ANIMAL SCIENCE

AGRICULTURE, FOOD, AND NATURAL RESOURCES

Level 1
Principles of Agriculture, Food, and Natural Resources

Level 2
Small Animal Management (semester course)

and

Equine Science (semester course)

Level 3
Livestock Production

Veterinary Medical Applications/Lab

Level 4
Advanced Animal Science

! Practicum in Agriculture, Food, and Natural Resources

Project-Based Research

Where multiple courses are listed in a level the student may choose which course to take based on career goals and interests. Students should discuss the most appropriate course progression with their CTE program teachers and their school counselor. Courses marked with "**!**" include an industry-based certification.

The above program of study represents the PfISD recommended sequence of courses, based on district course offerings, for students considering a career in the field of animal science or veterinary medicine.

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Veterinary Assistant-Level One	Pet Groomer	Food Science and Technology	Animal Sciences	Genetics
	Veterinary Technician	Veterinary Studies	Agriculture	Veterinary Medicine
	Licensed Breeder	Biotechnology Laboratory Technician	Biology	Biological and Physical Sciences
		Biology Technician	Zoology/ Animal Biology	Biological and Biomedical Sciences

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	$39,135	28	9%
Animal Scientists	$57,533	22	12%
Medical Scientists	$63,898	435	27%
Veterinarians	$93,496	294	24%
Zoologists and Wildlife Biologists	$67,309	45	32%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:	Work Based Learning Activities:
Join a CTSO: Texas FFA	Agri-Science Fair, 4-H, Volunteer at a local farm or veterinary office Conduct a Supervised Agriculture Experience (SAE)

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.

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.

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 - July 2020
Students must complete at least 3 courses in the program of study for 4 or more credits, including at least one advanced course.

TEA
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COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) REC. PREREQUISITE (RPREQ)	Grade
Principles of Agriculture, Food, and Natural Resources*	13000200 (1 credit)	None	9-10
Small Animal Management*	13000400 (0.5 credit)	RPREQ: Principles of Agriculture, Food, and Natural Resources	10-11
Equine Science*	13000500 (0.5 credit)	RPREQ: Principles of Agriculture, Food, and Natural Resources	10-11
Livestock Production*	13000300 (1 credit)	RPREQ: Small Animal Management **and** Equine Science	10-11
Advanced Animal Science*	13000700 (1 credit) science credit	PREQ: Biology **and** Chemistry **or** Integrated Physics **and** Chemistry (IPC); Algebra I **and** Geometry; **and** either Small Animal Management, Equine Science, **or** Livestock Production	11-12
Veterinary Medical Applications/Lab*	**13000610 (2 credits)**	**PREQ: Equine Science, Small Animal Management, or Livestock Production**	**11-12**
Practicum in Agriculture, Food, and Natural Resources*	**13002500 (2 credits)**	**RPREQ: at least 2 credits in Animal Science program**	**11-12**
Project-Based Research	**12701500 (1 credit)**	**RPREQ: at least 3 credits in Animal Science program**	**11-12**

*course not available at all campuses
Bolded text represents an advanced course

FOR ADDITIONAL INFORMATION ON THE AGRICULTURE, FOOD, AND NATURAL RESOURCE CAREER CLUSTER, PLEASE CONTACT:
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https://tea.texas.gov/cte

A student may earn a Business and Industry endorsement by completing the requirements specified in subsection (e) of the Texas Administrative Code Chapter 74.13 Endorsements **and** subsection (f) (2) of the same title.

A student may earn a STEM endorsement by completing the requirements specified in subsection (e) of the Texas Administrative Code Chapter 74.13 Endorsements **and** subsection (f) (1) of the same title.