# 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 (9th Grade)

Principles of Agriculture, Food, and Natural Resources

#### Level 2 (10th Grade)

- Small Animal Management
- Equine Science

#### Level 3 (11th Grade)

· Livestock Production/Lab

#### Level 4 (12th Grade)

- Advanced Animal Science
- Veterinary Medical Applications/Lab

### **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

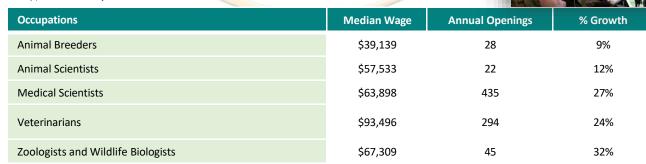
## Work-Based Learning and Expanded Learning Opportunities

Learning Opportunities			
Exploration Activities	Work-Based Learning Activities		
Participate in Texas     FFA	<ul> <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>		

## **Industry-Based Certifications**

- Agricultural Biotechnology
- Agrilife Veterinary Assistant Certificate
- Certified Veterinary Assistant, Level 1
- Elanco Fundamentals of Animal Science Certification (SRHS)
- Elan<mark>co V</mark>eterinary Medical Applications Certification
- Equine Management & Evaluation Certification
- Feedyard Technician in Cattle Care and Handling
- Licensed Veterinary Technician
- Production Agriculture Job Ready
- Small Animal Science and Technology

#### Aligned Occupations



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 (9th Grade)

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

## Level 2 (10<sup>th</sup> Grade)

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Small Animal Management	13000400 (0.5 credit)	None	None
Equine Science	13000500 (0.5 credit)	None	None

## Level 3 (11th Grade)

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

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## Level 4 (12<sup>th</sup> Grade)

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
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
Veterinary Medical Applications/Lab	13000600 (1 credit) 13000610 (2 credits)	Equine Science, Small Animal Management, or Livestock Production	None

FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER,
PLEASE CONTACT: <a href="mailto:cte/ctea.texas.gov/cte">cte@tea.texas.gov/cte</a>
<a href="mailto:https://tea.texas.gov/cte">https://tea.texas.gov/cte</a>

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Further nondiscrimination information can be found at <u>Notification of Nondiscrimination in Career and Technical Education Programs</u>.