Want More Information?
To learn more about Biological Engineering, visit our website: www.ctahr.hawaii.edu/acad

For other pertinent information regarding being a student at UH-Ma‘noa, visit the UH website: www.hawaii.edu.

You may also contact . . .

For admission:
Office of Admissions and Records
University of Hawai‘i at Mānoa
2600 Campus Road, QLC 010
Honolulu, HI 96822 USA
Phone: 808-956-8975
Toll Free in USA: 800-823-9771
Fax: 808-956-4148
E-mail: ar-info@hawaii.edu
Web: www.hawaii.edu/admrec

For financial aid:
Financial Aid Services
University of Hawai‘i at Mānoa
2600 Campus Road, QLC 112
Honolulu, HI 96822 USA
Phone: 808-956-7251
Fax: 808-956-3985
E-mail: finaid@hawaii.edu
Web: www.island.hawaii.edu/finaid

For employment opportunities:
Career Development and Student Employment Office
University of Hawai‘i at Mānoa
2600 Campus Road, QLC 212
Honolulu, HI 96822 USA
Phone: 808-956-7007
Fax: 808-956-4082
E-mail: cdse@hawaii.edu
Web: http://cdse.hawaii.edu

For housing (on and off campus):
Student Housing Services
2555 Dole Street, Frerar Hall
Honolulu, HI 96822 USA
Phone: 808-956-8177
Fax: 808-956-5995
E-mail: uhmsfl@hawaii.edu
Web: www.housing.hawaii.edu

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Office of Academic and Student Affairs
Dr. Charles Kinoshita, Associate Dean

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Biological Engineering

Do you want to help build a more sustainable society with renewable energy, reliable food production, lifesaving medicines, and healthy natural resources?

Then Biological Engineering is for you!

Biological Engineering (BE) is a field of engineering in which the emphasis is on life and life-sustaining systems. Biological engineers study the design, production, and operation of engineered systems in which living organisms (plants, animals, aquatic species, cells, etc.) are a major component. They approach problems in the context of the whole system to balance society’s demand for products from biological resources with environmental integrity and economic success.

The Biological Engineering program gives students a unique opportunity to explore the fundamentals of engineering and biology and the application of engineering to biological systems. Our educational objectives are to

- provide students with the fundamentals of engineering
- train students to become engineers with the skills to design, manufacture, test, and operate systems in which living organisms or biological products are a significant component
- produce graduates that have the skills to function in modern society, as is expected of a professional engineer with a baccalaureate degree.

As a BE student, your course work will focus on biology, chemistry, physics, and math, as well as fundamental and applied engineering topics. The capstone of your educational experience is a two-semester engineering design course where you will have the opportunity to use your knowledge and skills to address real design problems in biological engineering.

In the Biological Engineering program, you will benefit from small class sizes, student-centered, cutting-edge laboratory and design experiences, and one-on-one interactions with faculty. The program is accredited by the Accreditation Board for Engineering and Technology (ABET).

Use Cutting-Edge Technology

Design your ideas using modern facilities for computer-aided design and simulation.

Build your designs using a variety of engineering tools including traditional shop machines, laser engravers, hydraulic systems, motors and other actuators, circuit board layout and printing, and digital controllers.

Test the performance of your design with state-of-the-art instrumented bioreactors, computer data acquisition systems, biosensors, and biochemical separation and analysis systems.

Team up with Award-Winning Students

Our students are routinely recognized with awards locally, nationally, and internationally for their scholarly activity and are regularly published in peer-reviewed literature.

Our alumni have distinguished themselves in a variety of engineering and biology-related careers, and many continue their studies at prestigious universities such as Stanford, MIT, and Cornell.

Open Doors to New Careers and Opportunities

Obtaining a BS in Biological Engineering will prepare you for a wide variety of careers. Our graduates design process equipment and systems for biological production and treatment, implement site preparation for construction or bioremediation of environmental contamination, develop processes to derive renewable energy from biological materials, and investigate methods for improving the value of natural products for food and industrial applications. Increasing numbers of our graduates are meeting demands from growing biotech industries; for example, for the production of systems for culturing human tissues for medical replacement and for screening, extracting, and producing antibiotics and other pharmaceutical compounds from Hawaii’s unique natural biota.

A degree in Biological Engineering also prepares students for graduate school, not only in BE but in medicine, law, and business, which all value the versatility and analytical rigor of the field. Graduates also fill vital research and regulatory positions in state and federal agencies to preserve and enhance the value of our natural resources.

Work with Top Professors

Learn with an internationally recognized faculty that includes licensed professional engineers with broad-ranging expertise such as bioenergy production, molecular and protein engineering, bioprocess control systems, biochemical engineering, aquacultural engineering, wastewater engineering, engineering economics, and biosensor design.

For Fun and Friends

Join your fellow students in the Biological Engineering Student Association, an affiliate of the American Society of Agricultural and Biological Engineers. The campus at the University of Hawaii’s at Manoa offers a wide range of student activities for education and entertainment and is set in one of the most remote and pristine natural environments in the world.

Are You Prepared?

To succeed in biological engineering, you should have a strong interest and preparation in mathematics and the biological and physical sciences, as well as in written communication.

We’re Here to Help

Contact the Department of Molecular Biosciences and Bioengineering

Undergraduate Advisor, Biological Engineering

College of Tropical Agriculture and Human Resources

University of Hawaii’s at Manoa

Agricultural Sciences 218

1955 East-West Road

Honolulu, HI 96822 USA

Phone: (808) 956-8216

Fax: (808) 956-3542

E-mail: ugabe@hawaii.edu

Web: www.ctahr.hawaii.edu/acad

Office of Academic and Student Affairs

College of Tropical Agriculture and Human Resources

University of Hawaii’s at Manoa

3050 Maioli Way, Gilmore Hall 210

Honolulu, HI 96822 USA

Phone: 808-956-8143, 808-956-6997

Fax: 808-956-3706

E-mail: acadaff@ctahr.hawaii.edu

Web: www.ctahr.hawaii.edu/acad