



# 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

**Level 1** • Principles of Agriculture, Food, and Natural Resources

**Level 2**

**Level 3** • Livestock Production

**Level 4** • Advanced Animal Science  
• Veterinary Medical Applications



### 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



### Aligned Advanced Academic Courses

#### AP or IB

AP Biology  
IB Biology SL  
IB Biology HL

#### Dual Credit

Dual credit offerings will vary by local education agency.

*Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.*

### Work-Based Learning and Expanded Learning Opportunities

#### Work-Based Learning Activities

- Shadow an animal scientist in a biology lab to learn about applying science to understand animals and wildlife
- Intern in a veterinary clinic, caring for animals and wildlife being treated in the clinic

#### Expanded Learning Opportunities

- Participate in an FFA career, leadership, and speaking contest like an agriscience fair
- Attend an agricultural industry seminar

### Aligned Industry-Based Certifications

- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification



### Example Aligned Occupations

#### *Veterinary Assistants and Laboratory Animal Caretakers*

Median Wage: \$29,906  
Annual Openings: 1,348  
10-Year Growth: 24%

#### *Veterinary Technologists and Technicians*

Median Wage: \$33,679  
Annual Openings: 1,217  
10-Year Growth: 24%

#### *Veterinarian*

Median Wage: \$103,160  
Annual Openings: 347  
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/programs-of-study-additional-resources>