
Crop Science (CRPSCI)

CRPSCI 008 Applications of Geospatial Technology (3)

Class Hours: 36 Lecture | 54 Laboratory

CRPSCI 008 surveys the uses and applications of geospatial technologies in agriculture and related fields. The course focuses on GPS (Global Positioning System) and GIS (Geographic Information Systems) for data collection, navigation, recordkeeping, remote imagery, and analysis. Students gain hands-on experience using industry grade GIS software and GPS hardware.

CRPSCI 017 Control and Sensor Systems in Ag (3)

Class Hours: 36 Lecture | 54 Laboratory

CRPSCI 017 provides students with concepts of sensors and control systems. Fundamentals of GPS, GIS, telemetry, hydraulics, pneumatics, electronics and programming are covered as underlying technologies. The second portion of the course applies these technologies to autoguidance, variable rate, autonomous UAS, field sensors, fertigation and irrigation control systems, and livestock sensors. Hands-on activities include installation and use of these sensor and control systems.

CRPSCI 018 Precision Ag Software (3)

Class Hours: 36 Lecture | 54 Laboratory

CRPSCI 018 provides students with skills in the use of GIS (Geographic Information Systems) and FMIS (Farm Management Information Systems) software. Specific competencies include import/export, use of analytical tools, prescriptions, and creation of interpretative maps. Creation of an interactive web-based map and use of scripting or programming language such as Python are also covered.

CRPSCI 021 Orchard Production (3)

Class Hours: 36 Lecture | 54 Laboratory

CRPSCI 021 will cover the production practices and systems for developing and maintaining a productive orchard. Topics, as applied to all permanent crops, will include the following: soil, water and salinity management; planning and evaluation of an orchard; genetic considerations; growth, development, and physiology; nutrient and water interactions; and pest management. The UC production manuals will be used a textbook for course content. Lab exercises will focus on application of technology in orchard production practices.

CRPSCI 023 Row Crop Production (3)

Class Hours: 36 Lecture | 54 Laboratory

CRPSCI 023 covers the production systems and practices for a row crop production field. Varietal differences, transplant operations, cultural practices, irrigation, physiological and pest problems, harvesting and handling, and production costs will be covered. Content will be based on University of California publications. Lab activities provides hands-on experience with geospatial, sensor, and control technologies as applied to row crop production.
