

ARCHITECTURE AND CONSTRUCTION

BUSINESS AND INDUSTRY

CONSTRUCTION

PROGRAM OF STUDY

The Construction program of study explores the occupations and educational opportunities related to constructing, installing, or repairing structures and fixtures made of wood, such as concrete forms (including frameworks, partitions, joists, studding, rafters, and stairways). This program of study may also include exploration into installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.

Texas Data: Collected by TEA October 2019

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Occupational Health and Safety Admin (OSHA) General 10-Hour; National Center for Construction Education (NCCER)- Core, Carpentry I, and Carpentry II.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Carpenters	\$35,922	5,031	26%
Architectural/Civil Drafters	\$50,170	1,068	9%
Geographic Information Analysts and Surveyors	\$58,926	162	27%
Cost Estimators	\$63,939	2,239	21%
Construction Managers	\$87,402	2,401	14%

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips; Industry Interviews/ Observations; Community Project Opportunities; Internships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Construction
- 2 LEVEL** Construction Technology I
- 3 LEVEL** Construction Technology II
- 4 LEVEL** Practicum in Construction Technology

NOTE: See reverse for additional course sequence options and endorsement requirements. Course descriptions and details can be found in the course catalog.



The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Non-Discrimination Statement

It is the policy of Leander ISD not to discriminate on the basis of race, color, national origin, sex or handicap in its Career and Technology Education Programs, services, or activities. Leander ISD will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs. Es norma de Leander ISD de no discriminar por motivos de raza, color, origen nacional, sexo o impedimento, en sus programas, servicios o actividades vocacionales. Leander ISD tomará las medidas necesarias para asegurar que la falta de habilidad en el uso de la lengua inglés no sea un obstáculo para la admisión o participación en todos los programas educativos y vocacionales.

CONSTRUCTION

BUSINESS AND INDUSTRY

A student may earn a Business and Industry endorsement by completing foundation and general endorsement requirements. Endorsement course options for the Construction program of study are listed below.



4 CREDITS REQUIRED

Required Courses:

- Principles of Construction
- Construction Technology I

Choose additional credits from the following:

- Construction Technology II
- Practicum in Construction Technology
- Electrical Technology (LHS)
- Principles of Architectural Design
- Architectural Design I
- Agricultural Mechanics and Metal Technologies
- Introduction to Engineering Design
- Professional Communications or Entrepreneurship
- Career Preparation
- Project-Based Research

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10 General industry covers standards and regulations that OSHA has set in place to make sure all employees function in a safe work environment. Topics include: introduction to OSHA; Walking and Working Surfaces; Exit Routes, Emergency Action Plans, and Fire Prevention; Electrical; Personal Protective Equipment; Hazard Communication; Materials Handling; Machine Guarding; Bloodborne Pathogens.

National Center for Construction Education (NCCER) Core certification shows mastery in introductory craft skills such as basic safety, construction math, hand tools, power tools, construction drawings, basic rigging, communication skills, employability skills, and material handling.

National Center for Construction Education (NCCER) Carpentry I shows mastery in basic trade knowledge, building materials, fasteners, and adhesives, hand and power tools, construction drawings, specifications, and layouts, floor systems, wall systems, ceiling joist and roof framing, basic stair layout, building envelope systems.

National Center for Construction Education (NCCER) Carpentry II shows mastery in commercial drawings, cold-formed steel framing, exterior finishing, thermal and moisture protection, roofing applications, doors and door hardware, drywall installation, drywall finishing, suspended ceilings, window/door/floor/ceiling trim, and cabinet installation.

NOTES:
