

The Agriculture, Food, & Natural Resources (AFNR) Career Cluster focuses on the essential elements of life—food, water, land, & air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, & veterinarian to geologist, land conservationist, & florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, & oil & gas production.



The Food Science and Technology program of study explores the occupations and educational opportunities associated with working with agricultural and food scientists in food, fiber, and animal research, production, and processing. This program of study may also include assisting with animal breeding, nutrition, and conducting tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.



Successful completion of the Food Science and Technology program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022



### Meet the Teachers

The Agriculture, Food, & Natural Resource program of study is under the instruction of Hunter Mewbourn. Mr. Mewbourn is a Frankston native with experience in welding that dates back to his time as a student at FISD. He brings 10 years of industry experience to the Ag program where he hopes to inspire the next generation of blue collar workers. He loves the experience of watching students learn how to use new tools and seeing the joy on their face when they accomplish a good weld. His main focus for his students is to help them learn skills that they can use either for their careers or creating things in their private lives.



AGRICULTURE, FOOD, &  
NATURAL RESOURCE



# APPLIED AGRICULTURAL ENGINEERING

## Level 1

Principles of Agriculture, Food, & Natural Resources

## Level 2

Food Technology and Safety/Lab

## Level 3

Food Processing/Lab

## Level 4

Practicum in Agriculture, Food, & Natural Resources

Project Based Research

### Certification offered:

*Culinary Meat Selection & Cookery Certification*

*Food Safety & Science Certification*

*Pre-Professional Certification in*

*Food Science Fundamentals*



| Occupations  | Median Wages | Annual Openings | % Growth |
|--|--------------|-----------------|----------|
| Agricultural and Food Science Technicians            | \$ 34,382    | 236             | 11 %     |
| Supervisors of Production and Operating              | \$ 62,171    | 5,094           | 9 %      |
| Inspectors, Testers, Sorters, Samplers, and Weighers | \$ 37,689    | 6,653           | %%       |

### Work Based Learning & Expanded Learning Opportunities

| Exploration Activities:                  | Work Based Learning Activities:                         |
|--|---|
| Tour a food products processing facility | Intern at a food products processing facility           |
| Participate in Texas FFA                 | Participate in an FFA supervised agriculture experience |

| High School/Industry Certification                          | Associates Degree | Bachelor's Degree                         | Master's/Doctoral Professional Degree |
|---|-------------------|---|---------------------------------------|
| Culinary Meat Selection & Cookery Certification             | Food Science      | Agricultural and Food Products Processing | Food Science and Technology           |
| Food Safety & Science Certification                         |                   | Food Science and Nutrition                |                                       |
| Pre-Professional Certification in Food Science Fundamentals |                   | Food Science and Technology               |                                       |

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.