

# 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 a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

## Animal Science Statewide Program of Study



The Animal Science program of study focuses on the science, research, and business of animals and other living organisms. It teaches CTE learners how to apply biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students may also research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

### Secondary Courses for High School Credit

#### Level 1

- Principles of Agriculture, Food, and Natural Resources

#### Level 2

- Livestock Production (AGAH2313/AGAH1353)

#### Level 3

- Small Animal Management
- Equine Science (AGEQ1411)
- Veterinary Medical Applications (AGAH1447/AGRI2321)

#### Level 4

- Animal Science (AGRI1419/AGRI1131)
- Practicum in Agriculture, Food, and Natural Resources – Vet Med

### Work-Based Learning and Expanded Learning Opportunities

#### Exploration Activities

- Participate in Texas FFA

#### Work-Based Learning Activities

- Compete in an Agri-Science Fair 4H
- Volunteer at a local farm or with a veterinarian
- Participate in an FFA supervised agriculture experience

### Industry-Based Certifications

- Certified Veterinary Assistant, Level 1
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Equine Management & Evaluation Certification

### Postsecondary Opportunities

#### Associates Degrees

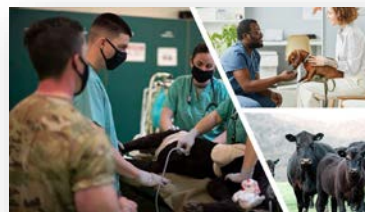
- Food Science and Technology
- Veterinary Studies
- Biotechnology Laboratory Technician
- Biology Technician

#### Bachelor's Degrees

- Animal Sciences
- Agriculture
- Biology
- Zoology/ Animal Biology

#### Master's, Doctoral, and Professional Degrees

- Genetics
- Veterinary Medicine
- Biological and Physical Sciences
- Biological and Biomedical Sciences



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	\$39,139	28	9%
Animal Scientists	\$57,533	22	12%
Medical Scientists	\$63,898	435	27%
Veterinarians	\$93,496	294	24%
Zoologists and Wildlife Biologists	\$67,309	45	32%

Successful completion of the Animal Science 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

# Animal Science Course Information

## Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Principles of Agriculture, Food, and Natural Resources	13000200 (1 credit)	None	None

## Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Livestock Production (AGAH2313/AGAH1353)	13000300 (1 credit)	None	None

## Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Small Animal Management	13000400 (0.5 credit)	None	None
Equine Science (AGEQ1411)	13000500 (0.5 credit)	None	None
Veterinary Medical Applications (AGAH1447/AGRI2321)	13000600 (1 credit)	Equine Science, Small Animal Management, Livestock Production	None

## Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Animal Science (AGAH1401 AGRI1419/AGRI1131)	13000700 (1 credit)	Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production	None
Practicum in Agriculture, Food, and Natural Resources	13002500 (2 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER, PLEASE CONTACT: [CTE@tea.texas.gov](mailto:CTE@tea.texas.gov)  
<https://tea.texas.gov/cte>

Mabank ISD does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Mr. Clay Tracy, Assistant Superintendent of Human Resources, 310 E. Market Street, Mabank, TX 75147, 903-880-1305.

Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).