### **HOLMES IS WHERE THE HEART IS**

From recent alumni, here are a few testimonies shared by those that experienced it first-hand, right here at Holmes Hall, where the College of Engineering is located.

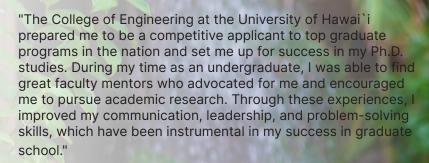


"Spending four years as a student-athlete in the UHM CoE taught me discipline, dedication, and perseverance. I am especially thankful for my professors who set high standards and helped me reach them, along with my peers who inspired me with their persistent work ethic. My experiences at the UHM CoE have molded me into a confident problem-solver ready to tackle challenges faced within the civil engineering field."

> -Rika Okino (CE 2020) Kalani High School

"The engineering department was very accommodating, helpful, and understanding despite my hectic football schedule. By the end of my undergrad curriculum, I felt well prepared and confident in my abilities as an engineer."

> -Taaga Tuulima (ME 2019) 'Iolani School



-Sasha Yamada (EE 2019) Kahuku High School



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f (O) in @UHMengineering



# COLLEGE OF ENGINEERING

## THERE'S NO PLACE **LIKE HOLMES**

The UH Mānoa College of Engineering is an indispensable facet of sustainable living in Hawai'i and the Asia-Pacific region. It is recognized as leading the development of innovative solutions to meet the increasingly complex needs of our society.



Currently, the College has awarded more than 10,000 engineering degrees since 1912. (BS, MS, and PhD).



1,236 Undergraduate Students

181 Graduate

Students

The College operates a

Career Fair for its students

every Fall and Spring

semester with approximately

80 companies and

organizations in attendance,

representing both Hawai'i

companies and some larger

employers from the West

Coast.



Over \$450,000 was awarded by the College last year in scholarships.



56





Research expenditures from external funding sources has risen to \$8.1M per year.

Student Organizations

























#### **CIVIL & ENVIRONMENTAL**

Civil Engineering (BS, MS, PhD), Construction Engineering (BS) www.cee.hawaii.edu

Civil and Environmental Engineering (CEE) focuses on the activities of people and their interaction with

Civil engineers conceive, plan, design, construct, operate, and maintain buildings, bridges, highways, airports, railways, tunnels, waterways, ports and harbors, and more, taking into consideration the public's improved health and safety, minimized impact to the environment, sensitivity to costs and resources, and overall sustainability. The cities we live in and most of their vital infrastructure are the creation of civil engineers.



#### **ELECTRICAL & COMPUTER**

Electrical Engineering (BS, MS, PhD), Computer Engineering (BS) www.ee.hawaii.edu

Electrical Engineering and Computer Engineering (ECE) are concerned with the exciting fields of electronics, computers, information technology, and the basic forms of energy that run our world. ECE is a rapidly changing field offering areas of specialization including software development, embedded systems and microcontrollers, cybersecurity, computer hardware circuits, mobile computing, cloud computing, big data, and networking. Solid-state technology breakthroughs such as transistors, integrated circuits, VLSI chips, microprocessors, lasers, and optical fibers have fueled unprecedented advances in telecommunications (internet, wireless, and digital signal processing), computers (software, security, and networking), & instrumentation (biomedical, intelligent).



#### MECHANICAL

Mechanical Engineering (BS, MS, PhD) www.me.hawaii.edu

Mechanical Engineering (ME) is a broad and diverse engineering discipline that concerns the design and manufacturing of virtually everything, from small devices to large systems. Mechanical engineers play a central role in such industries as automotive, aerospace, biomedical,

microelectronics, computers, power generation and energy conversion, renewable energy, HVAC, automation and robotics, and materials and manufacturing. ME students receive formal education about materials, solid and fluid mechanics, thermodynamics, heat transfer, control, instrumentation, design, machinery, and manufacturing. They also learn creative & analytical thinking, problem solving, and teamwork.



#### **ENGINEERING SCIENCE**

Engineering Science (BS) www.es.hawaii.edu

The Engineering Science program provides opportunities for quality education, research, and service in engineering disciplines that are not covered by the other college programs.

Special focus is given to emerging areas and an inter-disciplinary education. Currently, the program offers a concentration in biomedical engineering. We seek to promote research, leadership, and service among our graduates, emphasizing the evolving nature of how engineering contributes to society.



#### BIOLOGICAL

Biological Engineering (BS) go.hawaii.edu/XJ3

Housed in the College of Tropical Agriculture and Human Resources (CTAHR).

Biological Engineering integrates living systems with modern engineering principles and design to develop sustainable technologies promoting healthy people, communities, and ecosystems. Biological engineers employ a multidisciplinary approach to produce novel solutions to local and global challenges in the areas of food, energy, environmental sustainability, and health. Biological engineering integrates modern life sciences including biochemistry, synthetic biology, and biotechnology with engineering disciplines such as process engineering, electronics, programming, mechanics, and economics.