STATE OF HAWAII
UNIVERSITY OF HAWAII
UNIVERSITY OF HAWAII AT MANOA
COLLEGE OF ARTS & SCIENCES
BIOLOGY PROGRAM
(Natural Sciences)

DIRECTOR: Directs activities, curricula, and personnel in the Biology Program.

The Biology Program serves as an interdisciplinary program (participated in by the Departments of Botany, Microbiology and Zoology) for students preparing for professional degrees in the biological sciences. It offers two basic core courses for its students and additional enrichment or special courses of an interdisciplinary nature. Advising of students for both the BA and BS Degree in Biology is carried out through this program.

The Director has the following specific functions:

1) Coordinates instructional activities, e.g., supervises and follows the progress of Graduate Teaching Assistants in the Biology 221 and 222 course.

2) Prepares Program's budget requests and produces program review and evaluation information as requested by University administration.

3) Reviews and makes recommendations in regard to all personnel actions involving members of the Program. (Note: The Director approaches the Departments of Botany, Microbiology and Zoology for faculty to be released on a part-time basis for teaching in the Biology Program, but who retain their tenure track in their respective departments).

4) Coordinates the efforts of the Biology Program Curriculum Committee by acting as Liaison with the Dean of the College of Arts & Sciences regarding curriculum and policy matters of the Program.

5) Serves as Liaison with the Honors Program to coordinate teaching personnel for Honors courses or for "A" sections, and advising of Biology Honors students particularly for Honors theses and directed research.

INSTRUCTIONAL STAFF: Participating faculty members from the Departments of Botany, Microbiology and Zoology are expected to attend lectures in Biology 221 and 222. Weekly meetings for preparation of laboratory and discussion of policy and operation of these courses are also required of all faculty and Graduate Assistants.

Vine Teaching Assistants have an active role in the instruction of Biology 221 and 222. Their activities consist of laboratory preparation and teaching, discussion group instruction, grading examinations, and establishing grades for students.
Faculty members in Biology 221 and 222 are also expected to review accomplishments of students toward the degree and to give advice on appropriate courses outside the biology major. Senior record and graduation evaluations are made for graduating majors by faculty advisors. (A minimum of six hours weekly per faculty member is spent in advising).

Other faculty from the three departments are asked to participate in student advising on a voluntary basis.

CIVIL SERVICE AND APP PERSONNEL: The Director is aided in his functions by a half-time secretary whose job includes these responsibilities: 1) primary liaison between faculty and their departments, and 2) liaison with A & S Fiscal Officer regarding expenditure of funds and processing of personnel appointments; and who provides secretarial, stenographic and clerical services to the Director and teaching faculty; maintains office files, and records for all majors (300s); take and transcribes dictation; answers telephone and refers callers to the appropriate person as necessary; supervises student helpers. All appointments for advising by faculty are made through the Secretary. The Secretary also assists the Director in maintaining contact with members of the Coordinating Committee and Departments, arranges agenda for meetings, takes minutes, and arranges for the Director to take action on recommendations from the Committee.

The Director is also aided in his functions by a half-time Preparator whose job includes the following responsibilities: 1) procurement and maintenance of laboratory materials — solutions, supplies, and equipment, 2) supervision of student help, and 3) making all necessary preparations for the laboratory portions of the courses, setting up the labs, cleaning up after each laboratory session, and supervising and assisting the Teaching Assistant in preparing for the labs.
Directs activities, curricula and personnel in the Department of Botany, which provides undergraduate instruction for undergraduate majors in Botany and lower division, upper division and graduate courses for the university core and for majors in other programs. The Department of Botany cooperates with other departments in the undergraduate Biology Program, the graduate field of Botanical Sciences, the Plant Science Facility and various research projects. The Department provides botanical services necessary to the welfare of the State of Hawaii which no other State agency can provide. The research programs of the Department concentrate upon botanical organisms and ecosystems of Hawaii and the tropical Pacific and Asian regions. The Department provides a regular Summer Session program in Botany.

Directs activities, curricula and standards in the Graduate Field of Botanical Sciences, which utilizes the combined resources of the Departments of Botany and Plant Pathology. The Field provides graduate instruction and research for candidates for M.S. or Ph.D. degrees in Botanical Sciences. Areas of specialization in the program are ecology and environmental botany, marine botany, morphology and anatomy, mycology, physiology and biochemistry, and systematics and evolution. Instruction and research has a tropical, Hawaiian, Pacific and Asian emphasis and graduate research commonly concerns problems in Hawaiian, terrestrial and marine ecology and agriculture.

Directs the planning, utilization and maintenance of the Plant Science Facility, which provides instruction, research and plant culture facilities for faculty and students in the Departments of Botany, Horticulture, Plant Pathology and Agronomy and Soil Science.

Serves ex officio on the Biology Program Committee, the Arts and Sciences Senate, the Arts and Sciences Executive Committee, the Graduate Senate, and the Scientific Advisory Committee of the Pacific Tropical Botanical Garden.

Provides the administrative link between the Botany faculty and the Dean of Arts and Sciences and the Botanical Sciences graduate faculty and the Dean of the Graduate Division.

Chairs meetings of Botany Faculty where most departmental policy is determined by a committee of the whole. Chairs meetings of the Botanical Sciences graduate faculty which determines policy of the field.

Chairs meetings of the Plant Science Facility Committee which determines policy for the functioning of the Facility.

Prepares budget requests for above units.
Reviews and makes recommendations on all personnel actions involving members of the Department of Botany.

Conducts the advertising, correspondence, and interviewing associated with the hiring of Botany faculty.

Reviews and makes recommendations on appointments to the graduate faculty of Botanical Sciences.

Reviews applications for graduate teaching assistantships and makes appointments.

Makes appointments to the faculty for the Summer Session program in Botany.

Responsible for the assignment of teaching duties, scheduling of classes, and the provision of laboratory facilities and equipment.

Reviews and certifies faculty proposals for research grants and for travel.

Reviews and certifies appointments made by faculty on their research grants.

Interviews prospective Botany majors.

Advises all Botany majors.

Corresponds with prospective graduate students and reviews all applications for admission to Botanical Sciences.

Coordinates advising of incoming graduate students in Botanical Sciences and appointment of interim advisory committees.

For all prospective graduates in Botany and Botanical Sciences, certifies that requirements have been met.

Writes recommendations and references for graduates and prospective graduates.

Supervises all oral comprehensive and final examinations for M.S. and Ph.D. degrees in Botanical Sciences.

Advises students on careers and aids in their placement.

Prepares materials for University catalogs and departmental brochures.

Prepares documents and meets with committees during the process of reviewing and accrediting departmental programs.

Prepares documents and materials concerning departmental activities, that are requested by College, University, State, national, and international units and agencies.

Arranges visits and lectures by scientists from other institutions including personal and professional arrangements.
Instructional Staff


In cooperation with the faculties of Microbiology and Zoology, conduct the Biology Program, and in cooperation with the faculty in Plant Pathology, conduct the graduate field of Botanical Sciences.

Manage research grants from NSF, Sea Grant (NOAA), NASA, National Park Service, and industry.

Direct interdepartmental research programs: National Park Service Cooperative Resources Studies Unit.

Conduct and supervise activities in botanical research and service which are essential to the welfare of Hawaii and for which no other state agency has a capability.

Contribute to the management of the Department, College and University through committee membership.

Determine departmental policy.

Review and make recommendations on personnel actions involving members of the department.

Curate departmental herbaria and library, order and maintain equipment, maintain live plant collections.

Grow and collect plant material for instruction and research and conduct field excursions.

Prepare instructional curricula, manuals and materials appropriate to Hawaiian flora and ecosystems.
APT Personnel

Provides scientific illustration services by: (i) taking scientific data from research projects and presenting them in the most appropriate form for publication or other mode of reproduction and dissemination; (ii) by preparing visual media for educational innovation; and (iii) by providing illustrative skills in the preparation of publicity materials for department's programs in instruction, research and community service.

Provides botanical, scientific services to departmental programs in instruction, research, and community service through: (i) responsibility for the care and distribution of microscopes and other scientific equipment; (ii) ordering and receiving of scientific equipment; (iii) maintaining stocks of chemicals, glassware and other expendables; (iv) ordering and receiving of chemicals, glassware and other expendables; (v) maintaining a library of scientific catalogs; (vi) providing administrative assistance to research projects in terms of personnel, supplies and equipment.

Civil Service Personnel

Plans, organizes, coordinates, and facilitates total operation of the department office using discretion in establishing and correlating established university policies and procedures as well as implementing departmental policies and procedures relevant to the objectives of college instruction, research, publication and community service. Acts as trusted personal assistant to the chairman having a close and confidential relationship. Is involved in substantial administrative and management functions due to the extensive complexity and variety of responsibilities arising from the pivotal role of a department in the university organization. Provides operational continuity, especially during the absence of the chairman or when a change in the chairmanship occurs.

Duties in details are:

1. Secretarial -- (a) administrative support of chairman, (b) coordination of departmental office, (c) correspondence, (d) maintenance of calendar, (e) facilitation of travel, (f) establishing and maintaining files, (g) collating various instructions into manuals.

2. Administrative -- (a) business, (b) fiscal and record keeping.

3. Personnel -- involvement in preparation and processing of materials relating to all personnel actions with particular involvement in civil service and student help employees. Supervises student help.

4. Academic Program -- (a) maintaining student records, (b) handling course registration process, (c) establishing and coordinating course scheduling and location, (d) developing and maintaining course and catalog materials, (e) ordering textbooks and audio-visual materials, (f) preparing civic materials.
5. Research - generally assists those responsible for the administration of research grants on all matters of university practice and procedure.

6. Community Service - provides services that are necessary for the faculty contributions to community service at the local, national and international levels through correspondence, travel, and accommodation arrangements, social functions, editorial work, and general secretarial and administrative services to committees.
Chairman

Directs activities, curricula and personnel in the Department of Chemistry.

- Coordinates instructional activities; makes teaching assignments; schedules classes.
- Prepares unit's budget requests.
- Reviews and makes recommendations in regard to all personnel actions involving members of the department.
- Assigns duties to service staff of 9 APT's.
- Supervises secretarial staff of 1.
- Produces large numbers of memos required to conduct routine operations.
- Teaches half-time.
- Conducts research in chemistry.
- Provides information to other units of the University, State, Federal agencies, and the general public.

Associate Chairman

- Assists Chairman in all aspects of departmental operation.
- Supervises service staff of 8 APT's.
- Teaches.
- Conducts research in chemistry.

Instructional Activities

- Provides instruction at the undergraduate and graduate levels in both lecture and laboratory settings.
- Conducts research and seeks extramural funding for same.
- Supervises graduate student M.S. and Ph.D. laboratory research.
- Advises students with academic problems related to chemistry.
- Provides service to the University community.

Administrative/Fiscal Services

Administrative Officer

- Acts as administrative liaison for department with other University or governmental units or private organizations.
- Provides administrative and fiscal service over all types of funding.
- Administers contracts and grants made to Chemistry personnel and maintains fiscal controls.
- Assists in the budget preparation and reviews proposal budgets.
- Develops general fund budgets.
- Maintains fiscal and procurement records and provides information and reports as required.
- Ensures compliance of departmental policies and procedures with requirements.
of the University or the State or other regulatory bodies.
• Supervises Chemical Supplies Clerk.

Chemical Supplies Clerk
• Maintains the centralized Cedarine inventory control file of all chemical supplies and laboratory equipment and apparatus in the department.
• Maintains all files on requisitions, purchase orders and invoices for chemicals and laboratory equipment and apparatus.
• Maintains catalogs of mainland chemical supply houses.
• Maintains an inventory of all office and laboratory equipment in the chemistry building.
• Maintains a control of laboratory apparatus lent to private industry.
• Supervises the work of part-time student assistants.
• Handles the general office traffic of telephone calls, answering inquiries, etc. and in other ways assists the Administrative Officer.

Secretarial Services

Secretary
• Assists and relieves Chairman in the performance of his work.
• Informs all departments members of pertinent information from Deans, Chancellor, Payroll Office, etc.
• Devise ways of making department office run smoothly.
• Serves as liaison between Chairman and stenos.
• Establishes and maintains departmental files.
• Manages details involved in yearly employment of graduate assistants, postdoctoral fellows, etc.
• Handles details of summer research overload for ca. 40 staff and graduate students.
• Handles late registration.
• Supervises student help.

Clerk-Stenographers
• Type exams, correspondence, memoranda and complex technical matter for faculty.
• Receive messages, personal callers, etc. for faculty.
• Sort and distribute mail for entire building.
• Handle book orders for all chemistry courses.
• Maintain room schedules for departmental classrooms and instructional laboratories.
• Help with late registration.

Storeroom Services

Procurement and Property Specialist
• Procures, stocks and dispenses standard chemical, supply and equipment items.
• Provides assistance to procurement offices of departmental personnel.
• Screens requests for present availability of stocks.
• Receives and distributes all departmental purchases.
• Monitors usage and maintains records for appropriate revisions of stocks.
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- Administers required inventory procedures.
- Processes departmental and University service and work requests.
- Operates instructional and research stockroom facilities.
- Supervises civil service staff of 2 clerks and student helpers as assigned.

**Chemical Stores Clerks**

- Receive, unpack, and store chemicals and laboratory apparatus and equipment.
- Assist in maintaining special equipment such as electric furnaces, optical equipment, and electronic instruments.
- Stock various chemical laboratories used by students with chemicals and laboratory apparatus and equipment such as sulphuric acid, hydrochloric acid, sodium hydroxide, and beakers and test tubes.
- Prepare qualitative and quantitative chemical solutions.
- Issue chemicals and equipment from stockroom.
- Record the number, kind and quantity of stock and equipment used.
- Maintain files of supplies and equipment in stockroom.

**Analytical Services**

**Nuclear Magnetic Resonance Spectrometer Specialist**

- Responsible for all facets of Nuclear Magnetic Resonance and Mass Spectroscopy.
- Has primary responsibility for operating and maintaining NMR spectrometer.
- Stocks parts, accessories and special supplies and chemicals as needed for particular applications.
- Consults with faculty and research personnel on technical applications.
- Provides spectra and interpretive assistance as required.
- Keeps expenditure, usage and maintenance records for cost determination.
- Schedules and performs routine maintenance.
- Diagnoses and repairs malfunctions, or procures technical service for major problems.
- Determines needs, performs overhaul or modification of instruments as required.

**Research Associate IV**

- Has primary responsibility for operating and maintaining mass spectrometers.
- Consults with faculty and research personnel on technical applications.
- Provides mass spectra and interpretive assistance as required.
- Schedules and performs routine maintenance.
- Diagnoses and repairs malfunctions, or procures technical service if needed.
- Operates and performs routine adjustments for Nuclear Magnetic Resonance spectrometers as required.

**Instrument Services**

**Scientific Instrument Specialist**

- Primary responsibility for all departmental instruments in fields of Gas Chromatography, UV-visible, Infrared and Atomic Absorption Spectroscopy and certain X-ray equipment.
- Schedules and performs maintenance and repair services.
- Arranges user schedules for departmental instruments.

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Consults with faculty and research personnel regarding instrument applications.
Assists with specifications development and makes recommendations on instrument purchases.
Maintains operating and service literature on instruments and stocks spare parts.
Determines needs for components, accessories and operating supplies.
Reviews and judges instrument modification requests.
Initiates action for outside service if necessary.
Supervises departmental instrument room facilities and determines appropriate policies.
Prepares instruments for instructional needs.
Provides instructional assistance as necessary.
Supervises and coordinates service of machine shop and electronics shop.

Scientific Instrument Maker

Responsible for precision machine shop facilities designed for the needs of the Chemistry Department.
Provides design and engineering assistance to scientists in the development of precision instruments and tools.
Evaluates projects from engineering point of view and makes cost estimates from designs.
Fabricates and repairs precision tools, components and instrument from sketches, drawings or blueprints.
Builds, assembles and helps develop prototype instrumentation.
Performs all departmental machine shop work.

Electronics Technician

Provides diagnostic and repair services for electronic and electrical equipment.
Assists with circuitry design problems or design and/or fabricates apparatus according to provided requirements, or performs modification work as necessary.
Maintains stocks of commonly used parts and components and initiates procurement actions for replenishment.
Operates and maintains electronic test equipment.

Computer Services

Supervises the operation and maintenance of the Department's main computer facilities.
Maintains the operating system of the Department's main computer system. This includes assistance with the writing of programs for specific instruments that are to be interfaced to the computer.
Assists in the design, fabrication or modification, and data analysis of new or existing equipment to be interfaced to the computer facilities. (This will be in conjunction with the Electronics and Instrumentation Divisions.)
Trains and approves users on the system.
Arranges user's schedules for time on the system.
Assists with special problems (ex. JCL) encountered by faculty and other users of the University's computing facilities.
Independently and in collaboration with faculty, conducts research and development on the hardware and software required to advance the capabilities of the Department's system. This activity includes research into relevant methods for data analysis and display.
Glassblowing Services

- Provides glassblowing services for the entire University system.
- Repairs or fabricates apparatus of existing design.
- Assists in design and modification of glass apparatus not commercially available.
A. Chairman:

The Department of Geology and Geophysics is organized on the basis of a Departmental Chairman, Standing Committees, and Ad Hoc Committees, as agreed by the faculty of the Department during the reestablishment of the Department in 1971.

The Departmental Chairman presides at Departmental Meetings. Departmental policy is decided at Departmental Meetings. The agenda for these meetings is established by the Chairman in consultation with the chairman of the standing committees.

The Departmental Chairman is responsible to the Dean of the College of Arts and Sciences for the functions listed in the Faculty Handbook, and to the faculty of the department for the functions listed in its Departmental Organization. The more important functions are listed below.

- Direct the activities, curricula, and personnel of the Department of Geology and Geophysics.
- Represent the Department when asked for comment or contribution ex-officio by the University Administration, or other bodies outside the Department.
- With the advice and consent of the Graduate Work Committee (standing), whose members are elected by and from the research program in the Department: recruit, evaluate, accept, confer with, and assign advisors of new graduate students; assign study space; evaluate yearly the progress of existing students; coordinate appointments to research assistantships, teaching assistantships, and fellowships for qualified and deserving graduate students; coordinate with Hawaii Institute of Geophysics, Water Resources Research Center, other university institutes, other departments, state and federal agencies, and private companies regarding joint projects, possible employment, and equipment used by graduate students; award departmental computer funds to graduate students; organize the weekly departmental seminar.
With the advice and consent of the Departmental Committee (standing), whose members are appointed by the Chairman;
evaluate and recommend changes in the curricula of the various undergraduate and graduate programs; allot, on bloc, departmental space among the categories of faculty offices, faculty and student classrooms, graduate student offices, and other space;
prepare the departmental budget and recommend timely expenditures of departmental funds for equipment, supplies, student help, the University Library, and other needs;
maintain and inventory equipment and furniture assigned to the department; assist undergraduates in their applications for graduate school or for employment; periodically evaluate the introductory courses, the undergraduate major core courses, other courses, catalog wording, and major requirements.
Periodically evaluate the utilization of departmental space; coordinate the teaching schedule; supervise instruction, especially of young faculty; conduct departmental elections.

With the recommendations of the Personnel Committee (standing), some of whose members are elected, and, to provide balance among fields of interest, some of whose members are appointed by the Chairman: recruit, evaluate, and recommend new faculty for open positions; some, for affiliate faculty; some, for technical staff; recommend joint appointments with other departments or institutes; coordinate with those bodies in personnel matters; evaluate instruction; evaluate research; evaluate service; recommend for merit and inequity salary adjustments that arise thereby. The Personnel Committee members of Professor and Associate Professor rank become the core of an annually-appointed ad hoc Promotion and Tenure Committee, supplemented by additional members appointed by the Departmental Chairman; that committee is responsible for making recommendations of reappointment, promotion, and tenure to the Chairman.

Such other duties as may be assigned the Departmental Chairman by his Dean or by his fellow faculty members in the Department.

B. Instructional Staff

1. Within their qualifications and to the degree permitted by joint appointments, the faculty within the ranks of 5 to 2 have these departmental functions in instruction, research, and service:

- Conduct lecture courses and seminars; supervise laboratory work and class work and supervise Teaching Assistants therein; supervise field work of students; guide graduate students and honors undergraduate students in their dissertation and thesis research; direct special research and reading courses; offer special seminars and lectures as appropriate; maintain and improve professional competence in breadth and depth of instruction.
Conduct research and make its results public. Improve professional skills. Normally most faculty members of Department of Geology and Geophysics are jointly appointed with units of Organized Research at the University; currently in September 1975 all are jointly appointed. Research functions will be listed in more detail by those units.

Provide service to the Department by acting on its standing and ad hoc committees; to the University through committee work and special assignments; to the State of Hawaii in the manner of the Geological Surveys of other states or as otherwise requested; to the United States as requested; to local, national, and international professional organizations as requested; provide professional services on an overload fee basis as allowed by current regulations.

C. Administrative Personnel

None.

D. Civil Service Personnel

- Organize and supervise operations of the Departmental Office; type, mail, and file departmental correspondence; maintain security of files, reproduced examinations, and office supplies; prepare requisitions and maintain expenditure records; maintain student and faculty records; take and forward messages; dispose of routine requests and reports; assist Chairman or committee chairman in assembling information to respond to unusual requests; supervise student help who assist in office; as time permits: type manuscripts, grant applications, and reports of departmental faculty; other duties as requested by departmental faculty.
Chairman.

Directs activities, curricula and personnel in the Department of Information and Computer Sciences. The main function of the unit is to provide instruction in the design and use of computer systems and the processing of information by math/statistical or computer means.

- Prepares class schedules and teaching assignments.
- Coordinates curriculum and program development.
- Counsels and advises students in the program and students who may desire to enter the program.
- Coordinates acquisition of equipment, supplies, and computing services needed for instructional program.
- Conducts research and supervises graduate student research in computer science.
- Provides instruction in computer science.
- Coordinates and oversees continuing education and summer session courses in information and computer sciences.
- Undertakes community services relating to computer science.

Instructional Staff.

Provides instruction, conducts research and undertakes community service pertaining to information and computer sciences.

- Develops instructional materials.
- Prepares and delivers lectures and seminars.
- Consults with, tutors, examines, and evaluates students.
- Supervises teaching assistants.
- Directs reading, projects, and research by students in computer sciences.
- Counsels and advises students in the information and computer sciences programs.
- Assists and/or supervises continuing education and summer session courses in information and computer sciences taught by other than regular faculty.
- Participates in curriculum and program development.
- Serves on departmental, college, and university committees.
- Provides consultation services to members of the university and outside communities in areas of professional expertise.
- Keeps abreast of, conducts, reports on, and support for, research.

Civil Service Personnel

Provides secretarial, clerical and typing services to the department chairman and the instructional staff; keeps and maintains office files and records, takes and transcribes dictation; maintains departmental expenditure records including purchase of supplies; prepares and processes various personnel forms and documents; and performs a variety of related office duties.
Chairman.

Generally directs, supervises and assists the teaching, research and service function of the Department.

- Prepares budget requests, supervises and approves expenditures.
- Hires faculty, teaching assistants and lecturers.
- Reviews and makes recommendations in all personnel action of the Department.
- Directs, supervises and assists in curricular and instructional matters.
- Counsels students and mediates complaints.
- Handles correspondence and (some) paperwork of the Department.
- Initiates and enforces departmental policies.
- Makes committee assignments and assists in their work.
- Serves as spokesman for the Department.
- Directs and supervises registration.
- Works out teaching schedules and assignments.

Instructional Staff.

Provide instruction, conduct research, advise students, serve on committees, undertake some community service usually pertaining to mathematics and science education in schools.

Civil Service Personnel.

Provide the clerical work supporting teaching, research, and service functions of the Department.

- Administer expenditures and purchasing.
- Assist in registration.
- Perform scientific typing.
- Maintain files, and do most of the paper work.
**Chairman**

Directs activities, curricula and personnel in the Department which offers B.S., M.S. and Ph.D. degrees emphasizing the meteorology of the tropics.

Coordinates instructional activities.

Prepares unit's budget requests.

Reviews and makes recommendations in regard to all personnel actions involving members of the Department.

Conducts research and exercises general editorial supervision over faculty research reports and papers.

Acts as administrative liaison with the College of Arts and Sciences.

**Instructional Staff**

Provides instruction; conducts sponsored and unsponsored research into tropical meteorology, emphasizing cloud physics, synoptic and numerical modeling, satellite meteorology, monsoon meteorology and the meteorology of the Hawaiian Islands as related to rainfall and alternate energy resources; undertakes community and consultant service pertaining to the weather and climate of Hawaii and the Pacific basin.
STATE OF HAWAII
UNIVERSITY OF HAWAII
UNIVERSITY OF HAWAII AT HONOLULU
COLLEGE OF ARTS AND SCIENCES
DEPARTMENT OF MICROBIOLOGY
(Natural Sciences)

CHAIRMAN

1. Directs activities, curricula, and personnel in the Department of Microbiology.
2. Coordinates instructional activities.
4. Reviews and makes recommendations in regard to all personnel actions involving members of the department.
5. Acts as Chairman of Graduate Program.
6. Participates in supervisory Biology Program committee.

INSTRUCTIONAL STAFF

1. Provides instruction in graduate and undergraduate programs, conducts research in the field of microbiology and undertakes university and/or community service pertaining to either microbiology or higher education.

APT PERSONNEL

1. Prepares reagents and media and maintains equipment and laboratories used for instructional services.
2. Maintains stockroom.
3. Determines ordering for purchase of instructional supplies.

CIVIL SERVICE PERSONNEL

Provides secretarial, stenographic and clerical services for department, maintains records, correspondence, research proposals and reports to extramural agencies, prepares manuscripts for publication, supervises student help.

Prepares purchase orders for supplies and equipment, checks on delivery, checks on receipts of same for department and research grants, prepares bid lists.

Washes glassware, sterilizes used media, helps maintain instructional laboratories.
Chairman.

Directs and coordinates teaching and research activities, curricula, and personnel in the Department of Oceanography. The department is a graduate department providing instruction in biological, physical, chemical, and geological oceanography leading to the M.S. and Ph.D. Three undergraduate service courses are offered, and have a total enrollment of approximately 2,000 each year. In addition to formal instructional activities, department faculty are actively involved in research supported by extramural grants. Research at present is performed in the Oceanography Department, through the Institute of Geophysics and the Institute of Marine Biology. The combined research support for all oceanography for 1980 is in excess of $1.5 million dollars. These research functions are essential to graduate and undergraduate education, and provide the facilities and opportunities for thesis and dissertation research. Research is also important to the economic development of the State of Hawaii in terms of resource evaluation and environmental protection.

The Chairman coordinates instructional activities; prepares departmental budget requests; reviews and makes recommendations in regard to all personal actions involving members of the department; serves as contact point for the department to other Marine Programs at the University. The Chairman is also currently coordinating the construction and utilization of the Oceanographic and Marine Sciences Building on campus.

Instructional Staff.

Provides instruction, conducts research, and undertakes community service pertaining to all branches of oceanography (physical, chemical, biological, and geological). These include formal instruction, symposia, advising, and thesis research direction. Staff serve on appropriate college and university committees.

Civil Service Personnel.

Are responsible for operation of department office, maintenance of student and faculty records and assistance with instructional and research materials.
Handles late registration, section changes and schedule of courses.
Maintains, organizes records of undergraduate and graduate students.
Acts as liaison for Chairman with faculty and staff, other department heads and faculty, Dean's office, Graduate Division, Business Office, and numerous other offices.
Chairman.

Directs activities, curricula, and personnel in the Department of Physics and Astronomy in carrying out its mission of providing undergraduate and graduate education in physics and astronomy, and advancing the state of knowledge in these fields through scholarly research.

- Coordinates instructional activities.
- Prepares unit's budget requests.
- Reviews and makes recommendations in regard to all personnel actions involving members of the department.
- Serves as intermediary between department and college dean.
- Supervises support personnel.

Instructional Staff.

- Provides instruction, conducts research and undertakes community service pertaining to science education.

- Conducts service courses in fundamental physics for majors in science, engineering, and education.
- Provides general education courses in physics and astronomy for non-science majors.
- Operates undergraduate major program in physics.
- Operates graduate programs leading to M.S. and Ph.D. degrees in physics and astronomy.
- Conducts basic research in areas of theoretical and experimental physics, astrophysics, and astronomy.

APT Personnel.

- Provide technical support to instructional and research activities within the department.

- Maintain and repair scientific apparatus used in teaching laboratories.
- Fabricate scientific apparatus for research programs.
- Procure supplies for department machine shop.
- Assist instructional staff with audiovisual equipment.

Mail Service Personnel.

- Coordinates, facilitates and provides a variety of administrative services needed to run department efficiently.

- Maintains detailed and accurate accounting of department budget.
- Procures supplies for instructional staff.
Chairperson:

Directs activities, curricula and personnel in the Department of General Science. The function of the General Science Department is to provide basic, interdisciplinary and relevant science courses primarily for undergraduates. The objective is implemented by a core of four 100-level courses which are designed to provide for the science requirement of the College, and specifically that requirement of at least one laboratory science in the requirement of three courses in natural sciences. The objective is further implemented by interdisciplinary course offerings at the 300- and 400-level and a graduate seminar.

Within the unit the chairman, in consultation with appropriate departmental committees:

1. Coordinates instructional activities
2. Prepares the unit’s budget requests
3. Reviews and makes recommendations in regard to all personnel actions involving members of the department
4. Represents the department at the various meetings of administrative units on the Manoa campus such as the College and the Chancellor’s office
5. Responds to requests for statements of functions, policies, and course equivalencies from the various administrative units on the Manoa campus
6. Advises and consults with the faculty and staff members of the department to insure that they are comfortable in performing their duties and to see that they are performing to the best of their ability
7. Supervises Civil Service personnel, assigning workloads, maintaining control over work and the quality thereof turned out
8. Assumes all the responsibilities of a regular member of the instructional staff, preparing lectures and laboratories of one or more courses for which he is responsible, preparing examinations and generally evaluating student performance, maintaining active research in the area of his expertise, and participates both in university and community affairs.
Instructional Staff

Provide instruction both within the department and without (as guest lecturers in other departments and units), conduct research in the area of their expertise, and undertake community service.

1. Prepare lectures and laboratories of the courses for which they are responsible and meet the classes to which they are assigned.

2. Prepare examinations, quizzes, and evaluate student performance.

3. Assume such departmental responsibilities as maintenance and/or supervision of the stockroom, library, and liaison activities with other departments and units within the University system.

4. Participate in departmental activities such as those of the personnel and curriculum committees, and ad hoc committees dealing with departmental reviews.

5. Maintain active research efforts in their areas of expertise, preparing reports of their work for publication, taking part in conferences and meetings.

6. Participate in Manoa campus affairs by assuming membership or chairman- ship of the various committees on the campus, including college committees and Manoa campus committees.

7. Participate in community affairs in their areas of expertise, that is, by serving on appointed City, State and National boards, contributing to environmental impact statements, serving as consultants for the City Council, State Legislature, etc.

Civil Service Personnel

Provides secretarial, clerical and typing services to the department chairman and the instructional staff; keeps and maintains office files and records, takes and transcribes dictation; maintains departmental expenditure records including purchase of supplies; prepares and processes various personnel forms and documents; and performs a variety of related office duties.
Responsibilities of Chairman
Department of Zoology
(Natural Sciences)

Directs activities, curricula, and personnel in the undergraduate and graduate programs of the department.

1. Coordinates instructional activities.
2. Prepares unit's budget requests.
3. Reviews and makes recommendations in regard to all personnel actions involving members of the department.
4. Is available for consultation with undergraduate and graduate students and faculty members.
5. Answers departmental correspondence.
6. Telephone conversations with representatives of University staff, Bishop Museum, State Personnel, and the general public on questions pertaining to zoology and conservation.
7. Meetings with visiting professors who stop in Hawaii.
8. Organizes agenda and runs periodic faculty meetings.
9. Attends meetings called by the Dean of the College and the Dean of the Graduate Division, as well as serving on other University committees.
10. Gives guest lectures in courses other than those he teaches.
As members of the faculty of a university, the individual faculty members of the Department of Zoology have responsibilities in teaching, in research, and in service in accordance with their own training and experience.

1. To teach at both the graduate and undergraduate level in such a way as to give the students factual knowledge but also to aid them in developing their horizons and their thinking ability. Galileo remarked that "you cannot teach a man anything; you can only help him to find it within himself." Hence, if we are to prepare our students for attempting to answer the problems of tomorrow, we must endeavor to stimulate them to use their minds in such a way that each student attempts to develop his critical thought processes in accordance with his own uniqueness.

2. To conduct scholarly research in any area of interest to the faculty member and to convey the findings of that research to others by means of publication and other means of communication.

3. To serve the University, the State, and the Nation in those ways made possible because of the faculty member's training, experience, and interests.
Provide general administrative and technical support to the department.

- Maintain budgetary and accounting control and perform purchasing functions in accordance with established University policies and procedures.
- Prepare and maintain property inventory records and arrange for the replacement or disposal of old equipment.
- Arrange for the repair of various equipment; maintain and is responsible for the petty cash fund.
- Perform a variety of other duties including overseeing the Xerox machine operation, acquisition of student help, preparing correspondence, serving as Safety and Health Officer.
- Prepares technical illustrations and art work for faculty publications and classroom instruction. Illustrations include graphs, charts, maps, highly detailed drawings of land and marine animals including microscopic work, etc.

Civil Service Personnel

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