

# PROGRAM OF STUDY

## Agriculture & Technology Associate in Science Degree

Completion of the Associate in Science Degree in Agriculture & Technology provides introduction to fundamental practices and principles in Animal Science, Agricultural Business and Plant and Soil Science. Entry level employment in production agriculture and transfer to general agriculture programs are intended outcomes of this program.

### Program Learning Outcomes:

1. Comprehension and identification of the structures and functions of plant cells, organelles, tissues, organs, and integrate important plant processes such as growth, photosynthesis, respiration, and translocation with plant management practices.
2. Experience with the physical, chemical, and biological properties of soils, and the incorporation of analytical testing procedures for nutrients, moisture, and physical characteristics with economical stewardship of soil management.
3. Developed awareness of theoretical and practical applications to orchard, vineyard, and vegetable production systems with emphasis on San Joaquin Valley specifics for irrigation, fertility, cultural, and pest managements.
4. Understanding of the principles of integrated pest management, including population dynamics and selection, and the use of biological, chemical, regulatory, genetic, cultural, and physical/mechanical control options in a systems approach that optimizes economics and minimizes environmental side effects.
- 5 Proficiency in machinery management and operation of farm equipment.
- 6 Demonstrate a breadth of knowledge in the agriculture industry which provides a base for effective decision making and credibility in personal interactions and career decisions.

<b>Required Courses (16 units)</b>		<b>Units</b>
AGBS2	Agricultural Economics	3
AGBS4	Computer Applications in Agriculture	3
AS1	Introduction to Animal Science	3

<b>Plant &amp; Soil Science Physical and Biological Science Core</b>		<b>Units</b>
PLS11	Machinery Technology	3
Select one group		
Group 1		
PLS1	Introduction to Plant Science	3
PLS1L	Introduction to Plant Science Laboratory	1
Group 2		
PLS2	Soils	3
PLS2L	Soils Laboratory	1

<b>Agricultural Science Electives (Select 12-13 Units)</b>		<b>Units</b>
AG4	Farm Management	3
AGBS1	Introduction to Agriculture Business	3
AGBS3	Agriculture Accounting	3
AGBS5	Ag Sales and Communications	3
AS2	Beef Production	3
AS3	Sheep Production	3
AS4	Swine Production	3
AS5	Animal Nutrition	3
AS6	Livestock Selection and Evaluation	3
AS10	Meat Evaluation and Processing	3
AS21	Equine Science	3
PLS1	Introduction to Plant Science	3
PLS1L	Introduction to Plant Science Laboratory	1
PLS2	Soils	3
PLS2L	Soils Laboratory	1
PLS3	General Viticulture	3
PLS4A	Tree and Vine Management	3
PLS5	Principles of Irrigation Management	3
PLS6	Pesticides	3

PLS7	Integrated Pest Management	3
PLS8	Vegetable Production	3
PLS9	Biometrics	3
PLS14	Plant Nutrition	3
PLS16	Wine Sensory Analysis and Evaluation	3
PLS17	Winery Laboratory Techniques and Equipment Operation	3
PLS18	Introduction to Enology	3
PLS31	Prerequisite Programs for Food Safety	1
PLS32	Introduction to Hazard Analysis and Critical Control Points	1
PLS33	Verification and Validation of HACCP Systems	1
PLS34	Internal Auditing of Food Safety Management	3
AS31	Prerequisite Programs for Food Safety	1
AS32	Introduction to Hazard Analysis and Critical Control Points	1
AS33	Verification and Validation of HACCP Systems	1
AS34	Internal Auditing of Food Safety Management	3
AS25	Basic Equine Handling	1
AS26	Western Riding & Horsemanship	2

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**Total Units**

**28 - 29**

Effective Term: Fall 2018

PID 685