

# TECHNOLOGY 332 (332TECH)

## Technology 332 (332TECH) 400

### Scaffold Safety

General safety guidelines for constructing and dismantling scaffolds, including a review of local municipal and OSHA codes, rules and regulations. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture hours. 1 Credit Hours.

**Offered At:** KK

**Repeatable:** Yes, up to 2 times

## Technology 332 (332TECH) 401

### Intro To Labor & Trade Occ

This course will provide the student with information about trades and crafts related training programs, unions, and working conditions. Writing assignments, as appropriate to the discipline, are part of the course.

1-2 Lecture Hours. 1-2 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 406

### Construction Materials/Methods

This course will provide the student with the information needed on construction materials and methods used in the construction of buildings. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture hours. 2 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 407

### Quality Abatement Supervisor

This course emphasizes the supervisory responsibilities required to safely remove hazardous materials as asbestos and lead. The course will provide instruction on potential health effects, personal protective equipments and information on such hazardous materials as asbestos, lead and mold; removal practices and procedures and other related safety and health concerns. Writing assignments, as appropriate to the discipline, are part of the course.

4 Lecture hours. 4 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 408

### Environmental Safety Worker

This course is designed to provide the student with the general knowledge for environment safety workers. It fulfills OSHA's requirements to perform class I and II work. Students will receive instruction on the potential health effects, personal protective equipment, background information on such hazardous materials as asbestos, lead, and mold; removal practices and procedures, and other safety and health concerns. Writing assignments, as appropriate to the discipline, are part of the course.

4 Lecture hours. 4 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 409

### Construction Safety

This course is intended to provide the student with a basic understanding of safety practices found in the construction industry. Emphasis will be placed upon those areas in construction that are most hazardous, using OSHA standards as a guide. Upon successful completion, students will be issued the OSHA construction safety and health 10-hour course completion card. Writing assignments, as appropriate to the discipline, are part of the course.

0.5-1 Lecture Hours. 1.5-3 Laboratory Hours. 1-2 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 410

### Interior Construction I

This course will provide the student with the opportunity to practice and master the task required for entry level carpentry positions. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 411

### Interior Construction II

This course will provide the student the opportunity to practice and master the installation and the finishing techniques of interior carpentry, which are required for entry level employment as a carpentry apprentice. Particular attention will be given to the installation of finish trim, doors, windows, flooring, hardware, ceilings, counters, cabinets and the finishing of woodwork and trim. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 416

### Exterior Construction I

This course will present material and methods used in various types of concrete forming for building construction. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 417

### Exterior Construction II

This course will focus on rough framing and exterior walls, stairs, porches, decks, roofs and dormers. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

## Technology 332 (332TECH) 418

### Exterior Construction III

This course focus in on installation of banisters, fascia, siding, windows, doors, screens, gutters, downspouts, roofing materials, and other exterior trim. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 419**

**Building Maintenance Math**

Basic principles of math with application relative to building maintenance and repair. Course content include: fractions, decimals, percents, measurements, ratios and proportions. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 420**

**Carpentry Maintenance**

Basic carpentry skills used in building maintenance and repair. Course content includes: tools, safety, materials, doors, windows, walls, ceiling, and interior trim. Writing assignments, as appropriate to the discipline are part of the course.

1 Lecture Hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 421**

**Electrical Maintenance**

Basic electrical skills used in building maintenance and repair. Course content includes: troubleshooting, testing, repairing, and replacing faulty devices and controls. Use of electric test meters and devices will also be included. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture Hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 422**

**Plumbing Maintenance**

Basic plumbing skills used in building maintenance and repair. Course content includes: troubleshooting, repairing, and replacing faulty plumbing and fixtures. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture Hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 424**

**Drywall & Interior Wood Trim**

This course is designed to provide the student with the basic fundamentals of how to install drywall, apply tape and joint compound, sand to a smooth surface, as well as, install wood trim to baseboards, windows, and doors. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 425**

**Window and Door Installation**

This course is designed to provide the student with the knowledge and skills required to install windows and doors. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 426**

**Intro To Concrete Masonry**

This course provides an overview of concrete masonry trade, which includes the history and safety standards. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture Hours. 3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 427**

**Masonry Tools & Equipment**

This course is designed to provide the student with an overview of the types of tools and equipment used in the concrete masonry industry. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH440*

2 Lecture Hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 428**

**Mortar**

This course is designed to introduce students to mortar applications. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture Hours. 3 Laboratory Hours. 3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 429**

**Basic Math & Specifications**

This course is designed to teach basic applications of mathematics pertinent to the trade. Emphasis will be placed on actual measurements and calculations, different types of specifications used in the building industry as related to the trade. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture Hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 430**

**Masonry Installations Procedures**

This course is designed to provide students the practical skills required to install masonry units. Writing assignments, as appropriate to the discipline, are part of the course.

*C or better in 332TECH 440*

1 Lecture Hours. 6 Laboratory Hours. 3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 431**

**Specifications & Building Code**

This course will enable the student to adhere to established local codes and laws governing construction and rehabilitation of buildings; measure and estimate costs of labor, time and materials; develop written proposals for specific projects. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 432**

**Basic Arc Welding**

In this course, the student will concentrate and master basic welding skills and techniques. An overview of the safety rules and procedures will also be provided. Writing assignments, as appropriate to the discipline, are part of the course.

2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 434**

**Introduction To Plumbing**

This course is designed to provide an overview of the plumbing trade which includes the history and safety and sanitation procedures. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture Hours. 3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 435**

**Plumbing Tools & Equipment**

This course is designed to provide the student with an overview of the types of tools and equipment used in the plumbing trades. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture Hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 436**

**Plumbing Codes**

This course is designed to introduce students to the regulations of Illinois Department of Public Health. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 437**

**Basic Plumbing Related Math**

This course is designed to teach the basic application of mathematics pertinent to the plumbing industry. Emphasis will be placed on actual measurements and calculations of pipe and other fittings.

*Grade of C or better in 332TECH 434*

1 Lecture hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 438**

**Intro To Fire Protection**

This course is designed to provide an overview of the fire protection and sprinkler trade. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture Hours. 3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 439**

**Home Plumbing System**

This course is designed to provide an overview of the plumbing systems within a home. Those systems include: waste, vent and water piping.

Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture Hours. 6 Laboratory Hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 440**

**Introduction to Construction Masonry**

This course is designed to provide students with an overview of the history of the concrete and brick masonry trades, which includes the history and safety standards. In addition, the types of tools and equipment used in the concrete and brick masonry industries will be examined. Writing assignments, as appropriate to the discipline, are part of the course.

*Placement into ENGLISH 96 and MATH 98.*

4 Laboratory hours. 2 Lecture hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 441**

**Flooring/Floor Covering**

This course will instruct the student in safety precautions for working with adhesives and mastic; safety operation of equipment, and installation of carpeting/padding, as well as the replacement of damaged tiles. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 445**

**Introduction to Electrical Theory**

Offers a general introduction to Ohm's law, the National Electrical Code and general procedures. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 446**

**Foundations and Flatwork**

This course is designed to teach basic forms for continuous, grade bean concrete footings including edge forms used for slabs and other structures. Theory and hands-on application are emphasized through the completion of the course. Writing assignments, as appropriate to the discipline, are part of the course.

1-3 Lecture Hours. 1-3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 447**

**Materials**

This course is designed to describe uses of work materials and grading systems. The course will also describe various kinds metals, fasteners, and adhesive used for roadwork carpentry. Theory and hands-on applications are emphasized through the completion of the course. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 448**

**Vocational Physical Training I**

Vocational Physical Training focus on preparing students for the physical challenges that line worker careers require. Students learn the basic of nutrition and how what we eat fuels our bodies. Students will learn proper techniques to stretch, warm up and physically train. Emphasis is given to cardiovascular training as well as leg and upper body strength. Instructors work with students to overcome physical challenges and fears for basic pole climbing. Student must earn a "C" or better in course to advance to Vocational Physical Training II. Writing assignments, as appropriate to the discipline, are part of the course.

2 Laboratory Hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 449**

**Professional Development**

This course is designed to provide the student with a basic understanding of the human relations skills necessary to obtain employment and succeed in a quality work environment. This course includes resume development, cover letter writing, job searching skills, networking skills, interviewing techniques, and post-interview skills. Additionally, this course helps students succeed while on the job by exposing students to current workplace trends, team building skills, customer and co-worker relations, attitude and motivation, stress management, and financial management and planning. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Repeatable:** Yes, up to 1 times

#### **Technology 332 (332TECH) 451**

##### **Plumbing**

This course will enable the student to identify pipe fittings and standard plumbing symbols; install rough plumbing for bath and kitchen fixtures, and install water heating systems. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

#### **Technology 332 (332TECH) 452**

##### **Basic Electrical Theory**

This class covers the theories behind basic electricity. The emphasis is on electron theory, magnetism, Ohm's Law, and circuitry. Alternating current concepts such as circuits with resistance, inductive and capacitive reactive circuits, and power factor correction are covered. Basic math skills are used. Writing assignments, as appropriate to the discipline, are part of the course.

3 Lecture hours. 3 Credit Hours.

**Offered At:** KK

#### **Technology 332 (332TECH) 453**

##### **Overhead Techniques & Projects I**

This first semester discusses basic electric system layout from generator to electrical user and focuses on practical tasks and working concepts associated with electrical line work. Aerial climbing is introduced and practiced; power line equipment is used. Overhead distribution line design, specifications, and construction are part of this class. In this class, students learn basic rope knots, guying and anchoring techniques, electrical connectors, hand tools, and power tools. Additionally, students learn about single phase underground distribution concepts and metering principles. Student must earn a "C" or better to advance to Overhead Techniques and Projects II. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in MATH 107, ENGLISH 197, 332TECH448-1 and 449.*

3 Lecture Hours. 2 Laboratory Hours. 4 Credit Hours.

**Offered At:** KK

**Repeatable:** Yes, up to 1 times

#### **Technology 332 (332TECH) 458**

##### **Overhead Techniques & Projects II**

In this second semester class, students learn about and use advanced levels of topics such as aerial climbing, rope knots and splices, electrical connectors, electrical test equipment, as well as hand and power tools. Students also learn basic hydraulic principles. Application and installation of various electrical apparatus in a lab environment is completed by the students. Overhead distribution structures are constructed, protective grounding is introduced and live line work such as rubber gloving and hot stick use (deenergized lines). Underground distribution (UD) equipment is introduced including cable terminating tools and cable locating equipment. Students will install and terminate UD cable, Three-phase concepts such as metering and UD are covered. The class covers various component pieces of electrical distribution equipment. The class is introduced to current prospective devices including automatic throw overs, high voltage fuses, sectionalizers and oil current reclosers. Students learn to identify various type switches and are introduced to step-type voltage regulators. Students practice safety concepts common to line workers. Students also identify and read distribution maps. A trencher/cable plow, trucks and other mobile equipment are used by the student. The student must earn a C or better in this course. Writing assignments, as appropriate to the discipline are part of the course.

*Grade of C or better in 332TECH 452 and 332TECH 453 and 462.*

3 Lecture Hours. 2 Laboratory Hours. 4 Credit Hours.

**Offered At:** KK

#### **Technology 332 (332TECH) 459**

##### **Construction Safety and Rescue**

This course is intended to provide the student with a basic understanding of safety practices found in the construction industry. The student will be provided specific instruction in Flagging and Cardiopulmonary Resuscitation (CPR). Emphasis will be placed upon those areas in construction that are the most hazardous, using OSHA standards as a guide. Upon completion, students will be issued the OSHA construction safety and health 10-hour course completion card. The student will be provided a basic knowledge of bucket truck and pole top rescue. Emphasis will be placed upon those areas in the electrical line worker profession. Student must earn a "C" or better in course to advance. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 452, 453 and 462.*

2 Lecture Hours. 2 Laboratory Hours. 3 Credit Hours.

**Offered At:** KK

#### **Technology 332 (332TECH) 462**

##### **Vocational Physical Training II**

Vocational Physical Training focuses on preparing students for the physical challenges that line worker careers require. Students will build upon the skills developed in Vocational Physical Training I. Students will learn how to select foods to provide optimum health and the best sources of energy. Students will learn how to read labels and how to use food to cleanse and maintain overall health. Students will build upon techniques for stretching, warming up and physical training. Student must earn a grade of C or better in course to advance to Vocational Physical Training III. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 448.*

2 Laboratory hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 463****Vocational Physical Training III**

Vocational Physical Training focuses on preparing students for the physical challenges that line worker careers require. Students will build upon the skills developed in Vocational Physical Training II. Students will learn how to produce ideal body composition through food intake and how to balance other physical dimensions of self through physical activities. Students will learn advanced techniques to stretch, warm up and physically train. Student must earn a C or better to satisfy course and certificate completion. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 462.*

2 Laboratory hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 464****Power Equipment Operation I**

This course provides instruction in preparation for obtaining a commercial driver's license. In addition, the class covers the operation and use of a variety of power equipment commonly used in the electric power industry including the use of bucket trucks, power take-off equipment, trailers, cable pullers and tensioners. Student must earn a grade of C or better in the course to advance. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in MATH 107, ENGLISH 197, 332TECH 448-1 and 449.*

1 Laboratory hours. 2 Lecture hours. 2.5 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 465****Painting & Decorating**

In this course, the students will be provided with instruction in the preparation of surfaces, the selection, mixing, an application of paints, stains, varnishes, finishes, and wallpaper. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture Hours. 3-6 Laboratory Hours. 2-3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 466****Introduction to Painting**

The course is designed to provide an overview of the painting and decorating trade, which includes the history of the industry, job ethics, and terminology utilized within the industry. Critical thinking employability skills will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 467****Introduction to Painting Tools**

The course is designed to provide the student with an overview of the proper use and care of painting tools, equipment, selection, mixing, and application of materials used in painting. Emphasis will also be on safety practices and the storage and disposal of materials. Writing assignments, as appropriate to the discipline, are part of the course.

3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 468****Basic Taping**

The course is designed to provide students with instruction in the preparation of surfaces of taping. Writing assignments, as appropriate to the discipline, are part of the course.

3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 469****Advance Plumbing/Pipefitting**

This course offers students the opportunity to increase their skills and knowledge in the plumbing industry. Course material covered will include art of pipe sizing, print reading, fitting allowance, code review, thermodynamics/pipe connection above and below grade. A review of the proper procedure for solving offset problems will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 434-1 or one year experience in the plumbing industry.*

6 Laboratory hours. 1 Lecture hours. 3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 470****Power Equipment Operations II**

This course is a continuation of 330TECH 464 to provide instruction in preparation for obtaining a commercial driver's license. In addition, the class covers the operation and use of a variety of power equipment commonly used in the electric power industry including the use of bucket trucks. Power take-off equipment, trailers, cable pullers and tensioners. Students must earn a grade of C or better in the course to advance. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in Math 107, and English 197, and 332TECH 448, and 332TECH 449 and 332TECH 464.*

1 Laboratory hours. 2 Lecture hours. 2.5 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 471****Exterior Repair & Remodeling**

This course will instruct the student to remove and replace doors and windows; install exterior hardware; install weatherization, insulation and roofing materials. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 472****Vocational Physical Training**

Vocational Physical Training prepares students for the physical challenges that construction and utility workers encounter in the field. Students learn the basics of nutrition and how our food fuels our bodies. Students will learn proper techniques to stretch, warm up and physically train. Emphasis is given to cardiovascular training as well as leg and upper body strength. Instructors work with students to overcome physical challenges. Writing assignments, as appropriate to the discipline, are part of the course. Students must earn a "C" or better in the course.

2 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Repeatable:** Yes, up to 4 times

**Technology 332 (332TECH) 481****Interior Repair & Remodeling**

This course will instruct students to make minor plaster repairs; install interior hardware; replace/repair damaged wood flooring, tile and other floor coverings; apply wallpaper, paints, and other coatings. Writing assignments, as appropriate to the discipline, are part of the course.

9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK



### **Technology 332 (332TECH) 491**

#### **Residential Electrical Wiring**

This course will instruct students in writing of various electrical configurations commonly found in residential systems. Writing assignments, as appropriate to the discipline, are part of the course. 9 Laboratory hours. 1 Lecture hours. 4 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 503**

#### **Gas Utility Training I**

Gas Utility Training I introduces students to the principles, processes, and sub-systems applicable to the safe construction and operation of natural gas distribution systems, for delivery of natural gas to end-use customers. Classroom and practical room training will ensure that students possess the necessary skills and knowledge to perform duties in an entry-level gas utility worker job classification. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 432CMGT 609 - Construction Safety II*

3 Laboratory hours. 5 Lecture hours. 6 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 504**

#### **Gas Utility Training II**

Gas Utility Training II is a continuation of the Gas Utility Training I. The course expands upon the principles, processes, and sub-systems applicable to the safe construction and operation of natural gas distribution systems relative to the construction of mains and services, pressure regulator and meter installation/removal, excavation damage prevention, lockout/tagout and shutdown processes, and safe appliance light-up procedures. It includes an introduction to joining methods for various pipe component materials, such as compression fittings for plastic and ferrous materials. Classroom and hands-on training will ensure that students possess the necessary skills and knowledge to perform duties in a secondary level gas utility worker job classification. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 503-Gas Utility Training I*

6 Laboratory hours. 4 Lecture hours. 6 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 505**

#### **Gas Utility Training III**

This course provides students with knowledge of advanced processes for mains pipe facilities repair, installation, and abandonment. It also provides knowledge of advanced processes for service pipe work. Students also review the fundamentals of appliance light up and venting, and hazards associated with potential leak and ignition sources inside and outside of a structure. Classroom and hands-on training will ensure that students possess the necessary skills and knowledge to perform advanced duties associated with work on distribution piping systems by higher level gas utility worker job classifications. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 504-Gas Utility Training II*

3 Laboratory hours. 2 Lecture hours. 3 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 506**

#### **Gas Utility Training IV**

This course provides students with knowledge of advanced processes for gas service activation and other end-use activities. This course also provides students with additional safety related details for carrying out certain activities covered in Gas Utility Training III. Theory of operation of Class 1 and Class 2 pressure regulators is also covered. Students will learn the principles of operation and diagnosis of operational problems and applicable NFGC code requirements on the broad scope of end-use appliances. Excavation and trenching safety is covered in detail. Classroom and hands-on training will ensure that students possess the necessary skills and knowledge to perform advanced duties associated with work on gas service activation and end-use appliances and systems by higher level gas utility worker job classifications. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 505-Gas Utility Training III*

3 Laboratory hours. 3 Lecture hours. 4 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 509**

#### **Intro to Basic Arc Welding**

This course will concentrate and master basic welding skills and techniques. An overview of the safety rules and procedures will also be provided. Writing assignments, as appropriate to the discipline, are part of the course.

1-2 Lecture Hours. 3-12 Laboratory Hours. 2-6 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 510**

#### **Blueprint, Layout, & Fabrication**

Detail interpretation of welding print and fabrication, fabrication procedures as well as interpreting basic elements of a drawing or sketch. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture Hours. 2 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 515**

#### **Related Mathematics I**

This course is designed to provide to the student those mathematical tools most often needed to solve trade related problems. The instruction includes a review of whole numbers, fractions, decimal, powers, roots, ratios proportions and percentages. Writing assignments, as appropriate to the discipline, are part of the course.

4 Lecture hours. 4 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 516**

#### **Related Mathematics II**

Continuation of Mathematics I. Topics include elementary algebraic operations, geometry and an introduction into trigonometry. Writing assignments, as appropriate to the discipline, are part of the course.

4 Lecture hours. 4 Credit Hours.

**Offered At:** KK

### **Technology 332 (332TECH) 518**

#### **Manufacturing Materials & Processes**

An introduction to manufacturing materials, methods, and processes for drafting and design technicians is provided. Basic cold and hot working processes, used to join, form, weld, shape and cut materials to specified sizes, are also taught. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture Hours. 1 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 520**

**Arc Welding**

This course provides continued development of the basic skills for performing operations with mild steel plates. Student progress in welding from flat to vertical, down to horizontal, and to vertical up positions. Writing assignments, as appropriate to the discipline, are part of the course.

*Grade of C or better in 332TECH 509.*

2 Lecture Hours. 6 Laboratory Hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 526**

**Welding Mathematics I**

This course gives a student a review of basic mathematics as it pertains to layout and blueprint reading. The course covers decimals, fractions, and converting whole inches to millimeters. Writing assignments, as appropriate to the discipline, are part of the course.

1-2 Lecture Hours. 1-2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 530**

**Advanced Welding**

In this course students will concentrate and master advanced welding skills and techniques. An overview of safety rules and procedures will also be given. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture Hours. 6 Laboratory Hours. 4 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 581**

**Concrete Framing**

This course will acquaint the student with industry terminology, the tools used in the trade, and safety procedures. Instruction and demonstration will introduce the student to the application of footings, foundation walls, and slab, and stair construction. Writing assignments, as appropriate to the discipline, are part of the course.

3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 582**

**Residential Carpentry**

Training consists of an orientation into the field of carpentry, industry terminology, and the discipline and the uses of tools of the trade. Students will receive hands-on training in the recognition and application of the materials used in residential structures. Writing assignments, as appropriate to the discipline, are part of the course.

3 Laboratory hours. 1 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 583**

**Basic Hand Tools**

This course is designed to introduce students to the operation and safe use of various types of hand tools. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 715**

**Intro o Hand and Power Tools**

This course will enable the student to identify, maintain, and illustrate proper handling and care of the various hand and power tools. Writing assignments, as appropriate to the discipline, are part of the course.

1 Lecture Hours. 6 Laboratory Hours. 1-3 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 767**

**Blueprint Reading I**

Introduce students to construction blueprints and specifications. Emphasis on how to read and understand all types of working drawings used in the construction industry. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 768**

**Blueprint Reading II**

Continuation of Blueprint Reading I. This course will further develop the student's ability to interpret drawings of intermediate and advanced complexity related to actual trade projects. Writing assignments, as appropriate to the discipline, are part of the course.

2 Lecture hours. 2 Credit Hours.

**Offered At:** KK

**Technology 332 (332TECH) 769**

**Blueprint Reading III**

3 Lecture hours. 3 Credit Hours.

**Offered At:** KK