Course Descriptions - Spring 2021

Accident Prevention Inspection

Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021. This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.

Requires live interactive instruction Collaborate Session M 6-8:30PM

Provides a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis.

Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

Applied Construction Math I

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.

Backflow Awareness (16 CEU Hours)

This course offers Texas Commission of Environmental Quality (TCEQ) continuing educations 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.

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 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 Irrigator/Landscape Inspector License.
Backflow Practical Skills Refresher (8 CEU Hours)  

Student must have a current Backflow Prevention Assembly Testers License

This course offers Texas Commission of Environmental Quality (TCEQ) continuing educations 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. Students will receive the newly revised 10th Edition of the USC Manual for Cross-Connection Control, as required by TCEQ.

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 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.

Backflow Prevention Assembly Tester License

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

This course offers Texas Commission of Environmental Quality (TCEQ) certification in Backflow Prevention. Using our new state-of-the-art classrooms and labs with expert instruction that is required for certification and testing of backflow assemblies in the state of Texas. The course consists of 40 hour semester. 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 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.
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Commercial Blueprint Reading</td>
<td>DFTG 1023</td>
</tr>
<tr>
<td>Hours</td>
<td>30</td>
</tr>
<tr>
<td>Sessions</td>
<td>10</td>
</tr>
</tbody>
</table>

This course is designed for office, in the field personnel and is recommended for preprofessional 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.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Computer-Aided Drafting</td>
<td>DFTG 1309</td>
</tr>
<tr>
<td>Hours</td>
<td>48</td>
</tr>
<tr>
<td>Sessions</td>
<td>16</td>
</tr>
</tbody>
</table>

Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021.  This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale. This course is cross-listed as DFTG 1409. The student may register for either DFTG 1309 or DFTG 1409 but may receive credit for only one of the two.

Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Code</th>
</tr>
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<tbody>
<tr>
<td>Building Codes and Inspections</td>
<td>CNBT 1342</td>
</tr>
<tr>
<td>Hours</td>
<td>48</td>
</tr>
<tr>
<td>Sessions</td>
<td>16</td>
</tr>
</tbody>
</table>

Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021. This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.

Requires live interactive instruction Blackboard Collaborate T 6-8:30P
An examination of the building codes and standards applicable to building construction and inspection processes.

Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.
### Commercial Blueprint Reading and Specifications

<table>
<thead>
<tr>
<th>Course Code</th>
<th>CNBT 2310</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>48</td>
</tr>
<tr>
<td>Sessions</td>
<td>16</td>
</tr>
</tbody>
</table>

Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021.

This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.

Blackboard Collaborate T 6-8:30PM

Blueprint reading for commercial/industrial construction.

Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

### Commercial Carpentry I - General

<table>
<thead>
<tr>
<th>Course Code</th>
<th>CRPT 1029</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>80</td>
</tr>
<tr>
<td>Sessions</td>
<td>17</td>
</tr>
</tbody>
</table>

All TABE Testing must be completed no later than Friday January 15, 2021.

Consists of 80 hours per semester - Course topics will include: Orientation to the Trade; Basic Safety; Basic Communication Skills; Introduction to Construction Math; Introduction to Hand & Power Tools; Hand and Power Tools; Building Materials, Fasteners, and Adhesives; Introduction to Construction Drawings; Introduction to Construction Drawings, Specifications and Layout; Floor Systems; Wall Systems; Ceiling Joist & Roof Framing; Introduction to Building Envelope Systems; Introduction to Basic Rigging; and Basic Stair Layout.

### Commercial Field Engineering I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>SRVY 1015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>56</td>
</tr>
<tr>
<td>Sessions</td>
<td>17</td>
</tr>
</tbody>
</table>

All TABE Testing must be completed no later than Friday January 15, 2021.

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, this course will cover Chapter 1-42.

Introduction to Field Engineering; PART I-Chapter 1-2 Building Structures System; Construction, Standards; PART II-Chapter 4-6 Material, Building Site, Soils Foundations; PART III-Chapter 7-9 Concrete, Cast In Place Concrete, Pre-Cast; PART III-Chapter 10-14 Masonry Mortars, Masonry Construction; PART IV-Chapter 15-23 Metals, Steel Frame Construction, Wood Plastic and Composites; PART V-Chapter 24-27 Thermal Moisture Protection, Roofing Systems; PART V-Chapter 28-34 Glass, Doors, Windows, Interior Finishes, Floors; PART VI-VII-Chapter 35-38 Specialties, Equipment and Conveying Systems; PART VII-VIII-Chapter 39-42, 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.
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Code</th>
<th>Hours</th>
<th>Sessions</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Field Engineering V</td>
<td>SRVY 2048</td>
<td>80</td>
<td>18</td>
<td>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.</td>
</tr>
<tr>
<td>Commercial HVAC Service II-B</td>
<td>HART 1003</td>
<td>80</td>
<td>18</td>
<td>The course topics are Basic Carbon Steel Piping Practices; Introduction to Cooling, Refrigerants and Oils; Leak Detection; Evaluation; Recovery &amp; Charging; Metering Devices; EPA Training/Testing and Compressors.</td>
</tr>
<tr>
<td>Commercial HVAC Service III-B</td>
<td>HART 2041</td>
<td>80</td>
<td>18</td>
<td>The course topics are Troubleshooting Accessories; System Start Up and Shut Down; Building Management Systems; Water Treatment; and Steam Systems.</td>
</tr>
<tr>
<td>Construction Estimating I</td>
<td>CNBT 1346</td>
<td>48</td>
<td>16</td>
<td>Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021. This is an online course; once enrolled you will receive an email from North Lake College with your class and book information. Requires live interactive instruction Collaborate Session R 6-9:15PM Fundamentals of estimating materials and labor costs in construction. Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.</td>
</tr>
</tbody>
</table>
### Construction Management I

**Course Code:** CNBT 2342  
**Hours:** 48  
**Sessions:** 16  
**Enrollment Deadline:** Monday, January 4, 2021.  
This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.  
Students will define terms associated with construction supervision, leadership, motivation, problem solving, and decision making. Students will demonstrate problem solving and decision-making skills in construction problems. They will apply green and sustainable building codes and standards and demonstrate techniques for successful contractor interaction including professional protocol and communication.  
Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

### Construction Management II

**Course Code:** CNBT 2344  
**Hours:** 48  
**Sessions:** 16  
**Enrollment Deadline:** Monday, January 4, 2021.  
This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.  
Requires live interactive instruction Blackboard Collaborate M 6-9:15P  
A management course in contract documents, safety, planning, scheduling, production control, and law and labor. Topics include contracts, planning, cost and production peripheral documents, and cost and work analysis.  
Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

### Construction Materials Testing

**Course Code:** CNBT 1344  
**Hours:** 48  
**Sessions:** 16  
**Enrollment Deadline:** Monday, January 4, 2021.  
This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.  
Optional live interaction Wednesdays 6-9PM  
Skill development in laboratory testing and field inspection procedures associated with construction materials.  
Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.
**Construction Methods/Mat'rls I**  
**CNBT 1311**

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>16</td>
<td>48</td>
</tr>
</tbody>
</table>

This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.

Requires live interactive instruction Blackboard Collaborate R 6-9:15P

An introduction to construction materials and methods and their applications. This course is cross-listed as CNBT 1411. The student may register for either CNBT 1311 or CNBT 1411 but may receive credit for only one of the two.

Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

**Construction Site Leadership II**  
**CNBT 1010**

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>48</td>
</tr>
</tbody>
</table>

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.

**Construction Specifications/Contracts**  
**CNBT 2315**

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Hours</th>
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<tbody>
<tr>
<td>16</td>
<td>48</td>
</tr>
</tbody>
</table>

Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021.

This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.

Requires live interactive instruction Blackboard Collaborate W 6-9:15PM

Overview of the legal aspects of written construction documents.

Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.
Cooperative Education

Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021. This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.

Requires live interactive instruction Blackboard Collaborate four (4) Saturdays 9-11AM

Career related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

Electrical DT I-A

Pre-Requisite: English or Spanish TABE Math Test or Applied Construction math Class and English or Spanish TABE Reading Test and ESL Placement Test.

All TABE Testing must be completed no later than Friday January 15, 2021.

The course topics are Occupational Overview: The Electrical Industry; Basic Safety; Safety for Electricians; Introduction to Hand Tools; Introduction to Power Tools; Hand Bending; Device Boxes; Introduction to Basic Rigging, Introduction to Construction Math; Introduction to Electrical Circuit; Electrical Test Equipment; Basic Communication Skills; and Basic Employability Skills.

Student needs to enroll in Electrical I-B; these are run simultaneously.

Electrical DT I-B

The course topics are Electrical Theory; Introduction to Materials Handling; Introduction to National Electrical Code; Wireways, Raceways, and Fittings; Conductors and Cables; Introduction to Construction Drawings; Basic Electrical Construction Documents; and Residential Wiring.

Students must have a copy of the 2020 NEC edition.
Electrical I-B  
ELPT 1011  
18 Sessions  80 Hours  

The course topics are Electrical Theory; Introduction to Materials Handling; Introduction to National Electrical Code; Wireways, Raceways, and Fittings; Conductors and Cables; Introduction to Construction Drawings; Basic Electrical Construction Documents; and Residential Wiring.

Students must have a copy of the 2020 NEC edition.

Electrical II-B  
ELPT 1020  
18 Sessions  80 Hours  

The course topics are Cable Tray; Conductor Terminations and Splices; Grounding and Bonding; Circuit Breakers and Fuses; and Control Systems and Fundamental Concepts.

Note: Students must have a copy of the 2020 NEC edition.

Electrical III-B  
ELPT 1057  
18 Sessions  80 Hours  

The course topics are Distribution Equipment; Transformers; Commercial Electrical Services; Motors Calculations; Voice, Data, and Video; and Motor Controls.

Note: Students must have a copy of the 2020 NEC edition.
Electrical IV-B
ELTN 1043

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 8- 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: Students must have a copy of the 2020 NEC edition.

Electrical Journeyman Prep
ELPT 2001

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 2020 NEC edition.

Electrical Master Prep
ELPT 1040

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 2020 NEC edition.
English as a Second Language I

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.

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.

Aprobación por medio de examen disponible para Nivel I sin cargo extra.

English as a Second Language II

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.

Continuación de ESL I. 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.

English as a Second Language III

This course is a continuation of ESL II. This course prepares students to communicate orally in both public and work environments. Emphasis is placed on developing language functions, pronunciation, and listening skills, and improving social and intercultural communication skills. The lessons instruct students in reading skills vocabulary development, critical thinking skills, and the use of resources.

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.
EPA Refrigerant Recovery Certification Training & Exam

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 will receive this training and the exam in Commercial HVAC Service I-B. Enrollment is not needed 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 class is paid. 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 four types.

Mechanical Plumb/Elect. Sys I

Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021.
This is an online course; once enrolled you will receive an email from North Lake College with your class and book information.
A presentation of the basic mechanical, plumbing, and electrical components in construction and their relationship to residential and light commercial buildings.
Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.

Pipefitting I-B

Course topics are: Introduction to Construction Drawings; Oxyfuel Cutting; Introduction to Construction Math; Fractions, Decimals angles, degrees, square, and square roots and right triangle; Motorized Equipment One; Basic Communication Skills; Basic Employability Skills; and Introduction to Material Handling.
Pipefitting II-B

<table>
<thead>
<tr>
<th>WLDG 1017</th>
<th>80 Hours</th>
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</thead>
<tbody>
<tr>
<td>18 Sessions</td>
<td></td>
</tr>
</tbody>
</table>

Course topics are: Socket Weld Pipe Fabrication; Butt Weld Pipe Fabrication; Butt Weld Pipe Fabrication; Excavations; and Underground Pipe Installation.

Pipefitting IV-B

<table>
<thead>
<tr>
<th>PFPB 1006</th>
<th>48 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Sessions</td>
<td></td>
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</tbody>
</table>

Course topics will include: Stress Relieving and Aligning; Inline Specialties; Hot Taps; Maintaining Valves; Advance Pipe Fabrication and Fundamental of Crew Leadership.

Piping Isometric

<table>
<thead>
<tr>
<th>PFPB 1006</th>
<th>48 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Sessions</td>
<td></td>
</tr>
</tbody>
</table>

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.
Plumbing Double Time I-A

Pre-Requisite: English or Spanish TABE Math Test or Applied Construction math Class and English or Spanish TABE Reading Test and ESL Placement Test. All TABE Testing must be completed no later than Friday January 15, 2021.

The course topics are: Basic Safety; Plumbing Safety; Introduction to Plumbing Profession; Introduction to Hand Tools; Introduction to Power Tools; Tools of the Plumbing Trade; Introduction to Construction Math; Introduction to Plumbing Math; Copper Tube & Fittings and Cast Iron Pipe and Fittings.

Plumbing Double Time I-B

The course topics are: Steel Pipe & Fittings; Introduction to Construction Drawings, Introduction to Plumbing Drawings, Plastic Pipe and Fittings, Introduction to Basic Rigging; Introduction to Plumbing Fixtures; Introduction to Drain, Waste, & Vent (DWV) Systems; Introduction to Water Distribution Systems; Basic Communication Skills; Basic Employability Skills; and Introduction to Material Handling.

Plumbing I-B

The course topics are: Steel Pipe & Fittings; Introduction to Construction Drawings, Introduction to Plumbing Drawings, Plastic Pipe and Fittings, Introduction to Basic Rigging; Introduction to Plumbing Fixtures; Introduction to Drain, Waste, & Vent (DWV) Systems; Introduction to Water Distribution Systems; Basic Communication Skills; Basic Employability Skills; and Introduction to Material Handling.
### Plumbing II-B

<table>
<thead>
<tr>
<th>Hours</th>
<th>Sessions</th>
<th>Course Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>18</td>
<td>Installing &amp; Testing Water Supply Piping; Installing Fixtures and Valves; Basic Electricity; Installing Water Heaters; and Fuel Gas &amp; Fuel Oil Systems.</td>
</tr>
</tbody>
</table>

### Plumbing III-B

<table>
<thead>
<tr>
<th>Hours</th>
<th>Sessions</th>
<th>Course Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>18</td>
<td>Sizing DWV &amp; Storm Systems; Sewage Pumps &amp; Sump Pumps; Corrosive-Resistant Waste Piping; Compressed Air and Service Plumbing.</td>
</tr>
</tbody>
</table>
The 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.

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.
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Code</th>
<th>Hours</th>
<th>Sessions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plumbing Journeyman Exam Prep</td>
<td>PFPB 2005</td>
<td>8</td>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>Project Scheduling</td>
<td>CNBT 1315</td>
<td>48</td>
<td>16</td>
<td>Enrollment Deadline for Construction Management (Credit Classes) is Monday, January 4, 2021. This is an online course; once enrolled you will receive an email from North Lake College with your class and book information. A study of conventional scheduling using critical-path-method; precedence networks; bar charts; monthly reports; and fast track scheduling. Books/Materials for this course will be distributed by North Lake College; this is part of the IncludED program.</td>
</tr>
<tr>
<td>Sheet Metal I-B</td>
<td>MCHN 1049</td>
<td>80</td>
<td>18</td>
<td>The course topics are Introduction to Construction Math; Sheet Metal Math and Measurements; Basic Safety; Introduction to Hand Tools; Introduction to Power Tools; Sheet Metal Tools and Equipment; Plasma Arc Cutting; Introduction to Basic Rigging; Introduction to Material Handling and Occupational Overview: The Sheet Metal Industry.</td>
</tr>
<tr>
<td>Sheet Metal II-B</td>
<td></td>
<td>80</td>
<td>18</td>
<td>The course topics are Sheet Metal Duct Fabrication Standards; Bend Allowances; Soldering; Air Distribution Systems; Triangulation; and Shop Production and Organization.</td>
</tr>
<tr>
<td>Course</td>
<td>Code</td>
<td>Hours</td>
<td>Sessions</td>
<td>Topics</td>
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<tr>
<td>Spanish for Construction Sites</td>
<td>COMG 1011</td>
<td>16</td>
<td>8</td>
<td>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.</td>
</tr>
<tr>
<td>STP 1 - Leadership &amp; Motivation</td>
<td>BMGT 1020</td>
<td>24</td>
<td>6</td>
<td>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 dollar 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.</td>
</tr>
<tr>
<td>STP 2 -Communication</td>
<td>BMGT 1022</td>
<td>24</td>
<td>6</td>
<td>The 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.</td>
</tr>
<tr>
<td>STP 3 - Planning &amp; Scheduling</td>
<td>CNBT 1072</td>
<td>20</td>
<td>5</td>
<td>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.</td>
</tr>
</tbody>
</table>
### STP 4 - Contract Documents

**CNBT 1073**

- **5 Sessions**
- **20 Hours**

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 and 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.

### STP 5 - Improving Productivity & Managing Project Cost

**BMGT 1021**

- **8 Sessions**
- **30 Hours**

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 measure, 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.

### STP 6 - Risk Management & Problem Solving

**OSHT 1013**

- **16 Sessions**
- **48 Hours**

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.
Water Treatment Specialist (8 CEU hrs)  

EPCT 1015

2 Sessions  

16 Hours

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. Contact the CEF office for book cost and to request a copy PRIOR to the first day of class.

Welding Construction I-A  

WLDG 1023

18 Sessions  

80 Hours

Pre-Requisite: English or Spanish TABE Math Test or Applied Construction math Class and English or Spanish TABE Reading Test and ESL Placement Test.

All TABE Testing must be completed no later than Friday January 15, 2021.

Course topics will include: Basic Safety; Introduction to Hand Tools; Introduction to Power Tools; Basic Communication Skills; Basic Employability Skills; Oxyfuel Cutting; SMAW- Equipment and Set Up; Welding Quality; Base Metal Preparation; SMAW-Beads and Fillet Welds; SMAW - Groove Welds with Backing; Plasma Arc Cutting and SMAW-Open Root Groove Welds- Plate.

Student needs to enroll in Welding Construction I-B; these are run simutaneously.

Welding Construction I-B  

WLDG 1007

18 Sessions  

80 Hours

Course topics will include: Basic Safety; Introduction to Construction Math; Introduction to Construction Drawings; Introduction to Basic Rigging; Introduction to Material Handling; Oxyfuel Cutting; Welding Safety; Joint Fit-Up and Alignment; SMAW- Electrodes; SMAW - Beads and Fillet Welds; and Air Carbon Arc Cutting and Gouging

Student needs to enroll in Welding Construction I-A; these are run simutaneously.
<table>
<thead>
<tr>
<th>Course Name</th>
<th>Code</th>
<th>Sessions</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welding Construction II-A</td>
<td>WLDG 1057</td>
<td>18</td>
<td>80</td>
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<tr>
<td>Course topics will include: Reading Welding Detailed Drawings; SMAW - Groove Welds with Backing-Plate; SMAW - Open Root Groove Welds Plate; and SMAW - Open Root Pipe Welds.</td>
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<td>Student needs to enroll in Welding Construction II-B; these are run simultaneously.</td>
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<tr>
<td>Welding Construction II-B</td>
<td>WLDG 1034</td>
<td>18</td>
<td>80</td>
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<tr>
<td>Course topics will include: Reading Welding Detailed Drawings; Air-Carbon Arc Cutting and Gouging; Plasma Arc Cutting; SMAW - Groove Welds with Backing - Plate; SMAW-Open Root Groove Welds - Plate; and SMAW- Open Root Pipe Welds.</td>
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<tr>
<td>Student needs to enroll in Welding Construction II-A; these are run simultaneously.</td>
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<tr>
<td>Welding Construction IV-A</td>
<td>WLDG 2047</td>
<td>18</td>
<td>80</td>
</tr>
<tr>
<td>Course topics will include: GTAW- Carbon Steel Pipe; GTAW-Low Alloy and Stainless Pipe; GTAW Aluminum Plate; GTAW - Aluminum Plate; GMAW Plate; FCAW Plate; GMAW- Pipe; and FCAW Pipe.</td>
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<tr>
<td>Student needs to enroll in Welding Construction IV-B; these are run simultaneously.</td>
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<tr>
<td>Welding Construction IV-B</td>
<td>WLDG 2051</td>
<td>18</td>
<td>80</td>
</tr>
<tr>
<td>Course topics will include: GTAW - Carbon Steel Pipe; GTAW - Low Alloy and Stainless Steel Pipe; GTAW Aluminum Plate; GMAW-FCAW Equipment and Filler Metals; GMAW Plate; FCAW Plate; GMAW-Pipe; and FCAW-Pipe.</td>
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<tr>
<td>Student needs to enroll in Welding Construction IV-B; these are run simultaneously.</td>
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