

college graduates in the scientific and business specialties of agriculture over the following decade. See the Departmental sections of this general catalog for extensive lists of technical and managerial positions open to students graduating with the degrees offered by that department.

Instructional Facilities

University Farm Laboratory. Eleven hundred and ninety acres adjacent to the academic campus provide a unique opportunity for students to directly apply the knowledge and skills acquired in the classroom. Vineyard, orchard, vegetable, cotton, and field crop enterprise projects supervised by faculty in the plant science and mechanized agriculture department further develop production and management skills. Similar enterprise projects at the beef, sheep, and swine units are supervised by faculty in the animal science department. The modern dairy, quarter horse, and feed mill units also support the instructional programs in animal science. All facilities are located within walking distance of the classroom. Over 5,000 acres of Sierra foothill rangeland are utilized in the comprehensive livestock and range management programs.

Enology Facility. The instructional winery provides an opportunity for students to make and evaluate wines. The facility is also used to assist students in learning distillation processes, including conversion of farm waste products to fuel alcohol.

Raisin Processing Plant. Situated near the campus vineyards, a state-of-the-art raisin processing facility is available where student and faculty research projects on dehydration methods and other drying systems for raisins are conducted.

Dairy Processing Plant. Milk, butter, cheese, and ice cream are processed by students in this instructional laboratory and marketed to the various on-campus food services and the public.

Meats Laboratory. An abattoir with complete livestock butchering, curing, and processing facilities provides learning opportunities for students including meat inspection and processing plus the correlation of live appearance with carcass quality.

Food Preparation and Product Development Laboratories. The production and research facilities include scientific equipment for food testing, product development, and food preparation.

Seed Technology Laboratory. This instructional and research facility houses a full-scale seed conditioning plant for processing seed produced on the university farm. A complete model laboratory is also available for teaching the principles of seed conditioning as well as for testing various physiological and biochemical functions of seeds.

Soil Science Laboratory. Equipment available for soil physics and chemistry instruction includes atomic absorption, bulk density samplers, pressure plate, high performance liquid ion chromatograph, and pollution monitoring for natural resource management planning and sustainable agriculture.

Ornamental Horticultural Facilities. Greenhouses, a lath house, a head house, a tissue culture laboratory, nursery production beds, turf grass plots, a Christmas tree farm, an award-winning All America Selection Display Garden, and a flower shop are used for research and instruction in breeding, propagation, production, and commercial sales.

Mechanized Agriculture Laboratories. Fully equipped farm power, farm machinery, welding, and agricultural mechanics laboratories support the agricultural engineering technology and mechanized agriculture instruction.

Computer Laboratories. Two fully-equipped laboratories for the agricultural business and agricultural science programs provide students with hands-on computing at individual microcomputers and terminals to complete practical exercises in support of academic courses. A third laboratory is provided for home economics and food science students. Industrial technology students access micro, mini and mainframe computers in several laboratories created for computer-aided design and graphics, construction management, and computer-integrated manufacturing.

Textiles Laboratory. This research and testing facility includes equipment for examining textile construction, physical properties, and color performance for purposes of product development and compliance with federal law. Students learn the scientific and technological aspects of textile products by studying the characteristics of natural and man-made fibers, the methods of yarn construction, and the techniques of fabric construction with various finishes.

Fashion/Clothing Laboratory. This production facility is equipped with machines and tools for pattern construction, layout, tailoring of fabrics of particular weights, and mannequin use. Students learn garment construction methods, alteration skills, and fitting techniques to produce a custom fit. The display windows in the Art-Home Economics building are extensions of this laboratory and familiarize students with current ideas for exhibiting clothing and accessories to the public.

Infant/Toddler Laboratory. This learning facility, which accepts young children between the ages of six months and two and one-half years, is designed to elicit and expand specific competencies, such as language, sensory, motor, and social skills. This controlled setting provides university students opportunities for observation and testing, as well as first hand experience in applying theoretical studies of infant and toddler physical, emotional, and intellectual development.

Child Development Laboratory. This modern and well-equipped facility enables students to observe and test young children in order to design a development program involving balanced physical, emotional, and character maturation. The laboratory was created for students to gain experience working with young children and acquiring competencies in child development. The facility is also utilized as a campus day care center for students' children.

Industrial Technology Laboratories. Besides the specialized computer facilities, students utilize laboratories in construction, industrial design, hot metals, fluid power, energy and process control, machine tools, electrical, industrial electronics, general electronics, product design, materials science, industrial materials, transportation, drafting, graphic communications, plus jewelry and metal-smithing.

Research and Technology Transfer

California Agricultural Technology Institute. The agricultural technology development, training, and demonstration activities of the institute offer students opportunities to interact with faculty and industry experts on the state-of-the-art energy, water, production, management, and computer applications projects. CATI provides the