STATE OF HAWAII
UNIVERSITY OF HAWAII
UNIVERSITY OF HAWAII AT MANOA

COLLEGE OF ENGINEERING

FUNCTIONAL STATEMENTS

I. ACADEMIC SUPPORT

1. Office of the Dean
The Dean serves as the chief executive officer of the College and directs 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 charged with providing academic and administrative leadership to the College; ensures that the College's goals and missions are aligned with and supportive of the UH 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 renewable growth; provides professional leadership and represents the College and the University in the local, national, and international scientific community; and works closely with UH and UH-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 insure the College's effective achievement of academic, research, operations, 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. Input and advice to the Dean are provided by: (a) External Advisory Council; (b) Internal Administrative Council, composed of the Dean, Associate Deans, Assistant Dean, Department Chairs, Chair of the College's Faculty Senate, and key staff; (c) College's Faculty Senate; (d) College's Alumni Association; and (e) College's Student Council.

2. Office of the Associate Dean for Academic Affairs
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
3. Office of Operational Support
The Office of Operational Support consists of the Computer Facility, Engineering Shop, and Fiscal and Personnel Section.

a. Computer Facility Staff:
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.

b. Engineering Shop Staff:
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.

c. Fiscal and Personnel Staff:
Assists the Dean, Associate Deans, Assistant Dean, and junior staff in meeting the College's financial and personnel management responsibilities.

4. Office of Public Affairs
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.

II. INSTRUCTIONAL PROGRAMS
Include the following departments and degree programs:

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<th>Department</th>
<th>B.S.</th>
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<td>Department of Civil &amp; Environmental Engineering</td>
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<td>Department of Electrical Engineering</td>
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<td>Department of Mechanical Engineering</td>
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*The three basic undergraduate curricula in civil, electrical, and mechanical engineering are accredited by the national accreditation agency, the Accreditation Board of Engineering and Technology, Inc.

A. Civil and Environmental Engineering:
The instructional programs in Civil and Environmental Engineering are
B. Electrical Engineering:
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.

C. Mechanical Engineering:
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.

D. Graduate Program:
The College 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.

III. RESEARCH PROGRAMS
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 or reallocates 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 Hawai'i 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
E. Hawai'i Center for Advanced Communications

The Hawai'i 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 student research participation; and promoting the advancement of communications industry and communities in Hawai'i.