

# Columbia High School

## 2023-2024

### CAREER and TECHNICAL EDUCATION – PROGRAM OF STUDIES

#### Agriculture, Food & Natural Resources

##### Animal Science

Principles of Ag, Food & Natural Resources (I)  
Equine Science (II)  
Small Animal Management (II)  
Livestock Production (III)  
Advanced Animal Science# (IV)  
Veterinary Medical Applications (IV)  
Practicum in Agriculture, Food and Natural (IV)  
Resources (IV)

##### Applied Agricultural Engineering

Principles of Ag, Food & Natural Resources (I)  
Ag Mechanics and Metal Technologies (II)  
Agriculture Structural Design and Fabrications (III)  
Agriculture Power Systems (III)  
Agriculture Equipment Design and Fabrication (IV)  
Practicum in Agriculture, Food and Natural (IV)  
Resources (IV)

##### Environmental and Natural Resources

Principles of Ag, Food & Natural Resources (I)  
Wildlife Fisheries and Ecology Management (II)  
Range Ecology and Management (III)  
Practicum in Agriculture, Food and Natural  
Resources (IV)

##### Plant Science

Principles of Ag, Food & Natural Resources (I)  
Landscape Design and Management (II)  
Turf Grass Management (II)  
Horticulture Science (III)  
Floral Design (III)  
Practicum in Agriculture, Food and Natural (IV)  
Resources (IV)

(I) – signifies level one course

(II) – signifies level two course

(III) – signifies level three course

(IV) – signifies level four course

#### Architecture and Construction

##### Architectural Design

Principles of Architecture\* (I)  
Architecture Design I\* (II)  
Interior Design I (II)  
Architecture Design II\* (III)  
Career Preparation (IV)

##### Electrical

Principles of Construction\* (I)  
Electrical Technology I\* (II)  
Electrical Technology II\* (III)  
Career Preparation (IV)

##### HVAC and Sheet Metal

Principles of Construction\* (I)  
HVAC and Refrigeration I\* (II)  
HVAC & Refrigeration II\* (III)  
Career Preparation (IV)

##### Plumbing

Principles of Construction\*(I)  
Introduction to Welding (I)  
Plumbing Technology I\* (II)  
Plumbing Technology II\* (III)  
Career Preparation (IV)

#### Arts, A/V Technology & Communication

##### Digital Communications

Principles of Art, Audio/Video Technology and  
Communications (I)  
Professional Communication\* (I)  
Audio Video Production I (II)  
Audio Video Production II (III)  
Practicum in Audio/Visual (IV)

##### Printing and Imaging

Graphic Design (I)  
Printing and Imaging I (II)  
Printing and Imaging II (III)  
Practicum in Printing and Imaging Technology (IV)

#### Business, Marketing and Finance

##### Finance

Principles of Business, Marketing & Finance (I)  
Money Matters (I)  
Business Information Management I (I)  
Accounting I\* (II)  
Financial Mathematics# (II)  
Accounting II\* (III)  
Career Preparation (IV)

##### Business Management

Principles of Business, Marketing and Finance (I)  
Business Information Management I\* (I)  
Business Law (II)  
Business Information Management II (II)  
Statistics and Business Decision Making\*# (IV)  
Career Preparation (IV)

##### Entrepreneurship

Principles of Business, Marketing and Finance (I)  
Business Information Management I\* (I)  
Entrepreneurship I (II)  
Entrepreneurship II (III)  
Career Preparation (IV)

\*BRAZOSPORT COLLEGE-may have different course names

# Can be used as a 4<sup>th</sup> Math/Science credit for some graduation plans-see counselor

Updated 6/21/23

# Columbia High School

2023-2024

## CAREER and TECHNICAL EDUCATION – PROGRAM OF STUDIES

### Education and Training – Teaching and Training

Principles of Education and Training (I)  
Human Growth and Development (II)  
Instructional Practices (III)  
Practicum in Education and Training (IV)  
Career Preparation (IV)

### Energy

#### Oil and Gas Exploration and Production

Foundations of Energy (I)  
Oil and Gas Production I\* (I)  
Oil and Gas Production II\* (II)  
Career Preparation (III)  
Project Based Research\* (IV)

#### Refining and Chemical Processes

Foundations of Energy (I)  
Introduction to Process Technology\* (II)  
Petrochemical Safety, Health and Environment\* (III)  
Project Based Research\* (IV)

### Health Science – Healthcare Diagnostics

Principles of Health Science (I)  
Medical Terminology\* (II)  
Health Science Theory (III)  
Anatomy & Physiology# (IV)  
Practicum of Health Science (IV)

### Hospitality and Tourism – Culinary Arts

Principles of Hospitality and Tourism (I)  
Introduction to Culinary Arts (I)  
Culinary Arts (II)  
Advanced Culinary Arts (III)  
Practicum in Culinary Arts (IV)  
Career Preparation (IV)

### Information Technology – Web Development

Principles of Information Technology\* (I)  
Computer Science I\* (II)  
Web Design\* (III)  
Career Preparation (IV)

### Law and Public Service

Principles of Law, Public Safety, Corrections\* (I)  
Law Enforcement I\* (II)  
Law Enforcement II (III)  
Correctional Services (III)  
Forensic Science# (IV)  
Practicum in Law, Public Safety Corrections and Security (IV)

### Manufacturing

#### Advanced Manufacturing and Machinery Mechanics

Principles of Manufacturing\* (I)  
Manufacturing Engineering Technology I\* (II)  
Robotics I (II)  
Engineering Design and Presentation I\* (III)  
Career Preparation (IV)

### Welding

Introduction to Welding (I)  
Welding I\* (II)  
Welding II\* (III)  
Career Preparation (IV)

### Science, Technology, Engineering and Math

#### Engineering

Principles of Applied Engineering\* (I)  
Manufacturing Engineering Technology I\* (II)  
Digital Electronics\* (III)  
Engineering Design and Problem Solving\* (IV)

#### Transportation, Distribution & Logistics - Automotive

Automotive Technology I\* (III)  
Automotive Technology II\* (IV)  
Practicum in Transportation Systems\* (IV)  
Career Preparation (IV)

**(I) – signifies level one course**

**(II) – signifies level two course**

**(III) – signifies level three course**

**(IV) – signifies level four course**

**CTE EXPLORER** = A student completing 2 or more CTE courses for a total of 2 or more credits and not a participant, concentrator or completer.

**CTE CONCENTRATOR** = A students completing and passing 2 or more CTE courses for a total of at least 2 credits within the same program of study and not a completer.

**CTE COMPLETER** = A student completing and passing three or more CTE courses for a total of four or more credits within a program of study, including one level three or level four course from within the same program of study.

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# Can be used as a 4<sup>th</sup> Math/Science credit for some graduation plans-see counselor

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