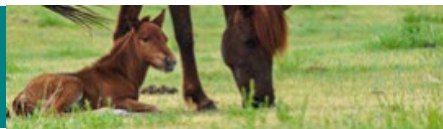


# Agriculture, Food, and Natural Resources Career Cluster

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.

### Sharyland ISD

#### Secondary Courses for High School Credit

##### Level 1

- Principles of Agriculture, Food, and Natural Resources [1 Credit]

##### Level 2

- Equine Science [.5 Credit]
- Small Animal Management [.5 Credit]

##### Level 3

- Livestock Production [1 Credit] **(Advanced Course)**
- Advanced Animal Science [1 Credit] **(Advanced Course)**

##### Level 4

- Veterinary Medical Applications [1 Credit] **(Advanced Course)**
- Project-Based Research [1 Credit] **(Advanced Course)**
- Scientific Research and Design **(Advanced Course)**

#### 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

#### Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
<ul style="list-style-type: none"><li>Participate in Texas FFA</li></ul>	<ul style="list-style-type: none"><li>Compete in an Agri-Science Fair 4H</li><li>Volunteer at a local farm or with a veterinarian</li><li>Participate in an FFA supervised agriculture experience</li></ul>

### Sharyland ISD

#### Industry-Based Certifications

- Certified Veterinary Assistant, Level 1
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Feedyard Technician in Cattle Care and Handling



#### 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
Equine Science	13000500 (0.5 credit)	None	None
Small Animal Management	13000400 (0.5 credit)	None	None

## Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Livestock Production	13000300 (1 credit)	None	None
Advanced Animal Science	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

## Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Veterinary Medical Applications	13000600 (1 credit)	Equine Science, Small Animal Management, or Livestock Production	None
Project-Based Research	12701500 (1 credit)	None	None
Scientific Research and Design	13037200 (1 credit)	Biology, Chemistry, Integrated Physics, and Chemistry (IPC), or Physics	None

FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER,  
PLEASE CONTACT:

**Your Junior High or High School Counselor**

Sharyland 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. For inquiries regarding the nondiscrimination policies, contact our Title IX Coordinator at 1200 N. Shary Road, Mission, TX 78572, or by email at [deborahgarza@sharylandisd.org](mailto:deborahgarza@sharylandisd.org) and our Section 504 Coordinator at 1200 N. Shary Road, Mission, TX 78572, by email at [azucenagarza@sharylandisd.org](mailto:azucenagarza@sharylandisd.org) or by calling (956) 580-5200.