LTC LAKESHORE TECHNICAL COLLEGE

CONSTRUCTION TRADES FUNDAMENTALS

Program Number 61-475-1
Certificate • 15 credits

ABOUT THE PROGRAM

The Construction Trades Fundamentals Pathway Certificate provides the needed knowledge and skills to start a career in the construction trades. Students will learn basic knowledge about various construction trades as well as how to work safely.

PROGRAM OUTCOMES

- Demonstrate safety and proper use of materials, tools, and equipment
- Demonstrate proper use of hand and power tools
- Interpret construction documents and blueprints
- Demonstrate wood frame layout and assembly
- Recognize plumbing, HVAC, and electrical systems

ADMISSION AND PROGRAM ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.

APPROXIMATE COSTS

- $138.90 per credit tuition (WI resident) plus $8.33 per credit student activity fee. $10 per credit online, iFlex or hybrid fee. Material fee varies depending on course. Other fees vary by program. Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

CONTACT

LTC Career Coach
920.693.1162 • CareerCoach@gotoltc.edu

COURSES

Catalog No.	Class Title	Credit(s)
10410101	Introduction to Construction	2
10413105	Basic Electricity for Construction Trades	2
10410102	Blueprint Reading for Building Construction	2
10804113	College Technical Mathmatics 1A	3
10442100	Welding Introduction	1
10410103	OSHA 30 for Construction	2
10601110	Mechanical Service Applications-Sheet Metal	3

TOTAL 15

Curriculum and Program Acceptance requirements are subject to change. Program start dates vary; check with your advisor for details. The tuition and fees are approximate based on 2020-2021 rates and are subject to change prior to the start of the academic year.

BASIC ELECTRICITY FOR CONSTRUCTION TRADES...provides practical DC/AC concepts to introduce various components, electrical quantities, and measuring values in DC and AC circuits. Circuit measurement of voltage, current, and resistance will be taken with analog and digital meters applying basic concepts. The student will learn about electrical theory, electrical safety, basic circuit design, measuring equipment, general wiring practices, motors, and transformers.

BLUEPRINT READING FOR BUILDING CONSTRUCTION...provides instruction in reading and interpreting shop drawings, residential drawings, and commercial building plans. Emphasis is placed on building terminology and learning conventional techniques of communicating building methods from the designer to the builder. Students learn to visualize the structure and to interpret elevations, plan views, details, and sections from drawings. They also learn to read and interpret building specifications.

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. PRERQUISITES: 10834110 Elementary Algebra w Apps or 10804107 College Mathematics or 31457318 Ind Mtnc Trades Math or 31420320 Machine Tool Math or math placement assessment equivalent

INTRODUCTION TO CONSTRUCTION...provides the learner with an overview of the various construction trades including framing, roofing, masonry block work, masonry flat work, electrical, HVAC, plumbing, and finish cabinetry work.

MECHANICAL SERVICE APPLICATIONS-SHEET METAL...introduces the student to copper soldering and brazing, oxy-acetylene torch usage for welding and brazing steel, sheet metal layout and fabrication, press fitting pipe, corrugated stainless steel tubing, PVC, and black iron pipe assembly procedures.

OSHA 30 FOR CONSTRUCTION...is an introductory course designed to provide instruction on general construction safety and health topics. The participant is given an overview of the key components of the Occupation Safety and Health Act of 1970, to become familiar with the enforcement and compliance efforts. The course is taught by certified OSHA instructors.

WELDING INTRODUCTION...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major hand-held cutting processes - Oxyfuel and PAC.