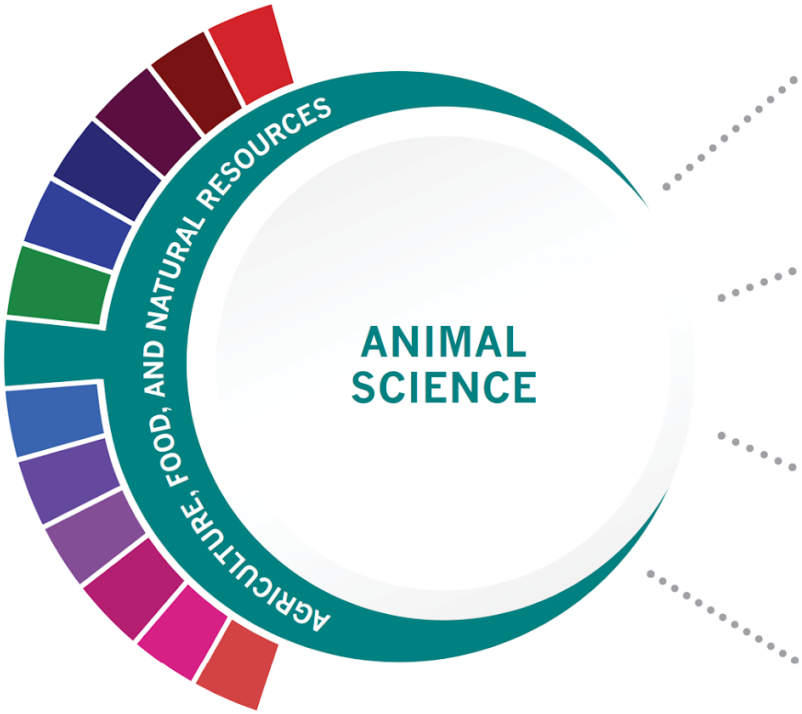

9th	Principles of Agriculture, Food, and Natural
10th	Livestock Production Agriculture Leadership, Research, & Communications
11th	Advanced Animal Science Practicum in Agriculture, Food, and Natural Resources 1st time
12th	Practicum in Agriculture, Food, and Natural Resources 2nd time

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Licensed Veterinary Technician	Pet Groomer	Food Science and Technology	Animal Sciences	Genetics
Feedyard Technician in Cattle Care and Handling	Veterinary Technician	Veterinary Studies	Agriculture	Veterinary Medicine
Certified Veterinary Assistant	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:
Texas FFA	Agri-Science Fair 4H Volunteer at a local farm or veterinary office FFA 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

TEA Texas Education Agency

COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Agriculture, Food & Natural Resources	1300200 - 1 credit	None	9-10
Agriculture, Leadership, Research & Communications	N1300266 - 1 credit	None	9-12
Livestock Production	13000300 - 1 credit	PREQ Principles of Agriculture, Food & Natural Resources	10
Advanced Animal Science	13000700 - 1 credit	PREQ Livestock Production	11-12
Practicum in Agriculture, Food, & Natural Resources	13002500 - 2 credits - 1st time 13002505 - 2 credits - 2nd time	PREQ Livestock Production	11-12

Principles of Agriculture, Food, & and Natural Resources

Recommended Grade Placement: 9-10
Credit(s): 1
Prerequisite: None
Principles of Agricultural Science is designed to introduce students to global agriculture. The course includes the study of agricultural career development, leadership, communications and personal finance.

Agriculture Leadership, Research, & Communications

Recommended Grade Placement: 9-12
Credit(s): .5 - 1
Prerequisite: None
Agricultural Leadership, Research and Communications will focus on challenging Agriculture, Food, and Natural Resources (AFNR) students to use higher level thinking skills, develop leadership abilities, employ standard research principles, and communicate agricultural positions effectively with all stakeholders. **Successful completion of this course may satisfy FISD graduation requirements for Speech.**

Livestock Production

Recommended Grade Placement: 10
Credit(s): 1
Prerequisite: Principles of Ag and Natural Resources
This course prepares students to be introduced to the common veterinary skills and procedures used on livestock, anatomy of livestock, genetics and reproduction, and diseases that can affect all livestock animals. Animal species to be addressed in this course may include, but are not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

Advanced Animal Science

Recommended Grade Placement: 11-12
Credit(s): 1
Prerequisite: Biology & Chemistry
Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences

Practicum in Agriculture, Food & Natural Resources

Recommended Grade Placement: 11-12
Credit(s): 2
Prerequisite: Livestock Production
Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster®