



Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

CFISD Program of Study: *Environmental and Natural Resources*

Successful completion of the *Environmental and Natural Resources* program of study will fulfill requirements of the Business and Industry endorsement.

The Environmental and Natural Resources program of study focuses on occupational and educational opportunities associated with the research, design, and engineering of plans for prevention and control of environmental hazards. This program of study includes conducting research for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population.



Recommended Course Sequence (credits)(A=advanced)

Students wanting an endorsement in this area must select three (3) or more courses totaling four (4) or more credits with at least one being advanced.

Grade 9	<ul style="list-style-type: none"> Principles of Agriculture, Food, and Natural Resources (1)
Grade 10	<ul style="list-style-type: none"> Wildlife, Fisheries, and Ecology Management (1)
Grade 11	<ul style="list-style-type: none"> Forestry and Woodland Ecosystems (1)
Grade 12	<ul style="list-style-type: none"> Range Ecology and Management (1) (A) OR Practicum in Agriculture, Food, and Natural Resources (2) (A)

Aligned Industry-Based Certifications Offered in CFISD

(course) (CCMR=impacts "career ready" status as outlined by the TEA Accountability System for College, Career or Military Readiness)

- Angler Safety (Wildlife, Fisheries, and Ecology Management)
- Boater Safety (Wildlife, Fisheries, and Ecology Management)
- Ducks Unlimited Ecology Conservation and Management Certification (Forestry) (CCMR)
- Hunter Safety (Wildlife, Fisheries, and Ecology Management)
- Quality Counts Verification (Principles of AFNR)

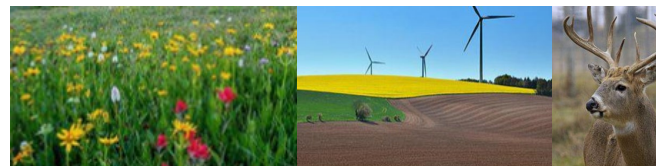
Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern in an environmental services office in local government to learn about sanitation and waste management

Expanded Learning Opportunities

- Participate in an FFA career, leadership, and speaking contest like an agriscience fair



Example Postsecondary Opportunities

Apprenticeships

- Water Treatment Plant Operator



Associate Degrees

- Environmental/Environmental Engineering Technology
- Water Quality and Wastewater Treatment Management and Recycling Technology

Bachelor's Degrees

- Environmental Engineering
- Environmental Health

Master's, Doctoral, and Professional Degrees

- Biology/Biological Sciences
- Ecology

Additional Stackable IBCs/License

- Pesticide Dealer License
- Water Operator



Example Aligned Occupations

Data Source: Texas Wages, Texas Workforce Commission. rev 3/8/2024

Environmental Engineering Technologists and Technicians

Median Wage: \$53,997
Annual Openings: 79
10-Year Growth: 18%

Environmental Scientists and Specialists

Median Wage: \$79,386
Annual Openings: 407
10-Year Growth: 25%

Environmental Engineers

Median Wage: \$114,899
Annual Openings: 228
10-Year Growth: 18%

AVAILABLE TO STUDENTS AT ALL 12 HIGH SCHOOLS!

- Receive training on industry-standard material, software & equipment.
- Enhance your resume by earning recognized industry-based certifications.
- Get a jump-start by taking advantage of core curriculum dual credit, transferable to 2-yr and 4-yr degrees.

ALL AT A FRACTION OF THE COST!



For more information on this and other CTE programs of study offered in CFISD, visit <https://www.cfisd.net/academics/career-technical-education/programs-of-study>

What's next? For more information on related programs available to continue your studies at Lone Star College, visit <https://www.lonestar.edu/programs-of-study>

