

# CONSTRUCTION TRADES PROGRAM

## *Pathway Description*

The construction industry has experienced a winding road of recovery. The good news for those considering a construction job is that the industry is starting to hit its stride. The Labor Department remains upbeat on this sector, predicting overall employment growth of 13.6%, or almost 520,000 new jobs by the year 2024. Plumbers, electricians, carpenters, painters and construction managers will be needed to build new structures and update existing buildings. Building professionals must have a broad base of skills and knowledge about the upkeep of buildings, including metal work and electrical equipment. They must also be fully knowledgeable about federal and state OSHA regulations.

Our Construction Trades program will help to prepare students for careers in the construction industry. The program offers a blend of carpentry, plumbing/HVAC, and electrical skills. Students begin with carpentry and then explore the fundamentals of electrical wiring and pipe fitting. They will be trained to operate hand and power tools and other specialized equipment.

At the conclusion of the program, these three areas will culminate in the construction of a fully functioning, sustainable structure. The students will be evaluated on accuracy, speed, and quality of workmanship required to pursue a successful career in the construction trades pathway.

## CONSTRUCTION TRADES PROGRAM

### *Course Sequence*

| <b>CORE</b>                      | <b>GRADE 9</b>                        | <b>GRADE 10</b>                        | <b>GRADE 11</b>                          | <b>GRADE 12</b>                         |
|----------------------------------|---------------------------------------|--|--|---|
| <b>ENGLISH</b>                   | <b>ENGLISH I</b>                      | <b>ENGLISH II</b>                      | <b>ENGLISH III OR AP LANGUAGE/COMP</b>   | <b>ENGLISH IV OR AP LITERATURE/COMP</b> |
| <b>SOCIAL STUDIES</b>            | <b>WORLD HISTORY</b>                  | <b>US HISTORY I OR AP US HISTORY I</b> | <b>US HISTORY II OR AP US HISTORY II</b> | <b>HISTORY ELECTIVE OR INTERNSHIP</b>   |
| <b>MATHEMATICS</b>               | <b>ALGEBRA I OR GEOMETRY</b>          | <b>GEOMETRY OR ALGEBRA II</b>          | <b>ALGEBRA II OR PRECALCULUS</b>         | <b>MATH ELECTIVE OR INTERNSHIP</b>      |
| <b>SCIENCE</b>                   | <b>INTEGRATED SCIENCE</b>             | <b>BIOLOGY</b>                         | <b>CHEMISTRY</b>                         | <b>SCIENCE ELECTIVE OR INTERNSHIP</b>   |
| <b>HEALTH/PHYSICAL EDUCATION</b> | <b>FITNESS AND HEALTH I</b>           | <b>FITNESS AND HEALTH II</b>           | <b>FITNESS AND HEALTH III</b>            | <b>FITNESS AND HEALTH IV</b>            |
| <b>CTE MAJOR</b>                 | <b>CTE SEMINAR/FINANCIAL LITERACY</b> | <b>CONSTRUCTION TRADES I</b>           | <b>CONSTRUCTION TRADES II</b>            | <b>CONSTRUCTION TRADES III</b>          |
| <b>INTERDISCIPLINARY STUDIES</b> | <b>GRAPHIC DESIGN</b>                 | <b>CONSTRUCTION TRADES I</b>           | <b>CONSTRUCTION TRADES II</b>            | <b>CONSTRUCTION TRADES III</b>          |
| <b>WORLD LANGUAGE/ELECTIVES</b>  | <b>SPANISH I</b>                      | <b>SPANISH II</b>                      | <b>ELECTIVE</b>                          | <b>ELECTIVE</b>                         |

**Construction Trades Program**  
*Course Credits*

**Freshman**

|                       |           |
|-----------------------|-----------|
| English I             | 5 credits |
| World History         | 5 credits |
| Algebra I or Geometry | 5 credits |
| Integrated Science    | 5 credits |
| Spanish I             | 5 credits |
| Fitness and Health I  | 5 credits |
| Graphic Design        | 5 credits |
| CTE Seminar           | 5 credits |

**Sophomore**

|                                 |            |
|---------------------------------|------------|
| English II                      | 5 credits  |
| US History I or AP US History I | 5 credits  |
| Geometry or Algebra II          | 5 credits  |
| Biology                         | 5 credits  |
| Spanish II                      | 5 credits  |
| Fitness and Health II           | 5 credits  |
| Construction Trades I           | 10 credits |

**Junior**

|                                   |            |
|-----------------------------------|------------|
| English III or AP Language/Comp   | 5 credits  |
| US History II or AP US History II | 5 credits  |
| Algebra II or Pre-calculus        | 5 credits  |
| Chemistry                         | 5 credits  |
| World Language or Elective        | 5 credits  |
| Fitness and Health III            | 5 credits  |
| Construction Trades II            | 10 credits |

**Senior**

|                                |            |
|--------------------------------|------------|
| English IV/AP Literature/Comp  | 5 credits  |
| History Elective or Internship | 5 credits  |
| Math Elective or Internship    | 5 credits  |
| Science elective or Internship | 5 credits  |
| World Language or Elective     | 5 credits  |
| Fitness and Health IV          | 5 credits  |
| Construction Trades III        | 10 credits |

**Construction Trades Program**  
*Course Descriptions*

**Course Title: Career and Technical Education Seminar**

**Grade Level: 9**

**Credits: 5**

This course was designed to assist in the transition of students from middle school to high school and to introduce them to the multiple career pathways in their chosen CTE program. The course will serve as an introduction to CCTEC and will provide academic, social, and emotional support to our incoming freshmen. The primary focus of the course will be the development of critical skills pertaining to: studying, personal finance, career exploration, and the exploration of character traits that are vital for academic success. Students will actively participate in projects that promote cooperative learning, community involvement, problem solving, and character education. Students will also be introduced to their CTE program and complete projects in their chosen CTE field.

**Course Title: Construction Trades I**

**Grade Level: 10**

**Credits: 10**

Construction Trades I prepares students with foundational skills and knowledge in the field of construction. Students will follow the NCCER core curriculum in learning basic safety, construction applied math, proper use of hand and power tools, blueprint reading, basic rigging, and communication and employability skills. Fundamentals of construction are introduced including floor, wall and roof systems along with structure enclosure and an introduction to electrical and plumbing. Students will be involved in actual construction projects in school.

**Course Title: Construction Trades II**

**Grade Level: 11**

**Credits: 10**

Construction Trades II continues with hands-on experiences to enhance a student's abilities in the construction industry. Students will receive advanced training in enclosure techniques, interior finishing, construction design and contracting concepts. Students will be involved in the actual construction-related projects in school and the community.

**Course Title: Construction Trades III**

**Grade Level: 12**

**Credits: 10**

Construction Trades III builds upon Construction Trades II and continues with hands-on experiences to enhance a student's abilities in the construction industry. Students receive additional advanced training in the areas studied thus far. Student learning will culminate into the construction of a fully functioning, sustainable structure. The students will be evaluated on accuracy, speed, and quality of workmanship required to pursue a successful career in the construction trades pathway.