Precision Agriculture

Precision Agriculture Certificate of Achievement

The Precision Agriculture Certificate prepares students to work with global positioning satellite (GPS) systems, geographic information system (GIS) software, automatic tractor guidance systems, variable rate chemical input applicators, surveying equipment, and related computer software. Students will learn in hands-on, real-world applications. Completing the certificate qualifies the student to enter the professional job market in the public sector as well as the agriculture industry. Units for the Precision Agriculture Certificate apply to the Associates Science Degree in Agriculture.

Program student learning outcomes:

1. Students will communicate technical information and work related concepts effectively through professional written and oral communication.
2. Students will understand fundamental mathematical and scientific concepts that are related to agriculture technology.
3. Students will use and apply geospatial tools including GPS, GIS, remote sensing, and IDI in agriculture, natural resources, and environmental systems for data collection, data analysis and interpretation of data.
4. Students will describe basic agronomic concepts of soil, tillage, fertilizers, pest control, and crop production.
5. Students will use technology to optimize agricultural management decisions.

For Gainful Employment information please visit:
Precision Agriculture Gainful Employment Data

Course #	*Title*	*Units*
Required Core Courses (11 Units)		
AG 015X . . .	Occupational Work Experience	1 - 8
AGBUS 015 .	Computer Application to Agriculture	3
SLSCI 021 . .	Introduction to Soil Science	4
CRPSCI 001 .	Introduction to Plant Science	3
or CRPSCI 002	Plant Science Theory	3
Plus 15 units from the courses listed below:		
AG 011	Agriculture Sales and Communication	3
AG 014	Tractor Operations	3
AGBUS 040 .	Introductory Agricultural Economics	3
AET 010	Surveying	3
AET 015	CAD for Agriculture	2
AET 021	Ag-Irrigation Management	3
AET 022	Irrigation Evaluation and Design Principles	4
AET 023	Advanced Irrigation Design	3
AET 024	Drip and Micro Irrigation Design and Management	3
CRPSCI 006 .	Introduction to Precision Agriculture	3
CRPSCI 008 .	Applications of Geospatial Technology	3
CRPSCI 017 .	Control and Sensor Systems in Ag	3
CRPSCI 018 .	Precision Ag Software	3
CRPSCI 019 .	California Water	3
CRPSCI 021 .	Orchard Production	3
CRPSCI 023 .	Row Crop Production	3
CRPSCI 032 .	Weeds and Poisonous Plants	3
CRPSCI 036 .	Fertilizers and Soil Amendments	3
CRPSCI 044 .	Economic Entomology	3
CRPSCI 045 .	California Pest Control Laws and Regulations	2
IMT 060	Industrial Core	3
IMT 061	Industrial Maintenance Mechanic Level I	3
IMT 062	Industrial Maintenance Mechanic Level II	4
WT 070	Introduction to Certified Welding	2.5
	Total	**26**