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 (1 credit)**
  - 1101CT; 9-12 grade
  - 1 semester at Ben Barber

Level 2

- **Small Animal Management & Equine Science (1 credit)**
  - 1114CT/1113CT; 9-12
  - 1 semester at Ben Barber
  - *Prerequisite: Principles of Agriculture, Food, and Natural Resources*
- **Entrepreneurship (1 credit)**
  - 1720CT or 1720A/B; 9-12 grade
  - 1 semester at Ben Barber or 2 semesters at Home Campus

Level 3

- **Livestock Production (1 credit)**
  - 1115CT; 10-12 grade
  - 1 semester at Ben Barber
  - *Prerequisite: Principles of Agriculture, Food, and Natural Resources AND Small Animal/Equine Science*

Level 4

- **Animal Science (1 credit)**
  - 1116CT; 11-12 grade
  - 1 semester at Ben Barber
  - Science Credit
  - *Prerequisite: Biology, Chemistry or IPC, Geometry, AND Small Animal/Equine Science or Livestock Production*
  - Elanco Fundamentals of Animal Science Certification Possible
- **Veterinary Medical Applications (1 credit)**
  - 1140CT; 11-12 grade
  - 1 semester at Ben Barber
  - *Prerequisite: Small Animal/Equine Science or Livestock Production*
  - Selection Process
  - Elanco Veterinary Medical Applications Certification Possible
- **Practicum in Agriculture, Food, and Natural Resources (2 credits)**
  - 1135CA/CB; 11-12 grade
  - 2 semesters at Ben Barber
  - *Prerequisite: Students must successfully complete a Level 1 or 2 AND a Level 3 or 4 course to take a Practicum course. Selection Process.*

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

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

Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement.

Texas Education Agency

Animal Science