Agriculture and Natural Resources: Sustainable Agriculture Science

Course Sequence

Biology and Sustainable Agriculture → Chemistry and Agriscience → Advanced Interdisciplinary Science for Sustainable Ag

Course Descriptions

**Biology and Sustainable Agriculture (Introductory)**  *A-G “D” Life Science*
This year-long course is designed for the college bound student and integrates biological science into the practice of sustainable agriculture. The course is organized into four major sections, each with a guiding question: What is sustainable agriculture? How does sustainable agriculture fit into our environment? What molecular biology principles guide sustainable agriculture? How do we make decisions to maximize sustainable agricultural practices within a functioning ecosystem? The course culminates with the development of a sustainable farm model and portfolio of supporting student research. Throughout the course, students will participate in FFA activities and will develop and maintain an ongoing Supervised Agricultural Experience.

**Chemistry and Agriscience (Concentrator)**  *A-G “D” Chemistry*
This is a year-long laboratory science course designed for the college bound student. Students explore the physical and chemical nature of soil and examine properties of soil and land and their connections to plant production. Students design an agriscience research program to be conducted throughout the first semester. Later, students develop and present a capstone soil management plan for agricultural producers. Throughout the course, students will participate in FFA activities and will develop and maintain an ongoing Supervised Agricultural Experience.

**Advanced Interdisciplinary Science for Sustainable Agriculture (Capstone)**  *Honors A-G “D” Science*
This year-long laboratory science course, designed for the college bound student, integrates laboratory science and research with agricultural management principles. Students design experiments to solve agricultural management issues currently facing the industry. By connecting the products created in this class with industry activities, students experience real-world problem-based learning and implement skills demanded by colleges and careers. The course culminates with an agriscience experimental research project related to the agricultural issue they identified in the fall. Final projects are eligible for Career Development Event competitions at FFA events. Throughout the course, students will participate in FFA activities and will develop and maintain an ongoing Supervised Agricultural Experience.

LOCAL POST-SECONDARY OPTIONS:
**Butte College**
- AS (Transfer) in Ag Plant Science
- AS in Agriculture Science
- AS in Agricultural Business

**CSU, Chico**
- BS in Agriculture Business
- BS in Animal Science
- BS in Agriculture
  - Option in Crops, Horticulture, & Land Resource Management
  - Option in Ag Science & Education

HIGHLIGHTED CAREERS:
* Laboratory/Research Technician
* Conservationist
* Ecologist
* Environmental Scientist
* Agronomist/Plant Scientist
* Agriculture Lawyer
* Water Treatment Technician
* Herd Manager
* Game Warden

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Career and Technical Student Organization: