

College of *Agriculture, Food & Environmental Sciences*

Agricultural Sciences Bldg. (11), Room 211
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ACADEMIC PROGRAMS

Agribusiness	<u>MS, Minor</u>
Agribusiness Specialization	<u>MBA</u>
Agricultural Business	<u>BS</u>
Agricultural Communication.....	<u>Minor</u>
Agricultural Science.....	<u>BS</u>
Agricultural Systems Management	<u>BS</u>
Agriculture	<u>MS,</u> <u>Credential</u>
Animal Science	<u>BS</u>
BioResource & Agricultural Engineering	<u>BS</u>
Crop Science	<u>BS, Minor</u>
Dairy Science	<u>BS, Minor</u>
Disaster Management/Homeland Security	<u>Minor</u>
Earth Sciences	<u>BS</u>
Environmental Horticultural Science	<u>BS</u>
Environmental Management and Protection.....	<u>BS</u>
Equine Science	<u>Minor</u>
Food Science	<u>BS, Minor</u>
Forestry and Natural Resources	<u>BS</u>
Forestry Sciences	<u>MS</u>
Fruit Science.....	<u>BS, Minor</u>
Geographic Info Systems for Agriculture	<u>Minor</u>
Land Rehabilitation.....	<u>Minor</u>
Landscape Horticulture	<u>Minor</u>
Meat Science and Processing.....	<u>Minor</u>
Military Science	<u>Minor</u>
Nutrition	<u>BS, Minor</u>
Ornamental Plant Production	<u>Minor</u>
Plant Protection	<u>Minor</u>
Poultry Management	<u>Minor</u>
Rangeland Resources	<u>Minor</u>
Recreation, Parks, and Tourism Admin. ...	<u>BS</u>
Soil Science	<u>BS, Minor</u>
Sustainable Agriculture	<u>Minor</u>
Water Engineering Specialization.....	<u>MS</u>
Water Science	<u>Minor</u>
Wine and Viticulture.....	<u>BS, Minor</u>

The College of Agriculture, Food and Environmental Sciences (CAFES) offers programs reflecting the growing diversity of choices available and skills required in modern agriculture, life sciences, and related professions.

Mission Statement

The College of Agriculture, Food and Environmental Sciences uses a “learn by doing” approach to prepare leaders in agriculture, food systems, natural resources, and life sciences who are equipped to address the diverse needs of society.

Learning Outcomes

All students who complete a program in CAFES should be able to:

- Demonstrate expertise and the use of technology in their respective discipline.
- Demonstrate effective oral and written communication skills.
- Make choices based on an understanding of personal and professional ethics and respect for diversity of people and ideas.
- Recognize leadership principles and skills.
- Evaluate and solve problems using critical thinking.
- Demonstrate an appreciation for sustainability and global perspectives.

Students take courses in their major field beginning with their first quarter of enrollment. This early exposure to their major provides them with knowledge to supplement that gained in other coursework in basic sciences, mathematics and the liberal arts. Moreover, it allows students to evaluate whether or not the curriculum selected is appropriate to their interests and abilities. Taking courses in the major throughout the academic program fosters personal contact with faculty and other students having common interests but varied backgrounds.

The students’ early involvement in their major field, combined with the faculty’s close contacts with schools, private industry, governmental agencies, and nonprofit organizations provide excellent opportunities for student internships during their junior or senior years. Other opportunities which enhance education, provide financial assistance, and help prepare students for the job market include enterprise projects, scholarships, and work-study jobs.

CAFES faculty are experts in their disciplines, and are dedicated to teaching. They are eager to help students learn, are readily available for consultation and are proud of their close relationship with students.

Academic advising is provided to all students through their major department in the college. Each student is assigned a faculty advisor. Students are encouraged to meet with their advisors quarterly to plan their schedule, review curriculum information, discuss career opportunities, and receive information on internships, enterprise projects and co-ops. Additionally, some departments have academic advising centers/resources to provide guidance on university and college policies and procedures including course transfers, substitutions and other general information.

Student clubs are active in every department. The 43 clubs, most of which are affiliated with national professional organizations, provide an excellent forum for student and faculty interactions. Active club members may practice leadership skills, and attend national, state and local professional meetings, as well as participate in a variety of professional and social events.

AGRICULTURAL LANDS AND OUTDOOR LABORATORIES

Nearly 5,000 acres of agricultural production, processing and research land and facilities are available for student use at Cal Poly. These facilities provide students with unique opportunities for hands-on experiences which augment classroom instruction.

The campus farm includes a dairy, beef center, horse, sheep, swine and poultry units, horse training and show arenas, an animal nutrition center, veterinary clinic and rodeo facilities. Also available are irrigated and dryland fields for annual crops, orchards and vineyards, an irrigation demonstration field, erosion research facility, large-scale composting operation, hoop houses, arboretum, wholesale and retail nurseries, putting greens and turf research plots, a wine lab, and greenhouses. Eleven acres of certified organic farmland support a thriving Community Supported Agriculture program.

Other Labs and Special Facilities

Special facilities include several microcomputer laboratories, laboratories with modern equipment for soil-plant-water testing, engineering testing and manufacturing shops, complete food processing units for dairy products, meats, fruit and vegetables, and four biotechnology and embryology laboratories.

Santa Cruz County Properties

The 3,200 acre Swanton Pacific Ranch and 600 acre Valencia Creek forest in Santa Cruz County were generously donated by Al Smith, alumnus of Cal Poly's former Crop Science Department. These properties provide students with an opportunity to live and work on a commercial farm with forestry, watershed management, cattle and organic crop production activities. The lands also support a wide range of research topics for undergraduate and graduate students.

EXPERIENTIAL LEARNING

Students have many opportunities to participate in experiential learning activities which exemplify Cal Poly's "learn by doing" philosophy. For example, more than 80% of CAFES classes include laboratories or activity sessions. Enterprise projects offer students practical experience in animal, plant, and food production, processing, and research. Some of these are financially backed by the Cal Poly Corporation and offer students entrepreneurial experiences similar to those found in private industry.

COURSES

The courses offered in each agricultural curriculum may be grouped into four areas:

Major. The major courses include a required cluster of courses in which the student expects to graduate. These courses constitute the core of specific preparation for the student's major field in agriculture.

Support. The support courses draw from courses in agriculture, life sciences, and closely allied fields which support and supplement the block of courses constituting the student's major.

General Education. Courses are selected from the physical and life sciences, mathematics, communications, arts and humanities, and social, political, and economic institutions. These courses furnish the student with background and support for agricultural courses as well as providing cultural background for the students' intelligent participation in a complex world society.

Electives. Course selection from electives is designed to provide freedom for students to pursue interests of their choosing in any university department.

RECOMMENDED PREPARATION

In addition to pursuing the CSU mandated entrance requirements, high school and community college students are encouraged to participate in co-curricular activities as part of their preparation for admission to majors in Cal Poly's College of Agriculture, Food and Environmental Sciences. These activities could include, but are not limited to, FFA, 4-H, leadership roles in school clubs, meaningful work experience and community organizations.

LABORATORY SAFETY

Students are required to meet sanitation and safety regulations in laboratories. These regulations are explained by the instructor at the first meeting of the class.