

STATE OF HAWAII  
UNIVERSITY OF HAWAII  
UNIVERSITY OF HAWAII AT MANOA  
**COLLEGE OF ENGINEERING**

FUNCTIONAL STATEMENT

**OFFICE OF THE DEAN – Org Code: MADNEG**

The Dean serves as the chief executive officer of the College and is responsible for the activities, curricula, personnel, and budget of the College, including its academic departments, research institutes, and national and regional programs; serves as the principal advocate for the College's faculty, staff, and students and is a key member of the Vice Chancellor for Academic Affairs' management group; ensures that the College's goals and missions are aligned with and supportive of the Manoa campus and the UH system visions, missions, and development goals and clearly articulates this perspective and responsibility to the faculty, staff, and students; oversees the College's marketing and public relations efforts to maximize financial returns, ensure stability, and encourage manageable growth; provides professional leadership and represents the College and the University in the local, national, and international scientific community; and works closely with UH System and Manoa administrators in a variety of matters related to engineering. The Dean provides leadership and direction to the associate deans, unit directors, department chairs, and other direct reports to ensure the College's effective achievement of academic, research, operational, and public affairs initiatives and services. The Dean establishes policies, guidelines, and plans for the effective functionality of the College; allocates and reallocates resources; and ensures the University's commitment to diversity, equity, and cultural values.

Advisory Groups to the Dean:

External Advisory Council: The Engineering Dean has developed a vision to help guide the future evolution of the College. The primary purpose of the Engineering Dean's Council is to assist the College in moving toward this vision. The Engineering Dean's Council will additionally foster closer ties between the College of Engineering and its stakeholders. To ensure this, the Engineering Dean's Council includes, but is not limited to, its alumni and leaders of industries, businesses and organizations that employ its graduates and collaborate with the College's research, education and outreach programs.

Internal Administrative Council: This group is composed of the Dean, Associate Deans, Assistant Dean, Department Chairs, College's Faculty Senate president, and key staff. Weekly meetings (as the dean's schedule permits) provide an opportunity for the dean to update his staff on various activities, receive feedback on issues, develop policies, and conduct other business necessary for the operation of the College.

Engineering Faculty Senate: All faculty in the college are members of the faculty senate. The senate provides a forum for college faculty to discuss issues of interest such as workload, promotion and tenure procedures and criteria, recruiting students at the schools and in the community, performance of College administrators, and other items of concern to the faculty.

Engineering Alumni Association: Members of the Engineering Alumni Association of the University of Hawaii (EAAUH) are alumni and friends of the College. According to EAAUH's articles of incorporation, the association's objectives include "sponsoring, funding, and assisting the College's educational and research and development programs" and fostering better relationships between the College's faculty, students, alumni and the University of Hawaii Alumni Association as well as promoting fellowship among the members of EAAUH.

Engineer Student Council: The College has a number of student organizations that are student chapters of professional engineering societies. Many of these organizations are discipline specific so the student council, Engineers Council of the University of Hawaii (ECUH), coordinates the activities among the various student organizations. ECUH promotes communication between the civil, electrical and mechanical engineering students.

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**OFFICE OF THE ASSOCIATE DEAN FOR ACADEMIC AFFAIRS – Org Code: MAAAEG**

Under the policies and guidelines approved by the Dean, the Office of the Associate Dean for Academic Affairs is responsible for all aspects (planning, direction, development, coordination, and management) of academic programs of the College; provides leadership for all instructional matters such as teaching assignments, scheduling of courses, faculty course loads; serves as the principal for the graduate program, including program analyses, review of curricula, evaluation of graduate degree requirements, and coordination of program changes; develops, plans, and coordinates distance education programs; provides leadership, direction, and support to the Native Hawaiian Science and Engineering Mentorship Program; provides direction to department chairs in the critical assessment, justification, and prioritization of the financial needs of approved academic programs and new initiatives; provides leadership, direction, and support in establishing and achieving short- and long-term development goals and initiatives in support of academic excellence; develops, implements, and manages a program of student recruitment, retention, and enrollment management; serves as accreditation liaison to the Accreditation Board for Engineering and Technology (ABET); and plans and directs academic events (e.g., commencement ceremonies).

**OFFICE OF THE ASSOCIATE DEAN FOR RESEARCH – Org Code: MARSEG**

Under the policies and guidelines approved by the Dean, the Office of the Associate Dean for Research is responsible for the planning, direction, initiation, development, and coordination of research and technology programs, activities, and initiatives of the College; allocates Research and Training Revolving Fund budgets in support of the research enterprise; develops and promulgates policies for compliance of the research faculty and staff with federal and state regulations; initiates action to improve the research climate in the College; establishes goals for integrated programs in research and technology; develops the College's long-range research plan; monitors and evaluates the College's research projects; identifies funding sources and develops collaborative partnerships which support education research; develops support structures and cross-disciplines and cross-unit faculty/student teams to plan and prepare competitive research proposals; provides technical assistance and support to faculty and students in the preparation and submission of research grants and proposals; develops and implements a faculty research enhancement program; establishes and maintains relationships with relevant University of Hawaii committees and administrators and state and national funding agencies to increase the resources for faculty to achieve scholarly work through grants and contracts; develops and sustains relationships with other institutions in the nation and with international institutions and research organizations; oversees and coordinates all externally funded projects of the College; develops and maintains a database of faculty research activities; assesses scholarly productivity of the faculty on an annual basis; develops and implements a corporate outreach program involving international, national, and local professional engineering organizations and entities to assist the College in strategically planning for future engineering programs, with collaboration in areas of mutual benefit (e.g., recruitment, student internships, research, and curriculum development); develops, implements, and maintains a program for workforce development; and develops, implements, and maintains a program for the placement of the College's graduates.

## **OFFICE OF OPERATIONAL SUPPORT – Org Code: MAOSEG**

### **Computer Facility – Org Code: MAITEG**

Provides computer hardware and software support for the College's faculty, staff, and students and the functions they perform such as business administration, programming instruction, data acquisition and analysis, experimental teaching and research, and laboratory support.

### **Engineering Shop – Org Code: MAEGEG**

Provides assistance to the College's faculty and staff in the construction and repair of equipment and apparatus for instructional and research projects and activities.

### **Fiscal and Personnel – Org Code: MAASEG**

Plans, organizes, and administers the budget development, allocation, and administration; maintains accounting records; provides procurement and property management; and maintains personnel records.

## **OFFICE OF PUBLIC AFFAIRS – Org Code: MAPAEG**

The Office of Public Affairs is responsible for planning, organizing, directing, coordinating, managing, and evaluating marketing, public relations, special events, and community affairs activities to support and promote the College's instructional, research, and administrative programs and functions of the faculty, staff, and students; develops and executes advertising and communications action plans; develops creative production and implementation of communications materials and appropriate media buys to meet targeted audience goals; develops communications policies, procedures, and effective practices for information dissemination; develops and implements comprehensive communications plans for internal and external audiences; develops contacts and maintains effective working relationships with UH system and campus administrators, governmental agencies, national and international institutions, non-profit and private entities; manages the College's external communications with responsibility for planning, organizing, directing, coordinating and evaluating communications with print, broadcast and other electronic media; and develops and/or directs the preparation of news releases, articles for publication, the Dean's newsletter, and other communications.

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**INSTRUCTIONAL PROGRAMS:**

**DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING – Org Code: MACE**

The Department of Civil and Environmental Engineering's basic undergraduate curriculum is accredited by the national accreditation agency, the Accreditation Board for Engineering and Technology. The instructional programs in Civil and Environmental Engineering are designed to meet the educational demands of business, industry, and government. The curriculum develops depth in various areas including environmental engineering, structures, construction management, water resources, hydraulics, geotechnical engineering, transportation and urban engineering. The undergraduate student gains the broad educational background essential to modern civil and environmental engineering practice including an understanding of societal and environmental problems.

Civil and Environmental Engineering's graduate program includes both a masters and doctoral degree. The department plans, directs, develops, coordinates, and manages the graduate academic and professional education programs of the College. It assists in the management, review, development, and assessment of graduate programs, courses, and curricula including the appointment and review of graduate faculty and graduate chairs.

**DEPARTMENT OF ELECTRICAL ENGINEERING – Org Code: MAEE**

The Department of Electrical Engineering's basic undergraduate curriculum is accredited by the national accreditation agency, the Accreditation Board for Engineering and Technology. The Electrical Engineering program provides instruction in a variety of sub-disciplines including bioelectronics; biomedical engineering; communications; computers, computer-aided design; control theory; integrated circuits; lasers and optics; microwave systems; networking; signal and image processing; and solid-state devices. The undergraduate electrical engineering curriculum has a foundation of fundamental courses and specialized advanced courses. Students experience hands-on design throughout the program.

Electrical Engineering's graduate program includes both a masters and doctoral degree. The department plans, directs, develops, coordinates, and manages the graduate academic and professional education programs of the College. It assists in the management, review, development, and assessment of graduate programs, courses, and curricula including the appointment and review of graduate faculty and graduate chairs.

**DEPARTMENT OF MECHANICAL ENGINEERING – Org Code: MAME**

The Department of Mechanical Engineering's basic undergraduate curriculum is accredited by the national accreditation agency, the Accreditation Board for Engineering and Technology. Mechanical engineers conceive, plan, design, and direct the manufacture, distribution, and operation of a wide variety of devices, machines, and systems used for energy conversion, environmental control, materials processing, transportation, design and manufacture of consumer products, materials handling, process control, and measurement. The Mechanical Engineering program provides its students with a foundation in the traditional areas of mechanical engineering (engineering mechanics, thermal sciences, and materials) as well as in the emerging fields of biomedical engineering to improve and extend life, nanotechnology, which has applications that are just now coming into focus, and multi-scale modeling.

Mechanical Engineering's graduate program includes both a masters and doctoral degree. The department plans, directs, develops, coordinates, and manages the graduate academic and professional education programs of the College. It assists in the management, review, development, and assessment of graduate programs, courses, and curricula including the appointment and review of graduate faculty and graduate chairs.

#### **HAWAII CENTER FOR ADVANCED COMMUNICATIONS – Org Code: MACAC**

The Hawaii Center for Advanced Communications implements a multidisciplinary approach to interdisciplinary research with a theme of high-performance wireless networks. The major research areas include: millimeter-wave devices, millimeter-wave circuits, radio frequency integrated circuits, communications and coding, signal processing and multi-user detection, multimedia image and video compression, and efficient network control and management.

The Director administers the total HCAC program. This includes developing and executing the Center's strategic plan; administering and managing the Center; raising private, federal, and state funding; developing industry and University research collaboration; developing opportunities for undergraduate and graduate students research participation; and promoting the advancement of communications industry and communities in Hawaii.