

# CAREER & TECHNICAL EDUCATION ELECTIVES

## AGRICULTURE, FOOD & NATURAL RESOURCES CAREER CLUSTER

### **5100 PRINCIPLES OF AGRICULTURE, FOOD & NATURAL RESOURCES**

Grades: 9-12  
Credit: 1  
Prerequisite: None



Processing, production, distribution, financing, and development of agricultural commodities and natural resources.

This course is designed to allow students to gain general knowledge about plant and animal agriculture while also studying career opportunities, leadership skills, and professional communication skills. This class is suggested prior to taking other Agriculture Science classes.

### **5135 EQUINE SCIENCE**

Grades: 10-12  
Credit: .5  
Prerequisite: Recommended Principles of Agriculture, Food & Natural Resources



Processing, production, distribution, financing, and development of agricultural commodities and natural resources.

This technical course is designed to develop knowledge and skills pertaining to the selection, nutrition, reproduction, health, and management of horses.

### **5185 LIVESTOCK PRODUCTION**

Grades: 10-12  
Credit: .5  
Prerequisite: Recommended Principles of Agriculture, Food & Natural Resources



Processing, production, distribution, financing, and development of agricultural commodities and natural resources.

This technical course is designed to develop knowledge and skills pertaining to the nutrition, reproduction, health and management of livestock. Animal genetics, reproduction, and anatomy and physiology are covered. The selection and carcass evaluation of all classes of livestock is covered.

### **5105 VETERINARY MEDICAL APPLICATIONS**

Grades: 10-12  
Credit: 1  
Prerequisite: Recommended Principles of Agriculture, Food & Natural Resources



Processing, production, distribution, financing, and development of agricultural commodities and natural resources.

This course is designed to meet the growing demand for qualified employees in the fast growing veterinary medicine field. Students will study examination procedures, laboratory procedures, radiology, kennel, cage and stall care, surgical preparation, pharmacology and office procedures.

## 5155 ADVANCED ANIMAL SCIENCE

Grades: 12

Credit:1 (To be used as 4th year Science credit. Must have completed 3 Science credits)

Prerequisite: Recommended 1 of 3: Equine Science, Livestock Production & Veterinary Medical Applications

This course is designed to build on knowledge gained in prior animal agriculture classes covering such topics as animal reproduction, genetics, anatomy and physiology, nutrition, formulating feed rations, livestock handling, harvesting and marketing of livestock, and research in the field of animal agriculture. Refer to page 39.

## 5115 PROFESSIONAL STANDARDS IN AGRIBUSINESS

Grades: 9-12

Credit:.5

Prerequisite: Recommended Principles of Agriculture, Food & Natural Resources



Processing, production, distribution, financing, and development of agricultural commodities and natural resources.

This course is designed as an introduction to agribusiness management in the free enterprise system. Instruction includes a study of economic principles, budgeting, recordkeeping, finance, risk management, business law, marketing, and careers in agribusiness.

## 5120 AGRIBUSINESS MANAGEMENT AND MARKETING

Grades: 10-12

Credit:.5

Prerequisite: Recommended Principles of Agriculture, Food & Natural Resources



Processing, production, distribution, financing, and development of agricultural commodities and natural resources.

A technical course designed to introduce the student to agribusiness management in the free enterprise system. Course includes a study of economic principles, budgeting, recordkeeping, finance, risk management, business law, marketing, and careers in agribusiness.

## 5125 MATHEMATICAL APPLICATIONS IN AGRICULTURE, FOOD, AND NATURAL RESOURCES

Grades: 11-12

Credit:1

Prerequisite: Recommended Principles of Agriculture, Food & Natural Resources

This course is designed to give students the knowledge of mathematical applications in the different segments of agriculture including areas such as animal systems, plant systems, the environmental field, agriculture structures, harvesting and processing of food products.

## 5165 WILDLIFE, FISHERIES AND ECOLOGY MANAGEMENT

Grades: 10-12

Credit: 1

Prerequisite: Recommended Principles of Agriculture, Food & Natural Resources



Processing, production, distribution, financing, and development of agricultural commodities and natural resources.

This course emphasizes environmental issues and environmental topics of local and state concern. Students are given the opportunity to receive certification for hunting and boating through the Texas Parks and Wildlife Educational Program. During each unit, safety is stressed. Other topics studied include species of mammals, birds, fish, reptiles, and game. Also, environmental concerns that lead to the species becoming threatened or endangered are covered. Activities include outdoor games, projects, videos, and discussion of current topics. Students are required to earn 35 outside credit hours. This is a state requirement.