



# 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.

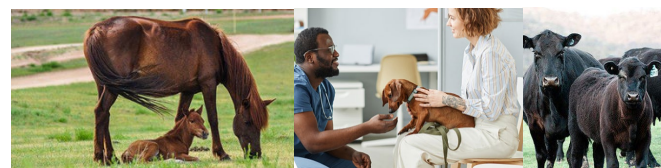
## Statewide Program of Study: Animal Science

The Animal Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of animals and other living organisms. This program of study includes applying 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 will research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.



## Secondary Courses for High School Credit

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|----------------|---|
| <b>Level 1</b> | <ul style="list-style-type: none"> <li>Principles of Agriculture, Food, and Natural Resources</li> </ul>  |
| <b>Level 2</b> | <ul style="list-style-type: none"> <li>Small Animal Management</li> <li>Equine Science</li> <li>Entrepreneurship I</li> </ul>   |
| <b>Level 3</b> | <ul style="list-style-type: none"> <li>Livestock and Poultry Production</li> <li>Livestock and Poultry Production + Agricultural Laboratory and Field Experience</li> </ul>   |
| <b>Level 4</b> | <ul style="list-style-type: none"> <li>Advanced Animal Science</li> <li>Veterinary Science</li> <li>Veterinary Science + Agricultural Laboratory and Field Experience</li> <li>Career and Technical Education Project-Based Capstone</li> <li>Practicum in Agriculture, Food, and Natural Resources</li> <li>Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources</li> <li>Practicum in Entrepreneurship</li> <li>Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship</li> <li>Career Preparation for Programs of Study</li> <li>Career Preparation for Programs of Study + Extended Career Preparation</li> <li>Scientific Research and Design</li> </ul> |



## Example Postsecondary Opportunities

### Apprenticeships

- Reproduction Technician

### Associate Degrees

- Biological and Physical Sciences
- Entomology

### Bachelor's Degrees

- Animal Science
- Zoology/Animal Biology

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

- Marine Sciences
- Biotechnology

### Additional Stackable IBCs/License

- Veterinarian
- Certified Veterinary Technician



## Work-Based Learning and Expanded Learning Opportunities

<b>Work-Based Learning Activities</b>	<ul style="list-style-type: none"> <li>Shadow an animal scientist in a biology lab to learn about applying science to understand animals and wildlife</li> <li>Intern in a veterinary clinic, caring for animals and wildlife being treated in the clinic</li> </ul>
<b>Expanded Learning Opportunities</b>	<ul style="list-style-type: none"> <li>Participate in an FFA career, leadership, and speaking contest like an agriscience fair</li> <li>Attend an agricultural industry seminar</li> </ul>

## Aligned Industry-Based Certifications

- AgriLife Veterinary Assistant Certificate
- Certified Veterinary Assistant, Level 1
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Equine Management & Evaluation Certification
- Licensed Veterinary Technician
- Production Agriculture - Job Ready
- Small Animal Science and Technology



## Example Aligned Occupations

### Veterinary Assistants and Laboratory Animal Caretakers

Median Wage: \$33,581  
Annual Openings: 1,953  
10-Year Growth: 24%

### Veterinary Technologists and Technicians

Median Wage: \$35,698  
Annual Openings: 1,820  
10-Year Growth: 24%

### Veterinarians

Median Wage: \$125,030  
Annual Openings: 435  
10-Year Growth: 26%

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/afnr-animal-science-extended.pdf>

