



Level 1
09704 Principles of Agriculture, Food, and Natural Resources

19718 Wildlife, Fisheries and Ecology Management

Level 2
09791 Small Animal Management

09706 Equine Science

19712 Livestock Production

Level 3
19706 Veterinary Medical Applications w/ Lab

09702 Advanced Animal Science

Level 4
39704 Practicum in AFNR – Vet Science

Dual Credit Science

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

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%

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.

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 20

GCCISD offers career and technical education (CTE) programs in Agriculture, Food & Natural Resources; Architecture & Construction; Arts, Audio Visual Technology & Communications; Business, Marketing & Finance; Education & Training; Energy; Health Science; Hospitality & Tourism; Human Services; Information Technology; Law & Public Service; Manufacturing; Science, Technology, Engineering & Math; and Transportation, Distribution & Logistics. Admission to these programs is based on student interest and space availability in GCCISD CTE programs. It is the policy of GCCISD CTE Programs not to discriminate on the basis of race, color, national origin, sex or handicap in its CTE programs, services or activities.



COURSE INFORMATION

09704	PRINCIPLES OF AGRICULTURE, FOOD AND NATURAL RESOURCES	GPA Level: Regular
Grade Level: 9	Service ID: 13000200 (1 cr.)	Prerequisites: None
This is an introductory course designed to provide an overview of global agriculture. The course includes leadership, career development, communications, livestock, plant and soil science and food science.		

19718	WILDLIFE, FISHERIES AND ECOLOGY MANAGEMENT	GPA Level: Regular
Grade Level: 10-12	Service ID: 13001500 (1 cr.)	Prerequisites: None
This course is designed to examine the importance of wildlife and outdoor recreation, emphasizing using wildlife and natural resources. This course examines the management of game and non-game wildlife species, fish, and aqua crops and their ecological needs as related to current agricultural practices. Instruction includes the Texas Hunter course and certification required while hunting.		

09791	SMALL ANIMAL MANAGEMENT	GPA Level: Regular
Grade Level: 10-12	Service ID: 13000400 (0.5 cr.)	Prerequisites: None
Students prepare for careers in the field of animal science through the enhancement of academic knowledge and skills, acquisition of knowledge and skills related to animal systems, and development of knowledge and skills regarding career opportunities, entry requirements, and industry expectations. Suggested small animals which may be included in the course of study include, but are not limited to, small mammals, amphibians, reptiles, birds, dogs, and cats.		

09706	EQUINE SCIENCE	GPA Level: Regular
Grade Level: 10-12	Service ID: 13000500 (0.5 cr.)	Prerequisites: None
This course is designed to develop knowledge and skills pertaining to the selection, nutrition, reproduction, health and management of horses, donkeys and mules. This course is recommended for those who have an interest in the Veterinary Science field.		

19712	LIVESTOCK PRODUCTION	GPA Level: Regular
Grade Level: 10-12	Service ID: 13000300 (1 cr.)	Prerequisites: Any AFNR course
This course introduces the common veterinary skills and procedures used on livestock, anatomy of livestock, genetics and reproduction, and diseases that can affect all livestock animals. This course is recommended for students who have an interest in the Veterinary Science field.		

19706	VETERINARY MEDICAL APPLICATIONS WITH LAB	GPA Level: Regular
Grade Level: 11-12	Service ID: 13000610 (2 cr.)	Prerequisites: Equine Science, Small Animal Management, or Livestock Production
Prepares students for careers in the broad field of animal science focusing on veterinary science. Students will attain usable skills and knowledge related to veterinary medicine as it relates to both large and small animals. Upon successful completion of this course students have attained skills that is enable them to apply and transfer veterinary medical knowledge in a variety of settings.		

COURSE INFORMATION

09702	ADVANCED ANIMAL SCIENCE	GPA Level: Regular
Grade Level: 11-12	Service ID: 13000700 (1 cr.)	Prerequisites: Equine Science, Livestock Production, or Small Animal Management, & Biology, Chemistry or IPC, & Algebra I & Geometry
Students will develop and investigate the scientific and technological dimensions of scientific animal agriculture, genetics and reproduction, anatomy and physiology of various livestock species, nutritional requirements, and disease and parasites of livestock. This class is recommended for those students with an interest in Veterinary Science.		

39704	PRACTICUM IN AFNR – VET SCIENCE	GPA Level: Regular
Grade Level: 12	Service ID: 13002505 (3 cr.)	Prerequisites: Veterinary Medical Applications with Lab
The practicum course is designed to give students an opportunity to enhance their previous learning by participating in a paid/unpaid internship or lab setting in their chosen Agriculture, Food and Natural Resource field.		

FOR ADDITIONAL INFORMATION ON THE AGRICULTURAL SCIENCE CAREER ACADEMY,
PLEASE CONTACT:

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