



The following programs of study are available within the Architecture and Construction cluster.

- Design/Preconstruction
- Construction
- Maintenance/Operations

Design/PreConstruction

9472CT

Formerly Architectural Graphics

Architectural Design

- ⇒ *Grade Placement 10-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite Concepts of Engineering & Architectural Technology (STEM Cluster)*
- ⇒ *Past Prereq Computer Applications*

Students will receive an overview of the various fields of architecture, interior design, construction science and construction technology. The software applications include but are not limited to: AutoCAD Architecture, Revit and Chief Architect. Students will be responsible for purchasing materials or assessed a fee associated with this course.

9482CT

Formerly Architectural Construction

Construction Management

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite Concepts of Engineering & Architectural Technology and either Architectural Design or Engineering Design & Presentation and Approval Process*
- ⇒ *Past Prereq Computer Applications and either Architectural Graphics or Engineering Graphics and Approval Process*

Students will learn design, design history, techniques and tools related to the production of drawings, renderings and scaled models for commercial or residential purposes. Students will be responsible for purchasing materials or assessed a fee associated with this course.

9360CT

Interior Design

- ⇒ *Grade Placement 10-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Recommended Prerequisite Algebra I*
- ⇒ *Past Prereq None*

This is a project driven course that focuses on interior environments. Students will discover ways to enhance spaces using knowledge based on the psychological, physiological and sociological needs of people. Students will be able to create a scale drawing of spaces as well as understand the basic construction of homes and furniture. This course will also create an awareness of the following topics; principles and elements of design, consumer decision making, safety, as well as care and maintenance of interiors. Students will be responsible for purchasing materials for their projects. Also, an assessed fee is associated with this course. **Advanced Technical Credit is available through community colleges in Texas.**

9478CT

Formerly Research, Design and Development

Problems and Solutions in Architecture and Construction

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite Concepts of Engineering & Architectural Technology and either Architectural Design or Engineering Design & Presentation and Approval Process*
- ⇒ *Past Prereq Computer Applications and either Architectural Graphics or Engineering Graphics and Approval Process*

This is a project-based course for students to research a real-world problem. Students develop a project on a topic related to career interests, use scientific methods of investigation to conduct in-depth research, compile findings, and present their findings. Students will be responsible for purchasing materials or assessed a fee associated with this course. **This course receives advanced grade points. This course is designed to provide students an opportunity to earn one advanced measure for the Distinguished Achievement Program.**

Construction

9616CT

Formerly Introduction to Construction Careers

Principles of Construction

- ⇒ *Grade Placement 9-12*
- ⇒ *Credit 1/2 Unit*
- ⇒ *Prerequisite None*

This course introduces the student to the construction industry. This is accomplished by exploring employment possibilities in the various manual trades including but not limited to safety, tools, materials, and training requirements. The student will build a project according to local, state, and federal guidelines. The student will be introduced to construction drawings and their various uses. This course is offered at Klein Forest High School.

9618CT

Formerly Building Trades I

Construction Technology

- ⇒ *Grade Placement 10-12*
- ⇒ *Credit 2 Units*
- ⇒ *Prerequisite Principles of Construction or Approval Process*
- ⇒ *Past Prereq None*

This course is designed to continue a student’s knowledge of the construction industry. Topics to be covered are employment, materials, hand and power tool use, safety, construction drawings, window and door installation, floor framing, wall framing, roof framing, concrete, and stair construction. Classes meet for two periods each school day at Klein Forest High School.

9620CT

Formerly Building Trades II

Advanced Construction Technology

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit 2 Units*
- ⇒ *Prerequisite Construction Technology and Approval Process*
- ⇒ *Past Prereq Building Trades I and Approval Process*

This course will continue the student’s knowledge of the construction industry. Topics to be covered are construction drawings, roof coverings, insulation, exterior siding, metal framing, drywall installation and finishing, metal door installation, suspended ceiling, interior trim, cabinetry and counter tops. Classes meet for two periods each school day at Klein Forest High School.

5660CT

CTED Principles of Construction, Career and Technical Education for Students with Disabilities

- ⇒ *Grade Placement 9-12*
- ⇒ *Credit 1 Unit*
- ⇒ *Prerequisite Recommendation of ARD Committee*

This course provides construction career information for the special needs students. The course is designed to familiarize students with introductory skills and a basic understanding of career opportunities and training requirements in four fundamental career clusters related to construction: carpentry, residential electrical, painting, decorating, and plumbing/pipefitting. Students will discuss entrepreneurship, safety and leadership training are included. This course is offered at Klein Forest High School.

I (2hr-9677CT) (3 hr-9676CT) II (2hr-9679CT) (3hr-9678CT)

Career Preparation I, II

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit I 2-3 Units, II 2-3 Units*
- ⇒ *Prerequisite 16 years of age and Approval Process*

A work-based learning program that combines occupationally related classroom instruction and work-based experiences. Students work in a skilled occupation relating to communications and media, construction and maintenance, electrical and electronics, industrial and manufacturing, safety and security, metal technology, automotive/transportation or other specialty areas. Safety, entrepreneurship, leadership and career opportunities are included with work ethics and job related study in the classroom. Students must provide their own transportation to their training station. This course is offered at Klein High School.

I (2 hr-9321CT) (3 hr-9322CT); II (2 hr-9323CT) (3 hr-9324CT)

Family and Consumer Sciences Career Preparation I, II

- ⇒ *Grade Placement 11-12*
- ⇒ *Credit I 2-3 Units; II 2-3 Units*
- ⇒ *Prerequisite 16 years of age and Approval Process*

This work-based instructional arrangement develops essential knowledge and skills through classroom instruction and on-the-job training in approved occupationally-specific training areas. Occupational areas include but not limited to: the food and beverage industry, child care, retail clothing and apparel, floral design, housing and property management, home furnishings, and hospitality services. All areas include production, management, service, and entrepreneurship. Students must provide their own transportation to their training station.