

AGRICULTURAL DEPARTMENT & PROGRAMS

Program: Agritechnology

Industry Certification(s): Agriculture Associate Certification, Agritechnology Specialist Certification, Agricultural Mechanics Specialist Certification, Agriculture Systems Associate Certification

Course Number	Course Title	Length
8106810	Agriscience Foundations 1 ☆ ●	1 credit
8106820	Agritechnology 1	1 credit
8106830	Agritechnology 2	1 credit

This program is designed to develop competencies in the areas of agriscience industry careers; prevention and treatment of livestock diseases; livestock anatomy; wholesale cuts of meat; animal reproduction and identification; animal safety; animal-health certification; plant growth; plant fertilization; safe use of pesticides; maintenance of tools and equipment; record keeping; and employability skills. The second half of this program will develop competencies in the areas of job and training requirements; professional organizations; crop identification; planting crops; fertilizer calculations and application; irrigation; pest control; harvesting, packing, and grading crops, safe equipment operation; finance; and employability skills.

Program: Horticulture Science & Services

Industry Certification(s): Agriculture Associate Certification, FNGLA Certified Horticulture Professional, Agritechnology Specialist Certification, Agriculture Systems Associate Certification

Course Number	Course Title	Length
8106810	Agriscience Foundations 1 ☆ ●	1 credit
8121510	Introductory Horticulture 2 ☆ ▼	1 credit
8121520	Horticulture Science 3 ☆ ▼	1 credit

This program is designed to develop competencies in the areas of career opportunities; global importance of agriculture; plant classification; propagation; growing media; nutritional needs; fertilization; irrigation; pest identification; pest control, pruning; plant installation; transplanting; safe hand-tool use; and employability skills. Additionally students who complete this program will develop competencies in the areas of industry regulations; plant classification; plant transportation; soil sampling and analysis; fertilizer calculations; recording keeping; irrigation components, water quality; drainage; integrated pest management; pesticide safety and regulations; equipment calibration; chemical growth regulators; xeriscaping; integrated landscape management; safe use of power equipment; and record keeping.

Program: Technical Agriculture Operations (Agriculture Mechanics)

Industry Certification(s): Agriculture Associate Certification, Agriculture Systems Associate Certification, Agriculture Mechanics Specialist Certification

Course Number	Course Title	Length
8106810	Agriscience Foundations 1 ☆ ◎	1 credit
8005110	Technical Agriculture Operations 2 (Agriculture Mechanics)	1 credit
8005120	Technical Agriculture Operations 3 (Agriculture Mechanics)	1 credit
8005130	Technical Agriculture Operations 4 (Agriculture Mechanics)	1 credit

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Agriculture, Food and Natural Resources career cluster. It provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the agriculture mechanics industry within the Agriculture, Food and Natural Resources career cluster.

The content includes but is not limited to mechanical operations, welding, small engine maintenance and repair, planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues, and health, safety, and environmental issues.

Program: Animal Science & Services

Industry Certification(s): Agriculture Associate Certification, Animal Science Specialist Certification, Agriculture Systems Associate Certification

Course Number	Course Title	Length
8106810	Agriscience Foundations 1 ☆ ◎	1 credit
8106210	Animal Science & Services 2	1 credit
8106220	Animal Science & Services 3	1 credit

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Agriculture, Food and Natural Resources career cluster. Provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the animal science industry within the Agriculture, Food and Natural Resources career cluster.

The content includes but is not limited to planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues, health, safety and environmental issues, and the use and care of animal health-care instruments, animal grooming equipment, animal restraining equipment, and laboratory equipment.

Program: Agriculture Biotechnology

Industry Certification(s): Agriculture Associate Certification, Agricultural Biotechnology Specialist Certification, Agriculture Systems Associate Certification

Course Number	Course Title	Length
8106810	Agriscience Foundations 1 ☆ ◎	1 credit
8106850	Agricultural Biotechnology 2 ☆	1 credit
8106860	Agricultural Biotechnology 3 ☆ ◎	1 credit

This program is designed to develop competencies in the areas of agricultural history and the global impact of agriculture; career opportunities; scientific and research concepts; biological and physical science principles; environmental principles; agriscience safety; principles of leadership; and agribusiness, employability, and human relations skills in agriscience. This program will also develop competencies in the areas of biotechnology in agriculture, scientific investigation, laboratory safety, scientific and technological concepts; and the fundamentals of biotechnology. Laboratory-based activities are an integral part of this course. These include the safe use and application of appropriate technology, scientific testing and observation equipment. This program is aligned with high school science courses as follows: (Example: 71% of the standards in Biology 1 are taught in this course)

8200410A Agribusiness Cooperative Education – OJT 11th - 12th Grade 1.0 Credit

This course is designed to provide on-the-job training when the cooperative method of instruction is used to prepare students for employment in agricultural occupations. Students must be enrolled in or have completed an agriculture program to be eligible for this course.

12th grade students may enroll up to three periods. 11th grade students may enroll up to two periods.