

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.



Statewide Program of Study: Food Science and Technology

The Food Science and Technology program of study focuses on the occupational and educational opportunities associated with the research, production, and processing of food from plants and animals. This program of study includes exploration of safety, processing, preserving, packaging, and storing food for human consumption.



Secondary Courses for High School Credit

- Level 1** • Principles of Agriculture, Food, and Natural Resources

- Level 2** • Food Technology and Safety (BHS)

- Level 3** • Food Processing (BHS)

- Level 4** • Practicum in Agriculture, Food, and Natural Resources



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> • Shadow employees at a food production company to learn about application of food science to production and quality control • Intern in a food science lab working alongside a food science technician to learn about safe and efficient processing of food products
Expanded Learning Opportunities	<ul style="list-style-type: none"> • Participate in an FFA career, leadership, and speaking contest like an agriscience fair • Participate in an industry-related competition like an agriscience fair

Aligned Industry-Based Certifications

- Food Safety and Science Certification

Successful completion of the Food Science and Technology program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Apprenticeships

- Butcher

Associate Degrees

- Biology/Biological Sciences

Bachelor's Degrees

- Food Science and Technology
- Human Nutrition

Master's, Doctoral, and Professional Degrees

- Human Nutrition
- Food Science and Technology

Additional Stackable IBCs/License

- National Meat Cutting and Processing Certification



Example Aligned Occupations

Butchers and Meat Cutters

Median Wage: \$35,554
Annual Openings: 2,044
10-Year Growth: 17%

Food Science Technicians

Median Wage: \$53,890
Annual Openings: 227
10-Year Growth: 18%

Agricultural Inspectors

Median Wage: \$50,690
Annual Openings: 181
10-Year Growth: 14%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>