



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.



Endorsement: Business & Industry 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

- 9th Grade**
 - Principles of Agriculture, Food, and Natural Resources (Level 1)
- 10th Grade**
 - Equine Science (Level 2) **AND**
 - Small Animal Management (Level 2)
 - Elective: Livestock Production
- 11th Grade**
 - Veterinary Science (formerly Vet Med Application) (Level 4) (KCC)
- 12th Grade**
 - Advanced Animal Science (Level 4) (KCC) **AND**
 - Practicum in Agriculture, Food, and Natural Resources - Veterinary (Level 4) (KCC)

A CTE Completer is a student who completes three or more CTE courses for four or more credits including one Level 3 or 4 (advanced level) CTE course within a program of study will fulfill the requirements of a Business and Industry Endorsement.

Aligned Industry-Based Certifications

- Certified Veterinarian Assistant Level 1



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

NAVIANCE ACCESS

All Killeen ISD students (7th – 12th graders) should login to their Naviance account through Clever.

Log into Naviance by clicking the Clever logo or link and use the College SuperMatch Tool to find colleges offering degree plans in this field.

<https://clever.com/in/killeenisd>



Killeen ISD does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Rhea Bell, Title IX Coordinator, 902 N. 10th St., Killeen, TX 76541, 254-336-2822, Rhea.bell@killeenisd.org. Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).



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: Texas Wages, 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>



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Course Information

IT IS IN THE BEST INTEREST OF THE STUDENT TO TAKE ALL COURSES BELOW IN EACH GRADE

Level 1 9th Grade	Course	Prerequisites Corequisites	Career Clusters
	Principles of Agriculture, Food, and Natural Resources* 13000200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Level 2 10th Grade	Course	Prerequisites Corequisites	Career Clusters
	Small Animal Management 13000400 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Equine Science 13000500 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None	
Level 3 11th Grade	Course	Prerequisites Corequisites	Career Clusters
	Veterinary Science 13000600 (1 credit)	Prerequisites: Equine Science, Small Animal Management, or Livestock Production Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Level 4 12th Grade	Course	Prerequisites Corequisites	Career Clusters
	Advanced Animal Science 13000700 (1 credit)	Prerequisites: Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production Corequisites: None Recommended Prerequisites: Veterinary Medical Applications Recommended Corequisites: None	
	Practicum in Agriculture, Food, and Natural Resources – Veterinary * First Time Taken: 13002500 (2 credits) Second Time Taken: 13002510 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: A minimum of one credit from the courses in the AFNR career cluster Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

See your school counselor to connect with a military recruiter for career counseling and to take the ASVAB in high school.