & I-B English/ Spanish

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<td>7</td>
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Add 8.25% tax to your total cost

#### Electrical II-B

**Prerequisite:** Electrical II-A

**Electrical II-A:** Consists of 80 hours per semester, including labs. Course topics are: Alternating Current, Motors: Theory & Application, Electrical Lighting, Conduit Bending, and Pull & Junction Boxes.

**Electrical II-B:** Consists of 80 hours including labs per semester. Course topics are: Conductor Installations, Cable Tray, Conductor Terminations and Splices, Grounding and Bonding, Circuit Breakers and Fuses, Control Systems and Fundamental Concepts, and Advanced Blueprint Reading.

Note: 1. Students must have a copy of the 2017 NEC edition.

Note: 2. All Electrical students are required to attend the following scheduled classes:

- a. Scissor lift and Forklift training 8 hrs Saturday class TBA
- b. CADweld Demo/license 4 hr class TBA
- c. Bluebeam Demo 4 hr class TBA
Books & Materials for Electrical II-B
Items 1-4 purchased in Level I-A, used in all levels
1. 2017 NEC Code Book $128.00
2. 2017 NEC Code Book Tabs $24.00
3. 2017 Mike Holt Electrical Exam Preparation $88.00
4. Calculator, Scientific TI30 XA $16.00
Item 5 purchased in Level II-A, used in Level II
5. Electrical Level 2 9th Ed $131.00
Add 8.25% tax to your total cost

17 sessions 80 hours

Electrical III-B

Prerequisite: Electrical III-A

Electrical III-A: Consists of 80 hours per semester, including labs. Course topics are: Load Calculations – Branch & Feeders Circuits, Conductor Selection and Calculations, Practical Applications of Lighting, Hazardous Locations, and Overcurrent Protection.

Electrical III-B: Consist of 80 hours per semester, including labs. Course topics are: Distribution Equipment, Transformers, Commercial Electrical Services, Motors Calculations, Voice, Data, and Video, and Motor Controls.

Note: 1. Students must have a copy of the 2017 NEC edition.
Note: 2. All Electrical students are required to attend the following scheduled classes:
   a. Scissor lift and Forklift training 8 hrs Saturday class TBA
   b. CADweld Demo/license 4 hr class TBA
   c. Bluebeam Demo 4 hr class TBA

Books & Materials for Electrical III-B
Items 1-4 purchased in Level I-A, used in all levels
1. 2017 NEC Code Book $128.00
2. 2017 NEC Code Book Tabs $24.00
3. 2017 Mike Holt Electrical Exam Preparation $88.00
4. Calculator, Scientific TI30 XA $16.00
Item 5 purchased in Level III-A, used in Level III
5. Electrical Level 3 9th Ed $131.00
Add 8.25% tax to your total cost

17 sessions 80 hours

Electrical IV-B

Prerequisite: Electrical IV-A

Electrical IV-A: Consists of 80 hours per semester, including labs. This level is crucial for Journeyman Exam Preparation. Course topics are: Load Calculations- Feeders & Services, Health Care Facilities, Standby & Emergency Systems, Basic Electronic Theory, and Fire Alarm Systems.

Electrical IV-B: Consists of 80 hours per semester, including labs. This level is crucial for Journeyman Exam Preparation. Course topics are: Specialty Transformers, Advanced Controls, HVAC Controls, Heat Tracing and Freeze Protection, Motor Operation and Maintenance, Medium Voltage Terminations/Splices, Special Locations, Fundamentals of Crew Leadership; Unit 5-Raceway and box Calculations- Part A- Raceway sizing, Insulated conductors- Chapter 9 tables 5 and 8, raceway properties and sizing, annex C, Part B - outlet box fill, sizing boxes for conductors, Part C- Pull and Junction boxes- sizing requirements; Unit 6-Part A- Conductor sizing and Protection- Conductor insulation, conductor sizes, equipment terminal ratings. Part B- conductor ampacity, ambient temperature corrections, rooftop installations, current carrying conductors, conductor sizing, feeder tap rules. Unit B- Motor and A/C calculations- Part A- Motor calculations- scope of article 430, motor full load currents, motor nameplates, branch circuit sizing, feeder conductor sizing, overcurrent protection, overload protection sizing, short circuit and ground fault protection.

Note: 1. Students must have a copy of the 2017 NEC edition.
Note: 2. All Electrical students are required to attend the following scheduled classes:
   a. Scissor lift and Forklift training 8 hrs Saturday class TBA
   b. CADweld Demo/license 4 hr class TBA
   c. Bluebeam Demo 4 hr class TBA

Books & Materials for Electrical IV-B
Items 1-4 purchased in Level I-A, used in all levels
1. 2017 NEC Code Book $128.00
2. 2017 NEC Code Book Tabs $24.00
3. 2017 Mike Holt Electrical Exam Preparation $88.00
4. Calculator, Scientific TI30 XA $16.00
Item 5-6 purchased in Level IV-A, used in Level IV
5. Electrical Level 4 9th Ed $131.00
6. 2017 Mike Holt Electrical Exam Preparation $88.00
Add 8.25% tax to your total cost

13 sessions 52 hours

Electrical Journeymen Prep

Prerequisite - All Required: (1) At least three years experience in Electrical Trade and preferably some classroom hours. (2) Basic math skills with ability to solve simple algebraic equations.
This class will consist of an intensive NEC review of Services and Service Equipment, Wiring Methods and Installation, Cabinets, Panelboards, Switchboards, Boxes and Conduit Bodies, Conductors, Motors and Generators, Utilization Equipment and Devices, Special Occupancies and Uses, Ambient Temperature and Other Conductor Derating Factors, Low Voltage Systems NEC requirements, and Hazardous locations.

Note: Students must have a copy of the 2017 NEC edition.

Books & Materials for Electrical Journeymen Prep
1. 2017 NEC Code Book $128.00
2. 2017 NEC Code Book Tabs $24.00
3. 2017 Mike Holt Electrical Exam Preparation $88.00
Add 8.25% tax to your total cost

13 sessions 52 hours

Electrical Master Prep

Prerequisite - All Required: (1) At least three years experience in Electrical Trade and preferably some classroom hours. (2) Basic math skills with ability to solve simple algebraic equations.
This class will consist of an intensive NEC review of Services and Service Equipment; Wiring Methods and Installation; Conductors; Special Occupancies and Uses; Ambient Temperature Derating; electrical calculations of single family, multi-family and two family dwellings, electrical calculations of commercial structures, i.e. schools, offices, stores, banks, marinas, etc.

Note: Students must have a copy of the 2017 NEC edition.

Books & Materials for Electrical Master Prep
1. 2017 NEC Code Book $128.00
2. 2017 NEC Code Book Tabs $24.00
3. 2017 Mike Holt Electrical Exam Preparation $88.00
Add 8.25% tax to your total cost
Heating Ventilation Air Conditioning

The HVAC levels one through four are all started in the Fall semester.

NOTE: Semester “A” is the first semester of each level. Semester “B” is the second semester of each level.

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Commercial HVAC Service I-B

**Prerequisite:** Commercial HVAC Service I-A

**Commercial HVAC Service I-A** - This course will cover topics such as: Basic Safety, Introduction to HVAC, Trade Mathematics, Basic Electricity, Fasteners, Hardware, and Wiring, Basic Copper & Plastic Pipe Practices, and Soldering & Brazing.

**Commercial HVAC Service I-B** - This course will cover topics such as: Basic Carbon Steel Piping Practices, Introduction to Cooling, Refrigerants and Oils, Leak Detection; Evaluation; Recovery & Charging, Metering Devices, EPA Training/ Testing and Compressors.

Note 1: EPA Section 608 Universal Certification is highly recommended in order to graduate from this program. EPA Exam is offered in Spring only.

Note 2: Graduation Requirement: Students enrolled in HVAC I-B will be required to take the EPA Section 608 Refrigerant Recovery Exams. This EPA Section 608 Refrigerant Recovery class is MANDATORY for all students enrolled in HVAC I-B, unless the student has already received the EPA Core and Type II Certification. Proof of EPA Certification is required.

Note 3: Commercial HVAC I-B will meet an extra day on Thursday, March 12, 2020.

**Books and Materials for Commercial HVAC Service I-B**

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<td>3. TI 30XA Scientific Calculator</td>
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<td>4. EPA Section 608 Technician Certification Stationary Equipment Study Guide 3rd Ed</td>
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<td>5. Fasteners, Hardware, and Wiring</td>
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<td>6. Basic Safety</td>
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Add 8.25% tax to your total cost

Commercial HVAC Service II-B

**Prerequisite:** HVAC Commercial Service II-A

**Commercial HVAC Service II-A** - This course will cover topics such as: Basic Safety, Introduction to HVAC, Trade Mathematics, Basic Electricity, Fasteners, Hardware, and Wiring, Basic Copper & Plastic Pipe Practices, and Soldering & Brazing.

**Commercial HVAC Service II-B** - This course will cover topics such as: Chimneys, Vents & Flues, Troubleshooting Gas Heating, Troubleshooting Oil Heating, Control Circuit and Motor Troubleshooting, Basic Maintenance, and Zoning, Ductless and Variable Refrigerant Flow Systems.

Note 1: EPA Section 608 EPA Core and Type II Certification is a prerequisite for students going into HVAC III-A. If you have not passed this section of the exam, you should register to retake the EPA Exam prior to the completion of HVAC Level II-B.

Note 2: Commercial HVAC II-B will meet an extra day on Thursday, March 26, 2020.

**Books & Materials for Commercial HVAC Service II-B**

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<td>4. HVAC Level 3 4th Ed</td>
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Add 8.25% tax to your total cost

Commercial HVAC Service III-B

**Prerequisite:** Commercial HVAC III-A and EPA Section 608 Core and EPA Type II Certification.

**HVAC Commercial Service III-A** - This course will cover topics such as: Introduction to Hydronic Systems; Commercial Hydronic Systems; Customer Relations; Heat Pumps; Troubleshooting Heat Pumps; and Troubleshooting Cooling.

**HVAC Commercial Service III-B** - This course will cover topics such as: Troubleshooting Accessories; System Start Up and Shut Down; Building Management Systems; Water Treatment; and Steam Systems.

Note 1: Commercial HVAC III-B will meet an extra day on Thursday, March 12, 2020.
Commercial HVAC Service IV-B

Prerequisite: HVAC Level IV-A

HVAC Commercial Service IV-A - This course will cover topics such as: Construction Drawings & Specifications, Air Quality Equipment, Indoor Air Quality, Commercial Airside Systems, System Air Balancing, and Energy Conversation Equipment.

HVAC Commercial Service IV-B - This course will cover topics such as: Heating & Cooling System Design, and Commercial/Industrial Refrigeration Systems, Retail Refrigeration Systems, Alternative and Specialized Heating and Cooling Systems, and Fundamentals of Crew Leadership.

Note 1: Commercial HVAC IV-B will meet an extra day on Thursday, March 26, 2020.

EPA Refrigerant Recovery Certification Review & Exam

Prerequisite: None Required

This course includes training and testing for Core, Types I, II, and III, required by the United States Environmental Protection Agency (EPA). Course topics include: Refrigerant Transition and Recovery Certification. Lunch is included. Test is available in English or Spanish. A Spanish supplement to the English student handbook is available, upon request.

Note 1: ATTENTION STUDENTS ENROLLED IN COMMERCIAL HVAC SERVICE I-A: You will receive this training and the exam in Commercial HVAC Service I-B. You do not need to enroll in this class.

Note 2: The instructor highly recommends that students pick up and study their EPA Section 608 book at least 2 weeks prior to the start of class. A book will not be issued until the student’s company has signed and approved the registration form. Early registration is encouraged.

Note 3: Students will need to bring their EPA Section 608 Book to the class. Students possessing an EPA Refrigerant Recovery card for one or more Types, must present the card to the Instructor the day of class. Otherwise the student will be required to take all 4 exams. This is mandated by the EPA, so no exceptions can be made.

Books & Materials for EPA Refrigerant Recovery Certification: Review & Exam

EPA Section 608 Technician Certification Stationary Equipment Study Guide 3rd Ed $14.00
Add 8.25% tax to your total cost

Books and Materials for Commercial HVAC Service IV-B

Item 1 purchased in Level I-A and used in Levels I-III
1. HVAC Level 2 4th Ed $131.00
Item 2 purchased in Level I-A and used in Levels I-IV
2. TI 30XA Scientific Calculator $16.00
Item 3 purchased in Level II-A and used in Levels II-III
3. HVAC Level 3 4th Ed $131.00
Item 4 purchased in Level III-A and used in Levels III-IV
4. HVAC Level 4 4th Ed $131.00
Add 8.25% tax to your total cost

2 session 8 hours

www.bibbybrilling.com

Three Generations of Insurance Services
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Language

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

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16 sessions 48 hours

English as a Second Language I

Prerequisite: None Required
This course prepares students to communicate orally in both public and work environments. Emphasis is placed on developing language functions, pronunciation, listening skills, and improving social and intercultural skills.
NOTE: Test-Out available for Level I at no extra charge. See Career Testing page for details.

Books & Materials for English as a Second Language I
Ingles Como Segundo Idioma - Nivel I
Ready to Go Packet Level 1 $40.00
Add 8.25% tax to your total cost

16 sesiones 48 horas

English as a Second Language II

Prerequisite: ESL I class or test
Students are taught to communicate orally in public and work environments. Emphasis is placed on developing language functions, pronunciation, listening skills, improving social and intercultural communication skills. Students acquire reading skills, vocabulary development, critical thinking skills, and the use of resources.

Books & Materials for English as a Second Language II
Ingles Como Segundo Idioma - Nivel II
Ready to Go Packet Level 2 $40.00
Add 8.25% tax to your total cost

16 sesiones 48 horas

English as a Second Language III

Pre-requisite: ESL II
Continuación de ESL II. Este curso prepara al alumno para comunicarse con confianza en situaciones sociales y en el trabajo. Se desarrollan las varias funciones del lenguaje, se mejora la pronunciación y comprensión auditiva y se practica la comunicación social y transcultural. Los cursos instruye a los estudiantes, desarrollo de vocabulario, pensar en forma crítica y el uso de los varios recursos disponibles en la institución.

Books & Materials for English as a Second Language III/ Ingles Como Segundo Idioma - Nivel III
Ready to Go Packet Level 3 $40.00
Add 8.25% tax to your total cost

16 sesiones 48 horas

English as a Second Language IV

Prerequisite: ESL III
This course is designed to help students increase fluency and build confidence in writing. Through inventing, drafting, and revising, students write for specific purposes. Instruction and practice with
discrete grammar points necessary for effective writing.

**Books & Materials for English as a Second Language IV**
Ready To Go Packet Level 4 $40.00
Add 8.25% tax to your total cost

**Spanish for Construction Sites**
*Prerequisite: ESL III*
This is a comprehensive Spanish language program that provides immediate access to functional language skills for non-Spanish-speaking construction site personnel. This course will also cover the many issues involved with effectively supervising Spanish-speaking employees. The language component utilizes phonetic encoding to present the most important Spanish commands, questions, and phrases pertinent to the construction site.

**Books & Materials for Spanish for Construction Sites**
Spanish for Construction Sites Audio CD $34.00
Add 8.25% tax to your total cost

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**We Proudly Support the Construction Education Foundation**
We wish the staff, instructors, and students continued success for the upcoming semester.

---

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# BICSI Training Schedule

**Classes held at:**
Craig Consulting Training Center, 13370 Branch View Lane, Suite # 140, Dallas, Texas 75234, (972) 393-1669

*Register for all classes at www.bicsi.org*

Schedule subject to change based upon Customer requests.

<table>
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<tr>
<th>Course</th>
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To obtain certification by BICSI, students must successfully pass the BICSI hands-on and written tests. Examination/registration fees of $335 are payable directly to BICSI and are not included in the tuition fee.

**BICSI ITS Copper Training IN 225**
Join an elite group of installers who possess this high level of skills training. Take your installation performance to the next level through the study of specialized systems and advanced copper structured cabling systems. IN225 is an intensive 5-day course providing the necessary skill set of a structured cabling systems copper installer. An advanced study of copper components and systems including current codes & standards will begin this course. A significant amount of course time will then be spent on the splicing, testing and troubleshooting of copper cable. The third major topic covered in this class will be field coordination, including site surveys, reading of floor plans, network infrastructure and retrofit planning and performance. This course will also cover some special topics within ITS cabling installation including Healthcare and Data Center applications.

The 7th edition ITSIMM manual, workbook, and all required materials are included in the tuition price.

**BICSI ITS Optical Fiber Training IN 250**
Join an elite group of installers who possess this high level of skills training. Take your installation performance to the next level through the study of specialized systems and advanced optical fiber structured cabling systems. IN250 is an intensive 5-day course that provides the necessary skill set of a structured cabling systems optical fiber installer. An advanced study of optical fiber components and systems including current codes & standards will open this course. A significant amount of course time will then be spent on the splicing, testing and troubleshooting of optical fiber cable. The third major topic covered in this class will be field coordination, including site surveys, blueprint reading, network infrastructure and project management. This course will also cover some special topics within ITS cabling installation including Healthcare and Data Center applications.

The 7th edition ITSIMM manual, workbook, and all required materials are included in the tuition price.

**BICSI ITS Technician Training IN350**
Join an elite group of installers who possess this high level of skills training. Take your installation performance to the next level through the study of specialized systems and advanced copper and optical fiber structured cabling systems. TE350 is an intensive 5-day course that provides the necessary skill set of a structured cabling systems technician. An advanced study of copper splicing, testing and troubleshooting will open this course. A significant amount of the course time will then be spent on the splicing, testing and troubleshooting of optical fiber cable. The third major topic covered in this class will be field coordination, including site surveys, blueprint reading, network infrastructure and project management. This course will also cover some of the specific applications installation personnel encounter within ITS cabling installations.

The 7th edition ITSIMM manual, workbook, and all required materials are included in the tuition price.
### Mathematics

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

<table>
<thead>
<tr>
<th>Course</th>
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**Applied Construction Math I**

**Prerequisite: None Required**

This course is designed for students who have little math skills (grade school level), or who have not had a math course for several years. Upon completion, this course will provide an understanding of fundamental operations using whole numbers, fractions, decimals, and percentages. Basic math skills are strengthened through applications found in the construction industry. Students are introduced to logical problem solving.

**Books & Materials for Applied Construction Math I**

1. Introductory to Technical Mathematics 7th Ed $310.00
2. Calculator, Scientific TI30 XA $16.00

Add 8.25% tax to your total cost

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Total Amount includes a $50.00 fee for box lunches
Registration for these courses is done through PHCC TEXAS.
For more information please contact PHCC at 800.831.9313 x204.

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Office of Apprenticeship Federal Registration
PHCC is registered with the U.S. Department of Labor, Office of Apprenticeship Training (OA) for the PHCC program. Companies who wish to register federally as well, must have a signed agreement with PHCC. Companies that are interested in becoming a member of the Office of Apprenticeship Federally Registered Program and enrolling employees in a qualified trade may contact PHCC for more information regarding requirements. Companies will be asked to sign an agreement with PHCC to comply with the federally approved standards of the program. Students will be required to fill out paperwork, take prerequisite testing (reading and math test), as well as undergo an interview to evaluate them for the program. Companies will be charged a set-up fee (contact PHCC) for each apprentice registered with the OA program as well as an annual maintenance fee. If for any reason a student is deregistered and reinstated to the OA program, a fee of $150.00 will be charged to the company for the student. For more information regarding the PHCC Federal Registration program, please contact Patricia Scroggins, Facilitator for PHCC at CEF at 972.574.5200.

Registered Veterans
Craft Apprenticeship Veterans
Veteran’s who are enrolled in a four-year apprenticeship training program may use their GI Bill to train at PHCC. Applications may be submitted to the VA Department year round. PHCC is authorized to assist you in registering for your benefits. This aid is available to only those that qualify as determined by the VA office in Muskogee, OK. You will also be required to be registered with the Office of Apprenticeship & Training U.S. Department of Labor. Please call Patricia Scroggins, Facilitator for PHCC at CEF between the hours of 8:30–5:30 for more information. You may also call 888.442.4551 and speak directly with a VA specialist.
Pipefitting

Level I of the Pipefitting program is started in the Fall or Spring (Double-Time) semesters. All other levels are started in the Fall semester only. 
NOTE: Semester “A” is the first semester of each level. Semester “B” is the second semester of each level.

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

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Pipefitting Double Time I-A & I-B
NOTE: Must be enrolled concurrently in Pipefitting I-A & I-B

Prerequisite: English TABE Reading Test and English TABE Math or Applied Construction Math class

Pipefitting I-B

Prerequisite: Pipefitting I-A
Pipefitting I-B - Consists of 80 hours including labs. Course topics will include: Introduction to Construction Drawings, Oxyfuel Cutting, Ladders and Scaffolds, Motorized Equipment, Basic Communication Skills, Basic Employability Skills, and Introduction to Material Handling.

Books & Materials for Pipefitting I-B
Item 1 purchased in Level I-A and used in Levels I-IV
1. Calculator, Scientific TI30 XA $16.00
2. Core Curriculum 5th Ed $73.00
3. Pipefitting Level 1 3rd Ed $90.00
4. Pipe Fitter’s Math Guide 1st Ed $42.00
Add 8.25% tax to your total cost

Pipefitting II-B

Prerequisite: Pipefitting II-A
Pipefitting II-A - Consists of 80 hours including labs. Course topics will include: Piping Systems, Drawings and Detail Sheets, Indentifying Installing Valves, Pipefitter Trade Math, and Threaded Pipe Fabrication.
Pipefitting II-B - Consists of 80 hours including labs. Course topics will include: Socket Weld Pipe Fabrication, Butt Weld Pipe Fabrication, Excavations, and Underground Pipe Installation.

Books & Materials for Pipefitting II-A
Item 1 purchased in Level I-A and used in Levels I-IV
1. Calculator, Scientific TI30 XA $16.00
2. Pipefitting Level 2 3rd Ed $131.00
Add 8.25% tax to your total cost

Pipefitting III-B

Prerequisite: Pipefitting III-A
Pipefitting III-A - Consists of 80 hours including labs: Course topics will include: Rigging Equipment, Rigging Practices, Standards and Specifications, Advanced Pipefitting Trade Math, and Motorized Equipment Two.
Pipefitting III-B - Consists of 80 hours including labs: Course topics will include: Introduction to Above Ground Piping Installation, Field Routing and Vessel Trim, Pipe Hangers and Supports, and Testing Piping Systems & Equipment.

Books & Materials for Pipefitting III-B
Items 1-2 purchased in Level III-A and used in level III
1. Pipefitting Level 3 3rd Ed $131.00
2. Compass, Jet Bow with Beam Bar $44.00
Add 8.25% tax to your total cost

Pipefitting IV-B

Prerequisite: Pipefitting IV-A
Pipefitting IV-A - Consists of 80 hours including labs. Course topics will include: Advanced Blueprint Reading, and Advanced Pipe Fabrication.
Pipefitting IV-B - Consists of 80 hours including labs. Advance Pipe Fabrication, Stress Relieving and Aligning, Steam Traps, Inline Specialties, Special Piping, Hot Taps, Maintaining Valves, and Introduction to Supervisory Roles.

Books & Materials for Pipefitting IV-B
Item 1 purchased in Level IV-A and used in level IV
1. Pipefitting Level 4 3rd Ed $131.00
Add 8.25% tax to your total cost
Plumbing

The Plumbing levels one through four are all started in the Fall semester.  
NOTE:  Semester “A” is the first semester of each level.  Semester “B” is the second semester of each level.

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**Backflow Awareness (16 CEU hours)**

*Prerequisite:  Student must have a current Backflow Prevention Assembly Testers License*

This course offers Texas Commission of Environmental Quality (TCEQ) continuing education hours for those who have already received their BPAT license. The course consists of 16 hours of class and lab work, which will include all new and updated information from the industry and governmental bodies. The class is split with 4 hours in the lab and 12 hours in the classroom. Lunch is provided both days.

Note 1: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request. Contact the CEF office for book cost and to request a copy PRIOR to the first day of class. 972.574.5200

Note 2: This course also meets TCEQ Backflow continuing education requirements for Irrigation/Landscape Inspector License.

**Books & Materials for Backflow Awareness**

None Required

**Backflow Practical Skills Refresher (8 CEU hours)**

*Prerequisite:  Student must have a current Backflow Prevention Assembly Testers License.*

This course offers Texas Commission of Environmental Quality (TCEQ) continuing education hours for those who have already received their BPAT license. The course consists of 8 hours of class and lab work, which will include all new and updated information from the industry and governmental bodies. The class is split with 7 hours in the lab and 1 hour in the classroom. Lunch will be provided.

Note 1: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request. Contact the CEF office for book cost and to request a copy PRIOR to the day of the class. 972.574.5200

Note 2: This course also meets TCEQ Backflow continuing education requirements for Irrigation/Landscape Inspector License.

**Books & Materials for Backflow Practical Skills Refresher**

None Required
Backflow Prevention Assembly Tester Certificate

Prerequisite: 2-years experience in a water-related industry such as plumbing, sprinkler fitting, fire alarm, irrigation, etc.
This 40-hour course offers Texas Commission of Environmental Quality (TCEQ) licensing in Backflow Prevention, using our state-of-the-art classrooms and labs along with expert instruction required for certification and testing of backflow assemblies in the state of Texas. Course topics include: History of backflow prevention; Testing and repair of assemblies (RPZA; DCVA; PVB; and SRVB); Cross connection control program with state and local ordinance information and all related subjects. Course is also approved for 8-hour CEU in Customer Service Inspectors License, Irrigator License, Wastewater Operators License, Water Operators License and Water Treatment Specialist License.
Note: This course also meets TCEQ Backflow requirements for Irrigation/Landscape Inspector License.

Books & Materials for Backflow Prevention Assembly Tester Certificate
1. USC: Manual of Cross-Connection Control 10th Ed $169.00
2. Basic Safety Module 00101-15 $27.00
Add 8.25% tax to your total cost

Piping Isometric

Prerequisite: None Required
This class defines an Isometric Drawing, it incorporates commercial drawings, mechanical pipe and plumbing details and shows how to draw in an isometric format. Emphasis is stressed on how to utilize isometrics in Construction day to day operations, including planning of material take offs, scheduling manpower, equipment and etc.

Books & Materials for Piping Isometric
1. Isometric Pad w/75 $38.00
2. Ruler, Angle 30-60 Degree $7.00
3. Ruler, Architect $8.00
Add 8.25% tax to your total cost

Plumbing Double Time I-A & I-B

NOTE: Must be enrolled concurrently in Plumbing DT I-A & I-B

Prerequisite: English TABE Reading Test and English TABE Math or Applied Construction Math class
See Descriptions and Books/Materials below

Plumbing I-B

Prerequisite: Plumbing I-A
Plumbing II-B

Prerequisite: Plumbing II-A
Plumbing II-B - Consists of up to 80 hours per semester, including lab. Course topics are: Installing & Testing Water Supply Piping; Installing Fixtures and Valves; Basic Electric; Installing Water Heaters; and Fuel Gas and Fuel Oil Systems
Plumbing III-B

Prerequisite: Plumbing III-A

Plumbing III-A - Consists of up to 80 hours per semester, including lab. Course topics are: Applied Math, Sizing & Protecting the Water Supply System, Potable Water Supply Treatment, and Types of Venting.

Plumbing III-B - Consists of up to 80 hours per semester including lab. Course topics are: Sizing & Protecting the Water Supply System, Sizing DWV & Storm Systems, Sewage Pumps & Sump Pumps, Corrosive-Resistant Waste Piping, Compressed Air, and Service Plumbing.

Plumbing IV-B

Prerequisite: Plumbing IV-A

Plumbing IV-A - Consists of 80 hours per semester, including lab. Course topics are: Business Principles for Plumbers, Fundamentals of Crew Leadership, Water Pressure Booster & Recirculation System, and indirect & Special Waste.

Plumbing IV-B - Consists of 80 hours per semester, including lab. Course topics are: Hydronic & Solar Heating Systems, Codes, Private Water Supply Well Systems, Private Waste Disposal Systems, Swimming Pools & Hot Tubs, Plumbing for Mobile Home & Travel Trailer, and Introduction to Medical Gas & Vacuum Systems. Plumbing Journeyman Prep that will provide a review of subjects that are needed to pass the written exam for the plumber’s journeyman license exam. For the practical portion of the exam the class will also include practice on our custom designed house, this house is comparable to the 2-story house used in the State of Texas Plumbing Exam in Austin.

Books & Materials for Plumbing II-B

Item 1 purchased in Level I-A, used in all levels
1. Calculator Scientific TI 30xa $16.00
Item 2 purchased in Level II-A and used in Level II
2. Plumbing Level 2 4th Ed $131.00
Add 8.25% tax to your total cost

17 sessions 80 hours

Books & Materials for Plumbing III-B

Item 1 purchased in Level I-A and used in all Levels
1. Calculator Scientific TI 30xa $16.00
Items 2-5 purchased in Plumbing III-A and used in Level III-IV
2. 2018 International Plumbing Code Book (SC) $123.00
3. 2018 International Plumbing Code Tabs (SC) $23.00
4. 2015 Drain Waste & Vent Pipe Sizing Calculator $20.00
5. 2015 Water Pipe Sizing Calculator $20.00
Item 6 purchased in Plumbing III-A and used in Level III
6. Plumbing Level 3 4th Edition $131.00
Add 8.25% tax to your total cost

1 session 8 hours

Books & Materials for Plumbing IV-B

Item 1 purchased in Level I-A and used in all Levels
1. Calculator Scientific TI 30xa $16.00
Items 2-5 purchased in Plumbing III-A and used in Level III-IV
2. 2018 International Plumbing Code Book (SC) $123.00
3. 2018 International Plumbing Code Tabs (SC) $23.00
4. 2015 Drain Waste & Vent Pipe Sizing Calculator $20.00
5. 2015 Water Pipe Sizing Calculator $20.00
Item 6 purchased in Plumbing III-A and used in Level III
6. Plumbing Level 3 4th Edition $131.00
Add 8.25% tax to your total cost

2 sessions 16 hours

Books & Materials for Plumbing Journeyman Exam Prep

Plumbers Examination Preparation Guide 9th Ed $51.00
Add 8.25% tax to your total cost

2 sessions 16 hours

Books & Materials for Water Treatment Specialist

None Required

Note: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request. Contact the CEF office for book cost and to request a copy PRIOR to the first day of class. 972.574.5200
Safety Training

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

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OSHA 30-Hour Construction Industry

Prerequisite: None Required

Topics Include: Introduction to OSHA (OSH Act, General Duty Clause, Employer and Employee Rights and Responsibilities, Recordkeeping, Inspections, Citations, Penalties, General Safety and Health Provisions, Competent Person, Value of Safety and Health, OSHA Website), OSHA Focus Four Hazards (Fall protection, Electrical, Struck By, Caught In/Between), Personal Protective and Lifesaving Equipment, Health Hazards in Construction, Stairways and Ladders, Fire Protection and Prevention, Materials Handling (Storage, Use, and Disposal), Tools (Hand and Power), Welding and Cutting, Scaffolds, Cranes, Derricks, Hoists, Elevators and Conveyors, Excavations, Concrete and Masonry, Steel Erection, Confined Space Entry, and Powered Industrial Vehicles.

Note: The first seven (7) class nights will be from 3:30pm-7:40pm, the last night will be from 3:30pm-5:30pm.

CPR/AED/First Aid

We offer Basic First Aid/CPR and AED from Medic First Aid using a video-based instruction which enables students to learn in a realistic setting. Students will practice the Basic CPR skills in small groups.

Do you need CPR training for your company? Contact us to schedule at 972.574.5200

Books & Materials for OSHA 30-Hour Construction Industry

OSHA 29 CFR 1926 2019 $29.00
Add 8.25% tax to your total cost

Baker Triangle

acoustical | drywall | plaster | EIFS | prefab
austin | dallas | fort worth | houston | san antonio
bakertriangle.com | since 1974
Sheet Metal

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

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</table>

18 sessions 80 hours

Sheet Metal I-B

Prerequisite: Sheet Metal I-A

Sheet Metal I-A - This course consists of 80 hours per semester including labs. Course topics: The first portion of the class each night will cover the Introduction to Construction Math, Trade Math One, Basic Safety, Introduction to Hand Tools, Introduction to Power Tools, Tools of the trade, Introduction to Basic Rigging, Introduction to Materials Handling, Introduction to the Sheet Metal Trade, and Introduction to Sheet Metal Layout & Processes. The second portion of each class will cover Basic Construction Math.

Books & Materials for Sheet Metal I-B

- Item 1 purchased in Level I-A and used in all levels
  1. Calculator TI 30xa $16.00
- Items 2 & 3 purchased in Level I-A and used in Level I
  2. Core Curriculum 5th Ed $73.00
  3. Sheet Metal 1 3rd Ed $90.00
- Add 8.25% tax to your total cost

Sheet Metal II-B

Prerequisite: Sheet Metal II-A

Sheet Metal II-A - This course consists of 80 hours per semester including labs. Course topics: Trade Math Two, Plans & Specifications; Fabrication Two: Radial Line Development; and Sheet Metal Duct Fabrication Standards.

Sheet Metal II-B - This course consists of 80 hours per semester including labs. Course topics: Air Properties and Distribution; Bend Allowances; Soldering; Louvers, Dampers, and Access Door, Basic Piping Practices, Shop Production and Organization, Fiberglass Duct and Basic Estimating & Take Off.

18 sessions 80 hours

Books & Materials for Sheet Metal II-B

- Item 1 purchased in Level I-A and used in all levels
  1. Calculator TI 30xa $16.00
- Items 2-4 purchased in Level II-A and used in Level II
  2. Sheet Metal 2 3rd Ed $131.00
  3. Louvers, Dampers, and Access Doors 04304-09 $27.00
  4. Shop Production and Organization 04401-09 $27.00
- Add 8.25% tax to your total cost

Sheet Metal III-B

Prerequisite: Sheet Metal III-A

Sheet Metal III-A - This course consists of 80 hours per semester including labs. Course topics: Trade Math Three- Field Measuring & Fitting; Air Systems, Kitchen Ducts; Principles of Air Flow; and Fume and Exhaust System Design.

Sheet Metal III-B - This course consists of 80 hours per semester including labs. Course topics: Comprehensive Plan & Spec Reading; Air Testing and Balancing; Introduction to Welding, Brazing and Cutting; Introductory Supervisory Skills; Fabrication Three-Triangulation; Advanced Architectural Sheet Metal, and Fabrication Four- Comprehensive Review.

Books & Materials for Sheet Metal III-B

- Item 1 purchased in Level I-A and used in all levels
  1. Calculator TI 30xa $16.00
- Items 2-4 purchased in Level III-A and used in Level III
  3. Sheet Metal 3 3rd Ed $131.00
  4. Sheet Metal 4 3rd Ed $131.00
- Add 8.25% tax to your total cost
State License Continuing Education and Certification

CEF is a continuing education provider for the Texas Department of Licensing and Regulation (TDLR) for electricians as established by law (Texas Occupation code, Chapter 51, Section 405) and rule (Texas Administration Code, Chapter 59). CEF is also a continuing education provider for the Texas Commission on Environmental Quality (TCEQ) for licensed Backflow Prevention Assembly Testers, and provides training for Backflow Prevention Assembly Tester Certification.

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

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### Backflow Awareness (16 CEU hours)

**Prerequisite:** **Student must have a current Backflow Prevention Assembly Testers License**

This course offers Texas Commission of Environmental Quality (TCEQ) continuing education hours for those who have already received their BPAT license. The course consists of 16 hours of class and lab work, which will include all new and updated information from the industry and governmental bodies. The class is split with 7 hours in the lab and 1 hour in the classroom. Lunch will be provided.

Note 1: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request. Contact the CEF office for book cost and to request a copy PRIOR to the first day of class. 972.574.5200

Note 2: This course also meets TCEQ Backflow continuing education requirements for Irrigation/Landscape Inspector License.

**Books & Materials for Backflow Awareness**

None Required

### Backflow Practical Skills Refresher (8 CEU hours)

**Prerequisite:** **Student must have a current Backflow Prevention Assembly Testers License**

This course offers Texas Commission of Environmental Quality (TCEQ) continuing education hours for those who have already received their BPAT license. The course consists of 8 hours of class and lab work, which will include all new and updated information from the industry and governmental bodies. The class is split with 7 hours in the lab and 1 hour in the classroom. Lunch is provided all 5 days.

**Books & Materials for Backflow Practical Skills Refresher**

None Required

### Backflow Prevention Assembly Tester Certificate

**Prerequisite:** 2-years experience in a water-related industry such as plumbing, sprinkler fitting, fire alarm, irrigation, etc.

This 40-hour course offers Texas Commission of Environmental Quality (TCEQ) licensing in Backflow Prevention, using our state-of-the-art classrooms and labs along with expert instruction required for certification and testing of backflow assemblies in the state of Texas. Course topics include: History of backflow prevention; Testing and repair of assemblies (RPZA; DCVA; PVB; and SRVB); Cross connection control program with state and local ordinance information and all related subjects. Course is also approved for 8-hour CEU in Customer Service Inspectors License, Irrigator License, Wastewater Operators License, Water Operators License and Water Treatment Specialist License. Lunch is provided all 5 days.
Note: This course also meets TCEQ Backflow requirements for Irrigation/Landscape Inspector License.

Books & Materials for Backflow Prevention Assembly Tester Certificate
1. USC: Manual of Cross-Connection Control 10th Ed $169.00
2. Basic Safety Module 00101-15 $27.00
Add 8.25% tax to your total cost

Electrical Journeymen Prep English/Spanish
Prerequisite - All Required: (1) At least three years experience in Electrical Trade and preferably some classroom hours. (2) Basic math skills with ability to solve simple algebraic equations.
This class will consist of an intensive NEC review of Services and Service Equipment, Wiring Methods and Installation, Cabinets, Panelboards, Switchboards, Boxes and Conduit Bodies, Conductors, Motors and Generators, Utilization Equipment and Devices, Special Occupancies and Uses, Ambient Temperature and Other Conductor Derating Factors, Low Voltage Systems NEC requirements, and Hazardous locations.

Books & Materials for Electrical Journeymen Prep English/Spanish
1. 2017 NEC Code Book $124.00
2. 2017 NEC Code Book Tabs $22.00
3. 2017 Mike Holt Electrical Exam Preparation $88.00
Add 8.25% tax to your total cost

Electrical Master Prep
Prerequisite - All Required: (1) At least three years experience in Electrical Trade and preferably some classroom hours. (2) Basic math skills with ability to solve simple algebraic equations.
This class will consist of an intensive N.E.C.review of Services and Service Equipment; Wiring Methods and Installation; Cabinets, Panelboards, Switchboards, Boxes and Conduit Bodies, Conductors, Motors and Generators; Utilization Equipment and Devices; Special Occupancies and Uses; Plan Reading and Analysis; Ambient Temperature Derating; Hazardous locations; Transformer Turns Ratio and Tables.

Books & Materials for Electrical Master Prep
1. 2017 NEC Code Book $124.00
2. 2017 NEC Code Book Tabs $22.00
3. 2017 Mike Holt Electrical Exam Preparation $88.00
Add 8.25% tax to your total cost

EPA Refrigerant Recovery Certification Review & Exam
Prerequisite: None Required
This course includes training and testing for Core, Types I, II, and III, required by the United States Environmental Protection Agency (EPA). Course topics include: Refrigerant Transition and Recovery Certification. Lunch is included. Test is available in English or Spanish. A Spanish supplement to the English student handbook is available, upon request.

Note 1: Attention students enrolled in Commercial HVAC Service I-B: This course/exam is included in Commercial HVAC Service I-B. You do not need to enroll separately for this class. It is MANDATORY for all students enrolled in Commercial HVAC Service I-B to attend this course (see schedule), unless proof of existing Universal Certification has been received.

Note 2: The instructor highly recommends that students pick up and study their EPA Section 608 book at least 2-3 weeks prior to the start of class. A book will not be issued until the student’s company has signed and approved the registration form. Therfore, early registration is encouraged.

Note 3: Students will need to bring their EPA Section 608 Book to the class and for all retests. Also, students already possessing an EPA Refrigerant Recovery card for one or more Types, must present the card to the Instructor the day of class. Otherwise the student will be required to take all 4 exams. This is mandated by the EPA, so no exceptions can be made.

Books & Materials for EPA Refrigerant Recovery Certification: Review & Exam
EPA Section 608 Technician Certification Stationary Equipment Study Guide 3rd Ed $14.00
Add 8.25% tax to your total cost

Plumbing Journeyman Exam Prep
Prerequisite: None Required (However, it is recommended that the student has completed most or all of their required 8000 apprenticeship hours, so that they can schedule their Plumbing Journeyman Exam with the State Plumbing Board in Austin shortly after completing this course.)
This seminar provides a review of subjects that are needed to pass the written exam for a plumber’s journeyman license. It also includes hands-on experience for the preparation of the practical section of the exam. This seminar will also include a demonstration on our custom designed house, comparable to the 2-story house used in the State of Texas Plumbing Exam in Austin. Lunch is included.

Note: The instructor for this seminar is fluent in Spanish. However, only a small portion of the training material is available in Spanish.

Books & Materials for Plumbing Journeyman Exam Prep
Plumbers Examination Preparation Guide 9th Ed $51.00
Add 8.25% tax to your total cost

Water Treatment Specialist (8 CEU hours)
Prerequisite: Student must have a current Water Treatment Specialist License
This 16 hour course counts towards 8 Texas Commission of Environmental Quality (TCEQ) continuing educations hours for those who have already received their WTS license. The course consists of class and lab work, and includes all new and updated information from the industry and governmental bodies. The class is split with 4 hours in the lab and 12 hours in the classroom. Lunch will be provided.

Note: Students must bring a copy of the 10th Edition USC Manual for Cross-Connection Control, as required by TCEQ. Books are available for purchase upon request PRIOR to the first day of class.

Books & Materials for Water Treatment Specialist
None Required
Supervisory Training

The STP program has been updated; instead of a 10 unit program it is now 6 units. We will be merging the two programs together and will work with each student to complete their program depending on what units have been or needs to be completed to graduate from the program.

Legend:  M= Monday, T=Tuesday, W=Wednesday, R=Thursday, F=Friday, Sa=Saturday, DFWEC=DFW Education Center, NLC=North Lake College Main Campus

### Supervisory Training Program (STP) Advanced Level

**STP 1 Leadership & Motivation**
- Instructor: Gutierrez
- Day: T
- Tuition: $294.00
- Start Time: 5:00 PM
- Start Date: 1/28
- Location: DFWEC

**STP 2 Communication**
- Instructor: Layne
- Day: T
- Tuition: $294.00
- Start Time: 5:00 PM
- Start Date: 1/21
- Location: DFWEC

**STP 3 Planning & Scheduling**
- Instructor: Britton
- Day: W
- Tuition: $294.00
- Start Time: 5:30 PM
- Start Date: 1/29
- Location: DFWEC

**STP 4 Contract Documents**
- Instructor: Ellis
- Day: M
- Tuition: $294.00
- Start Time: 5:30 PM
- Start Date: 1/27
- Location: DFWEC

**STP 5 Improving Productivity & Managing Project Cost**
- Instructor: Burback
- Day: R
- Tuition: $294.00
- Start Time: 5:30 PM
- Start Date: 1/23
- Location: DFWEC

**STP 6 Risk Management & Problem Solving**
- Instructor: McGuire
- Day: T
- Tuition: $504.00
- Start Time: 6:00 PM
- Start Date: 1/28
- Location: DFWEC

### Construction Site Leadership I

**Prerequisite:** None Required

Introduction to skills and concepts necessary to effectively manage individuals and teams. Students will be exposed to leadership techniques that target communication, conflict resolution, problem solving, team organization and trust building.

**Books & Materials for Construction Site Leadership I**
- Item purchased in Level I and used in Level I & II Project Management 2nd Ed $132.00
- Add 8.25% tax to your total cost

### Construction Site Leadership II

**Prerequisite:** None Required

Introduction to construction project control tools that are essential to the management of safety, cost, quality and production. These tools include pre-task planning, hazard identification, inspection/documentation methods, resource control, task organization and scheduling methods.

**Books & Materials for Construction Site Leadership II**
- Item purchased in Level I and used in Level I & II Project Management 2nd Ed $132.00
- Add 8.25% tax to your total cost

### Supervisory Training Program (STP) Advanced Level

The Associated General Contractors of America’s Supervisory Training Program (STP) is a construction-specific training curriculum developed, updated and field-tested by and for contractors. Supervisory skill—or the lack of it—directly affects every company’s bottom line. You make your money in the field, and STP can help you improve your organization’s bottom line.

The comprehensive 6-course program focuses on the knowledge and skills that every supervisor must have to be an effective manager of people, time, equipment and materials.

STP is a nationally recognized training standard that has been the professional development resource of choice for more than 130,000 construction supervisors and managers. Individuals who complete the 6 primary STP courses will receive an AGC Supervisory Training Program Certificate of Completion.

**STP Unit 1: Leadership & Motivation**

**Prerequisite:** None Required

This course will describe the value of effective supervision of workers and improve the construction supervisor’s ability to lead and motivate others. Topics include: The dollars and sense of people in construction; The role of the construction supervisor; Helping people perform better; Motivating and leading others; Positive feedback; Training and orienting crew members; Teams and team building; Leadership skills in action.

**Books & Materials for STP Unit 1: Leadership & Motivation**
- STP 1 Leadership and Motivation 2015 Ed $122.00
- Add 8.25% tax to your total cost

**STP Unit 2: Communication**

**Prerequisite:** None Required

This course presents a body of knowledge and skills that today’s construction supervisors need in order to be effective communicators on their job site. Topics include: Effective communication; Learning to listen; Carrying on conversations; Persuasion, negotiation, and confrontation; Communicating with your crew; Putting it in writing; Meetings that work; Electronic communication; and Improving communication.
Books & Materials for STP Unit 2: Communication
STP 2 Oral and Written Communication 2015 Ed $122.00
Add 8.25% tax to your total cost

STP Unit 3: Planning and Scheduling
Prerequisite: None Required
This course will help construction supervisors understand ways in which planning and scheduling saves time and money, while increasing quality in the construction process. Topics include: Preparing the project plan; Communicating the plan; The critical path; Computer use in scheduling; Using the schedule on the jobsite; Updating the construction schedule; The schedule as documentation; and Using planning and scheduling.

Books & Materials for STP Unit 3: Planning and Scheduling
STP 3 Planning and Scheduling 2015 Ed $122.00
Add 8.25% tax to your total cost

STP Unit 4: Contract Documents
Prerequisite: None Required
This course will provide information about contract documents and construction law to help supervisors recognize the roles and responsibilities of all contracted parties, to develop an understanding of how contract documents can be helpful to solve problems and resolve conflicts, and to develop positive relationships between all parties in the construction process. Topics include: Introduction to contract documents and construction law; Creating a positive environment through partnering; Contractual relationships; Contract forms and documents; Managing general conditions; Good documentation practices; Changes; Differing site conditions; Time impacts; and Negotiation of resolutions.

Books & Materials for STP Unit 4: Contract Documents
STP 4 Contract Documents 2015 Ed $122.00
Add 8.25% tax to your total cost

STP Unit 5: Improving Productivity and Managing Project Costs
Prerequisite: None Required
This course covers understanding how project estimates are compiled, how to compare actual project costs with those estimated and how to control costs to meet the estimate. This course also details how productivity is measured, how the supervisor plays a major role in increasing jobsite productivity and how a small increase in productivity can have a significant impact on the time and cost of a project. Topics include: Construction estimates; Who controls project costs; Reporting and analyzing actual costs; Planning for cost control; Cost control strategies; Labor cost variances; Working with project partners; Managing risk and loss potentials; Cost control strategies; Post-project evaluations; Benchmarking construction productivity; Improving productivity through pre-planning; New skills for effective supervision; Personnel management; Equipment management for productivity improvement; Jobsite productivity, planning and scheduling; Quantifying lost labor productivity; and Record keeping, control, changes, and defect analysis.

Books & Materials for STP Unit 5: Improving Productivity and Managing Project Costs
STP 5 Improving Productivity and Managing Project Cost 2015 Ed $122.00
Add 8.25% tax to your total cost

STP Unit 6: Risk Management and Problem Solving
Prerequisite: None Required
This course will cover the roles and responsibilities of a construction supervisor in accident prevention and loss control. Topics include: Safety leadership, communication and expectations; Planning for site safety; Site safety management; Site security and protection; Multi-employer jobsite safety; Construction risk management; Safety and human resources; and Regulatory procedures, record keeping and documents.

Books & Materials for STP Unit 6: Risk Management and Problem Solving
STP 6 Risk Management and Problem Solving 2015 Ed $122.00
Add 8.25% tax to your total cost
## Welding

**Welding Construction I**  
Prerequisite: English TABE Math and Reading Test

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### Books & Materials for Welding Construction I-A & B
- Item purchased in Level I-A and used in Levels I & II
- Welding Level 1 5th Ed $90.00
- Core Curriculum 5th Ed $73.00
- Add 8.25% tax to your total cost

## Welding Construction II

18 Sessions 80 Hours

### Welding Construction II-A
Consists of 80 hours: 70% hands-on per semester. Course topics are: SMAW-Groove Welds with Backing, SMAW-Groove Welds with Fillet Welds, SMAW-Groove Welds Plate and SMAW-Open Root Groove Welds Plate.

### Welding Construction II-B
Consists of 80 hours: 70% hands-on per semester. Course topics are: SMAW-Groove Welds Plate and SMAW-Open Root Groove Welds Plate.

### Books & Materials for Welding Construction II-A & B
- Item 1 purchased in Level I-A and used in Levels I & II
  1. Welding Level 1 5th Ed $90.00
  2. Welding Level 2 5th Ed $131.00
  3. Welding Level 3 5th Ed $131.00
- Add 8.25% tax to your total cost

## Welding Construction III

Prerequisite: Welding Construction I-A & B

18 Sessions 80 Hours

### Welding Construction III-A
Consists of 80 hours: 70% hands-on per semester. Course topics are: SMAW-Open Root Pipe Welds, SMAW-Stainless Steel Plate and Pipe Groove Welds, Physical Characteristics & Mechanical Properties of Metals, Preheat and Post Heating of Metals, GTA-W- Equipment and Filler Metals.

### Welding Construction III-B
Consists of 80 hours: 70% hands-on per semester. Course topics are: GTAW-Plate; and GTAW-Carbon Steel Pipe.

### Books & Materials for Welding Construction III-A & B
- Items 1 & 2 purchased in Level II-A and used in Levels II-IV
  1. Welding Level 2 5th Ed $131.00
  2. Welding Level 3 5th Ed $131.00
- Add 8.25% tax to your total cost

## Welding Construction IV

Prerequisite: Welding Construction III-A & B

17 Sessions 80 Hours

### Welding Construction IV-A
Consists of 80 hours: 70% hands-on per semester. Course topics are: GTAW-Carbon Steel Pipe, GTAW-Low Alloy and Stainless Steel Pipe, GTAW-Aluminum Plate, GTAW-Aluminum Pipe, and GMAW and FCAW Equipment and Filler Metals.

### Welding Construction IV-B
Consists of 80 hours: 70% hands-on per semester. Course topics are: GMAW-Plate, FCAW-Plate, GMAW-Pipe, and FCAW-Pipe.

### Books & Materials for Welding Construction IV-A & B
- Items 1 & 2 purchased in Level II-A and used in Levels II-IV
  1. Welding Level 2 5th Ed $131.00
  2. Welding Level 3 5th Ed $131.00
- Item 3 purchased in Level IV and used in Level IV
  3. Welding Level 4 5th Ed $131.00
- Add 8.25% tax to your total cost
CEF TRADE COUNCILS

**ELECTRICAL**

**George Elliott, Jr (Council Chair)**
**JBI Electrical Systems Inc**

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Jerold Nichols ............................................ Amber Electrical
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Ryan Schade ............................................... Walker Engineering
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Edgar Zavala ............................................... Amber Electrical
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**Polk Mechanical**

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Randy Harrell ............................................. SkHi Enterprises
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Steven Miller ............................................. Polk Mechanical
Chaz Pair .................................................... CEF
Mark Rutledge ............................................ Momentum Mechanical
Kevin Scroggins ......................................... DynaTen Corporation
Kenny Tortorici Sr ..................................... Polk Mechanical
Eddie Ventrica, Jr ....................................... TDIndustries
Rob Wells .................................................... DynaTen Corporation
William Whitley ......................................... Polk Mechanical
Pat Willburn .............................................. DynaTen Corporation
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Chad Long ................................................... GeoShack
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Michael Perrin .......................................... Austin Commercial
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Jared Whitehead ....................................... Aire Dynamics
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Dave Smith ............................................... TDIndustries
Branden Sparks ........................................ Aire Dynamics
Lily Gonzales .............................................. CEF Facilitator

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These Construction Education Foundation (CEF) Councils consist of industry volunteers from companies that are committed to construction excellence. The goal of these Committees and Councils is to consistently monitor the curriculum of each course and maintain the quality of training programs offered by CEF. Without these dedicated volunteers, CEF would not be what it is today, and we are eternally grateful to these selfless volunteers.

If you are interested in attending any of the above Council meetings and volunteering to contribute to our programs, or even just to visit, please contact CEF at 972.574.5200.
DFW Education Center
CEF and North Lake College
DFWEC Campus
1401 Royal Ln
DFW Airport TX 75261

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Long -97.019634

Dallas County Community College District
North Lake College

North Campus
101 Royal Ln
Coppell, TX

North Campus from Hwy 121
Head Southwest on TX -121 Bypass for about 0.1 miles. Take the ramp on the left onto TX-121 S for about 3.6 miles. Turn left at W Sandy Lake Rd. Turn right at S Royal Ln.

North Campus from 635 (LBJ Freeway)
Head west on I-635 W toward N MacArthur Blvd for about 1.4 miles. Take the ramp onto I-635 W for about 3.0 miles. Take exit 35 for Royal Ln. Turn right at S Royal Ln.
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American Subcontractors Association
North Texas Chapter

Seminar Schedule

Please Visit
www.asa-northtexas.org
for the most up to date
seminar schedule

For information on seminars contact
Beverly Reynal
beverly@asa-northtexas.org
817.640.8275
Please contact CEF if you receive duplicate mailings, or would like to be removed from our mailing list.

CEF is located inside the DFW Education Center at 1401-A Royal Lane, DFW Airport TX 75261.

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