CAL POLY
College of Agriculture, Food & Environmental Sciences

BIORESOURCE AND AGRICULTURAL ENGINEERING
DEPARTMENT

OVERVIEW

The BioResource and Agricultural Engineering Department is dedicated to advancing the study, teaching and practice of engineering and systems management support for agriculture. From day one, students are immersed in Learn by Doing, laboratory-intensive classes designed to hone their problem-solving skills and provide them with the necessary tools and opportunities to build what they design.

MAJORS

AGRICULTURAL SYSTEMS MANAGEMENT

BIORESOURCE AND AGRICULTURAL ENGINEERING

MINORS

- GEOGRAPHIC INFORMATION SYSTEMS
- WATER SCIENCE

GRADUATE PROGRAMS

- MASTER OF SCIENCE IN AGRICULTURE WITH SPECIALIZATIONS IN:
  - WATER ENGINEERING
  - IRRIGATION
  - BIORESOURCE AND AGRICULTURAL SYSTEMS

INTERDISCIPLINARY

BIORESOURCE AND AGRICULTURAL ENGINEERING

COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENTAL SCIENCES

INDUSTRY

STUDENT IMPACT

"The BioResource and Agricultural Engineering Department has positively impacted me by providing a great Learn by Doing environment where I can learn from my major courses and labs, as well as activities outside of class, such as through clubs or research opportunities.

The courses in the BioResource and Agricultural Engineering Department are centered around real-world applicability and provide a breadth of knowledge in many aspects of engineering. This has allowed me to try various things and narrow down my career interests."

EMILY SARANTOPULOS, *bioresource and agricultural engineering major*

The department's unique state-of-the-art laboratories allow students to work with the most current technology in expansive outdoor and indoor facilities. Between the seven on-campus labs, students are immersed in different aspects of agricultural engineering: computer research, welding, hydroponics, irrigation, and material fabrication. Within this department, students gain extensive knowledge that will prepare them for future careers in the field along with providing them the chance to obtain their certifications in mechanical, civil, electrical, and agricultural engineering.

DEPARTMENT HIGHLIGHTS

ENTERPRISE AND CAPSTONE COURSES

BioResource and agricultural engineering is known for its capstone experience. Students team up with agricultural systems management students to solve real-world problems sponsored by industry. The student teams design, fabricate, and test innovative equipment that will be out in the field the next year. The projects are sponsored by organizations including specialty equipment firms, specialty crop consortiums, irrigation districts, solar and alternative energy industry, and the dairy industry.

TRACTOR PULL

The Cal Poly Tractor Pull team hosts the annual Poly Royal Tractor Pull. This event attracts high performance trucks, tractors, and spectators all throughout California. This team has two tractors, Mustang Legacy and Poly Thunder, that students drive at tractor pulls at county and state fairs in both California and Nevada.

THE IRRIGATION TRAINING AND RESEARCH CENTER

The Irrigation Training and Research Center was established in 1989 as a center of excellence, building a history of contributions to the irrigation industry. The center is committed to enhancing Cal Poly's strong irrigation teaching program through outside activities in training, research and technical support.

ON THE JOB

CAREERS

Civil engineering

Construction management

Irrigation system design

Project management

Specialty equipment design

Water system management

TOP EMPLOYERS

E. & J. Gallo Winery

Granite Construction

G3 Enterprises

J.G. Boswell

Preston Pipelines

Provost and Pritchard Consulting Group

STUDENT CLUBS

Agricultural Engineering Society

American Society of Agricultural and Biological Engineers

Cal Poly Tractor Pull

Future Fuels

Grow Crew

Polybuilt Quarter Scale

Student Mechanical Branch

CONNECT

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