UNIVERSITY CALENDAR

1953

Sept. 14, Monday, Sept. 15, Tuesday . . . Freshman Orientation Period
Sept. 15, Tuesday . . . . Registration of Seniors
Sept. 16, Wednesday . . . . Registration of Juniors
Sept. 17, Thursday . . . . Registration of Sophomores
Sept. 18, Friday . . . . Registration of Freshmen
Sept. 19, Saturday—8:00 a.m.-1:00 p.m. | Registration of Graduate and
Sept. 21, Monday—2:30-5:00 p.m. | Unclassified Students and Auditors
Sept. 21, Monday . . . . Instruction begins
Sept. 28, Monday . . . . Last day of registration for new courses
Oct. 26, Monday . . . . Last day of withdrawal from courses without penalty
Oct. 30, Friday . . . . First deficiency reports due
Nov. 25, Wednesday . . . . Last day for removal of "Incompletes"
Nov. 26, Thursday, through Nov. 28, Saturday . . . Thanksgiving recess
Dec. 4, Friday . . . . Second deficiency reports due
Dec. 19, Saturday . . . . Last day of instruction before Christmas recess

1954

Jan. 4, Monday . Instruction resumes—Last day of withdrawal from courses:
Jan. 16, Saturday . . . . Last day of instruction, first semester
Jan. 19, Tuesday . . . . Final examinations begin
Jan. 29, Friday . . . . First semester ends
Feb. 9, Tuesday . . . . Registration of Seniors
Feb. 10, Wednesday . . . . Registration of Juniors
Feb. 11, Thursday . . . . Registration of Sophomores
Feb. 12, Friday . . . . Registration of Freshmen
Feb. 13, Saturday—8:00 a.m.-1:00 p.m. | Registration of Graduate and
Feb. 15, Monday—2:30-5:00 p.m. | Unclassified Students and Auditors
Feb. 15, Monday . . . . Instruction begins
Feb. 22, Monday . . . . Presidents' Day (Holiday)
Feb. 23, Tuesday . . . . Last day of registration for new courses
Mar. 22, Monday . . . . Last day of withdrawal from courses without penalty
Mar. 25, Thursday . . . . Charter Day
Mar. 26, Friday . . . . Prince Kuhio Day (Holiday)
Mar. 27, Saturday . . . . First deficiency reports due
Apr. 15, Thursday . . . . Last day for removal of "Incompletes"
Apr. 16, Friday, Apr. 17, Saturday . . . . Easter recess
Apr. 30, Friday . . . . Second deficiency reports due
May 17, Monday . . . . Last day of withdrawal from courses:
May 18, Tuesday . . . . ROTC Graduation Exercises
May 29, Saturday . . . . Last day of instruction, second semester
May 31, Monday . . . . Holiday following Memorial Day
June 1, Tuesday . . . . Final examinations begin
June 10, Thursday . . . . Second semester ends
June 11, Friday . . . . Kamehameha Day (Holiday)
June 13, Sunday . . . . Baccalaureate Service
June 16, Wednesday . . . . Commencement
Contents

BOARD OF REGENTS ........................................... 4

FACULTY AND STAFF
Administration ............................................ 5
Instruction .................................................... 5
Psychological and Psychopathic Clinic ................. 24
Hawaii Agricultural Experiment Station ................. 25
Agricultural Extension Service ............................ 28
Office of Student Personnel ............................... 31
Legislative Reference Bureau ............................. 32
University Extension Division ............................ 32
University of Hawaii Hilo Branch ........................ 32

GENERAL INFORMATION .................................... 33

ACADEMIC INFORMATION .................................. 37

STUDENT ACTIVITIES AND HOUSING ...................... 54

COLLEGE OF ARTS AND SCIENCES ......................... 56

COLLEGE OF APPLIED SCIENCE ............................ 63

TEACHERS COLLEGE .......................................... 72

COLLEGE OF AGRICULTURE ................................. 77

COLLEGE OF BUSINESS ADMINISTRATION ................. 88

GRADUATE SCHOOL ........................................... 91

ANNOUNCEMENT OF COURSES
Agriculture .................................................. 95
Air Science ................................................... 99
Anthropology ................................................ 100
Art ............................................................... 102
Asiatic and Pacific Languages ......................... 106
Bacteriology ............................................... 108
Botany ......................................................... 109
Business ..................................................... 113
Chemistry .................................................... 118
Classics ....................................................... 121
Drama and Theatre ......................................... 121
Economics .................................................... 123
Education ................................................... 125
English ......................................................... 136
European Languages ....................................... 140
Geography ................................................... 142
Geology ....................................................... 143
Government .................................................. 144

Health and Physical Education .......................... 147
History ....................................................... 151
Home Economics ........................................... 154
Interdepartmental Seminar ............................... 159
Library Science .............................................. 159
Mathematics .................................................. 160
Medical Technology ........................................ 161
Military Science ............................................ 161
Music ........................................................... 162
Nursing ....................................................... 165
Philosophy .................................................... 168
Physics ........................................................ 170
Psychology .................................................... 172
Religion ....................................................... 175
Social Work .................................................. 176
Sociology ..................................................... 179
Speech .......................................................... 182
Survey Courses .............................................. 185
Zoology and Entomology .................................. 186

SUMMARY OF ENROLLMENT FOR 1952-53 .............. 192

INDEX .......................................................... 194
BOARD OF REGENTS

TERM
EXPIRES

J. Garner Anthony ................. 1957
Attorney-at-law
Honolulu

Clayton J. Chamberlin, ex officio ......................
Superintendent, Department of Public Instruction
Honolulu

Hung Wai Ching .................. 1955
Realtor
Honolulu

Katsuyuki Izumi .................. 1957
Physician and Surgeon
Wailuku, Maui

Fred K. Lam ...................... 1955
Physician and Surgeon
Honolulu

Jack H. Mizuha .................. 1955
Attorney-at-law
Lihue, Kauai

Richard Penhallow .............. 1955
Assistant Manager, Parker Ranch
Kamuela, Hawaii

Gregg M. Sinclair, ex officio ....
President of the University
Honolulu

Philip E. Spalding .............. 1957
Chairman of the Board, C. Brewer and Company
Honolulu

OFFICERS OF THE BOARD

Chairman ................................ Philip E. Spalding
Vice-Chairman .......................... Fred K. Lam
Secretary ................................. Paul S. Bachman
Faculty and Staff
as of June, 1953

ADMINISTRATION

GREGG M. SINCLAIR, LL.D. .. President of the University
PAUL S. BACHMAN, Ph.D. .. Vice-President and Dean of the Faculties
THAYNE M. LIVESAY, Ph.D. .. Dean of the Graduate School
WILLARD WILSON, Ph.D. .. Dean of the College of Arts and Sciences
WILFRED J. HOLMES, M.S. .. Dean of the College of Applied Science
BRUCE WHITE, Ph.D. .. Dean of Teachers College
HAROLD A. WADSWORTH, B.S. .. Dean of the College of Agriculture
HAROLD S. ROBERTS, Ph.D. .. Dean of the College of Business Administration
HAROLD M. BITNER, Ph.D. .. Acting Dean of Student Personnel
COLIN J. HERRICK, Ph.D. .. Director of the Psychological and Psychopathic Clinic

LOUIS A. HENKE, M.S. .. Associate Director of the Hawaii Agricultural Experiment Station
Y. BARON GOTO, B.S. .. Associate Director of the University Agricultural Extension Service
ALBERT J. MCKINNEY, Ph.D. .. Director of the University Extension Division
EDMUND F. SPELLACY, Ph.D. .. Veterans' Adviser
CARL G. STROVEN, Ph.D. .. Librarian
JOSPH M. SKORPEN, B.A. .. Treasurer
HELEN B. MACNEIL, M.A. .. Registrar
EDWARD T. WHITE, M.A. .. Director of Admissions
THOMAS NICKERSON, B.A. .. Director of the Office of Publications and Information

NORMAN MELLER, M.A. .. Director of the Legislative Reference Bureau
KATHARINE N. HANDLEY, M.S.W. .. Director of the School of Social Work
VIRGINIA A. JONES, M.Ed. .. Acting Director of the School of Nursing

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GEORGE R. ADJEMIAN, Major, Assistant Professor of Military Science—B.S., United States Military Academy, 1941.

JACOB ADLER, B.S., Associate Professor of Business—B.S., Univ. of Chicago, 1933; C.P.A., Hawaii Territorial Board of Accountancy, 1950.


CARL B. ANDREWS, M.S., Professor Emeritus of Engineering—B.S., Rose Polytechnic Institute, 1908, M.S., 1909, C.E., 1917; M.S., Massachusetts Institute of Technology, 1928.

ABE ARKOFF, Ph.D., Assistant Professor of Psychology—B.A., State Univ. of Iowa, 1946, M.A., 1948, Ph.D., 1951.

FRED E. ARMSTRONG, Ph.D., Professor of Agricultural Education—B.S., Clemson College, 1916; M.S., Univ. of Minnesota, 1921; Ph.D., Pennsylvania State College, 1940.

JAMES K. ASATO, B.S., Assistant in Health and Physical Education—B.S., Univ. of Hawaii, 1952.

DOROTHY ASPINWALL, Ph.D., Associate Professor of European Languages—B.A., Univ. of Alberta, 1933, M.A., 1939; Ph.D., Univ. of Washington, 1948.


PAUL S. BACHMAN, Ph.D., Professor of Government—B.S., Ohio State Univ., 1922; M.A., Univ. of Washington, 1925, Ph.D., 1927.


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MARJORIE B. BARKLEY, B.S., Instructor in Health and Physical Education—B.S., Univ. of California at Los Angeles, 1943.


JOHN H. BEAUMONT, Ph.D., Professor of Agriculture—B.S., West Virginia Univ., 1917; Ph.D., Univ. of Minnesota, 1925. (On leave first semester 1953-54.)

DONALD W. BELL, B.S., Assistant Professor of Economics—B.S., Montana State College, 1943.


J. GARDNER BENNETT, C.E., Professor of Engineering—B.S., Cornell College, 1912; B.S., in C.E., Univ. of Wisconsin, 1918, C.E., 1925.

LUCIE F. BENTLEY, M.A., Assistant Professor of Speech and Drama and Theatre—B.A., Stanford Univ., 1928; M.A., Cornell Univ., 1933.

HENRY A. BESS, Ph.D., Professor of Entomology—B.S., Alabama Polytechnic Institute, 1927; M.S., Univ. of Florida, 1931; Ph.D., Ohio State Univ., 1934.

Charles M. Bice, B.S., Professor of Agriculture—B.S., Univ. of Wisconsin, 1927.

Earl M. Bilger, Ph.D., Professor of Chemistry—B.S., Wesleyan Univ., 1920, M.A., 1921; Ph.D., Yale Univ., 1925.

Leonora N. Bilger, Ph.D., Professor of Chemistry and Chairman, Department of Chemistry—B.A., Univ. of Cincinnati, 1913, M.A., 1914, Ph.D., 1916.


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Edward J. Britten, Ph.D., Assistant Professor of Botany—B.S., Univ. of Saskatchewan, 1940, M.S., 1941; Ph.D., Univ. of Wisconsin, 1944.


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Y. BARON GOTO, B.S., Professor of Agriculture—B.S., Univ. of Hawaii, 1924.


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CHARLES H. HUNTER, Ph.D., Professor of History and Chairman, Department of History—B.A., Stanford Univ., 1927, M.A., 1928, Ph.D., 1935.

ANN L. HUTCHINSON, R.N., Assistant in Education—R.N., St. Luke's Hospital School of Nursing, 1940.

MAKIKO ICHIYASU, M.S.W., Lecturer in Social Work—B.A., Mills College, 1934; M.S.W., Univ. of Hawaii, 1952.

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EDWARD KAHALE, Lecturer in Asiatic and Pacific Languages.


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KEICHI MIHATA, B.A., Assistant County Agent, East Oahu—B.A., Univ. of Hawaii, 1935.

ELLEN I. MONTGOMERY, B.S., Assistant in Extension—B.S., Linfield College, 1953.

TATSUMI MOTOBU, B.S., Assistant County Agent, West Oahu—B.S., Univ. of Hawaii, 1951.

BEVERLY M. MYERS, M.S., Assistant Specialist in Home Management and Home Furnishings—B.S., Univ. of California, 1948; M.S., Univ. of Tennessee, 1950.

YUKIO NAKAGAWA, B.S., Assistant Specialist in Horticulture—B.S., Univ. of Hawaii, 1940.

EVELYN H. NITTA, B.S., Assistant in Extension, East Hawaii—B.S., Univ. of Hawaii, 1953.

MAUDE S. OKAMOTO, B.S., Assistant County Agent, South Oahu—B.S., Univ. of Hawaii, 1949.

RALPH H. OKUMOTO, B.S., Assistant County Agent, South Oahu—B.S., Univ. of Hawaii, 1939.

FUYUKI OKUMURA, B.A., County Agent, Molokai—B.A., Yale Univ., 1923.

ROBERT M. OTA, B.S., Assistant County Agent, East Hawaii—B.S., Colorado Agricultural and Mechanical College, 1950.

PERRY F. PHILIPP, Ph.D., Associate Specialist in Agricultural Economics—B.S., Univ. of California, 1940, Ph.D., 1951.

MERRILL K. RILEY, M.S., County Agent, East Oahu—B.S., Colorado College, 1927; M.S., South Dakota State College, 1929.


IRWIN W. RUST, B.A., Associate Marketing Specialist—B.A., Univ. of Redlands, 1933.

LILLIAN R. SCHWARTZ, B.S., County Agent—B.S., Hastings College, 1931.
FACULTY AND STAFF

DANIEL T. SHIGETA, B.S., Assistant County Agent, South Oahu—B.S., Univ. of Hawaii, 1950.

Y. JAMES SHIGETA, B.S., Assistant Supervisor in Club Work—B.S., Univ. of Maryland, 1951.

TAKUMI SHIRAKAWA, B.S., Assistant County Agent, East Hawaii—B.S., Univ. of Hawaii, 1948.

JOHN L. STORMONT, B.S., Associate Specialist in Club Work—B.S., Univ. of Illinois, 1928. (On leave 1953-54.)

MARGARET STUART, M.S., County Agent, West Oahu—B.S., Michigan State College, 1943, M.S., 1952.

Y. DICK SUMIDA, B.S., Assistant County Agent, South Oahu—B.S., Univ. of Hawaii, 1936.

T. FRANCIS TAKAHASHI, Assistant County Agent, Kauai.

SHIRO TAKEI, B.S., Junior Specialist in Agricultural Economics—B.S., Univ. of Hawaii, 1938.

FRANCIS M. TAKISHITA, Assistant County Agent, Maui.

FORTUNATO G. TEHO, B.S., Assistant County Agent—B.S., Univ. of Hawaii, 1927.

ALICE P. TRIMBLE, B.S., Supervisor of County Home Demonstration Work—B.S., Utah State Agricultural College, 1924.

MOTOI UEDA, B.A., Assistant County Agent, East Hawaii—B.A., Univ. of California at Los Angeles, 1934.

HARVEY M. VOLLRATH, M.S., Associate Specialist in Animal Husbandry—B.S., Colorado Agricultural and Mechanical College, 1929; M.S., Univ. of Minnesota, 1948.

VIVIAN A. WINSTON, B.S., County Agent, South Oahu—B.S., Texas State College for Women, 1932.

ROKURO YAMAGUCHI, B.S., Assistant County Agent, East Oahu—B.S., Univ. of Hawaii, 1942. (On leave 1953-54.)

SUEKI YAMAMOTO, B.S., Assistant County Agent, Maui—B.S., Univ. of Hawaii, 1951.

WARREN Y. J. YEE, B.S., Junior Specialist in Horticulture—B.S., Univ. of Hawaii, 1942.

BETTY K. K. ZANE, B.S., County Agent, East Hawaii—B.S., Univ. of Hawaii, 1946.

OFFICE OF STUDENT PERSONNEL

HAROLD M. BITNER, Ph.D., Acting Dean of Student Personnel—B.S., State Teachers College, Shippensburg, Pennsylvania, 1941; M.A., Duke Univ., 1945; Ph.D., Ohio State Univ., 1951. (On leave second semester 1953-54.)


MARY LOU MCPHERSON, B.S., Director of the Bureau of Student Residences—B.S., Kansas State College, 1933.


LEGISLATIVE REFERENCE BUREAU

MARGARET E. HOLDEN, M.S., Junior Research Librarian—B.S., Wayne Univ., 1943, M.S., 1945; B.L.S., Univ. of Chicago, 1948.

ROBERT M. KAMINS, Ph.D., Assistant Director—B.A., Univ. of Chicago, 1941, M.A., 1948, Ph.D., 1950.


NORMAN MILLER, M.A., Director—B.A., Univ. of California, 1933, I.L.B., 1936; M.A., Univ. of Chicago, 1951.

UNIVERSITY EXTENSION DIVISION


UNIVERSITY OF HAWAII HILO BRANCH


FRANK T. INOuye, Ph.D., Assistant Professor of History and in charge of Hilo Branch—B.A., Univ. of Cincinnati, 1945, M.A., 1946; Ph.D., Univ. of Southern California, 1951.


MILDRED C. MENDENHALL, Ph.D., Associate Professor of Psychology—B.A., Univ. of North Carolina, 1920; M.A., Univ. of Rochester, 1934; Ph.D., Univ. of North Carolina, 1939.
General Information

DESCRIPTION

The University of Hawaii lies at the mouth of Manoa Valley in Honolulu, on the island of Oahu. It is three miles from the business center of Honolulu and two miles from Waikiki Beach. Ten other tracts of land on the islands of Oahu, Maui, and Hawaii bring the University's landholdings to 710 acres.

Established by act of the Legislature of the Territory of Hawaii in 1907, the University bears the same relation to the Territory as the state universities to their states. Support of the University comes from appropriations of the Territorial Legislature and of the United States Congress, and from miscellaneous funds that include gifts and student fees. Although the University of Hawaii did not receive a grant of land such as that provided for similar colleges of the states under the original Morrill Act of 1862, it is a federal land-grant college and shares in benefits from the Second Morrill Act of 1890, the Nelson Amendment of 1907, and subsequent legislation.

HISTORY. The institution was known as the College of Agriculture and Mechanic Arts from 1907 to 1911, and the College of Hawaii from 1911 to 1920. The College opened September 14, 1908, with five students in regular courses and a faculty of twelve. Before the end of the year thirty-one students had enrolled in special courses. The College was temporarily located on the grounds now occupied by the Lincoln School in Honolulu; in 1912 the institution was moved to its present site. When the College of Arts and Sciences was added in 1920, the name was changed to the University of Hawaii. In 1931 the Territorial Legislature united the Territorial Normal and Training School with the University School of Education to form Teachers College of the University and placed the property of the Normal School under the control of the Board of Regents of the University. The College of Agriculture was established in 1946 and the College of Business Administration in 1949.

CONTROL AND ACCREDITATION. Government of the University resides in a Board of Regents appointed by the Governor of the Territory for individual terms of four years. The statutes and bylaws of the Board of Regents are published in a pamphlet available upon request.

The University is accredited by the Western College Association. Its students may transfer to other American and to European and Oriental universities on the same basis as students of other American universities.

INSTRUCTION. University classes are open to all academically qualified men and women, regardless of racial ancestry or nationality.

ACADEMIC YEAR. The academic year is divided into two semesters of eighteen weeks each and a summer session of six weeks.

UNIVERSITY COLORS. The colors are green and white.

COMMUNICATIONS. Letters of general inquiry from prospective students should be addressed to the Registrar.

The mailing address is University of Hawaii, Honolulu 14, Hawaii.
ADMINISTRATION ORGANIZATION

The University has five colleges: College of Arts and Sciences, College of Applied Science, Teachers College, College of Agriculture (including the Agricultural Experiment Station and the Agricultural Extension Service), and College of Business Administration. Graduate work is organized under the Graduate School. The Office of Student Personnel co-ordinates the work of admissions, counseling, and registration. Other administrative units are the Psychological and Psychopathic Clinic, the Library, the University Extension Division, and the Legislative Reference Bureau.

Academic departments are units of the University as a whole, rather than of colleges, and are responsible to the Dean of Faculties on matters of finance and personnel. Co-ordination of the departments with the colleges in instructional matters is obtained through a Council of Deans, of which the Dean of Faculties is chairman. The Summer Session, the University Extension Division, and the Hilo Branch are under the supervision of the Dean of Faculties and the Council of Deans.

The University Senate acts as an advisory body to the President on matters of instruction and related problems.

RELATED SERVICES

In addition to its instructional program, the University offers several other forms of public service.

THE PSYCHOLOGICAL AND PSYCHOPATHIC CLINIC. This Clinic is a territorial agency under the management of the University. It was established by act of the Legislature in 1921, with the dual purpose of psychological investigation and of individual clinical examinations. The act gives wide scope to the work of the Clinic, making its services available to every institution and to all social and educational agencies in the Territory. Resident psychologists extend these services to the other islands. Courses in the Psychology Department are offered by several members of the Clinic staff.

LEGISLATIVE REFERENCE BUREAU. The 1943 Legislature created the Legislative Reference Bureau under University jurisdiction to help solve current legislative and governmental problems. The Bureau is situated on the campus but during sessions of the Legislature an additional office is maintained in Iolani Palace. It provides members of the Legislature, the Governor, and departments, institutions, and agencies of the Territory with information and reports concerning legislative problems.

THE VOLCANO LABORATORY. On the island of Hawaii, the Laboratory is conducted in cooperation with the U. S. Geological Survey and the Hawaiian Volcano Research Association, and offers research possibilities to both graduate students and investigators who wish to pursue their own studies in subjects pertaining to volcanology.

THE AQUARIUM. At Waikiki Beach the University operates the Aquarium as a place of education and entertainment for local residents and visitors.
COOPERATING INSTITUTIONS

To add to its research facilities and to expand its services to the Territory, the University has made cooperative agreements with several other institutions.

THE PINEAPPLE RESEARCH INSTITUTE OF HAWAII. This Institute, independently supported by the pineapple industry, is affiliated with the University. The administrative offices and research laboratories are in Institute buildings on and adjacent to the University campus. Field studies are carried on at Wahiawa, where the Institute maintains a 100-acre experimental farm.

BERNICE PAUAHI BISHOP MUSEUM. The University and the Bishop Museum reciprocate in the use of libraries, laboratories, collections, and other research facilities. Advanced students may use the Museum facilities when working under proper direction, subject to Museum regulations.

INSTITUTE OF PACIFIC RELATIONS. The research library of the Honolulu Branch of the Institute of Pacific Relations, affording excellent facilities for the study of international affairs, constitutes a part of the University Library.

HONOLULU ACADEMY OF ARTS. This Academy, built and endowed by Mrs. Charles M. Cooke, has made its fine collections of art objects available to the students and instructors of the University.

HAWAIIAN SUGAR PLANTERS' ASSOCIATION. In 1947 this association provided $100,000 for the erection of a building on the University campus to house the Agricultural Engineering Institute, where shop facilities are available for instructional and research purposes.

FRUIT FLY LABORATORY. The United States Bureau of Entomology maintains on the University campus a research laboratory and a corps of investigators for the study of fruit fly pests in Hawaii.

THE HAWAII SCHOOL OF RELIGION. The Hawaii School of Religion, an independently supported institution managed by its own Board of Trustees, is affiliated with the University and its courses are accepted for credit. Members of its staff are approved by the University Board of Regents and given academic rank on the University faculty.

THE UNITED STATES FISH AND WILDLIFE SERVICE. The permanent headquarters of this service for Pacific Oceanic Fishery Investigations are located on the University campus. Certain members of the staff of this organization cooperate with the Department of Zoology and Entomology in offering advanced courses and in directing thesis research in fishery biology. Several fellowships are available to citizen students working toward advanced degrees. Requests for information or fellowship application forms should be addressed to the Director, Pacific Oceanic Fishery Investigations, University of Hawaii.

CAMPUS AND BUILDINGS

The principal buildings on the campus are the Administration Building, Hawaii Hall, Gartley Hall, Dean Hall, the Library, the Social Science Building, Wist Hall and its laboratory centers (the Elementary School, the High School, Castle
Memorial Hall, and Auditorium), Farrington Hall, the Engineering Quadrangle, Gilmore Hall, the Home Economics Building, the Gymnasium, Hemenway Hall, the Chemistry Building, and the Music Building.

Farrington Hall, an auditorium with a backstage extension, is well equipped for work in drama. The engineering laboratories and classrooms are in the four buildings composing the Engineering Quadrangle. The Arthur L. Andrews (outdoor) Theatre, whose backdrop consists of a tropical garden and the Koolau mountain range, is the setting for commencement and other University programs.

The Agricultural Engineering Institute, financed largely by the Hawaiian Sugar Planters’ Association, provides facilities for instruction and research in farm and plantation machinery.

The Library contains 243,395 bound volumes and 495,557 unbound parts and pamphlets, exclusive of Teachers College Elementary School Library, and serves as a depository for government publications. Extensive collections of Chinese and Japanese works and a growing collection of valuable books and periodicals about Hawaii and the Pacific Islands make the University of Hawaii an excellent place to study international relations, especially those concerning the Pacific area. The Library files include local and mainland newspapers, and literary, technical, and scientific periodicals. These materials are available to all persons complying with library regulations.

Hemenway Hall is a general social center for students and faculty and furnishes quarters for both student and alumni organizations. In it a bookstore and a cafeteria are maintained.

Residence accommodations on or near the campus include the Charles H. Ather­ton House, the University housing barracks for men, Hale Laulima, and a new residence for women students.

A swimming pool, tennis courts, and locker buildings are located near Hemen­way Hall. Cooke Field, which is used for football, baseball, and track practice, also affords opportunities for physical education and intramural sports.

The Honolulu Stadium, with a seating capacity of 22,000, is equipped for foot­ball, baseball, and other outdoor sports, and is regarded as an integral part of the University’s plant resources for physical education and athletics. It is owned and managed by the Honolulu Stadium Corporation.

The Hawaii Marine Laboratory, with branches at Waikiki and Coconut Island, is devoted to teaching and research in the marine sciences.

Other buildings connected with the University include the ROTC Buildings, Hawaii Annex (which houses the Psychological Clinic and the offices of the English Department), the Nutrition Laboratory, the United States Bureau of Entomology Building, the United States Fish and Wildlife Service Building, and 40 temporary office and classroom buildings on the campus. A part of the campus is occupied by an experimental farm, which is devoted to solving problems of Hawaii’s dairymen, poultrymen, and livestock raisers and which provides instructional facilities for students of agriculture.

The herbaria of the University and of the Bishop Museum, which are combined under the custodianship of the Museum, contain the most nearly complete collection of Hawaiian plants in existence and include some species now extinct. The most valuable parts are the cotypes of Dr. W. Hillebrand’s species and the types of many new species collected by later botanists.
Academic Information

Students, other than auditors and those taking extension and correspondence courses, are classified as undergraduates and graduates.

Undergraduate students are designated as regular or unclassified.

Regular students are those who are pursuing organized programs of study and who comply with the established regulations which lead, usually after four years of work, to a bachelor's degree. Regular students ordinarily carry full-time programs (12 semester hours or more). Freshmen and sophomores are lower division students; juniors and seniors, upper division students.

Unclassified students are those who, although registered for credit, are not candidates for a degree and have not been admitted to a specific college of the University. No student may use the unclassified status to evade technical or scholastic graduation requirements of a college. They usually carry only part-time programs (fewer than 12 semester hours).*

Graduate students (graduates of this University or of other institutions of approved standing) are subdivided into three groups: candidates for advanced degrees, candidates for five-year diplomas, and noncandidates.

Advanced degree candidates are those who are pursuing programs of study leading to advanced degrees.

Five-year diploma candidates are graduate students following a curriculum leading to the diploma.

Most of the other graduate students—who are not candidates for degrees or diplomas—are teachers seeking professional improvement by taking graduate courses. Some of them are following a program leading to the professional certificate awarded by the Department of Public Instruction.

Auditors are those who are permitted to attend certain courses as listeners, but who take no part in the class work and receive no credit.

ADMISSION

Candidates for admission must present satisfactory evidence of ability to do university work.

Those who wish to become regular or unclassified students and who have not previously earned credits in an institution of higher learning must apply to the Director of Admissions. A high school senior who plans to enter the University within a year should file his application during the final semester of his high school course. In any case, application should be filed at least one month before the

*Students taking fewer than 12 semester hours in any semester are considered "part-time" students. This classification, however, has significance only in so far as determination of fees is concerned. Both regular and unclassified students may be either part-time or full-time.
opening of the semester in which enrollment is desired. Requests for application forms and questions about admission should be addressed to the Director of Admissions.

The application procedure for persons who have credits from other institutions of higher learning is described under "Admission to Advanced Standing."

ADMISSION OF REGULAR STUDENTS ENTERING THE UNIVERSITY FOR THE FIRST TIME. Admission to first-year standing in the University depends on a number of factors, including performance on college aptitude tests, quality of high school work, and various ratings by the preparatory school. A high rating in one factor alone will not insure admission; nor will poor performance on one measure alone exclude an applicant if other evidence indicates he might be successful. Ordinarily a student should average B or better in his high school work, although an applicant with a C average who scores above average on the college aptitude test may be admitted. The quality of work done during the last two years in secondary school receives special consideration.

College aptitude tests are given by the University in high schools of the Territory each spring. These tests are also given at the University several times during the summer. Applicants should communicate with the Director of Admissions for information as to dates.

Every applicant for admission as a regular student who has not previously earned credits in an institution of higher learning must take college aptitude examinations and submit evidence that he has satisfactorily completed at least 15 units of work in a four-year high school or at least 12 units of work in a three-year senior high school.

The word unit as employed here to describe prerequisite preparatory work signifies the satisfactory completion of a course of study pursued for a full school year, with five recitations a week of not less than 45 minutes each, or the equivalent laboratory or shop exercises. For an acceptable distribution of the units required of entering students, see the table on page 39.

Candidates from continental United States and certain foreign countries may, when authorized by the Admissions Office, take the scholastic aptitude test given by the College Entrance Examination Board (431 West 117th Street, New York City) and submit a certificate covering the results of this examination along with a complete record of work done in preparatory school.

ADMISSION BY EXAMINATION. Veterans, and other mature individuals, whose secondary school education was interrupted by war or other conditions may take entrance examinations covering preparatory school subjects. Successful performance on these tests and on the college aptitude tests will admit these candidates without reference to high school credits. Such individuals, however, must meet all special requirements, such as those in mathematics, for admission to the engineering or the premedical curriculum.

SPECIAL REQUIREMENTS FOR CERTAIN PROGRAMS. In addition to satisfying the requirements of the University as a whole, candidates for admission to certain programs of university work must meet special requirements. Each applicant should study the conditions set by the college he intends to enter and
of the program he intends to pursue in that college. Special attention is directed to the following requirements.

Students who expect to study mathematics in the University, or to take subjects for which college mathematics is a prerequisite, should have had plane geometry and two years of algebra.

Prospective engineering and prearchitecture students must have had plane geometry and two years of algebra. It is strongly recommended that they also have trigonometry, solid geometry, mechanical drawing, and physics. Engineering students who have not had Mathematics 150 (trigonometry) may take it in the summer session preceding the first year or take Mathematics 150 and 151 the first semester, Mathematics 152 the second semester, and Mathematics 153 in the following summer session.

Prospective students of medicine should have had plane geometry, trigonometry, two years of algebra, two years of a foreign language, two years of history, and three years of English.

**MINIMUM UNIT REQUIREMENTS FOR ADMISSION**

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<td>ENGLISH—(In addition to the 3-unit minimum requirement in English)</td>
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<td>SCIENCES—Physical, biological, and social</td>
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<td>FOREIGN LANGUAGES—(Entrance credit in foreign language is not granted unless the total number of foreign language units offered includes at least 2 units in some one language)</td>
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<td>Any other subjects (except Physical Education and ROTC) credited by the high school toward its diploma (no less than ½ nor more than 2 units in any one subject) provided that these subjects have been pursued in accordance with regular classroom procedure involving a reasonable amount of preparation in addition to the time spent in class</td>
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Prospective students of agriculture should have had two years of algebra. Students with only one year must complete the second year without credit by the end of the freshman year.

Every entering freshman is expected to be on the campus during the Freshman Orientation Period, the dates of which are stated in the "University Calendar." This program is designed to give special help to incoming freshmen and to acquaint them with the University. Examinations, conferences with advisers, introductory lectures, and social events occupy the period.

ADMISSION TO ADVANCED STANDING. Students who transfer with sufficient credits from other accredited universities or colleges may be granted advanced standing. These students must present to the Registrar an official statement of the studies offered for admission at such institutions, of the studies pursued in college and the grade received in each, and of honorable dismissal. These transcripts become a permanent part of the University files. Credit toward graduation is given only in subjects in which grades of C or better are recorded. Candidates transferring with advanced standing are required to do a minimum of one year's work (30 semester hours) at the University of Hawaii to qualify for a bachelor's degree.

Students transferring from other than accredited institutions follow the procedure of entering freshmen. Courses from such institutions may be accepted toward graduation requirements of the University of Hawaii when advanced courses in the same fields are passed with grades of C or better, or grades of C or better are obtained on special examinations in such previous work.

ADMISSION OF UNCLASSIFIED STUDENTS. Mature persons may register as unclassified students when their backgrounds, in the opinion of the Director of Admissions, qualify them for credit work. No such student, however, will be admitted to a college or allowed to become a degree candidate until he has satisfied all admission requirements.

Admission as an unclassified student is in no case permitted to serve as a means of avoiding compliance with the requirements laid down for regular students.

ADMISSION OF AUDITORS. Persons wishing to audit classes must have the written consent of the Director of Admissions, of the chairman of the department concerned, and of the instructor of the course. In general, auditors are not allowed in laboratory science, mathematics, language, English composition, speech, or studio art courses.

ADMISSION OF GRADUATE STUDENTS. Graduates of accredited colleges and universities who wish to do graduate study should apply to the Dean of the Graduate School. Each application should be accompanied by an official transcript of undergraduate record and of any graduate work completed at another institution. Admission to graduate study is provisional until such records are on file. These transcripts become a permanent part of the University files.

REGISTRATION, WITHDRAWAL, AND OTHER CHANGES

Registration dates are given in the "University Calendar." Students entering in the autumn receive a circular telling them how to proceed in registering. Courses are described under "Courses of Instruction," and a schedule stating the
time and place of meeting of each course is issued by the Registrar in September for the first semester, in January for the second semester, and in May for the summer session.

REGISTRATION OF UNDERGRADUATE STUDENTS. Before they register, undergraduates must decide which of the five colleges of the University they wish to enter, and select one of the programs offered by the college chosen. Each undergraduate is assigned at registration time to a faculty member who acts as his adviser in selecting courses. Credit is given only for courses regularly entered upon the registration card.

REGISTRATION OF GRADUATE STUDENTS. Graduate students follow the same procedure in registration as do undergraduates.

REGISTRATION OF AUDITORS AND UNCLASSIFIED STUDENTS. Auditors and unclassified students register after the period assigned to the registration of regular students, and in accordance with instructions issued at the beginning of each semester.

AUDITING OF COURSES BY REGULAR STUDENTS. Regular students are not permitted to audit courses in excess of the maximum student load.

ARRANGEMENT OF CREDITS IN ADVANCE. The number of credits obtainable in most courses is stated in the Catalogue and in the time schedule. However, certain courses in which students carry on individual work are marked "credit by arrangement." Such statements do not signify that the credits are to be determined at the end of the semester. The student registers for a definite number of credits and may earn no more than that number.

LATE REGISTRATION. The University permits registration for credit after the announced registration days in any semester only in exceptional cases and for valid reasons. The following rules govern such late registration: (1) during the first seven days following the last official day of registration for regular undergraduate students, written approval must be obtained from the dean of the college concerned; (2) subsequent to the seventh day, students may register only as auditors and must have the written approval of the college dean and the instructor concerned. Corresponding restrictions apply to summer session registration and are stated in the summer session bulletin.

These same rules apply to students who wish to register for courses in addition to those signed for during the official registration period.

Auditors need not comply with these regulations, except that they cannot change to credit status after the above late registration periods.

WITHDRAWAL FROM COURSES OR FROM THE UNIVERSITY. Withdrawal is the voluntary severance by a student of his connection with a course or with the University. To withdraw from a course an undergraduate must have the written consent of the dean of his college. This consent must be stated on a form obtained by the student from the dean and returned to the Registrar bearing the dean's signature. Withdrawals from the University must be applied for on a form available at the Registrar's office; signatures as indicated on
the form must be obtained, and the completed application returned to the Registrar's office.

During the first five weeks of a semester a formal withdrawal is marked W on the student's record. After the first five weeks and prior to the last two weeks of instruction during a semester, a formal withdrawal is marked W if the work of the student was passable; otherwise it is marked F (for failure). No withdrawals from courses are permitted during the last two weeks of instruction in a semester, but a dean may allow a student to withdraw from the University for legitimate reasons. A student who ceases to attend a course without complying with the official procedure for withdrawing receives an F in the course. The effective date of withdrawal is the date recorded by the Business Office.

OTHER CHANGES OF STUDENTS' PROGRAMS OF STUDY. A student may transfer from one of the University's colleges to another at the end of either semester. Application for transfer must be made on a form supplied by the Registrar or one of the deans concerned. The application must be approved by the deans of the two colleges and should be returned to the Registrar's office at least two weeks before the end of the first semester, and by August 15 during the summer.

CREDITS, GRADES, GRADE POINTS, GRADE-POINT RATIOS, HONORS

The University recognizes work accomplished by students in terms of credits, grades, grade points, grade-point ratios, and honors.

A credit (also called a semester hour and a credit hour) is given to a student for work satisfactorily accomplished during three hours a week spent in the preparation and recitation of assignments in a course, or in the field or laboratory. The normal division of time in non-laboratory courses is one hour in the classroom and two hours in preparatory work.

Grades given in undergraduate courses are A, B, C, D, F, and I. The lowest passing grade is D. An I is given to a student who has failed to complete a small but important part of a semester's work before the semester grades are determined, if the instructor believes that failure was caused by conditions beyond the student's control and not by carelessness or procrastination. To receive credit for a course for which an I has been reported, the student must make up the incomplete work before Thanksgiving or the Easter recess of the semester following that for which the grade was given. If the work is not thus completed, the I will stand and the student will receive neither credits nor grade points in that course. If the work is completed, the instructor will report a semester grade, taking the completed work into consideration. Credit in a course for which an F is given may be obtained only by repeating the course and passing it.

Grades given in graduate courses are H (for honors), S (satisfactory), and U (unsatisfactory). The honors grade is awarded for exceptionally good work. Graduate students in undergraduate courses are graded on the undergraduate scale, A to F.

Grade points are computed for all courses in which grades are reported, including Military Science, and Health and Physical Education. They are computed as
follows: for each credit received in a course, 4 grade points are granted if the grade is A, 3 if the grade is B, 2 if the grade is C, and 1 if the grade is D.

Students entering as undergraduates with advanced standing are not given grade points upon work done elsewhere; but on work done in the University of Hawaii such students must gain grade points in the same proportion to credit hours required for graduation as that demanded of other students.

Grade-point ratios are determined by dividing the total number of grade points by the total number of credits for which a student has been registered. Courses for which grades of W or I were recorded are not included in the computation of such ratios nor are courses for which a grade of F was recorded, if credit is subsequently obtained for these courses.

TRANSFERS TO OTHER INSTITUTIONS. Accredited American institutions of higher learning, including the University of Hawaii, give students who transfer credit toward graduation only in those courses in which they have received a grade of C or better. (See "Tuition and Fees" for further information about transfers.)

REQUIREMENTS FOR CONTINUED REGISTRATION

Scholastic accomplishment in the University of Hawaii is determined by the grade-point ratio (see above) at the end of any stated period, i.e., at the end of one semester, two semesters, etc.

Further registration is denied to the following classes of undergraduate students:

1. Those who have failed to pass in any semester (or who were not passing when they withdraw from the University) in 50 per cent of their registered credits.

2. Those who have failed to earn, after two semesters' attendance, a minimum of one and one-half times as many grade points as the total of their registered credits.

3. Those who are deficient in speech or composition after two semesters' attendance and who have less than a 2.0 grade-point ratio in other subjects.

4. Those who have failed to earn, after four semesters' attendance, a minimum of one and eight-tenths times as many grade points as the total of their registered credits.

5. Those whose progress in speech is unsatisfactory after three semesters of speech instruction. (Students who have persistently absented themselves from speech classes will not be allowed to appear before the examining board to remove this deficiency.)

Students who become ineligible for further registration at the close of the second semester of any year may register for the succeeding summer session. The credits and grade points earned in such sessions will then be included in determining eligibility for further registration.

Students who have been dropped from the University may apply for readmission. Such applications should be submitted, in writing, to the chairman of the Committee on Scholastic Standing at least one month prior to the opening of the semester for which admission is requested. Usually readmission will not be granted until at least one semester has elapsed since action was taken in dropping the
student. Only in unusual circumstances will a student be readmitted after having been dropped for the second time.

Whenever, in the opinion of the dean of a college, a student’s work makes such action necessary, the dean may warn the student, or place him on the grade-point rule. The grade-point rule is the requirement that a student earn twice as many grade points as credits for which he is registered, in other words, a C average. Failure to comply with the grade-point rule may result in refusal by the Committee on Scholastic Standing to permit further registration.

Ordinarily failure in the first semester of a year course bars the student from registering for the second semester of that course.

Warnings of low scholarship are given by instructors and deans, usually at the end of the first and second six-week periods of each semester, but the student should not assume that his work is of passing grade merely because he has not been warned. The University assumes no responsibility if a warning that has been mailed to a student fails to reach him.

If a student has been in attendance up to the time of the final examination, but is absent from the examination, the instructor may give an "Incomplete" for the course. If within one week no satisfactory reason is given by the student for his absence from the final examination, the instructor must turn in a removal of the Incomplete, counting the final examination as F in computing the grade for the course.

Regular attendance at class and laboratory sessions is expected. Unavoidable absence should be explained to the instructors concerned.

UNDERGRADUATE DEGREE REQUIREMENTS

CREDIT AND GRADE-POINT REQUIREMENTS. The minimum credit requirement for the baccalaureate (bachelor’s) degree in all colleges is 130. In addition, the student must have earned at least twice as many grade points as the total of registered credits. (Students who entered prior to September, 1944, may proceed on the former basis of 264 grade points.

KINDS OF BACCALAUREATE DEGREES. Upon satisfactory completion of a regular program in the College of Applied Science and the College of Agriculture, a candidate is granted the degree of Bachelor of Science (B.S.); the diploma designates the particular program that has been pursued.

The degree of Bachelor of Arts (B.A.) is granted upon the satisfactory completion of a regular program in the College of Arts and Sciences.

Satisfactory completion of a regular program in Teachers College leads to the award of the degree of Bachelor of Education (B.Ed.). Holders of bachelor degrees who complete the Teachers College five-year program, by taking a year of additional work in Teachers College, are awarded five-year diplomas.

The degree of Bachelor of Business Administration (B.B.A.) is granted upon the satisfactory completion of a regular program in the College of Business Administration.
RESIDENCE REQUIREMENTS. The University grants baccalaureate degrees only to those students who earn a minimum of 30 semester hours in residence (that is, in class or laboratory work at the University of Hawaii).

Degree candidates must be registered and in attendance during the semester or summer session in which the degree is to be granted. A College Dean may modify this requirement, in certain exceptional cases, by granting a leave of absence.

Not more than 25 per cent of the total credits earned at the University of Hawaii for a degree may be obtained in extension courses.

TIME WITHIN WHICH WORK MUST BE COMPLETED. All graduation requirements must be completed within 10 years of the first registration. The college deans are empowered to extend this period in certain exceptional cases.

CREDIT BY EXAMINATION

Students who have been in attendance at the University of Hawaii for one semester may, upon presentation of evidence that they have had the equivalent of a course through experience or training but have not received college credit for the course, make application to receive credit by examination in the course. Regular students should apply to the appropriate college dean, and unclassified students to the Dean of Student Personnel. Applications must be made before the end of the first six weeks’ period of a semester, and only one examination in any course will be given during a semester. A fee is charged for each examination. (See p. 46.)

Failure to pass such an examination results in a grade of F being entered upon the student’s permanent record.

COURSE EXAMINATIONS

No examinations (other than short quizzes) are allowed during the two weeks just prior to the final examination period.

TUITION AND FEES

Students registered for 12 or more credit hours in any semester pay $100 for tuition and $10 for registration per semester. Summer session students and students registered for fewer than 12 credit hours in any semester pay $8.00 per credit hour. In addition, summer session students pay $1.00 activities fee.

Persons who register after the announced days of registration pay a late registration fee of $1.00.

All fees must be paid in full at the time of registration, and no registration card will be finally accepted until it is endorsed showing payment.

Veterans registering under the G. I. Bill must present proper Certificates of Eligibility and Entitlement, or register as non-veterans and pay all fees. Reimbursement, as authorized by the Veterans Administration, will be made to those who present the above certificates prior to the middle of the semester.

Laboratory, uniform and awards fee in Military Science, and special course fees are stated in the description of courses. If the instructor feels it is justified, students may be charged for excessive breakage of equipment.
Students who take the college aptitude test pay a $2.00 fee at the time of examination.

Tuition and laboratory fees may be refunded to students who withdraw from courses, the percentage refunded to be in accordance with the following schedule: Withdrawal during

- first two weeks of instruction: 100%
- third week of instruction: 80%
- fourth week of instruction: 60%
- fifth week of instruction: 40%
- sixth week of instruction: 20%
- remainder of semester: 0%

In no case is the registration fee, or any part of it, refunded.

A fee of $2.00 is charged for each change in registration after the initial registration, unless such changes are due to reasons beyond the control of the student. This fee does not apply to complete withdrawals from the University.

A fee for diploma or certificate must be paid to the Business Office before any such diploma or certificate can be received by a student. For the five-year diploma and the certificate in social work the fee is $2.50. For all other degrees and diplomas the fee is $5.00.

A graduate student receiving an advanced degree must pay, before the degree is awarded, a fee of $4.00 to cover the cost of binding two copies of his thesis.

Caps, gowns, and hoods for use in graduation ceremonies may be rented for a fee of $2.00.

A student who requests the Registrar to send a transcript of his work to another institution is not required to pay for the first copy, but is charged $1.00 for each subsequent copy.

A fee of $8.00 per credit is charged for "Credit by Examination," payable at the time of application for the examination.

Steel book lockers for student use are situated in Wist Hall. The use of a locker for the first and second semesters may be obtained at Room 9, Hawaii Hall for $1.00. All keys must be returned before Commencement.

At the request of the Associated Students of the University of Hawaii (ASUH) and with the consent of the Board of Regents, the University Business Office collects certain ASUH fees at the time tuition and registration fees are collected. These ASUH fees, approximately $10 each semester, are for class dues and the ASUH membership fee for undergraduates taking 10 or more semester hours. For other students the ASUH fee is optional. These fees are not collected for the summer session. Privileges that these fees purchase are described in the ASUH Handbook available to all students.

**TRAFFIC VIOLATIONS**

Students who receive written notices of the violation of campus traffic regulations will (1) have no grades recorded, and (2) be denied further registration until such time as the violations are adjusted to the satisfaction of the University Treasurer.
LIBRARY FINES

Students who fail to satisfy Library fines by the end of a semester will be denied (1) permission to register for the following semester or summer session; (2) graduation at the end of the semester in question; and (3) honorable dismissal.

MILITARY TRAINING

Instruction is offered in military and air science and tactics in accordance with the requirements stipulated by Congress in legislation relating to land-grant colleges. The first two years of courses in military or air science must be taken by every male student who is an American citizen, who meets the required physical standards, whose twenty-third birthday has not passed at the time of enrollment in the University, who (1) is a freshman or sophomore, or (2) is an unclassified student carrying more than 11 credit hours of work and having fewer than 60 college credits. An alien, or student not physically qualified, may register for the basic courses at his own expense with the consent of the department chairman. Students who have satisfactorily completed three years of training in the Junior Division may be excused from the first year; veterans with more than six months of military service may be excused from part or all of the first year by the dean of a college upon the recommendation of the department chairman; and veterans with more than one year of service may receive credit for the basic courses. However, all such students should clarify their status with the Military or Air Science Department prior to their first registration in the University.

Training in the advanced courses is optional for selected juniors and seniors who have completed or received credit for the basic courses, provided the number of such students does not exceed the quotas authorized by the Departments of the Army or Air Force. Students must be enrolled for 12 or more semester hours in order to take advanced military training. Completion of the advanced courses leads to a Reserve commission in the Army or Air Force.

Advanced students and certain selected freshmen and sophomores are given Selective Service deferments within authorized quota limitations. Deferments are initially given in the second semester of the freshman year and remain in effect as long as the student is regularly enrolled (12 or more semester hours), is in good standing, and continues in military training.

THE UNIVERSITY EXTENSION DIVISION

The University Extension Division provides non-credit courses on and off the campus, and credit courses off the campus at times and places convenient for the persons thus served. It maintains university centers offering credit courses at Hickam Field and in downtown Honolulu. A program of correspondence courses carrying university extension credit is made available to those who cannot attend classes.

Admission to the University of Hawaii Hickam and downtown Centers for credit is governed by University admission requirements (see pp. 37-40), and residence credit is granted for work completed at these centers.

The same admission rules apply to correspondence courses for credit. Credits gained in University of Hawaii correspondence courses may be applied toward the
bachelor's degree, but not more than 25 per cent of the total credits required for the degree may be in correspondence courses; such credits are not counted as fulfilling residence requirements. Credits earned in correspondence courses will be accepted by mainland universities which accept the credits of member institutions of the National University Extension Association.

Non-credit courses are open to all adults who have had the equivalent of a high school education.

Announcements of courses and other forms of service are issued from time to time.

HEALTH, PHYSICAL EDUCATION, AND SPORTS

The University expects every student to safeguard his health and offers certain aids toward that end. Before entering the University, every new student must have a medical examination by a licensed physician. The student makes his own arrangements and pays the physician. The University provides a form for the physician to use in reporting the examination. If subsequent examinations are needed, the University makes them in its dispensary without cost to the student.

All students are required to have yearly chest X-ray examinations. These are provided free-of-charge by the mobile unit of the Department of Health. Failure to comply with this requirement precludes registration for the following semester.

At the dispensary a registered nurse is on duty throughout the day and a physician during certain hours. First-aid service is available to students suffering from minor ills and injuries; no charge is made for this service and no responsibility is assumed by the University. Any student who needs medical attention beyond that which the University can reasonably give should make his own arrangements with a physician.

The University also offers instruction in health and conducts a program of recreation and sports designed to promote the health of students. Freshman and sophomore men and women under 25 years of age who are registered for 12 or more semester hours of academic work must take at least one credit hour in Health and Physical Education courses each semester (see "Health and Physical Education" under "Courses of Instruction"). All students are required to take Health and Physical Education 130, Personal Hygiene.

A student enrolled in a required course in Health and Physical Education and also participating in a varsity sport may be excused from attendance at the Health and Physical Education class during the season of that sport, if the course requirements have been met.

Intramural sports are planned with a view to serving the Health and Physical Education Department and to supplementing the regular courses offered.

Varsity sports are conducted independently of the activities of the Health and Physical Education Department. They are governed by a Board of Athletic Control composed of 11 members: three faculty members appointed by the President; three alumni members appointed by the Governing Board of the Alumni Association; three students—The President of the ASUH, and one senior and one junior appointed by the President of the ASUH, with approval of the Student Council;
Scholarship aid is provided through appropriations by the Territorial Legislature and contributions from private organizations. A few scholarships are supported by endowment funds. Awards are based, in general, on (1) character, (2) scholastic ability and achievement, and (3) financial need.

The period covered by awards is usually one year, the chief exception being in the case of the Territorial Scholarships which cover four years. The granting of a scholarship implies that the recipient is expected to carry a regular load of college work with success. Any award may be withdrawn at the close of any semester in case a satisfactory academic record is not maintained.

The chief kind of aid for entering freshmen consists of the Territorial Scholarships described below. For freshmen students there are few other scholarships available. However, several community organizations provide scholarships for deserving local students who wish to enter the University. Full information about scholarships offered by the University for entering freshmen is sent to the principals of all local high schools during the spring.

For undergraduate students of sophomore rank or above, numerous scholarships are available. Information may be obtained from the chairman of the Scholarship Committee.

Prospective graduate students who need financial assistance should communicate with the Dean of the Graduate School, who will give information concerning aid which can be offered.

For students from abroad, the University Board of Regents has provided a limited number of tuition scholarships, which have the value of $200 each. Requests for such aid will be considered only after admission to the University has been granted. Students should communicate with the Director of Admissions, presenting a full, clear statement in regard to (1) financial need and (2) the method whereby the period of study at the University will be financed.

The Standard Oil Company of California provides a grant of $500 to an outstanding student in each of the four classes. Information may be obtained from the Scholarship Committee.
The Sears Roebuck Foundation grants four $500 scholarships in general agriculture. These scholarships are administered by a committee of five—three representing the College of Agriculture and two the University Scholarship Committee.

The Kekaha Sugar Company offers a four-year scholarship of $250 a year to a young man whose family is connected with the company. Information may be obtained from the chairman of the Scholarship Committee or from the company.

The following scholarships are currently offered:

**Territorial Scholarships**—Six scholarships of $120 each, awarded annually to entering freshmen; one scholarship given to a resident of each representative district in Hawaii; held four years, provided that beneficiary maintains a satisfactory record of work on the campus; supported by the Territorial Legislature.

**Other scholarships administered by the Scholarship Committee**—Architectural (sponsored by the Hawaii Chapter, American Institute of Architects); Chinese Community; Lvoa Parmalee Dean (sponsored by the Women's Campus Club); Alonzo Gartley (in agriculture); Hawaiian Junior Chamber of Commerce; Kenji Yamaguma Memorial Scholarship; Korean University Club; Ruth C. Spaulding Memorial (sponsored by the Women's League of Central Union Church); Stephen Spaulding; Teachers College Club; United Chinese Society; Alex C. Rattray (sponsored by the Hawaii Chapter of the National Association of Cost Accountants).

**Scholarships administered by private organizations, with assistance from the University Scholarship Committee**—Associated Chinese University Women; Chinese Women's Club; City Mill Company; Wallace Rider Farrington (for graduates of Wallace Rider Farrington High School, sponsored by the Honolulu Star-Bulletin); Hawaii Congress of Parents and Teachers, Inc.; Hawaiian Pineapple Company; Kameha High School Alumni Association; Retail Board of the Chamber of Commerce of Honolulu; Te Chih Sheh; Yang Chung Hui, Western Pacific Teachers' Scholarships (sponsored by the Zonta Club of Honolulu); the Honolulu Japanese Chamber of Commerce scholarship; Soroptimist Club Scholarship.

**Scholarships administered entirely by private organizations** (list of independent awards concerning which the Scholarship Committee has no direct information)—"Chu" Baldwin Memorial (sponsored by Puunene Community Association); Elks (the Benevolent and Protective Order of Elks, Lodge No. 616, of Honolulu); Hawaii Federation Young Buddhists Association; Hui Makaala; Hui O Na Wahine (Officers' Wives Organization of Schofield Barracks); Jack Johnson Memorial Scholarship; Pacific Fellowship (sponsored by the American Association of University Women); Easy Appliance Company; Luz-Vi-Min-Club of Maui; Maui A.J.A. Veterans Club; Chinese University Club; Kalihi U-Drive Company; Wahiawa Chamber of Commerce; Pilot Club; Buddhist Fellowship Society; Hui Hanalike; Leeward Oahu Lions Club; Honolulu Community Chest; YWCA; Honolulu Chapter, National Foundation of Infantile Paralysis.

General inquiries should be addressed to the Chairman of the Scholarship Committee, University of Hawaii, Honolulu 14, Hawaii.
ACADEMIC INFORMATION

LOAN FUNDS

Through the generosity of various organizations and individuals, certain funds have been provided from which students may borrow—either in small amounts to meet emergencies or in larger sums in order to defer part of the payment of tuition costs until after graduation. A student wishing to make use of these funds should consult the Dean of Student Personnel with respect to the proper procedure for application and the conditions under which the various loans are granted. Loan funds include the following:

- Alumni Fund—Molokai Chapter
- Chinese Students' Alliance Fund
- Commerce Club Fund
- Dr. Ruth Alexander Student Fund
- Edgar Wood Memorial Fund
- Future Farmers of America, Uniwai Chapter Fund
- Helen Strong Carter Dental Fund
- Honolulu Civic Association Fund
- Inez Wheeler-Westgate Fund
- Japanese Students' Alliance Fund
- Louise S. Jessen Memorial Fund
- Mary L. Kelsey Fund
- Minnesota Club Fund
- Moir-Ross Health Fund
- N. G. B. Fund
- Representatives Club Fund
- Senior Class Fund
- Student Fund of Teachers College

PRIZES AND AWARDS

DEAN PRIZE FOR UNDERGRADUATE RESEARCH. In 1927 the faculty of the University, in honor of Dr. Arthur Lyman Dean, resigning President, established the Dean Prize Fund, the proceeds to be used in stimulating interest in undergraduate research. Any senior in the University may compete for this prize of not less than $25 nor more than $50 each year by presenting to the Dean Prize Committee a thesis in which he reports fully upon his research in any field of intellectual endeavor. The committee, appointed by the President, selects the thesis which in its judgment is the best example of originality, independence, logic, and form of presentation. The winning paper is placed in the Hawaiian Room of the Library.

BANKS MEMORIAL PRIZE. The Charles Eugene Banks Memorial Prize, the income from a $500 endowment, is awarded each year to the student whose manuscript is judged to be the best received in a creative writing contest.

HAWAIIAN SECTION OF THE AMERICAN CHEMICAL SOCIETY PRIZE. A one-year student membership in the American Chemical Society is awarded each year to the most outstanding senior majoring in chemistry. The name of the winner is engraved on a bronze plaque in Gartley Hall.

PHI BETA KAPPA RECOGNITION AWARD. This is an award made by the Phi Beta Kappa Association of Hawaii in recognition of high scholastic standing among seniors.

PHI KAPPA PHI PRIZE. The Hawaii chapter of Phi Kappa Phi honor society awards a $20 cash prize to the senior who graduates with the highest scholastic record in his class.
CARL F. KNOBLOCH PRIZE IN GOVERNMENT. Awarded to an outstanding student in government.

BEST SOLDIER AWARDS. The Honolulu Star-Bulletin sponsors an annual award in which two gold medals are presented to cadets of the first-year basic course of the Reserve Officers’ Training Corps, one to the outstanding Army cadet and one to the outstanding Air Force cadet. Judgment is based on scholastic standing in military or air science as well as leadership.

REAL DEANS AWARDS OF HONOR. The Associated Students of the University of Hawaii annually awards medals to students who, in the opinion of fellow students, have given time and effort willingly, untiringly, and without thought of reward to the promotion of ASUH activities.

BERNDT PRIZES FOR EXTEMPORANEOUS PUBLIC SPEAKING. The Associated Students of the University of Hawaii annually awards medals to the students judged best in an extemporaneous speaking contest.

UNIVERSITY ORATORY PRIZES. The Associated Students of the University of Hawaii annually awards medals to the students judged best in an oratorical competition.

THEATRE GROUP AWARDS. The Theatre Group Council annually awards pins to those graduating seniors who have been most valuable to the Theatre Group.

WARRIOR OF THE PACIFIC TROPHY. Since 1928 the United States Department of the Army has supervised an annual rifle marksmanship competition among Reserve Officers’ Training Corps infantry units in American universities and colleges for the possession of a bronze statuette of a native Hawaiian soldier. Residents of Hawaii offered the trophy for the competition.

HAWAIIAN PINEAPPLE COMPANY SUMMER TRAVEL AWARD. An annual award, for two juniors in home economics, based on scholarship, extracurricular activities, and ability. It provides a trip to the American Home Economics Convention, where the students assist with the Hawaiian Pineapple Company’s exhibit, and visit various educational institutions and commercial establishments employing home economists.

DANFORTH SUMMER FELLOWSHIP AWARDS. Awards by the Danforth Foundation and Ralston Purina Company of St. Louis, Missouri, for an outstanding junior in agriculture and an outstanding junior in home economics. Transportation is provided from San Francisco to St. Louis. Representatives of 48 state universities spend two weeks in classes at the Ralston Plant, and two weeks in leadership training at the American Youth Foundation, Shelby, Michigan.

MAJOR JOHN A. JOHNSON MEMORIAL AWARD. An annual award to the Army ROTC student with the best scholastic record at the end of the sophomore year who is approved for advanced training.

CAPTAIN H. GAYLORD DILLINGHAM MEMORIAL AWARD. An annual award to the Air Force ROTC student with the best scholastic record at the end of the sophomore year who is approved for advanced training.
HONORS

HAWAIIAN BOTANICAL SOCIETY AWARD. An annual award to a senior student, customarily $25, on the basis of a thesis on an announced topic in theoretical or applied botany.

HONORS

Honors may be granted at graduation to undergraduates who have a grade-point average of 3.4 or above for their undergraduate work. At least 60 semester hours of the work for such honor students must have been obtained at the University during a period not exceeding six years before graduation.

Shortly after the close of each semester the Dean's List gives the names of all full-time undergraduate students who achieved a grade-point average of 3.5 or above for the preceding semester.

In addition the University has campus chapters of five national honorary societies—Phi Beta Kappa (Liberal Arts), Phi Kappa Phi (General Scholarship), Sigma Xi (Sciences), Pi Gamma Mu (Social Sciences); Phi Delta Kappa (Education).
Student Activities and Housing

The Associated Students of the University of Hawaii is a self-governing organization whose major objective is to promote and direct undergraduate extracurricular student activities and to cooperate with the University administration in student affairs. Its members include all regular students who pay ASUH fees. An elected council directs its activities. The ASUH Handbook describes the organization and functions in detail.

Among the activities in which the ASUH engages are athletics (football, baseball, track, basketball, swimming, and minor sports), debating, dramatics, a semi-weekly newspaper (Ka Leo o Hawaii), and a yearbook (Ka Palapala).

Ka Leo o Hawaii and Ka Palapala are integral parts of the curriculum in journalism and are to be regarded as workshops for students enrolled in English 120-121 (Newswriting) and English 222-223 (Publishing and Editing). Students are not eligible for positions on the editorial staffs of student publications unless they are taking or have taken at least one of the regular courses in journalism.

The University of Hawaii Theatre Group presents each year plays which give opportunities for participation and study to the maximum number of interested students.

All regular students of the University are eligible to try out for membership in the music organizations. Tryouts for the A Cappella Choir, Chorus, University Band, Orchestra, and vocal and instrumental ensembles are conducted at the beginning of each school year, and at other times by special appointment.

Student societies include some 60 scholastic, honorary, professional, religious, and social organizations.

The staff of the Office of Student Personnel assists students with such personal problems as residence, health, part-time employment, scholastic progress, social life, vocational guidance, and finance. In cooperation with the University Treasurer, arrangements are made for loans to students in good standing.

It also offers educational, vocational, and personal counseling and gives aptitude, interest, and other psychological tests as well as tests required by other institutions.

LIVING ACCOMMODATIONS AND EXPENSES

Limited housing and eating facilities are maintained on the campus. The University cafeteria serves three meals a day, six days a week, at an average cost of $2.00 per day. The Snack Bar is open during the school day for light refreshments.

CAMPUS HOUSING

WOMEN'S RESIDENCE HALL. The Hall has accommodations for 144 women. The rooms are attractively furnished, and each room has a large picture window
with a view of either the Koolau Mountains or Diamond Head. All rooms are double but arrangements may be made for single accommodations if space is available. Rent is $90.00 per semester, and $45.00 for the Summer Session. A Snack Bar operates during the early morning and evening hours.

HALE LAULIMA. This is a co-operative dormitory which houses 27 women in double rooms. Residents assist in the cooking and housekeeping. It is reserved for Island girls, and assignments are based largely on financial need. Rent is $75.00 per semester. On school days only breakfast and dinner are served. Living expenses approximate $55.00 per month.

MEN'S HOUSING BARRACKS. These are converted army barracks with accommodations for 65 men in small single rooms. Showers, washroom, and lounge facilities are in separate adjacent buildings. Rent is $40.00 per semester.

There are no housing facilities on the campus for married students.

Requests for assignment to University dormitories should be addressed to the Office of Student Residences, Administration 126, University of Hawaii, Honolulu 14, Hawaii.

ATHERTON HOUSE, a YMCA dormitory adjoining the campus, houses 68 men. Inquiries should be addressed to the Director, Charles Atherton House, 1810 University Avenue, Honolulu 14, Hawaii.

OFF-CAMPUS HOUSING

To supplement campus housing, the University maintains a file of off-campus dormitories, rooming houses, single rooms in private homes, and apartments. The Office of Housing and Part-time Employment gives all possible assistance in locating suitable accommodations.

EXPENSES

Minimum expenses of the average student are estimated at from $800 to $1200 a year for board, room, tuition, registration, course fees, class and student body fees, and books. These estimates do not include the cost of clothing, laundry, transportation, and other personal items. Students from outside the Territory should add the cost of transportation to and from Hawaii and additional items for adjustments in a new community. Some students earn part of their expenses by working for room and board in Honolulu homes and on other part-time jobs.

For further information on either off-campus housing or part-time employment, address the Counselor for Student Housing and Part-time Employment, Administration 130, University of Hawaii, Honolulu 14, Hawaii.
The College of Arts and Sciences is dedicated to the task of giving to its students a general education that will have breadth as well as depth. It moves in the liberal arts tradition and attempts to give a comprehensive acquaintance with the thought and achievement basic to our civilization. Its courses are directed toward the development in students of ideals, interests, and attitudes characteristic of cultured people. They attempt to develop the ability to think clearly and to act upon conviction.

Preprofessional training for such activities as dentistry, medicine, law, social work, and public administration is also provided by stipulated combinations of courses. All of the four-year programs lead either to the Bachelor of Arts or the Bachelor of Fine Arts (in Art) degree.

Its geographical position midway between continental America and the Far East makes Hawaii more than ordinarily conscious of the increasing importance of the Orient in world affairs and thinking. Therefore, it is logical that more than usual attention is given to the history, languages, literature, art, and philosophy of the major Asiatic countries and the peoples of the Pacific area.

ADMISSION

Admission requirements, except for the premedical and predental programs, are the same as those for admission to the University as a whole. (See pp. 37-40.)

Each freshman in the College is admitted, for lower division classification purposes, to one of the following groups, the selection depending upon his interests: Social Sciences; Languages, Literature, and Art; Biological and Physical Sciences.

DEGREE REQUIREMENTS

To be entitled to the Bachelor of Arts or Bachelor of Fine Arts degree from this College a student must:

1. Meet certain basic requirements of the first two years.
2. Complete a major field of study as outlined by the major department.
3. Have at least 50 semester hours of credit in other than introductory courses.
4. Have an aggregate of at least 130 semester hours of credit.
5. Have a 2.0 grade-point ratio for all registered credits. (See “Undergraduate Degree Requirements.”)

CURRICULA

The curricula of the College of Arts and Sciences are built around the major fields of concentration. All students must meet the basic requirements of the first two years, and complete a major, with related courses, during the last two years. These requirements, with the necessary electives, constitute a curriculum in each
A major consists of 24 to 36 semester hours in some one field of concentration. Related courses (generally upper division) are courses in other departments which are associated with and contribute to the major. They are not counted in the total number of hours required for the major. Twelve semester hours is the maximum which any department may require in related courses. The major must be indicated by the beginning of the third year.

### BASIC REQUIREMENTS

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<thead>
<tr>
<th>FIRST YEAR</th>
<th>SECOND YEAR</th>
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<tbody>
<tr>
<td>English 100 or 101</td>
<td>English 150</td>
</tr>
<tr>
<td>Foreign language (BA only)</td>
<td>Foreign language (BA only)</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 101, 102, or 105, 106</td>
<td>Government 150</td>
</tr>
<tr>
<td>History 100</td>
<td>Health &amp; Phys. Ed. 103 or 107 or 130</td>
</tr>
<tr>
<td>MS 100 or AS 102</td>
<td>History 110</td>
</tr>
<tr>
<td>Science</td>
<td>MS 150 or 151 or AS 152</td>
</tr>
<tr>
<td>Speech 100</td>
<td>Speech (as required)</td>
</tr>
</tbody>
</table>

(The BFA curriculum requires some changes of sequence in order to allow for more Art courses in the first two years.)

In addition, six of the following must be completed: Anthropology 150 or 160, Art 140, Drama 140, Economics 140 or 150, Mathematics 150 or 151, Music 110, Philosophy 100 or 150, Psychology 150, Religion 150 or 151, Sociology 151 or 161.

A number of these basic requirements may be anticipated in the secondary school program. Entering freshmen who have had four years of a single language are excused from the foreign language requirement, and those in the Social Sciences, and Languages, Literature, and Art, who have had three years of science in the senior high school may be excused from the science requirement. Qualified students, upon reporting to the Admissions Office, may also take an examination in American history to satisfy the requirement of History 110.

For students in the Social Sciences and Languages, Literature, and Art, who must take a year of science, the requirement may be satisfied by six to eight credits from the following courses: Botany 100, Chemistry 103, Entomology 170, Geography 150, Geology 150, 151, 152-153, Physics 102, Psychology 150, Zoology 100 or 110, or Survey 100. If Survey is elected, the whole year should be taken.

### MAJORS

The following list indicates the departments in which students may major and the requirements for the major, viz., the total number of semester hours required and the specific courses in the department.

**Anthropology.** *Major requirement:* 27 semester hours. *Required courses:* Anthropology 150 or 160, Sociology 151 or 161, and an even distribution between regional courses (250 to 260) and topical courses (265 to 275).

**Art.** *Major requirement:* 36 semester hours. *Required courses:* Art 150-151; 154-155, at least 12 hours in approved Art history courses, and others as needed.
to complete one of the divisions—Drawing and Painting, Applied Design, Ceramics, Advertising Art, History of Art, Weaving.


**Botany.** Major requirement: 24 semester hours. Required courses: Botany 100, 201, 269, 279, 283.

**Chemistry.** Major requirement: 36 semester hours. Required courses: Chemistry 103, 149, 150, 230, 255. In addition, Mathematics 153, 154, Physics 102 or 104, and a reading knowledge of scientific German are required.

**Chinese.** Major requirement: 30 semester hours. Required courses: Chinese 100, 101, 200, 293-294, History 225.

**Drama and Theatre.** Major requirement: 27 semester hours. Required courses: Drama 150-151; 6 hours from 220-221, 230-231, 240, and 245; 6 hours from 250, 260, and 265; 6 hours in dramatic literature; 3 hours in phonetics, interpretation, radio, or playwriting.

**Economics.** Major requirement: 33 semester hours. Six hours from the following courses in Business may be counted toward the major: 261, 263, 265, 266, 267, 270, 282, 287. Required courses: Economics 150-151, 256, 296.

**English.** Major requirement: 24 semester hours of upper division courses. Required courses: 9 hours in "periods" of literature, 6 hours in single authors, 3 hours in American literature, 6 hours in the English language, writing, and criticism. The language requirement should be met by an ancient or modern European language.

**Entomology.** Major requirement: 30 semester hours. Required courses: Zoology 100, 170, 254, 255, 273, 298.

**French.** Major requirement: 26 semester hours. Required courses: French 100, 101, 201, 250, 270.

**Geography.** Major requirement: 27 semester hours. Required courses: Geography 150, 240, three continental courses, and one systematic course.

**German.** Major requirement: 30 semester hours. Required courses: German 100, 101, 200, 201.

**Government.** Major requirement: 27 semester hours. Required courses: Government 150, 260, 282, 290; for Public Administration, Government 248, 283, 284, and 288 are also required.

**History.** Major requirement: 24 semester hours of upper division courses. Required courses: 9 hours from each of two of the three fields—United States, Pacific and Far East, European.

Mathematics. Major requirement: 27 semester hours. Required courses: Mathematics 151, 152, 153, 154, 155, and at least 9 hours in upper division courses.


Psychology. Major requirement: 28 semester hours. Required courses: Psychology 150, 260, 264 or 267, 275, 295. Courses in Mathematics and Science are recommended.


Sociology. Major requirement: 24 semester hours. Required courses: Sociology 151, 282, and one each from the following two groups: 268, 270, 271; 269, 272, 273.


Speech. Major requirement: 30 semester hours. Required courses: Speech 150, 201, 220, 221 (first semester), 228, plus 3 hours in theatre and 3 hours in radio.

Zoology. Major requirement: 30 semester hours. Required courses: Zoology 100, 151, 261, 291, 298.

PREPROFESSIONAL PREPARATION

The following programs are recommended as offering desirable preprofessional preparation in the various fields. They are suggested rather than required, as variations are often necessary in order to meet the needs of certain students or the wishes of certain professional schools.

PRELEGAL PROGRAM

Most reputable law schools require a bachelor's degree for entrance. They do not specify major fields to be covered, but in general prefer a well-rounded background with a major in economics, English literature, government, history, philosophy, psychology, or sociology. A mastery of elementary logic and mathematics, together with a good grasp of scientific principles, is considered desirable; work in elementary accounting is strongly advised; but increasingly it is being stated that the best prelegal training consists of a thorough grounding in the social sciences and humanities together with extensive practice in the arts of oral and written communication.
Basic requirements of the first two years, regardless of the chosen major, are the same. Because of apparent law school preference, Chemistry 103 is suggested for the science requirement, and either French or German for the language. The work of the last two years, aside from the major, is largely elective, but the following courses are especially recommended: Business 150-151; Economics 256, 261; Government 282; History 211, 262; Psychology 250, 295; Speech 150-151.

PREMEDICAL AND PREDENTAL PROGRAMS

There are no medical or dental schools in Hawaii.

Premedical and Predental students should apply for entrance to the College of Arts and Sciences if they intend to enter a professional school later. Their programs during the first two years should include the requirements of the American Medical Association or the American Dental Association, but they are encouraged to secure as broad an acquaintance with the humanities and social sciences as possible. They should in no case evade regular college requirements on the assumption that they will be admitted to a professional school.

Although professional schools generally have adopted the entrance requirements recommended by their respective associations, there is considerable variation between schools in curriculum arrangement. Each prospective student should inform himself of the requirements of the institution in which he hopes to enroll.

AMERICAN MEDICAL ASSOCIATION ENTRANCE REQUIREMENTS

Preparatory School. A minimum of 15 units, of which at least three must be in English, two in some one foreign language, two in algebra, one in geometry, and one in history.

University. A minimum of 60 credit hours as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
<th>University of Hawaii Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>15</td>
<td>Chemistry 103, 149 (4 credits), 230 (4 credits)</td>
</tr>
<tr>
<td>Physics</td>
<td>8</td>
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<tr>
<td>Biology</td>
<td>10</td>
<td>Zoology 100, 151, 261</td>
</tr>
<tr>
<td>English Composition</td>
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<td>English 101</td>
</tr>
<tr>
<td>French, German, or Spanish</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>45</strong></td>
<td></td>
</tr>
</tbody>
</table>

Fifteen semester hours of electives from the following fields: botany, chemistry, economics, English, history, mathematics, psychology, sociology, and zoology.

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* A majority of medical schools now require 90 credit hours and give preference to applicants with a bachelor's degree.
AMERICAN DENTAL ASSOCIATION REQUIREMENTS

The Council of Dental Education has established the following minimum list of requirements for admission to approved dental schools:

**University of Hawaii Equivalent**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<tr>
<td>Physics 102</td>
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<tr>
<td>Zoology 100, 151</td>
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</tr>
<tr>
<td>English 101</td>
<td></td>
</tr>
</tbody>
</table>

At least 90 credit hours are required.

PREMINISTERIAL PROGRAM

Accredited schools for ministers and directors of religious education require a bachelor's degree for entrance. They prefer a student to come to them with a well-rounded background. A major in Religion itself is advised only where a student's background is particularly weak in Christian training. Majors in English, History, Philosophy, Sociology, or Psychology are almost equally helpful.

A preministerial student by his Junior year should confer with the Director of the Hawaii School of Religion, which is affiliated with the University of Hawaii. He should also seek to meet the basic requirements recommended by the American Association of Theological Schools and examine the catalogues of the graduate schools he is considering attending.

PUBLIC ADMINISTRATION PROGRAM

Students expecting to enter the field of public administration major in government and follow the program in public administration. They must complete 27 semester hours in government in order to qualify for the Bachelor of Arts degree. (See p. 58.)

In order to insure an adequate background of preparation, certain courses in government are required and others strongly recommended. Required courses: Government 150, 248, 260, 282, 283, 284, 288, 290. Recommended courses: Government 252, 254, 256; Economics 261, 265, 270, 283; English 210; and a course in statistical methods.

Source materials in public administration are available in the University Library, and a working library, somewhat more special in character, is maintained by the Legislative Reference Bureau. It is expected that students in public administration will make frequent use of the Bureau's facilities for study and research.

Enrollment in Government 288 is limited to seniors registered in the public administration program. Research in this course is conducted in cooperation with the Legislative Reference Bureau, and students are expected to engage in individual projects as well as to cooperate in a class project.
Enrollment in the public administration program is open to persons engaged in public service who are desirous of training in public administration, and who are able to satisfy University admission requirements. The courses of the program are given in the late afternoon and early evening in the downtown Center and carry residence credit.

**PRESOCIAL WORK PROGRAM**

Students who plan to enter the School of Social Work (see p. 94) may major in any of the social sciences. They must have a minimum of 30 semester hours in social science, with 6 semester hours each from Economics, Government, Psychology, and Sociology. In addition to the introductory course, advanced courses may be chosen from the following: Economics 261, 281, 282, 283; Government 256, 282, 283; Psychology 185, 260, 264, 280, 290, 292, 295; Sociology 255, 256, 264, 267, 269, 280, 282. In addition, Social Work 200 must be taken in the junior or senior year.

Biological science should be elected to satisfy the lower division science requirement.

Intention of preparing for social work should be indicated by the beginning of the third year.
College of Applied Science

The College of Applied Science offers curricula in Engineering, Medical Technology, Nursing, and Recreation Leadership. These curricula lead to the degree of Bachelor of Science. The first two years of an architectural program are offered.

ADMISSION

Some of the programs of this College require special preparation in addition to the requirements for admission to the University as a whole (pp. 37-40). Students who are lacking in this required special preparation are unable to follow the regular programs and usually need more than four years to complete the degree requirements.

DEGREE REQUIREMENTS

In order to be eligible for the Bachelor of Science degree from this College a student must:

1. Complete the course requirements of a curriculum.
2. Have an aggregate of at least 130 semester hours of credit.
3. Have a 2.0 grade-point ratio for all registered credits. (See "Undergraduate Degree Requirements.")

ENGINEERING CURRICULUM

The Engineering curriculum is designed to give training in the fundamental principles upon which professional engineering practice is based.

During the first two years the general plan provides a broad foundation in English, mathematics, chemistry, physics, and mechanical drawing. The work of the last two years is more technical and professional.

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>FIRST YEAR</th>
<th>SECOND SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SEMESTER</td>
<td>HOURS</td>
</tr>
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<td>1</td>
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</tr>
<tr>
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</tr>
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</tr>
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<td>Mechanical Drawing 152</td>
</tr>
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<td>MS 100 or AS 102</td>
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Total ______________________ 18
**SUMMER SESSION**

Civil Engineering 227—3 semester hours

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Year</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td><strong>Semester Hours</strong></td>
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</tr>
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<td>18</td>
<td><strong>Total</strong></td>
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</table>

| **SUMMER SESSION**             |                              |                                  |
| Civil Engineering 227—3 semester hours |

| **THIRD YEAR**                 |                              |                                  |
| Civil Engineering 252          | 3                            | Civil Engineering 253            |
| Civil Engineering 255          | 4                            | Civil Engineering 276            |
| Economics 140                  | 3                            | Mechanical Engineering 203       |
| English 210                    | 3                            | Elective                         |
| Mechanical Engineering 202     | 2                            |                                  |
| Elective                       | 3                            |                                  |
| **Total**                      | 18                           | **Total**                        |

| **FOURTH YEAR**                |                              |                                  |
| Civil Engineering 228          | 3                            | Civil Engineering 229            |
| Civil Engineering 257          | 3                            | Civil Engineering 277            |
| Civil Engineering 278          | 3                            | Civil Engineering 280            |
| Civil Engineering 279          | 3                            | Civil Engineering 291            |
| Physics 202                    | 3                            | Physics 202                      |
| Elective                       | 3                            | Elective                         |
| **Total**                      | 18                           | **Total**                        |

**RECOMMENDED ELECTIVES**

*Group 1.* Anthropology 150, Geography 150, 151, Government 150, History 100 (year course), Language (year course), Military Science 200, 201, or Air Science 202, 203, Music 110, Philosophy 100, 150, Psychology 156, Sociology 151, Speech 150. One required. One additional unrestricted elective.

PREARCHITECTURAL PROGRAM

Students intending to take a degree in architecture must transfer to another institution at the beginning of the junior year. The second year of this program may be modified to fit the requirements of any school to which the student intends to transfer.

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<th>FIRST SEMESTER</th>
<th>FIRST YEAR</th>
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<td>SEMESTER</td>
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<td>HOURS</td>
<td>HOURS</td>
<td>HOURS</td>
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<td>Mathematics 152</td>
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<td><strong>Total</strong></td>
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<tr>
<th>SECOND YEAR</th>
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<tbody>
<tr>
<td>Architectural Engineering 103</td>
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<td>Architectural Engineering 153</td>
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<td>English 155</td>
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<tr>
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<td><strong>Total</strong></td>
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<tr>
<td>FIRST SEMESTER</td>
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<tr>
<td>----------------</td>
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<tr>
<td></td>
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<tr>
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</tr>
<tr>
<td>Chemistry 103</td>
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<td>English 100 or 101</td>
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<td>MS 100 or AS 102</td>
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<tr>
<td>Speech 100</td>
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<tr>
<td>Zoology 100</td>
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<tbody>
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<thead>
<tr>
<th>SUMMER SESSION</th>
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<tbody>
<tr>
<td>Medical Technology 266—4 semester hours</td>
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<table>
<thead>
<tr>
<th>FOURTH YEAR</th>
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<tbody>
<tr>
<td>Medical Technology 267</td>
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</tr>
</tbody>
</table>
SCHOOL OF NURSING

The basic nursing degree program combines academic and professional courses with practice and requires four academic years and three 10-week summer sessions. It is intended to prepare young men and women for competent preventive and bedside nursing in any field of nursing, including public health nursing, and to provide a sound foundation in preparation for supervision, teaching, and administration in nursing.

CURRICULUM LEADING TO DEGREE OF BACHELOR OF SCIENCE

FIRST SEMESTER

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<tr>
<th>COURSE</th>
<th>SEMESTER</th>
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<td>Nursing 105</td>
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<td>Speech 100</td>
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Total: 15

SECOND SEMESTER

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<tr>
<td>English 101</td>
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<tr>
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<tr>
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<tr>
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SUMMER SESSION

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Total: 6

SECOND YEAR

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<td>Nursing 115</td>
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<td>Psychology 156</td>
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<tr>
<td>Health &amp; Phys. Ed.</td>
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<td>1</td>
</tr>
<tr>
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<td>3</td>
<td>3</td>
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<tr>
<td>Household Science 157</td>
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<tr>
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<td>8</td>
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<tr>
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SUMMER SESSION

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<tr>
<td>Nursing 210</td>
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Total: 8
CURRICULA FOR REGISTERED PROFESSIONAL NURSES

Two programs are offered for registered professional nurses.

In addition to the regular University entrance requirements, admission to these nursing curricula requires: (1) graduation from a school of nursing approved by the University; (2) registration as a nurse; (3) personal and professional fitness for advanced nursing positions as shown by credentials, interviews, and tests; and (4) good health as evidenced by a physical examination satisfactory to the University of Hawaii.

PUBLIC HEALTH NURSING

This program is designed to prepare registered professional nurses for positions in public health nursing. Admission to the fourth year must be approved by a special committee on selection.

FIRST YEAR

Graduates of approved schools of nursing are allowed at least 30 semester hours' credit and enter the second year of the curriculum if they have had no previous university work. Qualified applicants may enter the fourth year of the program.
## FIRST SEMESTER

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<td>Anthropology 150</td>
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<tr>
<td>Education 250</td>
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<tr>
<td>English 101</td>
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<tr>
<td>Psychology 150</td>
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</tr>
<tr>
<td>Speech (as required)</td>
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**Total:** 16

## SECOND YEAR

<table>
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<tr>
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<tbody>
<tr>
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<td>English 101</td>
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<tr>
<td>Health &amp; Phys. Ed. 130 or 107</td>
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</tr>
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<td>Psychology 250</td>
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**Total:** 17

## THIRD YEAR

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**Total:** 16

## FOURTH YEAR

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<td>Nursing 280</td>
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<tr>
<td>Nursing 282</td>
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<tr>
<td>Nursing 291</td>
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**Total:** 17

Prospective public health nurses are required to complete 10 credits in field work (Nursing 290) following the fourth-year program.

## NURSING EDUCATION

This program is designed to prepare registered professional nurses for positions in clinical and nursing arts instruction and for supervisory positions in schools of nursing.

### FIRST YEAR

Graduates of approved schools of nursing are allowed at least 30 semester hours' credit, and enter the second year of the curriculum if they have had no previous university work.
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<td>History 110</td>
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**RECREATION LEADERSHIP CURRICULUM**

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<td>Botany 160</td>
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<td>English 101</td>
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### First Semester

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<td>Health &amp; Phys. Ed. 140</td>
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<td>History 110</td>
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<td>MS 150 or 151 or AS 152</td>
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<td>Psychology 150</td>
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<td>Sociology 151</td>
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### Second Semester

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<td>Government 150</td>
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### Third Year

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<td>or 225 (for women)</td>
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<td>Health &amp; Phys. Ed. 221</td>
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<tr>
<td>Health &amp; Phys. Ed. 246</td>
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<tr>
<td>Health &amp; Phys. Ed. 250</td>
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<tr>
<td>Health &amp; Phys. Ed. 280</td>
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<td>Sociology 250</td>
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<td>Speech 150</td>
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<table>
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<tr>
<td>or 227 (for women)</td>
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<tr>
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</tr>
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<td>Health &amp; Phys. Ed. 246</td>
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<td>Health &amp; Phys. Ed. 250</td>
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<td>Health &amp; Phys. Ed. 285</td>
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<td>Speech 151</td>
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### Fourth Year

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<td>Health &amp; Phys. Ed. 252</td>
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<tr>
<td>Health &amp; Phys. Ed. 263</td>
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<td>Elective</td>
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<th>Course</th>
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<tbody>
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<td>Health &amp; Phys. Ed. 249</td>
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<tr>
<td>Health &amp; Phys. Ed. 252</td>
<td>5</td>
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<tr>
<td>Psychology 292</td>
<td>3</td>
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<td>Elective</td>
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<tr>
<td><strong>Total</strong></td>
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Four credits of the electives must be in Recreation activities, as approved by adviser.
Teachers College

The function of Teachers College is to prepare teachers for the public schools of Hawaii and to afford those already in service an opportunity to improve themselves professionally. Standard preparation for teaching positions in the public schools of the Territory requires four years of undergraduate work and a graduate year. The four-year program leads to the Bachelor of Education degree, and the year of graduate work to the five-year diploma. Admission to the fifth year requires a grade of "C" or better in practice teaching and professional preparation equivalent to that represented by the Bachelor of Education degree or the Bachelor of Science degree in Vocational Education. (See "Vocational Education."

ADMISSION

In addition to the general University admission requirements, students admitted to Teachers College must meet certain standards of college aptitude, scholarship, health, personality, and oral English.

DEGREE REQUIREMENTS

To be eligible for the Bachelor of Education degree, a student must:

1. Have an aggregate of at least 130 semester hours of credit.
2. Have a 2.0 grade-point ratio for all registered credits. (See "Undergraduate Degree Requirements."
3. Have met all University degree requirements.
4. Have met the course requirements specified for one of the Teachers College curricula.

FIVE-YEAR DIPLOMA REQUIREMENTS

To be eligible for the five-year diploma a student must:

1. Have the Bachelor of Education degree or its equivalent, including:
   a. directed teaching in amount and under conditions comparable to those provided in the University of Hawaii laboratory schools; and
   b. course background, both in general education and in professional education, comparable to the specific requirements of one of the curricula offered by Teachers College.
2. Have satisfactorily met the intern teaching and course requirements of the fifth-year curriculum offered by Teachers College.

PROFESSIONAL CERTIFICATE REQUIREMENTS

The standard certificate for public school teaching service in Hawaii is the professional certificate granted by the Department of Public Instruction. The
general requirement for this certificate is five years of college work, including practice teaching and other professional course experiences. In addition, the candidate must have met the specific course and curriculum requirements for the grade of certificate sought (e.g., preschool-primary, elementary, secondary).

Requirements for the professional certificate can be met as follows:

1. By fulfillment of requirements for the Teachers College five-year diploma; or
2. By earning 30 semester hours of credit after receiving the Bachelor of Education degree or its equivalent. Ten of these credits must be in Education courses designed primarily for graduate students, including Advanced Educational Psychology and Philosophy of Education.

Professional certificate (non-degree) candidates register in Teachers College; candidates for the Master of Education degree register in the Graduate School. (See p. 91.)

CURRICULA

The curricula in Preschool-Primary, Elementary, and Secondary education, with minor exceptions, are identical for the first two years, where the curriculum is designed to provide for a broad general background.

During the third year students are introduced to the professional information and background necessary for public school service. Differentiation appropriate to the selected curriculum (Preschool-Primary, Elementary, or Secondary) begins at this point.

The fourth-year program consists largely of professional education. One semester is devoted to practice teaching in the University laboratory schools, while the other provides necessary professional courses. One half of the students engage in practice teaching the first semester and take courses the second semester, while the other half reverses the order.

The program of the fifth year again becomes practically identical for all curricula, with intern teaching appointments being made at the appropriate level, and, in the case of prospective secondary school teachers, in the appropriate teaching fields. An alternation of supervised teaching and course work, similar to that in the senior year, is followed.

PRESCHOOL-PRIMARY, ELEMENTARY, AND SECONDARY CURRICULA

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### PRESCHOOL-PRIMARY CURRICULUM

#### THIRD YEAR

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#### FOURTH YEAR

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<tbody>
<tr>
<td>Education 261</td>
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### ELEMENTARY CURRICULUM

#### THIRD YEAR

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*Not required in Secondary curriculum.*
### TEACHERS COLLEGE

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#### FOURTH YEAR

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<tr>
<td>Education 246 or 257*</td>
<td>2 or 3</td>
</tr>
<tr>
<td>Elective**</td>
<td>10</td>
</tr>
<tr>
<td>Education 251</td>
<td>4</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 230</td>
<td>2</td>
</tr>
<tr>
<td>Elective**</td>
<td>6 or 7</td>
</tr>
</tbody>
</table>

Total: 17

#### SECONDARY CURRICULUM

##### THIRD YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 261</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 292</td>
<td>3</td>
</tr>
<tr>
<td>Speech 265</td>
<td>3</td>
</tr>
<tr>
<td>Elective**</td>
<td>7</td>
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</tbody>
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Total: 16

##### FOURTH YEAR

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Education 340</td>
<td>3</td>
</tr>
<tr>
<td>Education 354</td>
<td>14</td>
</tr>
<tr>
<td>Education 390</td>
<td>2</td>
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<tr>
<td>Psychology 351</td>
<td>3</td>
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<tr>
<td>Social Work 200†</td>
<td>3</td>
</tr>
<tr>
<td>Elective‡</td>
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Total: 16

##### FIFTH YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education 390</td>
<td>2</td>
</tr>
<tr>
<td>Psychology 351</td>
<td>3</td>
</tr>
<tr>
<td>Social Work 200†</td>
<td>3</td>
</tr>
<tr>
<td>Elective‡</td>
<td>5</td>
</tr>
</tbody>
</table>

Total: 16

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*For other teaching fields, appropriate methods courses will be substituted.
**As advised to meet teaching field concentrations.
†Not required in Elementary or Secondary curricula.
‡Must include two credits in graduate courses in Education.
LABORATORY SCHOOLS

Practical experience in teaching is given in Teachers College laboratory schools. These schools also serve as experimental laboratories. In order to insure a rich experience for the children enrolled and to set a high standard of achievement for the student teachers, conditions are made as nearly ideal as possible, with small classes, selected children, excellent quarters and equipment, and a strong supervising staff assisted by specialists in art, health, library science, physical education, music, and gardening.

Observation-participation experience in the third year and probationary or intern teaching in the fifth year are provided in selected public schools under the joint supervision of Teachers College and the Department of Public Instruction, and in the Preschool-Primary unit.

VOCATIONAL EDUCATION

Prospective vocational agriculture and home economics teachers obtain their undergraduate preparation in the College of Agriculture. (See "College of Agriculture.") Basic professional education courses and practice teaching are required. Selective standards, including those in English, used in Teachers College apply to prospective vocational teachers. Students in these divisions register in Teachers College secondary curriculum for the fifth (graduate) year. For the work of this year, see "Five-Year Diploma Requirements."

CERTIFICATION IN SCHOOL COUNSELING

The Department of Public Instruction grants certification in the area of School Guidance Counseling on three levels: Minor in Counseling; Provisional Certificate in Counseling; Professional Certificate in Counseling. Requirements for a Minor in Counseling include the Professional Teachers Certificate and certain courses especially pertinent to the area. Higher certification is dependent on specified experience and advanced courses. The undergraduate student interested in this area of teaching should confer with the Counselor Trainer before the beginning of the junior year.
College of Agriculture

The College of Agriculture prepares students for professional work in the fields of agriculture and home economics. In agriculture the student may secure basic training in the agricultural sciences or specialize in tropical crop production or vocational agriculture. A wide choice of electives permits the building of a program for special needs.

Four curricula are offered in home economics: General Home Economics, Institutional Management, Vocational Home Economics Teaching, and Foods and Nutrition.

All curricula in the College of Agriculture lead to the Bachelor of Science degree.

The College of Agriculture also includes the Hawaii Agricultural Experiment Station and the Cooperative Extension Service in Agriculture and Home Economics.

ADMISSION

The requirements for admission to this College are, in general, the same as those for admission to the University as a whole (pp. 37-40). Students who are lacking some of this required preparation are unable to follow the regular programs and usually need more than four years to complete the degree requirements.

DEGREE REQUIREMENTS

In order to be eligible for the Bachelor of Science degree from this College a student must:

1. Complete the course requirements of a curriculum.
2. Have an aggregate of at least 130 semester hours of credit.
3. Have a 2.0 grade-point ratio for all registered credits. (See “Undergraduate Degree Requirements.”)

Summer practice work in the area of major interest may be required if, in the opinion of the adviser, such experience is necessary for reasonable competence.

CURRICULA IN AGRICULTURE

The program in agriculture is designed to give the student a knowledge of the fundamental principles underlying agriculture as a science and to prepare him for effective service in practical farming, teaching of agriculture, or research. The program is broadly conceived to give a background in the biological and physical sciences, and in the social sciences as well.

Students interested in agricultural engineering may, with approval of the Dean, substitute certain courses in engineering, mathematics, and physics for some of the required courses in agriculture.
### GENERAL AGRICULTURE

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture 152</td>
<td>3</td>
</tr>
<tr>
<td>Botany 100 or Zoology 100</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 103</td>
<td>4</td>
</tr>
<tr>
<td>English 100 or 101</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 101</td>
<td>1</td>
</tr>
<tr>
<td>MS 100 or AS 102</td>
<td>1</td>
</tr>
<tr>
<td>Speech 100</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
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#### SECOND YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture 164</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 103 or 130</td>
<td>1</td>
</tr>
<tr>
<td>History 110</td>
<td>3</td>
</tr>
<tr>
<td>MS 150 or 151 or AS 152</td>
<td>1</td>
</tr>
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<td>Speech (as required)</td>
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<tr>
<td>Elective</td>
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<td><strong>Total</strong></td>
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#### THIRD YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture 250</td>
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<td>Agriculture 254</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 273</td>
<td>4</td>
</tr>
<tr>
<td>Elective</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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</tbody>
</table>

#### FOURTH YEAR

The only required course in the fourth year is English 210. This should be taken in the second semester. Elective courses necessary to complete the 130 semester hours required for graduation must include 9 credits in animal science, 9 credits in plant science, 6 credits in agricultural engineering, and 6 credits in agricultural economics.

### VOCATIONAL AGRICULTURE

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture 152</td>
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<td>Botany 100 or Zoology 100</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 103</td>
<td>4</td>
</tr>
<tr>
<td>English 100 or 101</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 101</td>
<td>1</td>
</tr>
<tr>
<td>MS 100 or AS 102</td>
<td>1</td>
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<td>Speech 100</td>
<td>1</td>
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<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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</tbody>
</table>
### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Agriculture 164</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 103 or 130</td>
<td>1</td>
</tr>
<tr>
<td>MS 150 or 151 or AS 152</td>
<td>1</td>
</tr>
<tr>
<td>Psychology 156</td>
<td>3</td>
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<td>Speech 106</td>
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<tr>
<td>Zoology 170</td>
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<td>Elective</td>
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Total: 17

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Agriculture 162</td>
<td>3</td>
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<tr>
<td>English 155</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 130 or 103</td>
<td>1</td>
</tr>
<tr>
<td>History 110</td>
<td>3</td>
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<td>MS 150 or 151 or AS 152</td>
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<tr>
<td>Psychology 185</td>
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<td>Speech 107</td>
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Total: 17

### Third Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Agriculture 250</td>
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<td>Agriculture 254</td>
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<tr>
<td>Education 270</td>
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<tr>
<td>Education 271</td>
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<tr>
<td>Speech 230</td>
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Total: 17

### Fourth Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Education 274</td>
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<td>Speech 265</td>
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</tr>
<tr>
<td>Elective</td>
<td>11 or 12</td>
</tr>
</tbody>
</table>

Total: 17 or 18

The electives of the fourth year must meet the requirements of the Territorial Department of Public Instruction. The Agricultural Teacher Trainer in the University acts as student adviser in this curriculum.

### Tropical Crop Production

#### First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botany 100 or Zoology 100</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 103</td>
<td>4</td>
</tr>
<tr>
<td>English 100 or 101</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 101</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics 150</td>
<td>3</td>
</tr>
<tr>
<td>MS 100 or AS 102</td>
<td>1</td>
</tr>
<tr>
<td>Speech 100</td>
<td>1</td>
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</table>

Total: 17

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botany 100 or Zoology 100</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 103</td>
<td>4</td>
</tr>
<tr>
<td>English 101</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 102</td>
<td>1</td>
</tr>
<tr>
<td>History 110</td>
<td>3</td>
</tr>
<tr>
<td>MS 100 or AS 102</td>
<td>1</td>
</tr>
<tr>
<td>Speech (as required)</td>
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Total: 17
### First Year

#### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Chemistry 149</td>
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<tr>
<td>Health &amp; Phys. Ed. 103 or 130</td>
<td>1</td>
</tr>
<tr>
<td>MS 150 or 151 or AS 152</td>
<td>4</td>
</tr>
<tr>
<td>Speech (as required)</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
<td>6 or 7</td>
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</tbody>
</table>

**Total:** 17 or 18

#### Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Chemistry 149</td>
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</tr>
<tr>
<td>Health &amp; Phys. Ed. 130 or 103</td>
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</tr>
<tr>
<td>MS 150 or 151 or AS 152</td>
<td>1</td>
</tr>
<tr>
<td>Physics 102</td>
<td>4</td>
</tr>
<tr>
<td>Speech (as required)</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
<td>3 or 4</td>
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</tbody>
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**Total:** 17 or 18

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### Second Year

#### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Agriculture 250</td>
<td>4</td>
</tr>
<tr>
<td>Agriculture 254</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 170</td>
<td>4</td>
</tr>
<tr>
<td>Elective</td>
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</tr>
</tbody>
</table>

**Total:** 16 or 17

#### Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Agriculture 291</td>
<td>3</td>
</tr>
<tr>
<td>English 210</td>
<td>3</td>
</tr>
<tr>
<td>Zoology 273</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>7 or 8</td>
</tr>
</tbody>
</table>

**Total:** 16 or 17

### Summer Practice in Industry—10 weeks

### Third Year

#### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture 281</td>
<td>3</td>
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<td>Elective</td>
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**Total:** 18

#### Spring Semester

<table>
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<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture 282</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
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</tbody>
</table>

**Total:** 18

### Fourth Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botany 100 or Zoology 100</td>
<td>4</td>
</tr>
<tr>
<td>Chemistry 103</td>
<td>4</td>
</tr>
<tr>
<td>English 100 or 101</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 101</td>
<td>1</td>
</tr>
<tr>
<td>MS 100 or AS 102</td>
<td>1</td>
</tr>
<tr>
<td>Speech 100</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
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**Total:** 17 or 18

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### Technical Agriculture

#### First Year

<table>
<thead>
<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>Botany 100 or Zoology 100</td>
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<tr>
<td>Chemistry 103</td>
<td>4</td>
</tr>
<tr>
<td>English 100 or 101</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 101</td>
<td>1</td>
</tr>
<tr>
<td>MS 100 or AS 102</td>
<td>1</td>
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<td>Speech (as required)</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
<td>3 or 4</td>
</tr>
</tbody>
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**Total:** 17 or 18

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### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Chemistry 149</td>
<td>4</td>
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<tr>
<td>Health &amp; Phys. Ed. 103 or 130</td>
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<tr>
<td>Mathematics 150</td>
<td>3</td>
</tr>
<tr>
<td>MS 150 or 151 or AS 152</td>
<td>1</td>
</tr>
<tr>
<td>Speech (as required)</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
<td>7 or 8</td>
</tr>
</tbody>
</table>

**Total:** 17 or 18

### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Chemistry 149</td>
<td>4</td>
</tr>
<tr>
<td>English 155</td>
<td>3</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 130 or 103</td>
<td>1</td>
</tr>
<tr>
<td>Mathematics 151</td>
<td>3</td>
</tr>
<tr>
<td>MS 150 or 151 or AS 152</td>
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</tr>
<tr>
<td>Speech (as required)</td>
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</tr>
<tr>
<td>Elective</td>
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**Total:** 17 or 18

### Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>Agriculture 250</td>
<td>4</td>
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<tr>
<td>Agriculture 254</td>
<td>3</td>
</tr>
<tr>
<td>Physics 102</td>
<td>4</td>
</tr>
<tr>
<td>Elective</td>
<td>6 or 7</td>
</tr>
</tbody>
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**Total:** 17 or 18

### Third Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>History 110 or 242</td>
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</tr>
<tr>
<td>Elective</td>
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**Total:** 17 or 18

### Fourth Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 210</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>14 or 15</td>
</tr>
</tbody>
</table>

**Total:** 17 or 18

The following list indicates the fields of Technical Agriculture in which students in this curriculum may specialize. In each case the specifically required courses are listed as well as additional courses from which electives may be chosen with approval of the adviser.

**ANIMAL SCIENCE. Requirements:** Agriculture 151, 253, 257, 261; Bacteriology 151; Zoology 151—20 credits, and 16 credits selected from the following courses with approval of the adviser: Agriculture 152, 256, 259, 298; Bacteriology 260, 262; Chemistry 150, 230, 232; Zoology 170, 253, 260, 261, 262, 276, 291.

**ENTOMOLOGY. Requirements:** Botany 263; Chemistry 150, 230; Zoology 170, 273, 298—23 credits, and 12 credits selected from the following courses with approval of the adviser: Agriculture 162, 164, 267, 268, 281, 282, 291, 299; Bacteriology 151; Botany 102, 253, 282, 283; Geography 262; Geology 150, 151; Zoology 240, 253, 254, 255, 257, 260, 262, 276, 291.

**POULTRY SCIENCE. Requirements:** Agriculture 152, 255, 259; Bacteriology 151; Zoology 151, 170, 273—24 credits, and 15 credits selected from the following courses with approval of the adviser: Agriculture 151, 256, 257, 281, 282; Chemistry 150, 230; Economics 140, 291; Zoology 253, 261.
**SOIL SCIENCE.** *Major Requirements:* Agriculture 267, 268, 291, 299; Chemistry 150, 230—18 credits, and 18 credits selected from the following courses with approval of the adviser: Agriculture 162, 256, 281, 282; Bacteriology 151, 250; Botany 161, 273, 274, 275, 276, 283; Chemistry 160, 232, 236, 250, 255, 271; Geography 150, 250; Geology 150, 151; Mathematics 151, 152; Philosophy 280.

**TROPICAL HORTICULTURE.** *Major Requirements:* Agriculture 162, 278; Bacteriology 151; Botany 263, 269, 283—20 credits, and 16 credits from the following courses with approval of the adviser: Agriculture 164, 262, 267, 268, 273, 281, 282, 291; Botany 161, 201, 253, 268, 273, 275, 281; Chemistry 150, 230; Zoology 170, 273, 276.

---

**CURRICULAE IN HOME ECONOMICS**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>First Year</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semester</strong></td>
<td><strong>Semester</strong></td>
<td><strong>Semester</strong></td>
</tr>
<tr>
<td><strong>Hours</strong></td>
<td><strong>Hours</strong></td>
<td><strong>Hours</strong></td>
</tr>
<tr>
<td>Art 142</td>
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<td>Art 143</td>
</tr>
<tr>
<td>Chemistry 103 or 104</td>
<td>4</td>
<td>Chemistry 103 or 104</td>
</tr>
<tr>
<td>English 100 or 101</td>
<td>3</td>
<td>English 101</td>
</tr>
<tr>
<td>Health &amp; Phys. Ed. 105</td>
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<tr>
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<td>16</td>
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**Second Year**

| English 150 | 3 | Economics 140 | 3 |
| Health & Phys. Ed. 107 or 130 | 1 | English 150 | 3 |
| Household Science 102 | 3 | Health & Phys. Ed. 130 or 107 | 1 |
| Psychology 156 | 3 | Home Ec. 252 | 3 |
| Zoology 100 or 110 or 191 | 4 or 3 | Household Science 102 | 3 |
| Speech (as required) | 1 | Speech (as required) | 1 |
| Elective | 3 | Elective | 3 |
| **Total** | 17 or 18 | **Total** | 17 |

In addition to the courses listed above, students in Home Economics must complete the requirements for special curricula. Additional work is ordinarily devoted to courses relating to these special fields.

Four such special curricula are offered. The major requirements and the additional recommended electives for each are listed below.

During the second and third years, students in General and Vocational Home Economics should elect Bacteriology 140, Household Art 110, 111, and Zoology.

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*Chemistry 103 and Zoology 100 are required only in the Foods and Nutrition curriculum.*

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*Curriculum in Home Economics (Second Year) - GENERAL CATALOGUE, 1953-54*
110 or 191. Students in Institutional Management and Dietetics should elect Bacteriology 151, Chemistry 232, and Zoology 191.

Students intending to specialize in Clothing and Textiles, Dress Design, or Interior Decoration follow the General Home Economics curriculum, selecting electives according to their interests. Students interested in preparing for Agricultural Extension Service follow the Vocational Home Economics curriculum. Those interested in research should follow the Foods and Nutrition curriculum.

**GENERAL HOME ECONOMICS**

<table>
<thead>
<tr>
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<th>HOURS</th>
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<tbody>
<tr>
<td><strong>FIRST SEMESTER</strong></td>
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</tr>
<tr>
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<tr>
<td>Household Art 214</td>
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<tr>
<td>Household Science 272</td>
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<td>Elective</td>
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<tbody>
<tr>
<td><strong>SECOND SEMESTER</strong></td>
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<tr>
<td>History 110 or 243</td>
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<td>Home Economics 256</td>
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<tr>
<td>Household Art 214 or 255</td>
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<td>Sociology 151</td>
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<tr>
<td>Household Science 272</td>
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<td>Elective</td>
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<td>Household Science 273</td>
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### INSTITUTIONAL MANAGEMENT

#### FIRST SEMESTER

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#### THIRD YEAR

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<tr>
<td>Household Science 277</td>
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<tr>
<td>Home Economics 251</td>
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#### SECOND SEMESTER

<table>
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#### FOURTH YEAR

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FOODS AND NUTRITION RESEARCH MAJORS follow the second-year program including Chemistry 150, Mathematics 150 or 151, and Zoology 100. During the third and fourth years, the following are required: Bacteriology 151, Chemistry 149, 230 (1 semester), 232, Economics 140, History 110 or 242, Home Economics 291, Household Science 272, 277, 299, and Mathematics 151.

### SUGGESTED ELECTIVES

#### GENERAL AND VOCATIONAL HOME ECONOMICS: Art 140, 154-155, 160, 161, 175, 176, 250-251, 276; English 120-121, 260-261, 263; Household Art 255, 299; Household Science 260, 273, 299; Music 110, 111; Psychology 185, 250, 292; Sociology 250, 256.

#### INSTITUTIONAL MANAGEMENT: In addition to the above electives, Household Art 110, 111; Home Economics 254, 256, 262.

#### FOODS AND NUTRITION: Chemistry 236; English 210, 260-261, 263; German 100, 102; Home Economics 250, 262; Household Art 110, 111; Household Science 260, 273; Physics 102; Sociology 151, 250; Zoology 151, 191, 291.

### THE HAWAII AGRICULTURAL EXPERIMENT STATION

By an act of Congress in 1928, the University of Hawaii was empowered to set up a department to be designated as the Hawaii Agricultural Experiment Station and was entitled to receive the federal grants for agricultural research appropriated

*Required by the American Dietetic Association for additional training in hospital dietetics. Home Economics students are eligible for membership in the American Dietetic Association after a year's internship in an approved mainland hospital.*
by Congress for such experiment stations in each of the states. By provisions made at the same time, the federal experiment station, established in 1901 on the slopes of Punchbowl and Tantalus, was to be gradually absorbed into the new station as the federal grant funds increased from year to year. This transition was completed in 1938. The history of the federal station is an inseparable part of the history of the Hawaii Agricultural Experiment Station, and the latter may also be said to share in the history and accomplishments of all the state land-grant colleges and experiment stations.

The facilities of the Hawaii station, including the research staff, the field laboratory, and the Agricultural Engineering Institute, are available in part for undergraduate and graduate instruction. Thus students have unusual opportunities to come into close contact with the newer advances in agricultural research and to see and study their application. The close collaboration maintained with the experiment stations of the Hawaiian Sugar Planters' Association and the Pineapple Research Institute of Hawaii is of value in the agricultural research of all parties and in University instruction, for in Hawaii diversified agricultural interests must, in most instances, be integrated with those of the dominant crops.

The function of the Experiment Station is “to promote scientific investigation and experiments respecting the principles and applications of agricultural science” (Hatch Act of 1887). Facilities for carrying on this work are provided by the headquarters offices and laboratories located on the University campus, and farms at Poamoho and Waimanalo, Oahu; a branch station at Makawao, Maui; and a branch station at Kainaliu, Hawaii. Because the two major agricultural industries of the Territory of Hawai—sugar and pineapple—support their own experiment stations, little attention is given to these crops. Emphasis is placed upon animal husbandry, poultry production, agronomy, and horticulture—fields which are considered extremely important in themselves. Investigations cover the physiology of plants and animals; diseases, insects, and parasites; soils and soil chemistry; human and animal nutrition; breeding and genetics; as well as other research in culture or production. Scientific facts discovered have broad application since both individual farmers and the large plantations may receive benefits. Many plantations operate ranches, dairies, orchards, and gardens which contribute to the subsistence of the plantation families and add to the total plantation income. These diversified agricultural undertakings, as well as those of independent ranchers and farmers, constitute the wider background of the activities of the Experiment Station.

The research of the Station has formed the basis for a rapid expansion of production of all food and feed crops, particularly through development and introduction of improved and adapted varieties of tomato, sweet corn, papaya, macadamia nuts, and other crops. Animal feeding trials with dairy cattle, poultry, and hogs have shown how local feeds can be used profitably in lieu of imported feeds if necessary. Investigations with yeast, molasses, ensilage, and urea indicate how imported feeds may be replaced by or supplemented with local products—and this with profit to the producer. Information concerning culture, control of disease and insects, and especially the use of mechanical equipment in planting, cultivation, irrigation, and harvesting of the major food crops, is providing a great stimulus to production on a scale never before attempted in the Territory.
THE COOPERATIVE EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS, conducted jointly by the College of Agriculture and the United States Department of Agriculture, is devoted to the advancement of agriculture in Hawaii and to the improvement of rural home life. Funds for the maintenance of the Agricultural Extension Service are derived jointly from federal and territorial legislative appropriations.

THE AGRICULTURAL EXTENSION SERVICE maintains personal contacts with the rural population through its field staff of county farm agents, home demonstration agents, and their assistants, with the help of the specialists at the territorial headquarters at the University of Hawaii. This staff, 70 in number, operates out of 9 offices located as follows:

On Oahu—Honolulu, Kaneohe, Wahiawa
On Kauai—Lihue
On Hawaii—Hilo, Kealakekua, Kohala
On Maui—Kahului
On Molokai—Kaunakakai

Improved farm and home practices are taught by means of practical demonstrations before University Extension clubs of men and women and 4-H clubs of boys and girls. This group instruction is supplemented by farm and home visits and personal conferences. Each year a 4-H Ahaolelo is held on the campus, and for 1953 the dates are August 10 to 15 inclusive.

An important phase of Extension work is to demonstrate in a practical manner the results of scientific experiments conducted by the University of Hawaii Agricultural Experiment Station and by state experiment stations.

Bulletins and circulars containing varied, timely information pertaining to farming and rural home life are issued from time to time by the subject-matter specialists at the headquarters on the University campus, which also directs the activities of the agents in the field.

The Agricultural Extension Service in Hawaii is part of a nation-wide program established in 1914 and operating throughout the United States. Since its local inception in 1928, the efforts of the staff members have been largely directed toward developing a greater degree of self-sufficiency in the food economy of the Territory. To this end the home demonstration agents give particular attention to teaching the uses and nutritive values of Island-produced foods.

The Extension Service has for many years collected and published crop estimates and market statistics of value to commercial farmers and businessmen. Assistance in keeping proper records for tax accounting has come to be a much-appreciated phase of this project. Emphasis is placed on grading and marketing of farm products.
Other important projects include demonstration of improved practices in soil conservation, vegetable production, fruit growing, swine raising, dairying, pasture improvement, poultry production, human nutrition, home management, home furnishing, and clothing.

Special emphasis is placed on assisting the families of plantation workers through the services of Extension agents who devote most of their time to imparting information on such subjects as home food supply, nutritious meals, and home improvement.
College of Business Administration

The College of Business Administration aims to provide an understanding of the structure, functions, and objectives of American business enterprise, and to train for active participation in the business and industrial activities in Hawaii. The four-year program leads to the degree of Bachelor of Business Administration.

For the first two years, all students follow a common program of required basic courses. During the junior and senior years, provision is made for specialization in one of the following curricula: General Business, Banking and Finance, Personnel and Industrial Relations, Accounting, Merchandising, and Office Management.

ADMISSION

Admission requirements are the same as those for admission to the University as a whole. (See pp. 37-40.)

DEGREE REQUIREMENTS

In order to qualify for the Bachelor of Business Administration degree from this College, a student must:

1. Meet certain basic requirements of the first two years.
2. Complete one of the six curricula of the College.
3. Have at least 50 semester hours in other than introductory courses.
4. Have an aggregate of at least 130 semester hours of credit.
5. Have a 2.0 grade-point ratio for all registered credits. (See "Undergraduate Degree Requirements").

CURRICULUM

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<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>SEMESTER HOURS</th>
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<tbody>
<tr>
<td>Business 100 or Geography 151</td>
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<td>Economics 150</td>
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<td>English 100 or 101</td>
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</table>
The required upper division courses for each curriculum, effective for students who became juniors in September, 1952, or thereafter, are given below. Those who attained junior standing prior to September, 1952, may complete the requirements as given in the General Catalogue for 1951-52.

**GENERAL BUSINESS**

**THIRD YEAR**
- Bus. 256 Income Tax Problems
- Bus. 270 Principles of Marketing
- Bus. 282 Business Statistics
- Econ. 256 Money and Banking
- Econ. 281 Labor Problems

**FOURTH YEAR**
- Bus. 280 Prin. of Salesmanship
- Econ. 261 Public Finance
- Bus. 266 Investments & Invest. Bkng.
- Bus. 286 Negotiable Instruments
- Econ. 285 International Trade & Fin.

**BANKING AND FINANCE**

**THIRD YEAR**
- Bus. 250 Intermediate Acctg.
- Bus. 265 Corporation Finance
- Bus. 282 Business Statistics
- Econ. 256 Money and Banking
- Bus. 255 Analysis of Fin. Statements
- Econ. 261 Public Finance
- Econ. 265 Government & Business

**FOURTH YEAR**
- Bus. 256 Income Tax Problems
- Bus. 278 Credit Management
- Econ. 270 Public Utilities
- Bus. 266 Investments & Invest. Bkng.
- Bus. 286 Negotiable Instruments
- Econ. 285 International Trade & Fin.
### PERSONNEL AND INDUSTRIAL RELATIONS

#### First Semester
- Bus. 282 Business Statistics
- Econ. 281 Labor Problems
- Econ. 283 Labor Legislation

#### Second Semester
- Bus. 230 Indus. Safety & Health
- Bus. 243 Time and Motion Study
- Bus. 263 Personnel Management
- Econ. 282 American Trade Unionism

#### Third Year
- Bus. 261 Collective Bargaining
- Econ. 256 Money and Banking
- Econ. 265 Government and Business
- Econ. 294 Research in Ind. Rel.

#### Fourth Year
- Bus. 250 Intermediate Acctg.
- Econ. 230 Indus. Safety & Health
- Bus. 245 Time and Motion Study
- Bus. 263 Personnel Management

### ACCOUNTING

#### Third Year
- Bus. 250 Intermediate Acctg.
- Bus. 256 Income Tax Problems
- Bus. 265 Corporation Finance
- Econ. 256 Money and Banking

#### Fourth Year
- Bus. 254 Cost Accounting
- Bus. 258 Auditing

### MERCHANDISING

#### Third Year
- Bus. 250 Intermediate Acctg.
- Bus. 270 Prin. of Marketing
- Econ. 256 Money and Banking
- Econ. 265 Government & Bus.

#### Fourth Year
- Bus. 265 Corporation Finance
- Bus. 278 Credit Management
- Bus. 279 Methods of Market Res.
- Bus. 280 Prin. of Salesmanship

### OFFICE MANAGEMENT

#### Third Year
- Bus. 250 Intermediate Acctg.
- Econ. 256 Money and Banking
- Econ. 281 Labor Problems

#### Fourth Year
- Bus. 170 Tech. of Typewrtg.
- Bus. 177 Tech. of Shorthand
- Bus. 261 Collective Bargaining
- Bus. 241 Bus. & Secret. Machines
- Bus. 272 Adv. Secretarial Training
- Bus. 277 Secretarial Practice
The Graduate School provides opportunities for further study, research, and professional training to students who have earned a bachelor's degree from an accredited institution of higher learning. The graduate program is not, however, merely an extension of work at the undergraduate level. More rigorous academic standards are applied and a greater degree of independence in the pursuit of knowledge is allowed. Special emphasis is placed on the cultivation of scholarly attitudes and methods of research.

The University offers graduate work leading to:

1. The Doctor of Philosophy degree in botany, chemistry, entomology, genetics, soil science, and zoology.

2. The Master's degree in anthropology, art, bacteriology, botany, business, chemistry, drama and theatre, economics, education, English, entomology, Far East studies, genetics, geography, government, history, nutrition, Pacific Islands area studies, philosophy, physics, psychology, social work, sociology, soil science, speech, vegetable crops, and zoology.

3. The professional certificate for teachers in the employ of the Department of Public Instruction of the Territory of Hawaii. (See p. 73.)

Students may likewise earn graduate credit at the University of Hawaii for transfer to other institutions.

ADMISSION

Students wishing to enroll for a full program of graduate work, whether as candidates for advanced degrees or as unclassified students, should make application to the Dean of the Graduate School. This application should be accompanied by an official transcript of the undergraduate record and of any graduate work completed at another institution.

Admission to the Graduate School does not imply admission to candidacy for an advanced degree. Such admission is granted only after a committee representing the department in which the candidate proposes to work for an advanced degree is satisfied as to the adequacy of his undergraduate preparation and his probable ability to pursue graduate work successfully.

No student will be considered for admission to candidacy for an advanced degree unless he can meet the following requirements:

1. An adequate undergraduate background in the major and minor fields in which the degree is to be taken.

2. A good undergraduate scholastic record, with a grade of $B$ or better in undergraduate courses in the major field or with an average of at least $B$ in all courses carried in the junior and senior years.
Students failing to meet one of these requirements may be permitted to enroll in the Graduate School on a provisional basis, and, if the record for a semester at the graduate level is adequate, the qualifying committee may recommend to the Dean of the Graduate School that the rule be waived.

The Graduate School reserves the right to deny further registration at any time to a student whose work is not of a grade sufficiently high to warrant continuation.

REGISTRATION AND GRADES

Graduate students may not register for more than sixteen credit hours in any semester or for more than six credit hours in a six-week summer session. The number of credit hours which may be carried by student assistants is limited by the nature of their duties.

Candidates for advanced degrees who fail to complete successfully two or more courses taken after admission to candidacy are automatically dropped from candidacy.

REQUIREMENTS FOR THE MASTER'S DEGREE

The University awards the degrees of Master of Arts, Master of Business Administration, Master of Science, Master of Education, Master of Fine Arts, and Master of Social Work.

The minimum period of residence is one academic year (two semesters) or four six-week summer sessions.

Thirty semester hours of graduate study are required for the Master's degree, except in Social Work where the requirement is 48 (see p. 94). All work connected with the thesis must be registered for as thesis research (course number 400 in each major field). The usual credit allowance for thesis research is 6 hours, but a maximum of 12 hours may be allowed in the natural and physical sciences. At least six credits toward the Master's degree must be earned in courses primarily for graduate students (300-399). The remaining credits may be elected from courses numbered 200-298, but a grade of A or B must be earned. The program of courses offered by the candidate should be in his major field of interest, but supplementary courses, not to exceed 10 hours, may be selected from one or two closely allied fields. A reading knowledge of a foreign language is required in certain fields and, at the discretion of the qualifying committee, may be required in any field.

Graduate work completed at other institutions, up to a maximum of 8 semester hours, may be accepted as fulfilling part of the requirements for the Master's degree. No credits earned in correspondence courses may be counted toward an advanced degree.

Qualifying Conference. As soon as practicable after enrollment in the Graduate School, preferably during the first semester of residence, the prospective candidate should apply for a qualifying conference. The purpose of this conference is to
satisfy a committee representing the department in which the candidate proposes to work as to the adequacy of his undergraduate preparation and probable ability to pursue graduate work successfully. The qualifying committee also considers the research interests of the student and approves the field and approximate title of his thesis.

Examinations. Candidates for advanced degrees are expected to take the regular examinations in courses for which they desire graduate credit.

All candidates are required to take a comprehensive examination in their fields of concentration. They may apply for the comprehensive examination after completing 9 to 12 hours of graduate work at the University of Hawaii. This examination is intended to review the fundamental principles of the field and to test ability to apply them successfully to basic problems within the discipline. The content of the examination is determined by the graduate faculty within the department or discipline and may be either written or oral, or both. Failure to pass this examination after two trials will automatically exclude the student from candidacy.

The office of the Graduate School should be notified at the beginning of the term or semester in which a candidate expects to receive his degree, and arrangement for the final examination should be made at least one month before the end of the term. The final oral examination, conducted by the thesis committee and open to all faculty members, relates primarily to the thesis but may cover any fundamental knowledge essential to the research or to the conclusions reached. At the option of the committee chairman, the examination on the thesis may be replaced by a presentation of the results of the thesis in a seminar or advanced course in the department.

Thesis. All candidates for the Master’s degree must submit a thesis on a topic selected from the major field. The proposed problem should be discussed with the department chairman or adviser as early as possible and must be approved by the qualifying committee either at the time of admission to candidacy or subsequently. The thesis committee is appointed as soon as the candidate is ready to formulate his thesis problem. Candidates must notify the Dean of the Graduate School at the beginning of the semester or term in which they expect to receive their degrees and must submit copies of the completed thesis to members of the committee at least two weeks prior to the date of the final examination. Two typewritten copies of the thesis, both signed by a majority of the examining committee, must be deposited in the Library to become the permanent possession of the University. A fee for the binding of the Library copies must be paid to the University Business Office.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is offered only in those fields in which the University, by virtue of its special facilities of teaching staff, library, and research equipment, and its co-operative relations with other research institutions, can offer thorough advanced training.
Notice of intention to qualify for the doctorate should be given on special forms provided at the office of the Dean of the Graduate School as early as possible during the graduate student's career. An advisory committee of the faculty will be appointed to determine the candidate's fitness and preparation.

The candidate is required to spend six full semesters, or the equivalent, in graduate study, during which at least 30 semester hours of course work beyond the Master's degree must be taken at the University of Hawaii. He must complete a program prescribed by the committee in charge of his candidacy, pass a comprehensive examination in the fields of his major and supporting subjects, present certification of a reading knowledge of two foreign languages useful in his field of specialization at least one academic year prior to the awarding of the degree, present a dissertation combining original research and scholarly analysis, and defend his thesis in a final examination.

THE SCHOOL OF SOCIAL WORK

The University of Hawaii offers a two-year program in social work leading to the degree of Master of Social Work. The first year is basic to all types of social work and is designed to familiarize the student with the fundamental principles underlying all fields of practice in the profession.

Admission to the School of Social Work requires, in addition to completion of the undergraduate program (see p. 62), (1) a bachelor's degree from a university or college of recognized standing and eligibility for admission to graduate standing at the University of Hawaii, and (2) evidence of personal qualifications necessary for success in social work.

Candidates must submit an application, a statement of their interest in the field of social work, and a transcript of any academic work taken at institutions other than the University of Hawaii. Notice of acceptance will be sent to successful applicants, and written corroboration of intention to register for the full year's program is requested.

Instructors may admit to individual courses a few qualified persons who have had experience in social work but do not intend to take the full program.

Candidates for the Master of Social Work degree are required to complete 48 semester hours including 10 hours of supervised field work (750 clock hours) and a thesis.
Announcement of Courses
for 1953-54

Courses are listed alphabetically by subject. Courses numbered 100 to 199 are lower division courses intended for freshmen and sophomores. Those numbered 200 to 299 are upper division courses intended for juniors and seniors but open to graduate students when needed to complete a major field. Courses numbered 300 and above are intended for graduate students, but in a few cases qualified seniors may enroll with the consent of the instructor.

Heading each course description are the number and title of the course, the number of credits, the semester in which the course is given, and the instructor’s name. Credits and semesters are indicated as follows: (3) I means a 3-credit first-semester course; (3) II, a 3-credit second-semester course; (3) I, II, a 3-credit course repeated the second semester; (3-3) Yr., a 3-credit year course; (Ar.), that the credits are variable and must be arranged with the instructor.

In general, courses are listed by departments, but in a few cases (Library Science, Medical Technology, Survey Courses) the material does not logically belong in any academic department and so is listed separately. The various languages are grouped under the departments of Asiatic and Pacific Languages, and European Languages. The faculty list heading each department indicates the instructors giving courses in that department rather than the actual members of the department. The rank and title of each instructor are given under “Faculty and Staff” at the beginning of the Catalogue.

A schedule stating the time and place of meeting of all classes is issued prior to the beginning of each semester and the summer session.

AGRICULTURE

Professors Wadsworth, Henke, Goto, Beaumont, Armstrong, Poole, Sherman, Bice, Storey, Rosenberg; Associate Professors Younge, Rust, Philipp, Wayman; Assistant Professors Hamilton, Kamemoto, McGuire, Stromman, Price, Weeth; Instructor Gilbert.

100 ORIENTATION COURSE. (0) I. Mr. Storey
Lectures to acquaint the student with the fields of agriculture in Hawaii and to help select a major field of study.

151 ANIMAL HUSBANDRY. (3) II. Mr. Henke
A general study of the important breeds of horses, cattle, sheep, and swine, and of their care and management. Lectures, assigned readings, and laboratory work. Laboratory fee $1.00.
152 Poultry Husbandry. (3) I. Mr. Bice
An introduction to poultry husbandry. Two lectures and one laboratory period. Laboratory fee $2.00.

162 Tropical Pomology. (3) II. Mr. Storey
Origin, description, and cultural requirements of the principal fruit and nut crops of Hawaii. Two lectures and one laboratory period. Prerequisite: Botany 100; Chemistry 103; Zoology 100. Laboratory fee $1.00.

163 Plant Propagation. (3) I. Mr. Hamilton
Principles and methods of propagating plants by seeds, cuttings, layers, division, grafting, and budding. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $3.00.

164 Truck Crop Production. (3) I. Mr. Gilbert
Origin, description, and cultural requirements of the more important vegetable crops of Hawaii. Two lectures and one laboratory period. Prerequisite: Botany 100; Chemistry 103; credit or concurrent registration in Zoology 170. Laboratory fee $3.00.

209 Advanced Vegetable Crops. (4-4) Yr. Mr. McGuire
Production of vegetable crops. First semester, environmental factors; second semester, improvement of major vegetable crops by breeding and selection. Prerequisite: Agriculture 164, 250; Botany 283. (Alternate years; offered 1953-54.)

210 Systematic Vegetable Crops. (3) II. Mr. McGuire
Types, varieties, climatic adaptation, market quality, disease and insect resistance. Two lectures and one laboratory period. Prerequisite: Agriculture 164; Botany 100. Laboratory fee $5.00. (Alternate years; not offered 1953-54.)

230 Introduction to Agricultural Extension. (3) II. Mr. Goto
Objectives and organization of Extension work. Methods, selection, and training of voluntary leaders, and basic principles and procedure in program development and appraisal.

239 Farm Management. (3) II. Mr. Philipp
Organization and management of a farm with emphasis on use of economic principles. Selection, size, choice of enterprises, efficient use of labor and equipment, layout, and analysis. Use of records, capital requirements, leases. Two lectures and one laboratory period. Prerequisite: one course in Economics or consent of instructor.

241 Marketing Agricultural Products. (3) I. Mr. Rust
Nature of the problems, types of marketing agencies, principal marketing functions and their combinations, marketing costs and margins, price quotations and speculation in farm products; government in its relation to marketing; consideration of proposals for improvement. Prerequisite: credit or concurrent registration in Economics 291.

250 Soils. (4) I. Mr. Sherman
The basic principles of soil science. Origin, development, properties, and management of tropical soils, including the classification of Hawaiian soils. Three lectures and one laboratory period. Prerequisite: Chemistry 103. Laboratory fee $3.00.
251 TROPICAL CROP PRODUCTION. (3) I.  
Survey of current agricultural practices in the production of sugar cane, pineapples, vegetables, fruits, and forage in the tropics. Two lectures; field trips to be arranged. Fee $2.00.

253 DAIRYING. (3) II.  
The breeding, feeding, and management of dairy animals; care and sale of dairy products, with emphasis upon the handling of milk to insure good quality. Two lectures and one laboratory period. Laboratory fee $1.00.

254 PRINCIPLES OF GENETICS. (3) I.  
Fundamental principles of genetics, including variations, their origins and interactions, cytological basis of heredity, and an introduction to biometric methods. Two lectures and one laboratory period. Prerequisite: one year of biological science. Laboratory fee $2.00.

255 ADVANCED POULTRY HUSBANDRY. (3) II.  
Recent advances in nutrition, breeding, and management of poultry, including participation in farm practices at the poultry farm. Two lectures and one laboratory period. Prerequisite: Agriculture 152, 254, 257. Laboratory fee $2.00.

256 PRINCIPLES OF AGRONOMY. (3) II.  
Pasture and field crops, with special reference to crop ecology, cultural methods, and management in Hawaii. Two lectures and one laboratory period. Prerequisite: Botany 100; Chemistry 103; Zoology 100. Laboratory fee $1.00.

257 FEEDS AND FEEDING. (3) I.  
Principles of feeding and their application to feeding farm and plantation animals. Two lectures and one laboratory period.

259 POULTRY HUSBANDRY PROBLEMS. (3) I, II.  
Special problems in poultry husbandry; planning and interpretation of experiments. May be continued in second semester by consent of instructor. Prerequisite: Agriculture 152 and 255, or consent of instructor.

261 BEEF AND SWINE PRODUCTION. (3) II.  
The breeds, care, management, and feeding of beef cattle and swine, with particular reference to Hawaiian conditions. Two lectures and one laboratory or study period. Laboratory fee $1.00. (Not offered 1953-54.)

262 ADVANCED GENETICS. (3) I.  
Principles and theories of genetics; methods and results of modification of germinal materials, gene action, and a survey of recent advances in genetics. Prerequisite: Agriculture 254.

267 SOIL ANALYSIS. (3) II.  
Soil composition and fertility. Special attention to field trials, soil tests, and foliar diagnosis in determining fertilizer requirements. Prerequisite: Agriculture 250.

268 SOIL DIAGNOSIS LABORATORY. (2) II.  
Laboratory and field tests designed to determine the effects of deficiencies and toxicities of plant nutrients and the fertilizer requirements of soils. Prerequisite:
Agriculture 250; credit or concurrent registration in Agriculture 267. Laboratory fee $2.00.

271 SCHOOL AND HOME Gardening. (2) I, II. MR. ARMSTRONG
Designed to develop ability to conduct home and school gardens; study of fertilizers, insect control, and plant propagation. For prospective elementary school teachers.

273 Principles of Floriculture. (3) I. MR. KAMEMOTO
Introduction to the methods of propagation and management of the important flower and foliage plants of Hawaii. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $5.00.

274 Commercial Flower Production. (3) II. MR. KAMEMOTO
A comprehensive study of flower and foliage plants, with particular attention to nursery practices, methods of culture, timing the crop, and marketing. Two lectures and one laboratory period. Prerequisite: Agriculture 273. Laboratory fee $2.50. (Alternate years; not offered 1953-54.)

278 Principles of Plant Breeding. (3) I. MR. POOLE
Selection, hybridization, and cytogenetics as applied to plant improvement. Two lectures and one laboratory period. Prerequisite: Agriculture 254.

281 Agricultural Machinery. (3) I. MR. STROHMAN
Principles of operation, construction, adjustment, power requirements, use, selection, and maintenance of farm and plantation machinery and general service equipment. Two lectures and one laboratory period.

282 Agricultural Power. (3) II.
Principles of operation, adjustment, selection and maintenance of internal combustion engines, farm tractors, trucks, and other power sources. Two lectures and one laboratory period.

285 General Shop Practices. (3) I.
Shop sketching, reading of working drawings, carpentry, glazing, painting, concrete work, fencing, farm shop equipment, teaching methods. One lecture and two laboratory periods. Laboratory fee $5.00. (Not offered 1953-54.)

286 Metal Shop Practices. (3) II.
Arc and gas welding, soldering, cutting, filing, drilling, threading, machinery overhaul, farm shop equipment, teaching methods. One lecture and two laboratory periods. Laboratory fee $5.00. (Not offered 1953-54.)

291 Irrigation Practice. (3) II. MR. WADSWORTH
Irrigation in its relation to crop production; development, distribution, and measurement of water; soil moisture and its effect on plant growth. Prerequisite: junior standing.

298 Seminar in Animal Nutrition. (1) II. MR. WAYMAN
Recent investigations in animal nutrition; oral reports by students on special topics after a review of literature. Prerequisite: Agriculture 257; sufficient training in chemistry; consent of instructor.
299 Agricultural Thesis. (AR.) I, II. 
Advanced individual work in field, laboratory, and library. Prerequisite: senior standing; consent of instructor.

300 Directed Research. (AR.) I, II. 
Directed research in (1) Genetics—Mr. Storey; (2) Soil Science—Mr. Sherman; (3) Tropical Horticulture—Mr. Beaumont; (4) Poultry Science—Mr. Rosenberg. Prerequisite: graduate standing; consent of instructor.

301 Advanced Soil Technology. (3) I. Mr. Sherman 
Soil-weathering and soil-forming processes on the basis of modern pedologic principles. Prerequisite: graduate standing; consent of instructor.

302 Genetics Seminar. (1) I, II. Mr. Storey 
Presentation of reports upon research or reviews of current literature on genetics and cyto- genetics. May be repeated. Prerequisite: Agriculture 254 or consent of instructor.

304 Horticulture Seminar. (1) I, II. Mr. Storey 
Presentation of reports upon research or reviews of current literature in the general field of horticulture. May be repeated. Prerequisite: consent of instructor.

308 Soil Science Seminar. (1) II. Staff 
Review of recent findings in soil science research in the fields of soil chemistry, physics, classification, fertility, bacteriology, and technology. Prerequisite: graduate standing.

312 Applied Agricultural Statistics. (3) II. Mr. Poole 
Field plot technique; analysis of laboratory and field data for evaluating factors in agricultural experiments. Two lectures and one laboratory period. Prerequisite: Zoology 276.

Air Science

Professor Jones; Associate Professors Hogan, Prater; Assistant Professors Haworth, Masters, Powers, Reynolds; Instructors Dethlefs, Field, Morgan, Shanks.

102 First-Year Air Science. (1-1) Yr. Staff
Introduction to aviation. Fundamentals of global geography. International tensions and security organizations. Instruments of national military security. Drill and basic military training. Three hours a week. Special uniform and awards fee 50 cents (not refundable).

152 Second-Year Air Science. (1-1) Yr. Staff
Elements of aerial warfare, including targets, weapons, aircraft, air ocean, bases, and forces. Careers in the Air Force. Leadership laboratory. Three hours a week. Special uniform and awards fee 50 cents (not refundable).

202 Third-Year Air Science. (3-3) Yr. Staff
Elements of aerial warfare. Careers in the Air Force. Five hours a week. Open to selected students. Prerequisite: Air Science 152 or equivalent. Special uniform and awards fee 50 cents (not refundable).

252 Fourth-Year Air Science. (3-3) yr. Staff

257 Summer Camp. (2) Staff
Practical application of academic work; air operational problems, familiarization with military aircraft and equipment, and physical training. Camp attendance required between Air Science 202 and 252 unless deferment is authorized.

ANTHROPOLOGY

Proffessors Luomala, Spoehr; Associate Professors Mason, Emory; Assistant Professors Estel, Yamamura.

Either Anthropology 150, or Anthropology 160 and Sociology 161, or the equivalent is prerequisite to all other courses in Anthropology.

150 Introduction to Study of Man. (3) I, II. Mr. Estel
An introduction to the changing cultures and physical characteristics of non-literate peoples, as an aid to better understanding of current problems in human relations.

160 Study of Man and Society. (3) I. Mr. Yamamura, Mr. Estel
An orientation course, to precede Sociology 161, as part of an integrated year course that combines the content of Anthropology 150 and Sociology 151. Open only to Teachers College students.

250 Hawaiian Culture. (3) I. Mr. Emory
An introduction to native Hawaiian culture in all its aspects: mythology, tradition, history, religion, social organization, and material culture. Some attention also to language and physical type.

251 The Polynesians and Their Culture. (3) II. Miss Luomala
A study of indigenous peoples in Hawaii, Samoa, Tahiti, New Zealand, and other Polynesian areas. Their way of life and historical relationships to each other.

252 Peoples of the Pacific. (3) II. Mr. Estel
A survey of the peoples and cultures of the Pacific area—Polynesia, Micronesia, Melanesia, and Australia.

253 Micronesia in a Modern World. (3) II. Mr. Mason
A cultural survey of the Marianas (including Guam), Carolines, Marshalls, and Gilberts, with attention to geographical and historical factors as they relate to current problems in Micronesia.
254 PeopLes of Southern Asia. (3) I. Miss Luomala
Ethnology and social organization of India, Southeast Asia, and Malaysia. Discussion of cultural diffusion and contact within the area. (Not offered 1953-54.)

255 PeopLes of Northern Asia. (3) I. Miss Luomala
Ethnology and social organization of China, Japan, Siberia, and Southwest Asia. Discussion of cultural diffusion and contact within the area.

256 The American Indian. (3) I. Mr. Estel
Indian tribes and culture areas of North and South America, including the civilizations of Mexico, Central America, and Peru.

257 PeopLes of Africa. (3) I.
A survey of the peoples and cultures of Africa. Races, languages, material culture, magic and religion, social organization, and political institutions. Native kingdoms. The higher civilizations of North Africa. Archeology. (Not offered 1953-54.)

258 PeopLes of South Asia. (3) I.
Ethnology and social organization of India, Southeast Asia, and Malaysia. Discussion of cultural diffusion and contact within the area.

259 PeopLes of Northern Asia. (3) I.
Ethnology and social organization of China, Japan, Siberia, and Southwest Asia. Discussion of cultural diffusion and contact within the area.

260 The American Indian. (3) I.
Indian tribes and culture areas of North and South America, including the civilizations of Mexico, Central America, and Peru.

261 PeopLes of Africa. (3) I.
A survey of the peoples and cultures of Africa. Races, languages, material culture, magic and religion, social organization, and political institutions. Native kingdoms. The higher civilizations of North Africa. Archeology. (Not offered 1953-54.)

262 PeopLes of North Asia. (3) I.
Ethnology and social organization of China, Japan, Siberia, and Southwest Asia. Discussion of cultural diffusion and contact within the area.

263 PeopLes of South Asia. (3) I.
Ethnology and social organization of India, Southeast Asia, and Malaysia. Discussion of cultural diffusion and contact within the area.

264 The American Indian. (3) I.
Indian tribes and culture areas of North and South America, including the civilizations of Mexico, Central America, and Peru.

265 Primitive Society. (3) II. Mr. Spoehr
Study of diverse types of social organization with the aim of a better understanding of human society.

266 Culture Conflict in Pacific Dependencies. (3) II. Mr. Mason
Existing native cultural patterns in American, British, Dutch, and French dependencies; problems raised by native-European interaction; cultural factors bearing upon administrative policies and programs. (Not offered 1953-54.)

267 Primitive Religion. (3) II. Miss Luomala
Religious beliefs and practices in primitive society. Function of religion in society. Reading of monographs on religion of various tribes.

268 Primitive Art. (3) II. Mr. Mason
Survey of art forms and techniques of nonliterate peoples of the world. Types of design, relation of art forms and culture.

269 Folklore. (3) I. Miss Luomala

270 Archeology. (3) I. Mr. Emory
Methods and techniques of archeology. Excavation of prehistoric sites, preservation of materials, and interpretation of archeological data, with illustrations from Oceanic studies. Practical field work in excavation and museum preparation. (Not offered 1953-54.)

271 Anthropological Classics. (3) I. Miss Luomala
Lectures, reading, and discussion of selected anthropological classics, both theoretical and descriptive, and their significance in the development of social science.

272 Economic Life of Primitive Peoples. (3) II. Mr. Mason
A study of the various types of economy among nonliterate peoples. Technology, means of production, distribution, consumption, and property. Integration of economies with cultural patterns.
273 PHYSICAL ANTHROPOLOGY. (3) II.  
Mr. Estel  
Human evolution; the influence of heredity and environment upon man; fossil man; racial differences in modern man.

299 DIRECTED READING. (AR.) I, II.  
Prerequisite: consent of instructor.

300 DIRECTED READING OR RESEARCH. (AR.) I, II.  
Prerequisite: graduate standing; consent of instructor.

310 SEMINAR IN OCEANIA. (2) I.  
Critical examination of source materials concerning the backgrounds and migrations of Oceanic peoples. Prerequisite: consent of instructor. May be repeated. (Not offered 1953-54.)

311 APPLIED ANTHROPOLOGY. (2) II.  
Mr. Mason  
Application of anthropological principles to present-day problems of human relations in underdeveloped areas influenced by Western civilization. Prerequisite: consent of instructor. (Not offered 1953-54.)

312 TECHNIQUES OF FIELD WORK. (3) I.  
Mr. Emory  
The field approach to research problems; methods of recording field data; problems of communication and the use of interpreters; interviewer-informant relationships. Prerequisite: consent of instructor.

ART

PROFESSORS CHARLOT, Eckel, Norris; Associate Professors Horan, Robinson, Cox; Assistant Professors Kingerly; Instructors McVay, Kimura.

ART

Professors Charlot, Eckel, Norris; Associate Professors Horan, Robinson, Cox; Assistant Professors Kingerly; Instructors McVay, Kimura.

Certain courses may be repeated for credit with the consent of the instructor.

The University reserves the right to retain any student work which may be needed for exhibition or for the Art Department files.

140 ART APPRECIATION. (3) I, II.  
Mr. Norris, Staff  
A course designed to give insight into the nature of artistic expression and its relationship to contemporary life, including industrial and commercial forms as well as the fine arts. Lectures, demonstrations, and museum visits. Course fee $1.00.

142-143 ART FUNDAMENTALS. (2-2) Yr.  
Staff  
Background material and studio practice to stimulate understanding of the arts. Lectures, museum visits, and studio work. Primarily for Teachers College and Home Economics students. Studio fee $1.00 each semester.

144 BEGINNING SCULPTURE. (2) I.  
Miss Robinson  
Introductory study of sculptural form. Work in clay from specified subject matter. Basic techniques used in clay sculpture. Lectures and studio work. Limited to 20 students. Studio fee $10.00.

150-151 DESIGN. (2-2) Yr.  
Staff  
Elements of design and composition; study of line, mass, pattern, color, and texture. Lectures and studio problems. For Art majors and others interested in
practice of the space arts. This course, or the equivalent in experience, is pre­
requisite to all advanced study. Studio fee $1.00 each semester.

154-155 DRAWING. (2-2) YR. 
Freehand drawing in a variety of media, including pencil, pen and ink, char­
coal, and wash. Lectures; drawing in studio and out-of-doors. Sections for Pre­
architecture students, with special emphasis on perspective. This course, or the 
equivalent in experience, is essential to advanced study. Studio fee $1.00 each 
semester.

156 LETTERING AND LAYOUT. (2) I, II. 
Introduction to design in advertising. The historic development of lettering 
and type forms, and their appropriate use in layout. Elements of brush and pen 
lettering. Lectures and studio work. Studio fee $1.00.

160 CERAMICS. (2) I, II. 
Building pottery forms by hand; ceramic sculpture and decorative techniques. 
Lectures and studio work. Limited to 20 students. Studio fee $10.00.

161 CERAMICS. (2) I, II. 
Continuation of 160. Emphasis on wheel throwing of pottery, and further 
work in field of student's choice. Introductory study of glazes and operation of 
kilns. Lectures and studio work. Prerequisite: Art 160. Studio fee $10.00.

172 INTERIOR DECORATION. (2) II. 
Design, function, and color of interiors in relation to space, use, and taste. 
Emphasis upon professional solution of problems. Prerequisite: Art 150-151.

175 TEXTILE DESIGN. (2) I. 
Execution of individual problems in decoration, color, and texture related to 
fabrics. Prerequisite: Art 150-151. Studio fee $7.00. Limited to 20 students.

176 BEGINNING WEAVING. (2) I, II. 
Introduction to the creative processes of weaving. Lectures, experimenta­tion, 
and practical design experience. The making and using of simple hand looms as 
well as a study of the multiple harness loom. Limited to 15 students. Studio 
fee $7.50.

180-181 OIL PAINTING. (2-2) YR. 
Study of form, color, and design in oils. Prerequisite: Art 150-151, and 154- 
155, or consent of instructor. Studio fee $6.00 second semester.

220 HISTORY OF FAR EASTERN ART. (3) I. 
The development of architecture, sculpture, and painting in India, China, and 
Japan, and related cultures from prehistoric times to the present. Lectures with 
lantern slides. Visits to the Academy of Arts. Course fee $2.00.

222 INDIAN AND INDONESIAN ART. (3) II. 
The growth of Indian art from the Indus civilization through the medieval 
style in India, including Indonesian developments to the end of Khmer. Aesthetic 
implications of Hindu and Buddhist thought. Lectures with lantern slides. Visits 
to the Academy of Arts. Course fee $2.00. (Alternate years; offered 1953-54.)
225 THE BEGINNINGS OF CHINESE ART. (3) II.  
Mr. Ecke  
Prehistoric and later developments in pottery, jade, bronze, etc., to the end of the Han style. Lectures with lantern slides. Visits to the Academy of Arts. Course fee $2.00. (Alternate years; offered 1953-54.)

229 CHINESE PAINTING. (3) II.  
Mr. Ecke  
The development of Chinese painting from the earliest times, with emphasis on the various landscape schools. Significance of Taoism and Chan Buddhism. Lectures with lantern slides. Visits to the Academy of Arts. Prerequisite: Art 220 or consent of instructor. Course fee $2.00. (Alternate years; not offered 1953-54.)

230 CHINESE ARCHITECTURE. (3) I.  
Mr. Ecke  
Timber work, terracing, layout, and design of the compound. Origin and development of palace, temple, and domestic architectural traditions. The influence of Buddhism. Design of gardens, parks, and furniture. Lectures with lantern slides. Visits to the Academy of Arts. Prerequisite: Art 220 or consent of instructor. Course fee $2.00. (Alternate years; not offered 1953-54.)

231 APPLIED ARTS OF CHINA. (3) I.  
Mr. Ecke  
Ceramics, glyptic arts, metalwork, lacquer, interior design, and textiles, with some reference to Korean and Japanese developments in certain fields. Lectures with lantern slides. Demonstrations of techniques in ceramics and textiles. Visits to the Academy of Arts. Course fee $2.00. (Alternate years; offered 1953-54.)

233 MUSEUM STUDIES IN FAR EASTERN ART. (3) II.  
Mr. Ecke  
A course arranged in cooperation with the Honolulu Academy of Arts offering detailed critical consideration of the Far Eastern collections of the Academy. Classes meet at the Academy to study the material at first hand, supplemented by lectures with lantern slides. Limited to small group. Prerequisite: consent of instructor. Course fee $2.00. (Alternate years; not offered 1953-54.)

250-251 HISTORY OF WESTERN ART. (3-3) YR.  
Mr. Charlot  
Origins and development of the European tradition in architecture, sculpture, and painting from prehistoric times to the present. Lectures with lantern slides. Visits to the Academy of Arts. Course fee $2.00 each semester.

252 NINETEENTH-CENTURY PAINTING. (3) I.  
Mr. Charlot  
Description and interpretation of French painting from Jacques Louis David through Paul Cezanne. Lectures with lantern slides. Visits to the Academy of Arts. Course fee $2.00.

253 CONTEMPORARY ART. (3) II.  
Mr. Charlot  
Description and interpretation of all major styles and movements since Paul Cezanne, with emphasis upon European painting. Lectures with lantern slides. Demonstrations. Visits to the Academy of Arts. Course fee $2.00.

256 ADVERTISING ART. (2) I.  
Mr. Kingrey  
The techniques and forms of advertising art: newspaper, magazine, and bro- 
chure. Development of accurate and comprehensive roughs. Emphasis on typo-
graphy, layout, color, and prevailing methods of reproduction. Lectures and studio work. Prerequisite: Art 150-151, 154-155, 156 or consent of instructor.
ART 257 Advertising Art. (2) II.
Mr. Kingrey
Development of professional ideas. Creative interpretation of layouts for complete advertising campaigns. Projects based upon individual abilities and aimed at professional levels of accomplishment. Lectures and studio work. Prerequisite: Art 256, 269, and at least one of the following: 180-181, 265, 268, 273.

ART 260 Advanced Ceramics. (2) II.
Mr. Horan
Emphasis on chemistry of glazes. Continuation of work in field of student's choice. Designing for commercial methods of ceramic production. Prerequisite: Art 256 or consent of instructor. Studio fee $10.00.

ART 261 Ceramic Research and Design. (2) I, II. Mrs. McVay, Mr. Horan
Experimentation with clay bodies and glazes, emphasizing local materials. Ceramic design with regard to functional and production limitations. Prerequisite: Art 256 or consent of instructor. Studio fee $10.00.

ART 262 Creative Art—Elementary Years. (2) I, II.
Individual and group projects to promote understanding of the creative use of art materials, tools, ideas, and their sources. Work in paint, clay, wood, etc. Studio fee $3.00.

ART 263 Creative Art—Secondary Years. (2) II.
Similar to 262, but with emphasis on the problems of the secondary years. Limited to 30 students. Studio fee $3.00.

ART 265 Water Color Painting. (2) I.
Mr. Cox

ART 266 Graphic Arts. (2) I.
Mr. Charlot
Printmaking in one or more of the following media: lithography, etching, linoleum cut, wood cut, and silk screen. Prerequisite: Art 150-151 and 154-155. Desirable preparation: Art 180-181 and 269. Studio fee $3.00.

ART 268 Landscape Painting. (2) II.
Mr. Norris
Basic study of landscape in oils, including composition, color, and technique. Outdoor and studio painting. Prerequisite: Art 180-181 or consent of instructor.

ART 269 Life Class. (2) I, II.
Mrs. Kimura
Drawing from the model, with a view to establishing a foundation for the imaginative use of the human figure. Prerequisite: Art 154-155. Studio fee $4.00.

ART 272 Illustration. (2) II.
Mrs. Kimura
Individual interpretations of the principles of design and composition in book and story illustration. Use of various media, stressing the limitations and possibilities of the reproduction processes. Prerequisite: Art 180-181, 257, 269. Studio fee $2.00.

ART 273 Design Materials. (2) II.
Mr. Cox
The creative use of three-dimensional design materials such as wood, metals, fabrics, or their combinations. Prerequisite: Art 150-151 and 154-155. Studio fee $5.00.
276 **Advanced Weaving.** (2) I, II.  
**Miss Robinson, Mrs. McVay**
Warping and threading of two- and four-harness looms. Study of pattern drafting and the uses of color and texture. Prerequisite: Art 176 or consent of instructor. Limited to 15 students. Studio fee $10.00.

280-281 **Advanced Oil Painting.** (2-2) Yr. **Mr. Norris, Mr. Charlot**
Continuation of 180-181. Studio fee $6.00 second semester.

299 **Directed Work.** (Ar.) I, II.  
**Staff**
Criticism and guidance in work of the advanced student's own choosing in the following fields: (1) Drawing and Painting; (2) Applied Design; (3) Ceramics; (4) Commercial Art; (5) History of Western Art; (6) History of Far Eastern Art; (7) Mural Painting; (8) Weaving. Prerequisite: consent of department chairman and instructor concerned. Studio fee by arrangement for (2), (3), (7), and (8).

300 **Directed Work.** (Ar.) I, II.  
**Staff**
Directed work in: (1) Drawing and Painting; (3) Ceramics; (6) History of Far Eastern Art; (8) Weaving. Prerequisite: consent of instructor and department chairman. Studio fee by arrangement.

360 **Ceramic Design and Research.** (2) I, II. **Mrs. McVay, Mr. Horan**
Systematic research into the properties of native Hawaiian materials for use as clay bodies and glazes. Design problems in relation to the character of these materials. Prerequisite: consent of instructor. Studio fee $10.00.

376 **Design and Research in Weaving.** (2) I.  
**Miss Robinson**
Systematic research into the utilization of native Hawaiian materials for weaving, or single emphasis upon design for specific contemporary uses. Prerequisite: consent of instructor. Studio fee $10.00.

380 **Problems in Painting.** (2) I, II.  
**Mr. Charlot**
Studio work of professional character in easel or mural painting. Prerequisite: consent of department chairman.

390 **General Seminar.** (2) I, II.  
**Mr. Norris, Staff**
Correlation of historical and critical backgrounds with contemporary practice in the arts. To be taken concurrently with Art 360, 376, or 380. Prerequisite: consent of department chairman.

395 **Seminar in Oriental Art.** (1) I, II.  
**Mr. Ecke**
Survey of the available literature and presentation of papers in fields of the student's choice. Prerequisite: consent of department chairman.

**ASIATIC AND PACIFIC LANGUAGES**

*Associate Professors Uyehara, Taam, Elbert; Assistant Professor Chong; Instructors Watanabe, Fujioka; Lecturers Kahale, Lee.*

**CHINESE**

100 **Elementary Chinese.** (3-3) Yr.  
**Mrs. Chong**
Study of Chinese vocabularies for practical usage, with emphasis on conversation; grammar and sentence construction; reading of simple Chinese stories.
101 Intermediate Chinese. (3-3) Yr.   Mrs. Chong
Selected reading of Pai Hua essays; composition of stories.

200 Third-Year Chinese. (3-3) Yr.   Mrs. Chong
Reading of newspapers and classics; composition and translation.

250-251 Chinese Literature in English. (3-3) Yr.   Mrs. Chong
Selections from classical and modern Chinese literature in English translation.

293-294 Methods in Chinese Studies. (3-3) Yr.   Mr. Taam
Study of the main fields of Chinese research, the special methods evolved, and the principal sources of bibliographical information. Prerequisite: junior standing.

300 Directed Reading or Research. (Ar.) I, II.   Mr. Taam
Prerequisite: graduate standing.

Hawaiian

100 Elementary Hawaiian. (3-3) Yr.   Mr. Elbert, Mr. Kahale
Elements of the language.

101 Intermediate Hawaiian. (3-3) Yr.   Mr. Kahale
Reading of Hawaiian texts.

200 Hawaiian Translation. (3-3) Yr.   Mr. Elbert
Translation of Hawaiian legends, chants, songs, and historical documents. Also translation from English to Hawaiian. Prerequisite: Hawaiian 101 or consent of instructor. (Not offered 1953-54.)

210 Hawaiian Traditional Poetry. (3-3) Yr.   Mr. Elbert
Translation of traditional poetry, including the Pele and Hiiaka cycle, and the Kumu Lipo creation chants. Linguistic problems. Prerequisite: Hawaiian 101 or consent of instructor.

Japanese

100 Elementary Japanese. (3-3) Yr.   Staff
Reading and translation of language readers. Study of Katakana, Hiragana, and simple Chinese characters; composition and oral exercises.

101 Intermediate Japanese. (3-3) Yr.   Mr. Watanabe, Mr. Fujio
Reading and translation of language readers. Study of more Chinese characters; composition; advanced oral exercises.

203 Japanese Translation & Interpretation. (3-3) Yr.   Mr. Uyehara

260 Japanese Literature in English. (2-2) Yr.   Mr. Uyehara
Historical analysis of Japanese thought through literature. Study of classics and contemporary works; drama; poetry; etc. No language background necessary.

299 Directed Reading. (Ar.) I, II.   Mr. Uyehara
300 Directed Reading or Research. (AR.) I, II. Mr. Uyehara
Prerequisite: graduate standing.

KOREAN

100 Elementary Korean. (3-3) Yr. Mr. Lee
Conversation, elements of grammar, reading.

101 Intermediate Korean. (3-3) Yr. Mr. Lee
Conversation, reading, and writing. Some Chinese characters.

200 Third-Year Korean. (3-3) Yr. Mr. Lee

LINGUISTICS

250 Introduction to Linguistics. (3) I. Mr. Elbert
The origin and development of linguistic science; principles and techniques of linguistics. Training in phonetics, with speakers of languages spoken in Hawaii as informants.

251 Linguistic Analysis. (3) II. Mr. Elbert
Descriptive linguistics, with emphasis on phonemic and morphological analysis; structural comparison of languages. Language as an aspect of culture. Ethnolinguistics and the use of linguistics by anthropologists. Prerequisite: Linguistics 250, or consent of instructor.

260-261 Survey of Pacific Languages. (3-3) Yr. Mr. Elbert
A brief description of the language types in Oceania. Field techniques in transcribing texts of Polynesian, Micronesian, and other Malayo-Polynesian languages, with emphasis on phonetics, phonemics, and morphology. Comparative studies of Oceanic languages. Prerequisite: Linguistics 250-251, or consent of instructor. (Not offered 1953-54.)

299 Directed Reading or Research. (AR.) I, II. Mr. Elbert
Prerequisite: consent of instructor.

300 Directed Reading or Research. (AR.) I, II. Mr. Elbert
Prerequisite: graduate standing.

BACTERIOLOGY

Professor Orcutt; Associate Professor Chu.

140 Applied Microbiology. (2) I, II. Mr. Chu
A survey of the principles and practical applications of microbiology. May not be used as prerequisite to other bacteriology courses. Not open to students who have had 151. (Not offered 1953-54.)

145 Microbiology for Nurses. (3) II. Mr. Chu
A basic course in the principles and techniques of general and medical microbiology, designed especially for students in nursing. May be taken by students in other curricula who do not intend to take other courses in the department. Two lectures and two laboratory periods. Laboratory fee $6.00.
151 GENERAL BACTERIOLOGY. (4) I, II. MR. ORCUTT, MR. CHU

The physiology, cultivation, and differentiation of bacteria, with emphasis upon fundamentals. Two lectures and two laboratory periods. Prerequisite: Botany 100 or Zoology 100; Chemistry 103. Desirable preparation: one semester of Chemistry 149. Laboratory fee $6.00.

250 ECONOMIC MICROBIOLOGY. (3-3) YR. MR. ORCUTT

Economic applications of microbiology. The first semester deals with agricultural microbiology (soil, sewage, water, milk, and dairy products), the second semester with marine microbiology and industrial microbiology (foods, fermentations, biologicals) and diseases of plants and animals of economic significance in Hawaii. Two lectures and one laboratory period. Prerequisite: Bacteriology 151; one semester of Chemistry 149. Laboratory fee $3.00 each semester. (Alternate years; offered 1953-54.)

260 MEDICAL BACTERIOLOGY. (3) I. MR. CHU

The role of micro-organisms in the communicable diseases of man and animals, with emphasis upon modes of transmission and epidemiological aspects, and upon the function of the clinical bacteriologist in the diagnosis of these diseases. Prerequisite: Bacteriology 151, one semester of Chemistry 149.

262 LABORATORY IN MEDICAL BACTERIOLOGY. (2) I. MR. CHU

A detailed study of the important bacteriological techniques concerned in the diagnosis of communicable diseases. Three laboratory periods. Prerequisite: credit or concurrent registration in Bacteriology 260. Laboratory fee $6.00.

264 IMMUNOLOGY. (3) II. MR. ORCUTT

Types of immunity, sera, vaccines, and antitoxins. Techniques of major diagnostic serological reactions. Two lectures and two laboratory periods. Prerequisite: Bacteriology 260. Laboratory fee $6.00.

299 MICROBIOLOGICAL PROBLEMS. (AR.) I, II. STAFF

Directed reading and laboratory work on problems in microbiology. Prerequisite: junior or senior standing; consent of instructor. Laboratory fee $6.00.

300 DIRECTED RESEARCH. (AR.) I, II. STAFF

Research on problems in microbiology. Prerequisite: graduate standing; consent of instructor. Laboratory fee $6.00.

312 SEMINAR. (1) I, II. MR. CHU

Presentation of reports upon research or assigned subjects; reviews of current literature. Required of graduate students. May be repeated.

BOTANY

PROFESSOR ST. JOHN; ASSOCIATE PROFESSORS LOHMAN, DOTY, COOIL; ASSISTANT PROFESSORS BRITTEN, SHOJI.

100 GENERAL BOTANY. (4) I, II. STAFF

Basic principles of plant science, with emphasis upon structure in relation to function, function in relation to habitat, habitat and heredity in relation to
evolution, attributes of plant life in relation to man. This course and Zoology 100 comprise an introduction to the biological sciences. Two lectures and two laboratory periods. Laboratory fee $5.00.

103 EVOLUTION. (2) I, II. MR. LOHMAN
Evolution in the plant kingdom; the simple ancestral plants; the lines of development to the complex higher plants. The rational basis for evolutionary hypotheses; the place of evolution in science and human thought. (Not offered 1953-54.)

105 ECONOMIC PLANTS OF HAWAI. (2) I, II. MR. ST. JOHN
The cultivated and wild plants used in ancient and modern times by the Hawaiians and Polynesians. Nature of these economic plants and their use for food, drink, fabric, dye, medicine, and utensils.

110 PLANTS AND MAN. (2) II. MR. BRITTEN
The influence of a dozen important plants upon man and man upon plants. The development of such plants as corn, wheat, rice, cotton, etc. The story of how plants have affected civilization. (Alternate years; not offered 1953-54.)

160 FLOWER AND TREE IDENTIFICATION. (2) II. MR. ST. JOHN
A nontechnical course in the identification of the common cultivated plants and weeds in the Territory.

161 PLANT GEOGRAPHY. (2) I. MR. ST. JOHN
Plant distribution throughout the world; vegetation of forests, grasslands, deserts, tundra, mountains, and oceans; special attention to origin, development, ecology, and economic importance.

181 PLANT LIFE OF THE SEA. (3) II. MR. DOTY
Marine algae, their ecology, especially the part they play in the productivity of the sea, and the taxonomy of local forms. Two lectures and one laboratory period. Laboratory fee $5.00.

201 SYSTEMATIC BOTANY OF FLOWERING PLANTS. (3) I. MR. ST. JOHN
Native and exotic Hawaiian flowering plants, their classification, history, distribution, use; synopsis of monocotyledons; preparation of an herbarium. One lecture and two laboratory periods. Prerequisite: Botany 100. Laboratory fee $3.00.

202 TAXONOMY AND EXPLORATION. (3) II. MR. ST. JOHN
Taxonomy of Hawaiian vascular plants, their occurrence and use; account of botanical exploration of Hawaii; literature of Pacific flora. One lecture and two laboratory periods. Prerequisite: Botany 201. Laboratory fee $3.00.

230 PHYCOLOGY. (3) I. MR. DOTY
Comparative morphology and systematics of the algae. Two lectures and one laboratory period. Prerequisite: 12 credits in Botany or Zoology. Laboratory fee $6.00.

253 PLANT ECOLOGY. (4) II. MR. ST. JOHN
Plants in relation to environment, the climatic and geographic factors; plant sociology, the origin, development, structure, and succession of plant societies. Two
lectures and two laboratory periods. Prerequisite: Botany 201. Laboratory fee $3.00. (Alternate years; not offered 1953-54.)

254 ADVANCED TAXONOMY. (1) I.  
MR. ST. JOHN
Synopsis of lower dicotyledons from Piperaceae to Rosaceae, with study of important families; plant distribution and independent identification of collections. Prerequisite: Botany 201.

259 MYCOLOGY. (3) II.  
MR. LOHMAN
The structure, food relations, and classification of fungi. Collection and identification of the more common Hawaiian fungi. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $4.00. (Alternate years; offered 1953-54.)

262 STRUCTURE OF ECONOMIC PLANTS. (3) II.  
MR. BRITTEN
A study of the anatomy of the important field and garden crop plants representative of Hawaiian agriculture. One lecture and two laboratory periods. Prerequisite: Botany 100. Laboratory fee $5.00. (Alternate years; offered 1953-54.)

263 PLANT PATHOLOGY. (3) II.  
MR. LOHMAN
Development of plant pathology; classification of plant diseases; relation of diseases to the environment; methods of investigating plant diseases; symptoms, etiology, and control measures. Two lectures and one laboratory period. Prerequisite: Botany 100 and consent of instructor. Laboratory fee $5.00.

264 PLANT PATHOLOGY TECHNIQUE. (3) II.  
MR. LOHMAN
Methods for the study of plant diseases; isolation, culture, inoculation; planning and interpretation of experiments. One lecture and two laboratory periods. Prerequisite: Botany 263. Laboratory fee $6.00. (Alternate years; not offered 1953-54.)

268 PLANT MICROTECHNIQUE. (3) I.  
MR. BRITTEN
Principles and methods of preparing plant materials for histological and cytological study; paraffin and smear techniques; preparation of illustrations for publication. One lecture and two laboratory periods. Prerequisite: Botany 100. Laboratory fee $8.00. (Alternate years; offered 1953-54.)

269 PLANT ANATOMY. (3) I.  
MR. BRITTEN
Structure of vascular plants; origin and differentiation of tissues; relation of structure to function. One lecture and two laboratory periods. Prerequisite: Botany 100. Laboratory fee $5.00. (Alternate years; not offered 1953-54.)

273 ADVANCED PLANT PHYSIOLOGY-BIOPHYSICS. (3) I.  
MR. COOIL
Intensive work on physical aspects of plant physiology; nature of protoplasm; water relations; mineral absorption and utilization. Prerequisite: Botany 283; Chemistry 149; Physics 102. (Alternate years; not offered 1953-54.)

274 LABORATORY TECHNIQUE IN BIOPHYSICS. (2) I.
Parallels 273 and may be taken with it, but is not required. Two laboratory periods. Laboratory fee $5.00. (Alternate years; not offered 1953-54.)
275 Advanced Plant Physiology-Biochemistry. (3) II. Mr. Cool

Intensive study of chemical aspects of plant physiology; photosynthesis; nitrogen assimilation; fat metabolism, translocation and storage; enzymes; respiration; hormones. Prerequisite: Botany 283; Chemistry 149; Physics 102. (Alternate years; not offered 1953-54.)

276 Laboratory Technique in Biochemistry. (2) II. Mr. Cool

Parallels 275 and may be taken with it, but is not required. Two laboratory periods. Laboratory fee $5.00. (Alternate years; not offered 1953-54.)

279 Morphology of Cryptogamic Plants. (3) I. Mr. Lohman

Comparative morphology and classification of the major groups of algae, bryophytes, and pteridophytes, and their biological relations. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $4.00. (Alternate years; not offered 1953-54.)

281 Cytology. (3) I. Mr. Britten

The structure of the cell, its nucleus and cytoplasm. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $4.00. (Alternate years; not offered 1953-54.)

282 Biological Photography. (3) II. Mr. Britten

Photographic materials and methods; photography outdoors and in the laboratory; making lantern slides, photomicrographs, and scientific illustrations. Two lectures and one laboratory period. Students must have cameras. Prerequisite: inorganic chemistry; two semesters of biological science; consent of instructor. Laboratory fee $8.00.

283 Elementary Plant Physiology. (4) II. Mr. Shoji

Introduction to plant physiology; osmosis, absorption of water, transpiration, mineral utilization, photosynthesis, storage, digestion, respiration, growth, photoperiodism. Two lectures and two laboratory periods. Prerequisite: Botany 100; Chemistry 103. Laboratory fee $6.00.

299 Botanical Problems. (AR.) I, II. Staff

Pursuit of any advanced botanical problem; reading and laboratory work. May be repeated. Prerequisite: consent of instructor. Laboratory fee $2.00.

300 Directed Research. (AR.) I, II. Staff

Prerequisite: graduate standing; consent of instructor. Laboratory fee $2.00.

310 Botanical Seminar. (1) I, II. Staff

Presentation of reports upon research, or reviews of current botanical literature. Recommended for seniors and graduate students and may be repeated.

312 Advanced Botanical Problems. (AR.) I, II. Staff

Investigation of any botanical problem; reading and laboratory work. May be repeated. Prerequisite: consent of instructor. Laboratory fee $2.00.

330 Molds, Yeasts, and Actinomycetes. (3) II. Mr. Doty

The systematics and manipulation of selected forms, with emphasis on their physiology as applied to research or to medical and economic processes. Prerequisite:
graduate standing, or 12 credit hours in Botany or Bacteriology. One lecture and two laboratory periods. Laboratory fee $5.00. (Alternate years; not offered 1953-54.)

331 Experimental Marine Botany. (3) II. Mr. Doty
Current research areas and their related laboratory methods, with emphasis on the physiological aspects of marine phycology. One lecture and two laboratory periods. Prerequisite: graduate standing, or 12 credit hours in Botany including Botany 230. Laboratory fee $5.00. (Alternate years; offered 1953-54.)

351 Plant Physiology Seminar. (1) II. Mr. Cool
Discussion of topics of particular interest to the group. May be repeated. Prerequisite: consent of instructor.

358 Advanced Mycology. (3) I. Mr. Lohman
Study of the taxonomy of selected groups of fungi. Consideration of recent and current work on morphology, taxonomy, and physiology of the fungi. Two lectures and one laboratory period. Prerequisite: Botany 259. Laboratory fee $4.00. (Alternate years; not offered 1953-54.)

365 Taxonomy of the Dicotyledons. (1) II. Mr. St. John
A synoptic treatment of the dicotyledons, from the Leguminosae to the Umbelliferae, with reference to their gross morphology, economic value, and distribution. Prerequisite: Botany 201. (Alternate years; offered 1953-54.)

367 Taxonomy of the Higher Dicotyledons. (1) II. Mr. St. John
A synoptic treatment of the higher dicotyledons from the Ericaceae to the Compositae, with reference to their gross morphology, economic value, and distribution. Prerequisite: Botany 201. (Alternate years; not offered 1953-54.)

378 Nomenclature. (2) I. Mr. St. John
A study of the laws of botanical nomenclature and their application by the case method, leading to a determination of the correct scientific names of plants. Prerequisite: Botany 202. (Alternate years; offered 1953-54.)

379 Plant Disease Literature. (1) I. Mr. Lohman
The evaluation of selected current literature in plant pathology, with special attention to the identification and control of diseases relative to local problems. May be repeated. Prerequisite: graduate standing; consent of the instructor. (Not offered 1953-54.)

380 Cytogenetics. (3) I. Mr. Britten
The cytological basis of plant heredity. Prerequisite: Botany 100; credit or concurrent registration in Agriculture 254. Two lectures and one laboratory period. Laboratory fee $4.00. (Alternate years; offered 1953-54.)

BUSINESS

Associate Professors Hoeber, Glover, Walker, Adler, Ige; Assistant Professor Congdon; Instructors Pierson, Atkinson; Lecturer Luke.

100 Business Calculations. (3) I, II. Staff
Consideration of basic arithmetical processes and calculations such as simple and compound interest, discounts, and annuities. Designed to meet the minimum business needs.

150 **Elementary Accounting.** (3) I, II. **Staff**
Fundamental principles of accounting for sole proprietorships, including use of journals and ledgers and preparation of statements. Two lectures and one laboratory period. Prerequisite: sophomore standing in the department or consent of instructor.

151 **Elementary Accounting.** (3) II. **Staff**
Continuation of Business 150, including the accounting problems of partnerships and corporations. Two lectures and one laboratory. Prerequisite: Business 150.

160-161 **Elementary Business Law.** (3-3) Yr. **Staff**
First semester: law as an agency of social control; nature, sources, and growth of the law; fundamental legal conceptions; law of contracts. Second semester: law of agency, negotiable instruments, and sales. Prerequisite: sophomore standing.

170 **Technique of Typewriting.** (2) I. **Mr. Atkinson**
An intensive course in advanced typewriting. Prerequisite: sophomore standing in Business or major in Education with a commercial work teaching field; consent of instructor; a placement examination.

177 **Technique of Shorthand.** (2) I. **Mr. Atkinson**
Dictation and transcription; advanced shorthand and typewriting skills combined; continued development of a vocabulary. Prerequisite: sophomore standing in business or major in Education with a commercial work teaching field; consent of instructor.

210 **Elements of Industrial Relations.** (3) I. **Mr. Ige**
An examination of some of the basic problems in industrial relations, directed toward the needs of supervisory personnel. Special attention to grievance machinery and the handling of grievances at the foreman and upper levels. Prerequisite: consent of instructor.

220 **Business Reports and Correspondence.** (3) I. **Mr. Atkinson**
Study of and practice in writing various types of business letters and reports. Assignments based on current economic and business problems, with emphasis on analytical thinking as well as writing.

225 **Advertising Copy Writing.** (3) II. **Mr. Condon**
A study of the principles underlying the preparation of effective copy; analysis of specimens from various current mediums; practice in creative copy writing; appraisal of methods of effective copy testing. (Alternate years; not offered 1953-54.)

230 **Industrial Safety and Health.** (2) II. **Mr. Condon**
Methods of reducing losses arising from industrial accidents and health hazards. Principles of accident prevention; reporting, analyzing and prescribing remedies for accident experience; staff organization, safety devices, and safety programs.
240 Principles of Insurance. (3) II.  
Mrs. Pierson
The uses of insurance in business, as protection against fire, theft, transportation risks, legal liability, and dishonesty and failure of others. Also forms of life and disability insurance.

241 Business and Secretarial Machines. (3) II.  
Mr. Glover
Analysis of the balance sheet and profit and loss account from the standpoint of the data to be derived from them bearing on the financial standing of business units as investments and credit possibilities. Prerequisite: Business 151.

245 Time and Motion Study. (3) II.  
Mr. Glover
The application of scientific management to industrial operations through analysis of time elements and study of motion economy. Includes job breakdown, time studies, work simplification, and standards of performance.

248 Wage Determination. (3) II.  
Mr. Ige
Principles and practice of rate setting, economic theories concerning wages, impact of unions on the process of wage determination. Prerequisite: Economics 150-151; desirable preparation: Economics 281.

249 Budgetary Accounting and Control. (3) II.  
Mr. Adler

250 Intermediate Accounting. (3) I.  
Mr. Adler, Mrs. Pierson
Financial statements: form, content, and such related problems as depreciation, depletion, valuation of assets, and the capital structure of corporations. Two lectures and one laboratory period. Prerequisite: Business 151.

251 Advanced Accounting. (3) II.  
Mr. Adler, Mrs. Pierson
Continuation of general accounting, including the more specialized phases, such as special reports, consolidated statements, accounting problems and procedures for installment sales, consignments, estates and trusts, receiverships, and branch agencies. Prerequisite: C or better in Business 250 or consent of instructor.

254 Cost Accounting. (3) I.  
Mr. Glover
Discussion of such aspects of cost accounting as sources of costs, cost units, cost gathering, and use of cost data. Prerequisite: credit or concurrent registration in Business 251 or consent of instructor.

255 Analysis of Financial Statements. (3) II.  
Mr. Glover
Analysis of the balance sheet and profit and loss account from the standpoint of the data to be derived from them bearing on the financial standing of business units as investments and credit possibilities. Prerequisite: Business 151.

256 Income Tax Problems. (3) I.  
Mr. Glover
Study of the federal and territorial income tax laws and related accounting problems; individual, fiduciary, partnership, and corporation returns are prepared. Prerequisite: Business 151.
257 Merchandise Accounting and Control. (3) II.  
Mr. Glover  
Principles and methods in accounting for the purchase and sale of commodities at retail and wholesale, with special emphasis on inventory control, collection and allocation of operating costs on a functional basis, and budgetary control. Prerequisite: Business 151.

258 Auditing. (3) I.  
Mr. Adler  
The principles involved and the techniques employed in the conduct of a business audit. While the course embraces both theory and practice, the practical aspects of auditing are emphasized by means of problems and a practice case. Prerequisite: Business 251 or consent of instructor.

259 Office Organization and Management. (3) II.  
Office functions; personnel; distribution of authority and responsibility; employment; compensation; efficiency measurement; procedure and layout; indexing and filing.

260 Principles of Small Business. (3) I.  
Mr. Walker  
The field of small business; organization, control, and expansion of units; financial difficulties and failures; relation to the economy. Emphasis placed upon practical aspects of operation by examination of specific cases. Prerequisite: Business 151; Economics 256.

261 Collective Bargaining. (3) I.  
Mr. Ige  
The underlying principles and concepts of collective bargaining and the collective bargaining agreement. Sample contracts examined and analysis made of the main provisions of agreements, including union status, general wage provisions, grievance machinery, seniority, contract enforcement, and other sections of the agreement. Prerequisite: Economics 281 or consent of instructor.

263 Personnel Management. (3) II.  
Characteristics of an efficient supervisory organization; employee maintenance and control; foremanship training and control; apprenticeship and training methods; pension, insurance, and thrift plans; working conditions; bonus, premium plans, and wage incentives.

265 Corporation Finance. (3) I, II.  
Mr. Luke, Mr. Walker  
Determination of capital requirements; sources and devices used to procure capital; marketing securities; control of capital disbursements; credit and income. Prerequisite: Business 151; credit or concurrent registration in Economics 256 or consent of instructor.

266 Investments and Investment Banking. (3) II.  
Mr. Walker  
Economic theory and tests of investment; investment credit analysis; mathematics of investment; tools of investment; types of investment institutions and their functioning. Prerequisite: Business 151; Economics 256.

267 Business Cycles and Business Forecasting. (3) II.  
Analysis of the business cycle and proposed remedies; assumptions, methods, and statistical data used in business forecasting; forecasting services; applicability of forecasts to specific cases. Prerequisite: Economics 256.
268 **Employment Interviewing. (3) II.**  
Mr. Ige  
Interviewing as a tool of personnel management used by both supervisor and personnel department; advantages and limitations when used in hiring, promotion, transfer, discharge, and other personnel changes; counseling interviews. Emphasis on practical aspects, with practice in actual interview work. Prerequisite: senior standing or consent of instructor.

270 **Principles of Marketing. (3) I.**  
Mr. Walker  
A study of consumption followed by a general survey of the marketing structure, emphasizing marketing functions and channels, market analysis and research, and marketing policies. Prerequisite: Economics 150-151 or consent of instructor.

272 **Advanced Secretarial Training. (2) II.**  
Mr. Atkinson  
A study of the work of the secretary, including letter forms and letter writing, business ethics, office procedures, filing, and transcription. Prerequisite: senior standing in Business or consent of instructor.

273 **Principles of Advertising. (3) II.**  
Mr. Congdon  
A survey course. Among the topics considered are: advertising as a factor in the distributive process, agencies and campaigns, selection of mediums.

276 **Retail Merchandising. (3) II.**  
Mr. Luke  
Buying habits of retail customers; history of retailing; store organization and management; sales promotion. Prerequisite: Economics 150-151 or consent of instructor.

277 **Secretarial Practice. (3) II.**  
Mr. Atkinson  
From 100 to 150 hours of laboratory work in a carefully selected business office, under supervision and for compensation, with coordinated class instruction and group sharing of experiences. Prerequisite: consent of instructor.

278 **Credit Management. (3) I.**  
Mr. Luke  
Nature and importance of credit in business; forms of credit instruments; sources of credit and of credit information; collection tools and their use; credit and collection control. Prerequisite: Business 151 or consent of instructor.

279 **Methods of Market Research. (3) I.**  
Mr. Congdon  
The requirements for scientific market research: selection of problem, data collection, tabulation, interpretations, presentation of findings, and application to business policy. Special emphasis on requirements of small business concerns. Prerequisite: Business 270 and 282 or consent of instructor.

280 **Principles of Salesmanship. (3) I.**  
Mr. Congdon  
Principles of personal selling, types of selling jobs, qualifications of salesmen. Emphasis upon practical problems and techniques of salesmen. Provision for application of techniques to actual selling situations.

282 **Business Statistics. (3) I, II.**  
Staff  
A study of statistical techniques and their application to business and economics. Sources of data, tabulation, charting, averages, dispersion, sampling, index numbers,
analysis of time series, and correlation. Prerequisite: Economics 150-151 or consent of instructor.

284 ACCOUNTING SYSTEMS. (3) II.  
Mr. Glover  
Principles and functions of an accounting system in providing useful information to the management of a business. Examination of records and statements for types of business and for specific business units. Prerequisite: credit or concurrent registration in Business 251.

286 NEGOTIABLE INSTRUMENTS. (3) II.  
Mr. Hoeber  
A study of the history and nature of negotiable contracts, of the kinds of negotiable instruments in general use, and of the leading provisions of the uniform Negotiable Instruments Law from the viewpoint of the businessman. Prerequisite: Business 160-161 or consent of instructor.

287 BUSINESS ORGANIZATION AND MANAGEMENT. (3) I, II. Mr. Walker  
Choosing goods to handle, time to enter business, location, size, and form of organization; selecting, handling, and promoting executives; choosing selling policies; promoting good public relations. Designed to integrate work already taken, to provide a basis for further study, and to give a unified concept of business administration. Prerequisite: Business 265 and senior standing.

296 GOVERNMENTAL ACCOUNTING. (3) I.  
Mr. Glover  
Essential principles and peculiarities of accounting as applied to municipalities and other governmental units: classification of accounts, budgetary procedure, fund accounting, assets, liabilities, cost accounting, and financial reporting. Prerequisite: Business 151. (Alternate years; not offered 1953-54.)

299 DIRECTED READING. (Ar.) I, II.  
Staff  
Prerequisite: consent of department chairman.

300 DIRECTED READING OR RESEARCH. (2-2) Yr.  
Staff  
Prerequisite: consent of department chairman.

307 SEMINAR IN PROBLEMS OF BUSINESS. (3) II.  
Mr. Walker  
Prerequisite: consent of department chairman.

CHEMISTRY

Professors L. Bilger, E. Bilger, Cavelti; Assistant Professors Scheuer, Zeitlin, Ihrig, Frodyma.

103 GENERAL CHEMISTRY. (4-4) Yr.  
Staff  
A comprehensive treatment of chemistry with emphasis upon fundamental laws, principles, and methods. Three lectures and one laboratory period. Laboratory fee $10.00 each semester. Prerequisite: a year of high school algebra and plane geometry.

104 SURVEY OF CHEMISTRY. (4-4) Yr.  
Mr. Frodyma  
A course comprising fundamental laws, principles, and methods of inorganic and organic chemistry. Three lectures and one laboratory period. Laboratory fee $10.00 each semester. Prerequisite: a year of high school algebra and plane geometry. May be used as a prerequisite for Chemistry 232 only.
CHEMISTRY

149 Organic Chemistry. (4-4) YR. Mrs. Bilger, Mr. Zeitlin

The chemistry of the carbon compounds, their classification and structure; electronic reactions; training in techniques of organic laboratory methods. Three lectures and one laboratory period. Prerequisite: Chemistry 103. Laboratory fee $12.00 each semester.

150 Qualitative Analysis. (4) I. Mr. Ihrig

Systematic analysis covering the detection of common basic and acid ions by semi-micro methods; theory of analytical procedures. Two lectures and two laboratory periods. Prerequisite: Chemistry 103. Laboratory fee $11.00.

160 Chemical Calculations. (3) II.

The solution of problems based upon the fundamental laws and definitions of chemistry; computations and errors. Prerequisite: Chemistry 150; credit or concurrent registration in Mathematics 151. Mathematics 152 advised.

230 Quantitative Analysis. (4-4) YR. Mr. Frodyma, Mr. Ihrig

Principles and practice of gravimetric and volumetric analysis, colorimetric and electrometric determinations. Two lectures and two laboratory periods. Prerequisite: Chemistry 150; Mathematics 151. Chemistry 160 and Mathematics 152 advised. Laboratory fee $11.00 each semester. First half repeated second semester.

232 Biochemistry. (4) I. Mr. Bilger

A study of the chemistry of biological systems, animal and plant; laboratory techniques of handling and studying biological materials. Three lectures and one laboratory period. Prerequisite: Chemistry 104 or first semester of 149. Laboratory fee $9.00.

236 Agricultural Chemistry. (3) II. Mr. Zeitlin

Chemistry of the products and materials of Hawaiian agriculture, including sugar cane, pineapples, fertilizers, stock feeds, insecticides, poultry and dairy products. Modern instrumental methods. One lecture and two laboratory periods. Prerequisite: first semester of Chemistry 149 and one semester of 230. Laboratory fee $10.00.

238 Advanced Inorganic Chemistry. (3) I. Mr. Cavelti

An advanced study of the less familiar elements; the periodic classification; nonaqueous solvents; metals, coordination compounds, types of bonding. Prerequisite: credit or concurrent registration in Chemistry 230.

246 Industrial Chemistry. (4) I. Mr. Cavelti

A theoretical and practical study of the unit processes, types of chemical reactions, unit operations, and types of mechanical procedures utilized in the chemical industries. Two lectures and two laboratory periods. Prerequisite: Chemistry 149 and one semester of Chemistry 230. Laboratory fee $8.00.

249 Advanced Organic Chemistry. (4) I. Mr. Zeitlin

A study of organic syntheses illustrated by laboratory preparations requiring special techniques. Two lectures and two laboratory periods. Prerequisite: Chemistry 149 and one semester of 230. Laboratory fee $12.00.
250 ORGANIC ANALYSIS. (4) II. Mr. Zeitlin
Qualitative and quantitative organic analysis by macro, semi-micro, and micro methods. Combustions and sealed-tube procedures. Two lectures and two laboratory periods. Prerequisite: Chemistry 149 and 230. Laboratory fee $12.00.

255 PHYSICAL CHEMISTRY. (4-4) Yr. Mr. Bilger
An advanced course in theories and principles of chemistry; physico-chemical laboratory procedures. Three lectures and one laboratory period. Prerequisite: Chemistry 149 and 230; Mathematics 153; Physics 102. Laboratory fee $8.00 each semester.

266 ADVANCED BIOCHEMISTRY. (4) II. Mr. Bilger
Theory and practice of quantitative methods of analysis of biological materials for purposes of clinical diagnosis and prognosis; chemical changes in the pathological human organism. Two lectures and two laboratory periods. Prerequisite: Chemistry 232 and one semester of 230. Laboratory fee $9.00.

271 COLLOIDAL CHEMISTRY. (3) I. Mr. Ihrig
An advanced study of the theory of the colloidal state of matter; applications in agriculture, medicine, biology, and industry. Lectures and demonstrations. Prerequisite: credit or concurrent registration in Chemistry 230.

281 HISTORY OF CHEMISTRY. (3) I. Mrs. Bilger
Evolution of the science of chemistry from the earliest times, through alchemy, to the present; emphasis upon achievements leading to new basic ideas; the personalities of the great chemists. Prerequisite: Chemistry 149 and 150.

295 CHEMICAL LITERATURE. (2) I, II. Mr. Scheuer
Systematic use of the journals, texts, handbooks, dictionaries, tables, abstracts, and government literature of chemistry; special library problems. One lecture and one library period. Prerequisite: credit or concurrent registration in Chemistry 230.

299 DIRECTED READING OR RESEARCH. (AR.) I, II. Staff
Prerequisite: credit or concurrent registration in Chemistry 230; junior or senior standing; approval of the chairman of the department. Laboratory fee $5.00 per credit.

300 DIRECTED RESEARCH. (AR.) I, II. Staff
Research in pure and applied chemistry. Prerequisite: graduate standing and approval of the chairman of the department. Laboratory fee $5.00 per credit.

338 ATOMIC STRUCTURE AND NUCLEAR CHEMISTRY. (3) II. Mr. Ihrig
A study of atomic structure from the quantum mechanical viewpoint with principal emphasis upon isotopes, nuclear reactions, and atomic energy. Prerequisite: credit or concurrent registration in Chemistry 255; Mathematics 154; Physics 102.

349 SPECIAL TOPICS. (2-2) Yr. Mr. Scheuer
A two-year cycle covering the advanced chemistry of alicyclics, heterocyclics, and condensed nuclei; carbohydrates; proteins; lipids and steroids; vitamins, hormones, and enzymes; metallic organic compounds; dyes and pigments; alkaloids, synthetic drugs, and antibiotics; terpenes, camphors, and perfumes; stereochemistry;
tracer organic chemistry; structure and properties. May be taken four semesters. Prerequisite for any semester: Chemistry 249.

355 Theoretical Organic Chemistry. (3) II. MRS. BILGER
Electronic and molecular orbital theories of the chemical bond; resonance; bond types; physical methods of investigation of structure, electronic reactions. Prerequisite: Chemistry 249 and credit or concurrent registration in 255; Physics 102.

358 Chemical Thermodynamics. (3) I. MR. IHRIG
Electronic and molecular orbital theories of the chemical bond; resonance; bond types; physical methods of investigation of structure, electronic reaction. Prerequisite: Chemistry 249 and credit or concurrent registration in 255; Physics 102.

360 Seminar. (1-1) YR. MRS. BILGER
Papers and discussions on recent advances in chemistry. Prerequisite: senior or graduate standing, or consent of instructor. May be repeated.

375 Instrumental Chemistry. (2-2) YR.
A two-year cycle covering the theory and applications of modern optical, electrical, and physical methods including spectrophotometry, colorimetry, fluorimetry, X-ray and electron diffraction, microscopy, polarimetry, polarography, magnetometry, and radiometry. Lectures and demonstrations. May be taken four semesters. Prerequisite: credit or concurrent registration in Chemistry 255.

CLASSICS

100 Elementary Latin. (3-3) YR.
Vocabulary and grammar, with reading of simple Latin.

101 Intermediate Latin. (3-3) YR.
Review of grammar; reading of selections from prose and poetry.

200 Latin Literature. (3-3) YR.
Latin literature in Latin. Selections according to student interests.

260-261 Classical Literature. (3-3) YR.
The major writers of Greece and Rome in English translation. The first semester is devoted to Greek literature; the second, to Roman literature. Students may enter the second semester.

299 Directed Reading. (AR.) I, II.
Prerequisite: consent of instructor.

DRAMA AND THEATRE

Professor Ernst; Associate Professor Trapido; Assistant Professor Bentley.

140 Introduction to Drama and Theatre. (3) II. MR. ERNST
A study of the theatre in its relation to contemporary life, with particular emphasis upon its role as a form of social and artistic expression. Lectures, demonstrations.
150-151 DRAMATIC PRODUCTION. (3-3) YR. 

Mr. Trapido 
An introduction to the basic theories and practices of the theatre. Emphasis upon acting, direction, staging, and lighting, with some attention to other departments of the theatre and to problems of school production. Coordinated with the activities of the University Theatre. Students may enter the second semester.

200 THEATRE PRACTICE. (2) I, II. 

Staff 
Supervised work in the arts and crafts of the theatre, in conjunction with productions. Staging, lighting, costumes, and properties, of which the student will usually elect one. Intended for the general student rather than Drama majors. May be repeated once. Prerequisite: consent of instructor.

220-221 ACTING. (3-3) YR. 

Miss Bentley 
Analysis and interpretative reading of dramatic prose and poetry; related principles of stage production; reports; individual exercises and group rehearsals. Coordinated with the productions of the University Theatre. Students may enter the second semester.

230-231 DIRECTION. (3-3) YR. 

Mr. Ernst, Mr. Trapido 
First semester: readings, reports, discussion of the theory and practice of stage direction. Second semester: supervised practice in directing short scenes and plays.

240 STAGECRAFT AND THEATRE PLANNING. (3) I. 

Mr. Trapido 
The principles and practices of modern stagecraft: theories of stage production; planning of small theatres; stage arrangement; problems and practice in scene construction. Laboratory fee $5.00.

245 STAGE LIGHTING. (3) II. 

Mr. Trapido 
Modern and historic methods of lighting the stage; elementary electrical theory as used on stage; stage lighting equipment; problems in stage lighting and practice in the use of equipment. (Alternate years; offered 1953-54.)

250 HISTORY OF THE THEATRE. (3) I. 

Mr. Ernst 
A survey of the development of the theatre from the earliest times to the present. Readings, discussion, lectures. Laboratory fee $2.50. (Alternate years; not offered 1953-54.)

260 MODERN THEORIES OF STAGE PRESENTATION. (3) I. 

Mr. Ernst 
Recent and current theories of production critically analyzed and reviewed, with emphasis upon Craig, Appia, Fuchs, Stanislavsky, and the French Symbolists. (Alternate years; offered 1953-54.)

265 AESTHETICS OF THE THEATRE. (3) II. 

Mr. Ernst 
Consideration of the aesthetic bases of the theatre. Readings, discussion, reports. (Alternate years; not offered 1953-54.)

299 DIRECTED WORK. (AR.) I, II. 

Staff 
Open only to majors in Drama and Theatre. Prerequisite: consent of instructor.

300 DIRECTED WORK. (AR.) I, II. 

Staff 
Reading or research in theatre theory or history; reading and practice in particular areas of dramatic production. Prerequisite: graduate standing or the equivalent; consent of instructor.
320 Seminar in Drama and Theatre. (3) II.  Mr. Ernst
Review of special topics in drama and theatre; preparation of reports. Prerequisite: consent of instructor. (Alternate years; not offered 1953-54.)

350 Seminar in Oriental Theatre. (3) II.  Mr. Ernst
Special topics in the drama and theatre of the Orient. Reading, discussion, reports. Prerequisite: consent of instructor. (Alternate years; offered 1953-54.)

ECONOMICS

Professor Roberts; Associate Professors Hoeber, Walker, Ige, Pendleton; Assistant Professor Bell.

Economics 150-151 is prerequisite to all other courses in Economics except 140.

140 Introduction to Economics. (3) I, II.  Staff
A descriptive analysis of basic economic institutions and a study of the elementary principles underlying consumption, production, exchange, and distribution. Not open to majors in Economics or Business. Credit cannot be obtained in both this course and 150-151.

150-151 Principles of Economics. (3-3) Yr.  Staff
Principles underlying consumption, production, exchange, and distribution of wealth; analysis of important current economic problems.

256 Money and Banking. (3) I.
Nature and history of money and of banking; characteristics of credit; monetary system of the United States; monetary standards; value of money; relation of money and credit to prices; banking system of the United States, including commercial banks, trust companies, savings banks, and related savings institutions.

258 Economic Resources of the United States. (3) II.  Mr. Bell
An analytical study of major economic resources in the United States and their historic development, with consideration given to related technological developments during peace and war times.

261 Public Finance. (3) I, II.  Mr. Hoebber

262 Government Finance in Hawaii. (3) I.
Territorial and county income and expenditures; fiscal administration; territorial tax system appraised, theories of taxation; economic effects. (Not offered 1953-54.)

264 Intermediate Economic Theory. (3) II.
An advanced study of price and distribution theory; comparison of price theory with actual industrial pricing practices. Analysis of Keynesian economic system. Prerequisite: Economics 256 or consent of instructor.
265 Government and Business. (3) I, II.  
Mr. Walker, Mr. Ige
Ways in which business and economic life are affected by government: government aids to business, regulation of business organization and combination, conservation of natural resources, price control, and government ownership.

266 Fiscal Policy and Management. (3) II.
Influence of governmental fiscal policy on size and distribution of national income. Economic and political factors shaping fiscal policy. The budget as an instrument of fiscal policy; budget formulation and execution. Financial controls utilized by governments. Desirable preparation: Economics 261. (Not offered 1953-54.)

270 Public Utilities. (3) I.
Mr. Hoeger
The economic nature and history of public utilities, excluding railroads, followed by a critical discussion of their control by governments.

275 Trends in Labor-Management Relations. (3) I. Mr. Pendleton
Intensive investigation of selected areas of industrial relations. Prerequisite: Economics 281. (Not offered 1953-54.)

281 Labor Problems. (3) I.
Mr. Ige
A study of wages, hours, working conditions, employment, superannuation, substandard workers, and other important problems common to all labor. Special attention to an analysis of the fundamental factors affecting wage levels.

282 American Trade Unionism. (3) II.
Mr. Pendleton
Labor problems under unionism: types of unions; evolution of unions; membership; financing; methods used to obtain objectives; methods used by employers in dealing with them; theory and procedures of collective bargaining; economic effects of policies and practices.

283 Labor Legislation. (3) I.
Mr. Ige
Historic development of labor legislation; its adjudication and administration with emphasis on economic implications. Special attention to current political and legal issues directly related to labor legislation.

285 International Trade and Finance. (3) II.
Theory of international trade, foreign exchange rates, balance of payments equilibrium, and commercial policy, with emphasis on recent events. Attention to practical aspects of importing and exporting. Prerequisite: Economics 256 or consent of instructor. (Includes materials formerly in Economics 263.)

287 Public Relations. (3) II.
Basic principles of public relations as a function of modern business. Mediums and tools defined, and use studied.

289 Arbitration of Grievances. (3) II.
Mr. Roberts
Purpose and functions of grievance machinery; types of machinery and arbitration clauses; functions, duties, and responsibilities of arbitrators. Use of cases to illustrate preparation of a case, presentation at the hearing, decision, and bases for review and methods of enforcement. Prerequisite: Economics 281; Business 261.
291 **Agricultural Economics.** (3) I. Mr. Bell

A survey of the economic principles and problems of agriculture; special attention to such aspects as resources, tenure, size of enterprise, farm credit, marketing, farm labor, prices, taxation, and farm incomes. Prerequisite: Economics 140 may be substituted for 150-151.

292 **Land Economics.** (3) II. Mr. Bell

Fundamentals of regional planning organization and planning techniques; city development and redevelopment; land utilization; land subdivision; housing; zoning; real estate marketing, valuation, and finance; land tenure; and land classification. Prerequisite: Economics 140 may be substituted for 150-151.

294 **Research in Industrial Relations.** (3) I. Mr. Pendleton

An analytical survey of work done in the field of industrial relations since 1870 by leading writers and schools, combined with supervised group projects in current topics in the same field. Prerequisite: Economics 281 or consent of instructor.

296 **History of Economic Thought.** (3) I.

A general survey of economic thought from Adam Smith to the present with special emphasis on the theory of value and distribution. Prerequisite: senior standing.

299 **Directed Reading.** (Ar.) I, II. Staff

Prerequisite: consent of department chairman.

300 **Directed Reading or Research.** (2-2) Yr. Staff

Prerequisite: consent of department chairman.

310 **Seminar in Labor Problems.** (3) II. Mr. Roberts

Prerequisite: consent of instructor.

315 **Seminar in Economic Problems.** (3) II. Mr. Ige

Prerequisite: consent of department chairman.

**EDUCATION**

Professors White, Armstrong, Brown, Clopton, Ewing; Associate Professors Chun, Frojen, Porter, Beyers, Everly, Fick; Assistant Professors Gardner, Traut, Martin, Balsbaugh, In, Sueoka, Noda, Gustafson, Forbes; Instructors Alm, Atkinson, Fitzsimmons, Tinker, Crooker, Kiyosaki, Johnson, Reddin, Jenkins, Geiser, Yang, Lang, Snow, Amato.

Enrollment in Education courses is restricted to students in Teachers College except by special permission of the chairman of the department. Credit in Education 250-251, or 283-284, or 285-286, or the equivalent, is required for registration in any Education course numbered 300 or above.

100 **Orientation.** (1-1) Yr. Mr. Beyers, Mr. Gustafson

Survey of students' problems of adjustment in the University; the bases of the choice of teaching as a profession and the proposed choice of a major and a teaching field. Laboratory fee $1.00 first semester.
201 OCCUPATIONAL ANALYSIS. (1-1) Yr. Mr. Ewing
Techniques of course construction based on occupational analysis; analyzing
an occupation; tools and equipment; selecting jobs as vehicles of instruction; re-
lated information and reference material. (Not offered 1953-54.)

202 CURRICULUM CONSTRUCTION, VOCATIONAL. (1-1) Yr. Mr. Ewing
Continuation of 201; organization of instructional material based upon oc-
cupational analyses; type jobs, operations and related information for specific units
of instruction; assignments; sequence of units to meet training needs.

203 TECHNIQUES OF VOCATIONAL INSTRUCTION. (2) II. Mr. Ewing
The techniques and methods of individual and group instruction in shop and
related classes; principles of learning; skills of instruction; demonstrations and
evaluation of various methods of instruction; methods of measuring achievement.
(Not offered 1953-54.)

204 SHOP ORGANIZATION AND MANAGEMENT. (1-1) Yr. Mr. Ewing
Organization and control of shop instruction; handling supplies; maintaining
equipment and tools; purchasing materials; keeping records; making inventories
and meeting other problems of setting up and operating shop instruction courses.

205 INSTRUCTIONAL MATERIALS, INDUSTRIAL. (1-1) Yr. Mr. Ewing
The selection and effective use of instructional materials in trade and industrial
classes; sources, values, limitations and classification of instruction sheets and
reference materials.

206 PRINCIPLES OF INDUSTRIAL EDUCATION. (2) I. Mr. Ewing
The development of vocational education; history and legislation affecting it;
analysis of objectives of types of courses and programs; their place in the total
program of education; the plan for vocational education in Hawaii. (Not offered
1953-54.)

210 AUDIO-VISUAL AIDS, INDUSTRIAL. (1-1) Yr. Mr. Ewing
Types of instructional aids and methods of evaluating them; development,
preparation, construction, and use of typical aids; methods of using instructional
aids and the operation of audio-visual equipment by the teacher of industrial sub-
jects. (Not offered 1953-54.)

211 CONFERENCE LEADER TRAINING. (2) II. Mr. Ewing
The techniques of leading group meetings in which problems are thoughtfully
and freely discussed; pooling experiences and ideas for problem solving; developing
teamwork on the supervisory level. (Not offered 1953-54.)

212 CURRICULUM ANALYSIS IN INDUSTRIAL ARTS. (2) I. Mr. Ewing
A survey of teachable content in the Industrial Arts field; technical skill and
related information on the Industrial Arts level. (Not offered 1953-54.)

213 VOCATIONAL GUIDANCE, TRADE AND INDUSTRIAL. (2) II. Mr. Ewing
Principles and problems of guidance with special reference to vocational edu-
cation; data relating to requirements and opportunities for employment in various
trades. (Not offered 1953-54.)
214 **Special Problems in Vocational Teaching.** (1-1) Yr. Mr. Ewing

Special problems in the instructional program resulting from changes in industry locally; shop organization; the development of new or different instructional material. May be repeated with the consent of the instructor and department chairman.

216 **Bookkeeping and Office Practice.** (2) II. Mr. Atkinson

Theories and methods of teaching bookkeeping, office practice, and other subjects in the secondary school commercial curriculum. Prerequisite: Business 150-151. (Alternate years; offered 1953-54.)

217 **Vocational Education and Community Needs.** (2) I. Mr. Ewing

Community needs and resources in relation to the planning and conducting of vocational education; economic factors, government controls, organization of labor and management as influences on the need for and nature of vocational offerings. (Not offered 1953-54.)

234 **Creative Arts, Preschool Primary.** (3) I, II.

Miss Johnson, Miss Snow

The materials and procedures in art and construction activities, singing, simple work with instruments, rhythmic activities, dancing, and dramatic play for young children. Laboratory fee $2.00.

236 **Basic Skills, Preschool Primary.** (2-2) Yr. Miss Reddin

Materials and procedures in teaching reading, writing, and arithmetic appropriate to children three to seven years of age.

239 **Science, Preschool Primary.** (2) I, II. Mrs. Crooker, Miss Fussler

The materials and procedures in natural and social science activities appropriate to children two to seven years of age.

240 **Social Studies and Science, Elementary.** (3) I, II. Miss Traut

The scope and organization of the social studies and science in the elementary school curriculum. The development of social and scientific knowledge and understanding in childhood experience.

241 **Mathematics, Elementary.** (2) I, II. Mrs. Yang

The scope and organization of mathematics and science in the elementary school curriculum. The development of the subject matter of arithmetic in childhood experience.

242 **Hawaiian Natural History.** (2-2) Yr. Mr. Tinker

Survey of the local physical and biological environment, with special reference to the needs of teachers in the schools of Hawaii. Students may enter the second semester.

243 **Language Arts, Elementary.** (3) I, II.

Mrs. Fitzsimmons, Miss Lang

Developing concepts of the modern approach to the teaching of language arts—reading, oral and written expression. An exploration of materials designed for grades one through six.

244 **Literature, Elementary.** (2) I, II. Mrs. Geiser

Designed to help prospective teachers become acquainted with a wide range
of children’s books, and to develop criteria for judging literature on the basis of children’s needs and interests.

245 SCIENCE, SECONDARY. (2) II.
Mr. Forbes
Purposes and procedures. The development of scientific attitude. Review of the major generalizations of the biological and physical sciences.

246 MATHEMATICS, SECONDARY. (2) II.
Purposes and procedures. The development of basic mathematical concepts.

247 SOCIAL STUDIES, SECONDARY. (2) II.
The scope and organization of social studies in the secondary school. The development of social knowledge and understanding.

249 TEACHING OF TYPEWRITING AND SHORTHAND. (2) II.
Theory and methods of teaching typewriting and shorthand. Prerequisite: Business 170 and 177. (Alternate years: not offered 1953-54.)

250-251 SECONDARY EDUCATION. (4-4) Yr.
Mr. Everly, Mr. In. Mr. Noda
Basic course dealing with major problems of secondary education.

252 TEACHING PHYSICAL EDUCATION ACTIVITIES. (2) I.
Mr. Brown
Methods and materials in the conduct of the physical activity program. Techniques in leadership, including the selection of activities and program evaluation.

253 PRACTICE TEACHING IN HOME ECONOMICS. (6) I, II.
Miss Frojen
Observation, supervised teaching, and conferences. Prerequisite: senior standing; credit or concurrent registration in Home Economics 251.

254 PRACTICE TEACHING.* (14) I, II.
Staff
Teaching experience supervised by staff members of the University Preschool, Elementary, and High Schools.

255 SEMINAR FOR PRACTICE TEACHERS. (2) I, II.
Staff
Study of problems arising from immediate experience as classroom teachers. To be taken concurrently with 254.

256 SEMINAR IN HOME ECONOMICS. (2) I, II.
Miss Frojen
Study of problems arising from immediate experience as practice teachers in Home Economics. To be taken concurrently with 253.

257 LANGUAGE ARTS, SECONDARY. (3) II.
Mr. Alm
The teaching of reading, literature, and language in the intermediate and high schools; special attention to problems of expression, usage, and vocabulary.

260 ENGLISH IN THE ELEMENTARY SCHOOL. (2) II.
Mr. Amato
Special problems in teaching spelling, language usage, grammar, and creative writing. This course for inservice teachers parallels 243 for prospective teachers; credit may not be earned in both courses. (Alternates with 291; offered 1953-54.)

*Students registering for this course begin and complete work in accordance with the Laboratory School calendar.
261 **Tests and Measurements. (3) I, II.**  
Theory and techniques of evaluation in education; practice in the use of testing devices. Laboratory fee $1.00.  

**Mr. Beyers**

266 **Materials and Resources of Guidance. (3) II.**  
Sources of information; professional organizations and personnel; the material aids to counseling; the research function of the counselor. Prerequisite: credit or concurrent registration in Psychology 257 or consent of instructor. (Alternate years; offered 1953-54.)

**Mr. Fick**

267 **Occupational Information in Guidance. (2) II.**  
Occupational research and survey techniques; trends; sources of materials; use of occupational information in vocational guidance and placements; correlation with other school subjects. (Alternate years; offered 1953-54.)

**Mr. Fick**

268 **Guidance in the Elementary School. (2) II.**  
Principles, techniques, and organization of guidance services, both preventive and adjustive, in the elementary school; applications in local schools. Prerequisite: Psychology 185, Education 286, credit or concurrent registration in Education 261, and Psychology 292, or consent of instructor. (Alternate years; not offered 1953-54.)

**Mr. Fick**

269 **Problems in School Adjustment. (2) II.**  
Principles of behavior which affect human relationships in the school, with emphasis upon application to actual situations. Prerequisite: senior standing in Teachers College and consent of instructor. (Alternates with 268; offered 1953-54.)

**Mr. Fick**

270 **Agricultural Project Work. (3) I.**  
The project as an educational device in all-day, young farmer, and adult farmer classes; classroom correlation; plans, records, reports, and accounts.

**Mr. Armstrong**

271 **Principles of Agricultural Education. (3) I.**  
The nature, purpose, and scope of vocational education; relation to prevocational and general education; federal, state, and local policies and plans; organizations adapted to this type of work; organization for Hawaii.

**Mr. Armstrong**

274 **Teaching Vocational Agriculture. (3) I.**  
Organizing and instructing classes in agriculture for all-day students; long-time programs; annual plan of work; references, equipment, supplies, records, reports; relation to prevocational agriculture.

**Mr. Armstrong**

275 **Practice Teaching in Agriculture. (3) II.**  
Full-time observation and teaching under supervision for three weeks in selected centers. Prerequisite: credit or concurrent registration in 274.

**Mr. Armstrong**

282 **Literature for Adolescents. (2) I.**  
Literature for the secondary school level; methods for helping students appreciate the significance and meaning of literature; selection of materials suitable to varying levels of ability and interests.

**Mr. Alm**
283-284  PRESCHOOL-PRIMARY EDUCATION. (5-5) YR.  Miss Gardner
  Basic course in major problems in the education of children of ages two to
  seven; observation and work with children; education of children in the home, and
  methods of home-school cooperation.

285-286  ELEMENTARY EDUCATION. (4-4) YR. Miss Porter, Mrs. Sueoka
  Basic course in major problems in the education of children of ages seven to
twelve; observation and work with children.

287  AUDIO-VISUAL EDUCATION. (3) I, II.  Mr. Chun
  Theory, preparation, and use on all school levels of sensory aids to learning.
  Laboratory fee $3.00.

290  TEACHING SLOW LEARNERS. (2) I.  Mr. Amato
  The social, psychological, and procedural problems involved in the teaching of
  slow learners in the normal classroom. Prerequisite: teaching experience.

291  TEACHING GIFTED CHILDREN. (2) II.  Mr. Amato
  Problems of motivating and evaluating learning experiences of gifted children
  in the normal classroom. Prerequisite: teaching experience. (Not offered 1953-54.)

293  THE TEACHING OF READING. (2) I.  Mr. Alm
  Various techniques of teaching reading and of improving reading skills through-
  out the schools.

294  REMEDIAL READING. (2) II.  Mr. Alm
  Techniques for motivating and helping children whose reading skills are below
  their capacity and needs.

299  DIRECTED READING. (AR.) I, II.  Staff
  Individual reading in (1) Preschool Education, (2) Elementary Education,
  (3) Secondary Education, (4) History of Education, (5) Audio-visual Educa-
  tion, (6) Philosophy of Education, (7) Administration and Supervision, (8) Adult
  Special Education, (16) Reading and Language. Prerequisite: consent of the
  chairman of the department and of instructor concerned.

300  DIRECTED READING OR RESEARCH. (AR.) I, II.  Staff
  Individual reading or research in the same fields as in 299. Prerequisite: grad-
  uate standing; consent of the chairman of the department and of instructor con-
  cerned.

326  ADMINISTRATION OF THE SECONDARY SCHOOL. (2) I.  Mr. Everly
  The major problems in the organization and administration of the modern in-
  termediate and senior high schools; curriculum improvement, schedule making,
pupil and staff personnel, school plant, business and finance, public relations. (Al-
ternate years; offered 1953-54.)

327  ADMINISTRATION OF THE ELEMENTARY SCHOOL. (2) I.
  The major problems of the modern elementary school principal; curriculum
improvement, program making, reports to parents, pupil and staff personnel, school plant, business and finance, community relations, special problems of the small school. (Alternate years; not offered 1953-54.)

328 SUPERVISION OF INSTRUCTION. (2) II.
Principles underlying supervision, methods of supervision, in-service training of teachers, teacher evaluation, teachers' meetings, development of group leadership, skill in human relations. (Alternate years; not offered 1953-54.)

329 CURRICULUM CONSTRUCTION. (3) I.
Mr. Martin
Principles underlying curriculum construction at all levels, developing resource units, locating appropriate curriculum materials, methods of curriculum revision.

332 CLINICAL PROCEDURES IN READING. (3) I.
Mr. Alm
Diagnosis and improvement of individual reading problems in elementary and secondary schools with special attention to severely retarded readers. Prerequisite: Education 294 and consent of instructor.

334 TEACHING ENGLISH, SECONDARY. (2) II.
Mr. Alm
Review of recent developments in teaching language skills in the secondary school, both in English classes and in English-Social Studies classes. Prerequisite: teaching experience in grades 7-12. Not open to students who have had 257. (Not offered 1953-54.)

340 PHILOSOPHY OF EDUCATION. (3) I, II.
Mr. Clopton
Philosophy and science in education; social, psychological, and ethical considerations essential to the development of a philosophy of education; implications of philosophical viewpoints for policy in education.

345 SEMINAR IN PHILOSOPHY OF EDUCATION. (2) II.
Mr. Clopton
Social and psychological theory involved in controversial educational issues. Prerequisite: Education 340 or equivalent and consent of instructor. May be repeated for credit by permission of instructor. (Alternate years; offered 1953-54.)

350 HISTORY OF EDUCATION. (2) I, II.
Mr. Beyers, Mr. Clopton
Survey of the history of educational thought and practice as a basis for the study of modern school problems.

354 INTERNSHIP.* (14) I, II.
Staff
Full-time teaching under special supervision in selected public schools. Restricted to fifth-year students.

356 COUNSELING LABORATORY. (3) I, II.
Mr. Fick
Supervised experience in counseling pupils in the University laboratory schools. Prerequisite: Psychology 257, 264, 290, 292, and consent of instructor.

362 ORGANIZATION AND ADMINISTRATION OF GUIDANCE. (2) II.
Mr. Fick
The organization and administration of guidance, as a part of student personnel services, so as to contribute most effectively to the school program, with special

*Students registering for this course the first semester begin work on the opening date of the public school calendar, September 1, 1953. Those registering for the second semester complete the course on the closing date of the public school calendar, June 10, 1954.
reference to the role of the administrator. Prerequisite: Psychology 254 or 257, or consent of instructor. (Alternate years; offered 1953-54.)

363 **SEMINAR IN EDUCATIONAL ADMINISTRATION.** (2) II.
Organization for public education; taxation; equalization; internal problems of school administration; personnel; pupil classification; records and reports. Restricted to administrators and prospective administrators. Prerequisite: Education 326 or 327 and consent of instructor. (Alternate years; offered 1953-54.)

364 **TESTS AND INVENTORIES IN GUIDANCE.** (2) II. Mr. Fick
Tests and inventories for measuring aptitudes, interests, attitudes, and modes of behavior; uses and limitations in counseling and guidance; administering scoring, and interpreting scores. Prerequisite: credit or concurrent registration in Education 261 or Psychology 264, or consent of instructor. (Alternate years; not offered 1953-54.)

365 **SEMINAR IN SUPERVISION OF INSTRUCTION.** (2) II.
The supervisory work of the principal; the place of supervision; organization for supervisory service; techniques. Restricted to administrators and prospective administrators. Prerequisite: Education 328 and consent of instructor. (Alternate years; offered 1953-54.)

369 **SEMINAR IN SPEECH PEDAGOGY.** (3) I.
Review of literature in the field and analysis of the present and local problems facing the teacher of speech.

376 **SEMINAR IN VOCATIONAL EDUCATION.** (2) II. Mr. Ewing
Individual study of special problems in vocational education. (Alternate years; not offered 1953-54.)

380 **RESEARCH AND THESIS WRITING.** (3) I. Mr. Clopton
Research techniques and thesis development; designed to assist students in thesis preparation. Prerequisite: Education 340, 361, 390; Psychology 351; consent of instructor.

390 **PUBLIC SCHOOL ADMINISTRATION.** (2) I, II. Mr. Clopton, Mr. Everly
The function of the teacher in school administration; state and territorial organization for administrative control of public education; rights and duties of teachers under Hawaiian school law and D. P. I. regulations; retirement system; teachers' organizations; financing public education.

395 **SEMINAR FOR INTERN TEACHERS.** (2) I, II. Staff
Problems arising from the classroom experiences of intern teachers. Restricted to fifth-year students.

396 **SEMINAR IN CURRICULUM IMPROVEMENT.** (2) II. Mr. Martin
Social and psychological bases of the curriculum; selection, development, and evaluation of the school experiences of children and youth; organization and administration of curriculum construction. Prerequisite: Education 329 and consent of instructor.
ENGINEERING

PROFESSOR BENNETT; ASSOCIATE PROFESSORS HARLOE, WACHTER, OKUBO; ASSISTANT PROFESSORS MCCALL, ENGMAN, ROOK, YOUNG; INSTRUCTOR CHIU.

CE 100 ENGINEERING ORIENTATION. (1) I. STAFF
Lectures to acquaint students with the nature of the engineering profession and the aims of engineering education. Methods of solution of engineering problems.

CE 101 SURVEYING. (4) I. MR. HARLOE, MR. CHIU
Use of tape, level, transit, and planetable; horizontal and vertical control surveys; computations. Two recitations and two field or drafting periods. Prerequisite: Mathematics 150; credit or concurrent registration in Mechanical Drawing 101. Laboratory fee $2.00.

CE 102 SURVEYING. (4) II. MR. HARLOE, MR. CHIU
Topographic mapping; triangulation and least squares adjustment; simple, compound, spiral, and vertical curves; earthwork computations; construction, hydrographic, and city surveys; route problems. Two recitations and two field or drafting periods. Prerequisite: Mathematics 151, 152; Mechanical Drawing 101; Civil Engineering 101. Laboratory fee $2.00.

CE 227 SURVEYING. (3) STAFF
Principally field work; base lines, triangulation, curves, earthwork, grades, reconnaissance, preliminary surveys, route location, and design. Prerequisite: Civil Engineering 102. Laboratory fee $2.00. Offered only in summer sessions.

CE 228 WATER SUPPLY. (3) I. MR. WACHTER
Hydrology; collection, distribution, and treatment of public water supplies, including fire protection; conservation and administration. Prerequisite: Civil Engineering 255.

CE 229 SEWERAGE AND WASTE DISPOSAL. (3) II. STAFF
Planning, construction, operation, and maintenance of public sanitation facilities, including drainage, flood control, and refuse disposal. Prerequisite: Civil Engineering 228 and 255.

CE 231 SOIL MECHANICS. (2) II. MR. ENGMAN
Physical factors in earth pressure phenomena; soil phenomena in earthwork operations and foundation work. Prerequisite: Civil Engineering 253.

CE 251 STATICS. (3) II. STAFF
Stresses in joint structures; effect of forces on bodies at rest. Prerequisite: one semester of Physics 104.

CE 252 DYNAMICS. (3) I. MR. ROOK
Work, energy, and power; effect of forces on bodies in motion. Prerequisite: Civil Engineering 251.

CE 253 STRENGTH OF MATERIALS. (4) I. MR. ENGMAN, MR. OKUBO
Direct stress, shear, flexure, and torsion. Theory of beams and columns. Prerequisite: Civil Engineering 251.
CE 255 HYDRAULICS. (4) II.  
Mr. Wachter
Water pressure, strength of pipe, stability of gravity dams; water flow through orifices, nozzles, and weirs; manometers, Pitot tubes, and Venturi meters; steady flow in pipes and open channels, non-uniform flow, complex pipe; hydrodynamics. Prerequisite: Civil Engineering 252.

CE 257 HIGHWAY ENGINEERING. (3) I.  
Mr. Bennett
Design, construction, and maintenance of streets and highways; planning, financing, etc. Prerequisite: Civil Engineering 227, 231.

CE 276 STRUCTURAL THEORY. (3) II.  
Mr. Okubo
Dead and live loads on roofs and bridges; long span bridges, space frameworks, portals, lateral systems; by use of influence lines, graphical and algebraic methods. Two lectures and one design period. Prerequisite: Civil Engineering 253.

CE 277 STRUCTURAL DESIGN. (3) II.  
Mr. Bennett
Design and detailing of buildings, plate girders, bridges, etc.; welded construction; timber structures. Two discussion periods and one design period. Prerequisite: Civil Engineering 276, 278.

CE 278 INDETERMINATE STRUCTURES. (3) I.  
Mr. Okubo
Stresses in indeterminate trusses, continuous structures and rigid frames, using the classical methods of analysis followed by moment distribution, column analogy, etc. Prerequisite: Civil Engineering 276.

CE 279 REINFORCED CONCRETE. (3) I.  
Mr. Bennett
Beams, columns, retaining walls, highway bridges; combined stresses; use of handbooks, diagrams, and tables. Two discussion periods and one design period. Prerequisite: Civil Engineering 276, 278.

CE 280 REINFORCED CONCRETE DESIGN. (3) II.  
Mr. Bennett
Continuation of Civil Engineering 279. Continuous beams, all types of concrete buildings, box culverts, rigid frames, etc. Two discussion periods and one design period. Prerequisite: Civil Engineering 278, 279.

CE 291 ENGINEERING ECONOMY. (2) II.  
Mr. Harloe
The application of economic principles to engineering problems. Prerequisite: Economics 140; senior standing.

CE 292 CONTRACTS AND SPECIFICATIONS. (2) II.  
Mr. Harloe
The business, legal, and ethical aspects of engineering; contracts and specifications with special reference to local requirements. Prerequisite: senior standing.

CE 293 PHOTOGRAMMETRY. (3) I.
Basic principles; flight methods; photographic equipment; stereoscopy; field identifications; field control; radial line and template methods of compilation, map projections; mosaics. Prerequisite: Civil Engineering 227. Laboratory fee $5.00. (Not offered 1953-54.)

CE 295 HYDROLOGY. (3) I.  
Mr. Harloe
Occurrence and movement of water by natural processes. Analysis of rainfall, runoff, evaporation, transpiration, and infiltration data. Prerequisite: Civil Engineering 255.
CE 296 Advanced Hydraulics. (3) I. Mr. Wachter
Nonuniform flow, theory of hydraulic jump, water hammer, backwater curves; pipe networks; hydraulic machinery. Prerequisite: Civil Engineering 255.

CE 297 Hydraulic Structures. (3) II. Mr. Wachter
Hydraulic and structural considerations in the design of dams, gates, canals, breakwaters, and piers. Prerequisite: Civil Engineering 255, 278, 279. (Not offered 1953-54.)

CE 298 Advanced Structural Design. (3) II. Mr. Okubo
Further application of column analogy, moment distribution, and classical methods to the study of haunched beams, continuous girders, rigid frames and arches; secondary and wind stresses. Prerequisite: Civil Engineering 278, 279.

CE 299 Special Problems. (Ar.) I, II. Staff
Individual investigation or studies of any phase of civil engineering selected by the student and approved by the instructor. Prerequisite: senior standing and consent of instructor.

MD 101 Mechanical Drawing. (2) I. Mr. McCall
Elements of drafting, sketching, and lettering; isometric, oblique, and cabinet drawing; working drawings, conventions, standards, tracing, and blueprinting. Two three-hour laboratory periods. Laboratory fee $1.00.

MD 152 Descriptive Geometry. (2) II. Mr. McCall
Geometry of engineering drawing; intersections and development of surfaces. Two three-hour drafting periods.

ME 202 Materials of Engineering. (2) I. Mr. Engman
Properties of cements, limes, plasters, and plain and reinforced concrete; methods of manufacture and standard tests for quality; testing cements, concretes, reinforced concrete, asphalt, and aggregates used in making concrete. One lecture and one laboratory period. Prerequisite: credit or concurrent registration in Civil Engineering 253. Laboratory fee $5.00.

ME 203 Materials of Engineering. (3) II. Mr. Engman
Properties, tests, and specifications of iron, steel, other metals and wood; tests of soils. Two lectures and one laboratory period. Prerequisite: credit or concurrent registration in Civil Engineering 253 and 231. Laboratory fee $5.00.

ME 210 Kinematics. (3) II. Mr. Rook
A study of the motion of machine elements and the transmission of motion through mechanical devices. Prerequisite: Mechanical Drawing 152; Civil Engineering 252.

ME 254 Advanced Materials Testing. (Ar.) II. Mr. Engman
Materials testing of more advanced or difficult nature than tests included in ME 202 and ME 203. Application of tests to investigations of physical characteristics of local engineering materials. Prerequisite: Mechanical Engineering 202 and 203. Laboratory fee $5.00.
ME 260  THEORY OF VIBRATIONS. (3) II.  Mr. Okubo
A study of the free, damped, and forced vibrations of mechanical systems of one or more degrees of freedom. The development of Lagrange's equations in the general theory of small oscillations. Application of critical speed, vibration isolation, and instrumentation. Prerequisite: Civil Engineering 253, 276.

ME 282  ELEMENTS OF HEAT POWER. (3) II.  Mr. Rook
Fundamental laws governing transformation of heat into work; steam machinery; use of steam tables; internal combustion engines; refrigeration. Prerequisite: Physics 104.

ME 283  THERMODYNAMICS. (3) I.  Mr. Rook
A study of the fundamentals of thermodynamics and their application to the efficient production and utilization of power. Prerequisite: Chemistry 103; Physics 104; Mathematics 154.

ME 290  SEMINAR IN VIBRATIONS. (3) I.  Mr. Okubo
Discussion of current literature and practical problems in vibration, with particular emphasis on vibration prevention in engineering. Prerequisite: Mechanical Engineering 260.

ME 293  AIR CONDITIONING AND REFRIGERATION. (3) II.  Mr. Rook
Refrigeration and air conditioning apparatus and their application to industrial and residential use. Prerequisite: Mechanical Engineering 283.

AE 101  HISTORY OF ARCHITECTURE. (3-3) Yr.  Mr. Young
A general survey of the architecture of all periods; reference reading, illustrated lectures, recitations, and discussions.

AE 103  ARCHITECTURAL DESIGN. (3-3) Yr.  Mr. Young
The design of simple buildings in relationship to their environment, supplemented by library research, discussion, field trips, and sketch problems. Three drafting periods. Prerequisite: Architectural Engineering 101; Art 150-151.

AE 153  SHADES AND SHADOWS. (2) I.  Mr. Young
Perspective drawing and geometric determination of shades and shadows. Three two-hour periods. For students in architecture.

ENGLISH
Professors Wilson, Stroven, Day, Green; Associate Professors Bouslog, Korn, Lowers; Assistant Professors Davenport, Frierson, George, Leib, Stempel; Instructors Castro, Obre, Odom, Abrums, Bilsborrow, Maney, Derstine, Bowman, Alm, Miller.

100 COMPOSITION. (3) I.  Staff
A five-hour course required of all freshmen failing to attain a standard in the entrance examination qualifying them for admission to English 101. Identical in content with 101 except for additional time given to remedial work.

101 COMPOSITION. (3-3) Yr.  Staff
Principles and practice of composition. For all students qualifying in entrance examinations.
109 BUSINESS ENGLISH. (3) II.  
Theory and practice in forms of communication important in the modern business world: letters, reports, analyses, special studies, and records. Open only to students in Business Administration. Prerequisite: second semester of English 101 or the equivalent.

120-121 NEWS WRITING. (3-3) YR.  
An introductory course in journalism, with emphasis on reporting and with practice in news writing; work on *Ka Leo* and student publications.

150 INTRODUCTION TO ENGLISH LITERATURE. (3-3) YR.  
A survey of English literature from the beginnings to the present; attention given to the interrelationships of English and American literature. Prerequisite to all advanced courses in American, English, and Comparative literature.

155 ENGLISH AND AMERICAN LITERATURE. (3) I, II.  
A study of important writers and works in English and American literature. Open only to students in Applied Science, Business Administration, and Agriculture.

202 ADVANCED COMPOSITION. (3-3) YR.  
First semester: expository forms, including the essay. Second semester: descriptive and narrative forms, including the short story. Current literary forms, and encouragement and criticism of experiments in creative writing. Students may enter the second semester with consent of the instructor. Prerequisite: an average of C in English 100 or 101.

204 CURRENT ENGLISH. (3) II.  
A practical study of present-day tendencies and usages in pronunciation and grammatical practice; word derivation; shifts in meaning; and American variants.

205 BACKGROUND OF ENGLISH LITERATURE. (3) II.  
A study of the most important sources of English literary themes and allusions, including the King James Bible and Western European myth and legend.

208 INTRODUCTION TO POETRY. (3) I.  
An analytical study of selected English and American poems of the past and present, emphasizing problems of communication, the poet's adaptation of his means to his ends, and the relation of the various aspects of a poem to each other.

210 REPORT WRITING. (3) I, II.  
Principles of technical exposition, with composition and analyses of reports, papers, and selected types of engineering and other professional writing. Supplemented by readings and discussions of selections from general literature. Prerequisite: second semester of English 101 or the equivalent.

216 PLAYWRITING. (3) II.  
Study of one-act plays and practice in writing in the dramatic form, with a possibility of University Theatre Group workshop production. Prerequisite: consent of instructor.

218 FICTION WRITING. (3) I.  
Principles of narrative craftsmanship put into practice in original stories,
through study of fiction technique, characterization, plot, style, mood, and emotional effect. Study of successful examples of the modern short story and novel. Prerequisite: consent of instructor. (Alternate years; not offered 1953-54.)

222 ELEMENTS OF EDITING AND PUBLISHING. (3) I. Mr. Davenport
Copyreading, headline writing, news and advertising display, use of illustrations, responsibilities of the editor. Theory and practice of publishing; mechanical aspects of printing processes, type faces, typographical display, type calculations, illustrations.

240 HISTORY OF LITERARY CRITICISM. (3) II.
Chief theories of literary criticism, with readings (in English) from Plato to the present. (Alternate years; offered 1953-54.)

260-261 AMERICAN LITERATURE. (3-3) Yr. Mr. Stroven
A chronological survey of American literature from colonial times to the twentieth century; the main currents of American thought and culture. First semester: from the beginnings to the Civil War; second semester: from the Civil War to the early twentieth century.

263 LITERATURE OF THE PACIFIC. (3) II. Mr. Stroven
A survey of the literature of the Pacific islands and Australia: narratives of voyagers and travelers, translations of native folk literature, and short stories and novels by such writers as Melville, Stevenson, London, Becke, and Nordhoff and Hall. (Not offered 1953-54.)

270 CHAUCER. (3) I. Mr. Green
A study of the life, times, and major works of Chaucer, with emphasis on The Canterbury Tales. (Alternate years; offered 1953-54.)

272 HISTORY OF THE ENGLISH LANGUAGE. (3) I. Mr. Green
The growth and development of the English language; its sources, forms, mutations, and standards of usage. (Alternate years; not offered 1953-54.)

273 SIXTEENTH-CENTURY ENGLISH LITERATURE. (3) II. Mr. Lovers
Poetry and prose of the Tudor period (exclusive of the drama), with special attention to the Elizabethan group. (Alternate years; not offered 1953-54.)

274 THE ENGLISH DRAMA TO 1642. (3) I. Mr. Day
Origins of the English drama; the medieval drama and theatre; the rise of professional drama; the contemporaries and successors of Shakespeare; the closing of the theatres. (Alternate years; offered 1953-54.)

275 SEVENTEENTH-CENTURY ENGLISH LITERATURE. (3) I. Mr. Korn
Poetry and prose of the Jacobean and Commonwealth periods, with special attention to the age of Milton. (Alternate years; not offered 1953-54.)

276-277 SHAKESPEARE. (3-3) Yr. Mr. Lovers
First semester: Shakespeare's histories and comedies; second semester: Shakespeare's tragedies.

280 EIGHTEENTH-CENTURY ENGLISH LITERATURE. (3) II. Miss George
A study of the neo-classical and pre-romantic writings from 1688 to 1780. (Alternate years; not offered 1953-54.)
282 THE ROMANTIC MOVEMENT IN ENGLAND. (3) II.  
Mr. Bouslog  
An intensive study of the principal writings of the period 1780-1832, exclusive of the novel. (Alternate years; offered 1953-54.)

284 VICTORIAN LITERATURE. (3) II.  
Mr. Stempel  
A study of the principal English authors and works of the period 1832-1900, exclusive of the novel. (Alternate years; not offered 1953-54.)

285 THE ENGLISH NOVEL TO 1832. (3) I.  
Mr. Korn  
Principal English novels and novelists from the beginnings to 1832. (Alternate years; offered 1953-54.)

286 THE ENGLISH NOVEL, 1832-1900. (3) II.  
Mr. Korn  
Principal English novels and novelists from 1832 to the turn of the century. (Alternate years; offered 1953-54.)

287 MODERN DRAMATIC LITERATURE. (3-3) YR.  
Mr. Wilson  
First semester: British and continental drama from Ibsen's immediate predecessors to the present; second semester: American drama. (Alternate years; offered 1953-54.)

288 CONTEMPORARY EUROPEAN LITERATURE. (3) I.  
Mr. Day  
Representative works of the leading British and continental novelists and British poets since 1900. (Not offered 1953-54.)

289 CONTEMPORARY AMERICAN LITERATURE. (3) II.  
Mr. Day  
Representative works of the leading American novelists and poets since 1900.

299 DIRECTED READING. (AR.) I, II.  
Staff  
Open only to English majors. Prerequisite: consent of department chairman.

300 DIRECTED READING OR RESEARCH. (2) I, II.  
Staff  
Graduate study in (1) American literature or (2) English literature. May be repeated until an aggregate of four credits has been earned. Prerequisite: consent of the department chairman.

310 SEMINAR IN AMERICAN LITERATURE. (2) II.  
Staff  
Special study of problems, authors, or periods in American literature. The particular topic is stated in the time schedule of courses each semester. Prerequisite: graduate standing or consent of instructor.

311 SEMINAR IN ENGLISH LITERATURE. (2) II.  
Staff  
Special study of problems, authors, or periods in English literature. The particular topic is stated in the time schedule of courses each semester. Prerequisite: graduate standing or consent of instructor.

312 SEMINAR IN TEACHING COMPOSITION. (2) I.  
Mr. Leib  
Theory and observation of the teaching of composition at the college level. Prerequisite: consent of instructor. (Not offered 1953-54.)

313 SEMINAR IN RESEARCH METHODS. (1) I, II.  
Mr. Green  
Materials of English studies; problems of bibliography; fundamentals of thesis writing. Strongly advised for all candidates for the M. A. degree in literature. Prerequisite: consent of department chairman.
EUROPEAN LANGUAGES

PROFESSOR PECKER; ASSOCIATE PROFESSORS MUeller, ASPINWALL; ASSISTANT PROFESSORS ELLIOTT, JENSON; INSTRUCTORS ROTH, EMBREE, BURKETT.

FRENCH

100 ELEMENTARY FRENCH. (3-3) YR.
Grammar, phonetics, diction, and reading of easy prose and poetry.

101 INTERMEDIATE FRENCH. (3-3) YR.
Review of grammar, composition, and reading from selected modern authors. Prerequisite: one year of French in college or two years in preparatory school.

201 MODERN FRENCH LITERATURE. (3-3) YR.
Novel, biography, drama; composition and diction. Prerequisite: two years of college French or the equivalent.

250 CLASSIC DRAMA. (2-2) YR.
Rapid reading of plays of Molière, Racine, and Corneille. Prerequisite: three years of college French or the equivalent. (Not offered 1953-54.)

270 FRENCH LITERATURE BETWEEN WORLD WARS. (2-2) YR.
Prerequisite: three years of college French or the equivalent.

299 DIRECTED READING. (AR.) I.
Reading of the latest French publications. Prerequisite: consent of instructor.

GERMAN

100 ELEMENTARY GERMAN. (3-3) YR.
Grammar developed from easy reading material; exercises in reading and translation.

101 INTRODUCTION TO GERMAN LITERATURE. (3-3) YR.
Readings from modern and classical authors; grammar review; vocabulary building; composition and conversation. Prerequisite: German 100.

102 SCIENTIFIC GERMAN. (3-3) YR.
Accurate reading of scientific German over a wide range; emphasis on sentence construction and vocabulary building. Prerequisite: German 100.

200 CLASSICAL GERMAN LITERATURE. (3-3) YR.
Selected works from Lessing, Goethe, and Schiller. German themes based on reading. (Alternate years; not offered 1953-54.)

201 MODERN GERMAN LITERATURE. (3-3) YR.
Readings primarily in the fields of drama and narrative, covering the period from 1890 to the present. German themes based on reading. (Alternate years; offered 1953-54.)

202 ADVANCED SCIENTIFIC GERMAN. (AR.) YR.
Sight translation in various fields; collateral reading in student's field of specialization. Prerequisite: two years of college German; consent of instructor. May be repeated once.
299 Directed Reading. (AR.) Yr. Miss Mueller, Miss Jenson
Designed to round out student's knowledge of German literature. Prerequisite: German 200 or 201.

PORTUGUESE

100 Elementary Portuguese. (3-3) Yr. Mr. Elliott
Conversation, essentials of grammar, reading of a Brazilian novel; emphasis upon differences between the speech of Portugal and that of Brazil.

101 Intermediate Portuguese. (3-3) Yr. Mr. Elliott
Introduction to Portuguese literature; study of Os Lusiadas; selected readings from representative authors of Portugal and Brazil. Review of grammar; conversational practice. Prerequisite: Portuguese 100 or the equivalent. (Not offered 1953-54.)

RUSSIAN

100 Elementary Russian. (3-3) Yr. Mrs. Embree
Introductory course for beginners in Russian. Conversation, reading, writing, and elementary grammar.

101 Intermediate Russian. (3-3) Yr. Mrs. Embree
Review of grammar; conversation, reading from modern and classical authors. Prerequisite: one year of Russian in college or equivalent.

261 Nineteenth-Century Russian Novel. (2) II. Mrs. Embree
A survey of the more important novelists in English translation, particularly Gogol, Goncharov, Turgenev, Dostoevsky, and Tolstoi.

SPANISH

100 Elementary Spanish. (3-3) Yr. Staff
Conversation, essentials of grammar, Spanish and Latin-American readings; emphasis upon the oral aspect of the language.

101 Modern Spanish Literature. (3-3) Yr. Staff
Works of Galdos, Valera, Pereda, Ibanez, and others; conversation and composition; review of grammar; commercial correspondence. Prerequisite: a year of college Spanish or the equivalent.

252 Modern Spanish Novel. (2) I. Mr. Pecker
Rapid reading; advanced work in composition and conversation; review of grammar. Prerequisite: two years of college Spanish or the equivalent. (Alternate years; offered 1953-54.)

253 Modern Spanish Drama. (2) II. Mr. Pecker
Rapid reading of modern Spanish plays; continued work in composition, dictio, and conversation. Prerequisite: Spanish 252. (Alternate years; offered 1953-54.)
254-255 Latin-American Literature. (2-2) Yr. Mr. Pecker
Emphasis on Mexico. Advanced composition; outside reading on assigned topics. Prerequisite: two years of college Spanish or the equivalent. (Alternate years; not offered 1953-54.)

299 Directed Reading. (Ar.) Yr. Mr. Elliott
Reading of the latest Spanish publications. Prerequisite: consent of instructor.

GEOGRAPHY

Associate Professors Manchester, Bowers.

150 Elements of Geography. (3) I, II. Mr. Manchester
Introduction to the principles of geography. Basic interrelations of human life and elements of the natural landscape. Course fee $1.00.

151 Economic Geography. (3) I, II. Mr. Manchester
Distribution of the principal commodities of world commerce. An analysis of the world's important agricultural, industrial, and commercial regions with their interconnecting trade routes. Course fee $1.00.

240 Physical Geography. (3) II. Mr. Bowers
Basic principles of the earth sciences selected to provide an understanding of man's physical environment on a global scale. Course fee $1.00.

250 Cartography. (3) I. Mr. Manchester
A study of the history of map making, the construction of projections, and the techniques of drafting various types of maps for use in geographic investigations. Laboratory fee $5.00. (Not offered 1953-54.)

251 Field Methods. (2) II. Mr. Manchester
Instruction in field and laboratory techniques involved in mapping physical and cultural features of the landscape. Prerequisite: Geography 250 or consent of instructor. Laboratory fee $5.00.

252 Geography of North America. (3) II. Mr. Bowers
Regional geography of the United States and Canada; geographic aspects of the historic and economic development of the continent and of contemporary problems. Course fee $1.00.

255 Geography of Asia. (3) I. Mr. Bowers
The physical regions of Asia and their human occupancy; interrelationships with other areas and the geographic background of current problems. Course fee $1.00. (Not offered 1953-54.)

256 Geography of Japan. (3) II. Mr. Manchester
The regional study of the geography of Japan. A detailed study of the people and resources of the land. Course fee $1.00. (Not offered 1953-54.)

257 Geography of China. (3) I. Mr. Bowers
The peoples and environment of China studied on a regional basis, with emphasis on the occupancy and use of the land. Course fee $1.00. (Not offered 1953-54.)
258 GEOGRAPHY OF EUROPE. (3) II.  
Mr. Manchester  
The physical and human geography of Europe. Its geography as a background study for present problems. Course fee $1.00. (Not offered 1953-54.)

259 GEOGRAPHY OF THE SOVIET UNION. (3) II.  
A detailed course in the physical and human geography of the Soviet Union. The physical bases of Soviet strength. Course fee $1.00. (Not offered 1953-54.)

261 WORLD GEOGRAPHIC PATTERNS. (3) I, II.  
Mr. Bowers  
A comparative study of the physical character and human use of the world's geographic regions, with discussion of teaching methods and materials. For prospective teachers. Course fee $1.00.

262 WEATHER AND CLIMATE. (3) II.  
Mr. Bowers  
Study of the basic elements of meteorology and climatology. Two lectures and one laboratory period. Laboratory fee $1.00.

263 GEOGRAPHY OF THE PACIFIC ISLANDS. (3) I.  
Mr. Manchester  
Polynesia (except Hawaii), Melanesia, and Micronesia. Course fee $1.00.

264 GEOGRAPHY OF INDIA AND SOUTHEAST ASIA. (3) I.  
Mr. Bowers  
Description of the major geographic regions of India and Southeast Asia, with study of the geographic factors functional in the history, politics, and economics of the area. Course fee $1.00.

271 POLITICAL GEOGRAPHY. (3) I.  
Mr. Bowers  
Geographic background of international politics and national power; emphasis on areas currently in the news. Course fee $1.00.

280 MICRONESIA. (3) I.  
Mr. Bowers  
Physical character of the islands of Micronesia and their occupation and use by man. Course fee $1.00.

299 DIRECTED READING. (AR.) I, II.  
Staff  
Prerequisite: consent of instructor.

300 DIRECTED RESEARCH. (AR.) I, II.  
Staff  
Prerequisite: consent of instructor.

309 HISTORY OF GEOGRAPHY. (3) I.  
Mr. Manchester  
Development of geographic ideas from early Greece to the present through Rome, the Moslem world, medieval Europe, and China. Special emphasis on the modern German, French, British, and American schools.

310 SEMINAR IN GEOGRAPHY. (3) I.  
Mr. Manchester  
Prerequisite: consent of geography or consent of instructor.

GEOLOGY

PROFESSOR PALMER.

150 PHYSICAL GEOLOGY. (3) I.  
Mr. Palmer  
Materials composing the earth; operation and effects of geologic agents. Prerequisite: sophomore standing or consent of instructor.
151 HISTORICAL GEOLOGY. (3) II. Mr. Palmer
History of the earth, of its continents and ocean basins, and of its inhabitants. Prerequisite: Geology 150.

152-153 LABORATORY GEOLOGY. (1-1) Yr. Mr. Palmer
Identification of minerals and rocks, reading of topographic and geologic maps, and study of important fossil forms. One laboratory period. Prerequisite: credit or concurrent registration in Geology 150 or 151. Laboratory fee $1.00 each semester.

254 ECONOMIC GEOLOGY. (3) I. Mr. Palmer
Distribution, nature, and origin of deposits of metallic and non-metallic minerals. Prerequisite: Geology 150.

255 GEOLOGY OF GROUND WATER. (2) II. Mr. Palmer
Origin, amount, circulation, recovery, and quality of ground water. Demonstrations. Prerequisite: Geology 150. Course fee $1.00.

260 PHYSIOGRAPHIC REGIONS OF THE UNITED STATES. (3) I. Mr. Palmer
Two lectures and one laboratory period. Prerequisite: Geology 153. (Not offered 1953-54.)

262 VOLCANOLOGY. (3) II. Mr. Palmer
Classification, eruptive types, products, structures, and distribution of volcanoes. Prerequisite: Geology 150 and credit or concurrent registration in Physics 100, 102, or 104. (Not offered 1953-54.)

299 DIRECTED READING. (AR.) I. Mr. Palmer
Prerequisite: consent of instructor.

300 DIRECTED READING. (AR.) I. Mr. Palmer
Prerequisite: graduate status and consent of instructor.

GOVERNMENT

Professors Bachman, Spellacy, Meller, Saunders; Assistant Professors Tuttle, Stauffer; Instructor Kosaki.

Government 150, or the equivalent, is prerequisite to all other courses in Government, except 155.

150 INTRODUCTION TO GOVERNMENT. (3) I, II. Mr. Saunders, Mr. Tuttle
The role of government in modern society. Types and practices of government: American and European. The processes of political change and integration. The rights of and channels of participation by the citizen.

155 AMERICAN GOVERNMENT. (3) II. Mr. Spellacy
The development, organization, and functioning of American national, state, and local government.
238 Elements of Politics and Government. (3) I. Mr. Saunders

An introduction to the terms and principles of political science. The meaning of law, liberty, constitutionalism, democracy, etc. The place of political science in the social sciences.

240 Democracy and Communism. (3) II. Mr. Saunders

Survey of the ideological and institutional development of the present rivals for man's political allegiance.

248 State Government and Administration. (3) I. Mr. Spellacy

State constitutions; historical evolution of state government; its structure with reference to judicial, legislative, and executive branches; limitations on state authority; the electorate and election laws, etc. (Not offered 1953-54.)

252 Introduction to Constitutional Law. (3) I. Mr. Spellacy

Examination of principal cases concerned with state relations, due process of law, interstate commerce, and related subjects. (Not offered 1953-54.)

254 Municipal Government and Administration. (3) II. Mr. Spellacy

The city as a political subdivision and as a municipal corporation; powers and liabilities; forms of government; municipal politics; the metropolitan problem; and related matters. (Not offered 1953-54.)

256 American Political Parties. (3) I. Mr. Tuttle

The organization, methods, and functions of political parties, with special attention to the electoral and organizational aspects of party behavior.

257 Campaigns and Elections. (3) I. Mr. Tuttle

The management and conduct of primary and general elections, with special attention to the techniques employed by candidates for public office. Field investigations are a part of the course. (Not offered 1953-54.)

259 Pressure Groups, Propaganda and Public Opinion. (3) II. Mr. Tuttle

Nature of public opinion; methods of influencing it; techniques for measuring political opinions and attitudes. The organization, characteristics, and political activities of pressure groups. Characteristics, methods, and results of propaganda.

260 International Relations. (2) I, II. Mr. Bachman

A study of the factors which condition the foreign policy of states: nationalism, imperialism, and power politics. Outstanding problems of world politics.

261 International Organization. (3) II. Mr. Stauffer

A study of the problems involved in the development and structure of international government, with special emphasis on the United Nations Organization.

262 Government and Politics of the Far East. (3) I. Mr. Stauffer

An analysis of the governmental structure of Japan, China, Korea, and the colonial areas; a survey of the political problems facing the nations of the Far East.

263 International Relations of the Far East. (3) II. Mr. Stauffer

The position of eastern Asia in the postwar world and the problems of adjustment that face Japan, China, and other nations of this region.
264 POSTWAR INTERNATIONAL RELATIONS. (3) II. Mr. Stauffer
Background and study of the major issues of wartime and postwar diplomacy, with emphasis upon conflicting US-USSR policies. (Not offered 1953-54.)

265 GREAT BRITAIN AND FRANCE. (3) I. Mr. Stauffer
Analyses of similarities and differences found in two parliamentary approaches to the organization of a democratic political community.

266 THE USSR AND SATELLITES. (3) II. Mr. Stauffer
Analysis of the structure of political power in the Soviet Union and in the Soviet empire.

268 INTERNATIONAL ADMINISTRATION. (3) I. Mr. Stauffer
Methods of execution of international decisions, with emphasis upon the public international unions and the United Nations, including the World Court.

270 GOVERNMENT OF HAWAII. (3) II. Mr. Meller
Territorial, county, and municipal government, with consideration of the proposed state constitution of 1950.

271 GOVERNMENT OF DEPENDENCIES. (3) II. Mr. Stauffer
National and legal status; relations with the United Nations and with the supervising national government; local government. (Not offered 1953-54.)

276 THE LEGISLATIVE PROCESS. (3) II. Mr. Tuttle
A survey of the law-making process in the United States. The role of representative assemblies, of the executive and administrative branches, and of interest groups and the public. (Not offered 1953-54.)

282 INTRODUCTION TO PUBLIC ADMINISTRATION. (3) I. Mr. Spellacy
Relationship of administration to policy-forming agencies; organization of administrative staffs; centralization of responsibility.

283 PERSONNEL ADMINISTRATION. (3) I. Mr. Tuttle
The organization and administration of civil service systems; the recruitment, classification, discipline, and status of civil servants; and related matters.

284 INTRODUCTION TO ADMINISTRATIVE LAW. (3) II. Mr. Spellacy
Laws relating to public officers, their status, rights, and obligations; laws governing relations between the government and the public, e.g., rights to notice and hearing, due process.

287 PROBLEMS IN AMERICAN GOVERNMENT. (3) II. Mr. Tuttle
Special topics in the field of American government and politics. Varied from year to year. Intended to provide training in research methods. Prerequisite: consent of instructor.

288 PROBLEMS IN PUBLIC ADMINISTRATION. (3) I. Mr. Meller
Introduction to materials and research methods used in the public service. Individual and group projects in cooperation with the Legislative Reference Bureau. Enrollment restricted to students of the Public Administration Program who are within two semesters of graduation.
289 **ANCIENT AND MEDIEVAL POLITICAL THOUGHT.** (3) I. Mr. Kosaki
The origins and subject matter of political theory. The development of political thought from the Greeks through the Middle Ages.

290 **EARLY MODERN POLITICAL THOUGHT.** (3) II. Mr. Kosaki
Analysis of the major political writings from 1600-1900.

291 **RECENT POLITICAL THOUGHT.** (3) I. Mr. Saunders
Analysis of major political writings of the twentieth century.

293 **AMERICAN POLITICAL THOUGHT.** (3) II. Mr. Saunders
A historical examination of American political ideas from colonial days to the present.

298 **FIELD OF POLITICAL SCIENCE.** (3) I. Mr. Saunders
The postulates and methods of political science, with some attention to the interrelations of the social sciences.

299 **DIRECTED READING OR RESEARCH.** (AR.) I, II. Staff
Individual problems in the field of government. Prerequisite: consent of instructor.

300 **DIRECTED READING AND RESEARCH.** (AR.) I, II. Staff
Individual problems in the field of government. Prerequisite: consent of instructor.

302 **SEMINAR IN INTERNATIONAL RELATIONS.** (2) I. Mr. Stauffer
Prerequisite: consent of instructor.

303 **SEMINAR IN FAR EASTERN POLITICS.** (2) II. Mr. Stauffer
Prerequisite: consent of instructor.

304 **SEMINAR IN PUBLIC LAW.** (2) I. Mr. Spellacy
Prerequisite: consent of instructor.

305 **SEMINAR IN POLITICS.** (2) II. Mr. Tuttle
Prerequisite: consent of instructor.

307 **SEMINAR IN POLITICAL THEORY.** (2) II. Mr. Saunders
Prerequisite: consent of instructor.

310 **SEMINAR IN PUBLIC ADMINISTRATION.** (2) I. Mr. Tuttle
Prerequisite: consent of instructor.

HEALTH AND PHYSICAL EDUCATION

**PROFESSOR BROWN; ASSISTANT PROFESSORS GAY, SAAKE, BUCKLIN, GUSTUSON, SAKAMOTO, VASCONCELLOS; INSTRUCTORS GIBSON, BARKLEY, O'BRIEN, CHUI, RATHBURN.**

101 **INDIVIDUAL AND TEAM SPORTS.** (MEN) (1) I. Staff
Tennis and basketball. Freshmen. Two class periods. Activities and locker fee $3.00.
102 INDIVIDUAL AND TEAM SPORTS. (MEN) (1) II.  
Swimming and volleyball. Freshmen. Two class periods. Activities and locker fee $3.00.

103 INDIVIDUAL AND TEAM SPORTS. (MEN) (1) I, II.  
Dancing and golf. Two class periods. Sophomores. Activities and locker fee $3.00.

105 INDIVIDUAL AND TEAM SPORTS. (WOMEN) (1) I.  
Swimming and volleyball. Freshmen. Two class periods. Activities and locker fee $3.00.

106 INDIVIDUAL AND TEAM SPORTS. (WOMEN) (1) II.  
Tennis and basketball. Freshmen. Two class periods. Activities and locker fee $3.00.

107 INDIVIDUAL AND TEAM SPORTS. (WOMEN) (1) I, II.  
Dancing and golf. Two class periods. Sophomores. Activities and locker fee $3.00.

109 RESTRICTED ACTIVITIES. (1) I, II.  
Miss Barkley, Staff  
For students who are physically handicapped and unable to take the regular courses. Admittance only upon recommendation of University physician. Two class periods. Activities and locker fee $3.00.

111 INTERMEDIATE SWIMMING. (1) I.  
Mr. Sakamoto  
For students who have met the basic requirements in swimming and desire to develop additional skills in swimming and diving. Activities and locker fee $3.00.

113 ADVANCED TENNIS. (1) I, II.  
Mr. Saake  
For those interested in developing advanced skills and strategy in tennis. Two class periods. Activities and locker fee $3.00.

114 DEVELOPMENTAL ACTIVITIES. (1) II.  
Mr. Chui  
For those interested in body development and physical fitness. Exercises with and without apparatus will be selected to meet personal needs, and the various forms and systems of exercise will be surveyed. Two class periods. Activities and locker fee $3.00. (Not offered 1953-54.)

115 TUMBLING AND APPARATUS. (1) I.  
Mr. Gustuson  
Exercises on mats and heavy apparatus suitable for use with child and adult groups. Activities and locker fee $3.00.

116 TRAMPOLINE. (1) II.  
Staff  
Training on the spring net or trampoline to aid in the development of balance, strength, and physical skills. Two class periods. Activities and locker fee $3.00.

117 ARCHERY. (1) II.  
Staff  
For those interested in developing skills in archery. Two class periods. Activities and locker fee $3.00. (Not offered 1953-54.)

120 MUSIC AND RHYTHMS IN PHYSICAL EDUCATION. (2) II.  
Miss Gay  
Designed to acquaint teachers and activity leaders with the use of music in the
activity program. Includes a brief survey of the various rhythmic patterns and their application. Three class periods. Activities and locker fee $3.00.

123 Folk and National Dances. (1) I. Miss Barkley
This course presents selected dances of various national groups now in popular use. Square dances will be included. Two class periods.

124 Dances of Hawaii. (1) I. Miss Gay
An introduction to the hula. The background and fundamentals of the dance will be presented and selected dances will be given. Two class periods.

130 Personal Hygiene. (1) I, II. Staff
Scientific health information as a basis for hygienic living. Personal health problems. One lecture and one personal conference.

132 Personal Health. (2) I. Miss Rathburn
Basic information on the proper care of the body and the development of desirable health habits and attitudes. Intended primarily for students specializing in physical education and recreation.

140 Nature and Function of Play. (2) I. Mr. Saake
The place of play in community and school life and its application to the various age groups.

170 Introduction to Physical Education. (2) II. Mr. Brown
Designed for prospective teachers and leaders in physical education and recreation; the objectives, needs, procedures, and outcomes in physical education activities.

212 Life Saving. (1) I, II. Staff
The fundamentals of water safety. Emphasis upon the acquisition of skills necessary in dealing with accidents in the water. Open only to those who are good swimmers. The Red Cross Certificate in Life Saving may be earned. Two class periods. Activities and locker fee $3.00. (Not offered 1953-54.)

215 Athletic Coaching, Football and Basketball. (2) I. Staff
The fundamentals, position play, team play, and strategy in football and basketball. Nine weeks to each sport. Three class periods.

217 Athletic Coaching, Baseball and Track. (2) II. Staff
The fundamentals, team play, and strategy in baseball; basic skills, analysis of form, and conditioning in track. Nine weeks to each sport. Three class periods.

219 Coaching of Swimming. (2) II. Mr. Sakamoto
Designed for those interested in the development of swimming teams in schools and other agencies. Content and method will be emphasized.

221 Physical Education, Elementary. (2) I, II. Miss O'Brien
Content and method for programs on the elementary school level. Adaptations to meet situations with like age groups outside of school will also be discussed. Three class periods. Activities and locker fee $3.00.

222 Physical Education, Secondary. (2) II. Miss O'Brien
Activities and methods in programs for the junior and senior high school levels. Three class periods. Activities and locker fee $3.00.
225 THE TEACHING OF INDIVIDUAL SPORTS. (2) I. Miss Gay
Organization and teaching techniques for such athletic activities for girls as tennis, archery, badminton, golf, etc., on the secondary level. Three class periods.

227 THE TEACHING OF TEAM SPORTS. (2) II. Miss Gay
Techniques of teaching fundamentals and strategy of team games for girls and women. Three class periods.

230 SCHOOL HEALTH PROBLEMS. (2) I, II. Miss Bucklin, Miss Rathburn
Health needs of the school child and principles, methods, and materials applicable to the school health program.

233 PUBLIC HEALTH IN THE COMMUNITY. (2) II. Miss Bucklin
A study of community health problems and the function of official and voluntary agencies in meeting the needs in Hawaii.

234 SAFETY PROCEDURES IN PHYSICAL EDUCATION. (2) I. Mr. Saake
Prevention and emergency treatment of injuries, with special emphasis upon school, playground, and athletic situations. Practical work in bandaging included. Red Cross Certificate may be earned.

235 THE HEALTH CURRICULUM. (2) I. Miss Bucklin
Procedures for the development and construction of a health education program, including criteria for selection and evaluation of content.

237 PRINCIPLES OF HEALTH EDUCATION. (2) I. Miss Bucklin
The historical development and present status of the health education program. Emphasis upon current trends and basic principles involved.

239 HEALTH OF THE SCHOOL CHILD. (2) II. Miss Bucklin
Deals with various problems in child health and the role of the school in meeting them.

241 SOCIAL RECREATION. (2) II. Miss Gibson
Activities and leadership techniques for parties, socials, etc.

246 OFFICIATING IN ATHLETICS. (2-2) Yr. Staff
The techniques used by officials in the various sports. Practice in officiating is included.

247 FESTIVALS AND PAGEANTS. (2) I. Miss Barkley
The development of mass productions of a dramatic nature suitable for school and community recreation organizations.

248 HOBBIES IN RECREATION. (2) I. Miss Gibson
The development of procedures and skills in various hobbies for Recreation majors. Others by permission of instructor only. Three class periods.

249 CAMP LEADERSHIP. (2) II. Staff
Program development and procedures used in the modern camping movement. Relationships with educational and other agencies.
250 RECREATION LEADERSHIP. (2-2) YR.  
Mr. Brown, Staff  
Students are assigned to recreational agencies for orientation. One hour per week is devoted to discussion of individual and group problems.

252 FIELD WORK IN RECREATION. (5-5) YR.  
Mr. Brown, Staff  
Students are assigned to recreational agencies for work experience. One hour each week is devoted to discussion of problems. Prerequisite: consent of instructor. For Recreation majors only.

263 INTRAMURAL ATHLETICS. (2) I.  
Mr. Chui  
Organization, program, and procedures used in conducting the sports program for students outside of regular class hours.

280 ANATOMY IN PHYSICAL EDUCATION. (3) I.  
Mr. Brown  
The purpose of this course is to develop an understanding of muscle action during activity. Designed primarily for leaders in physical education and recreation but open to others.

285 PHYSIOLOGY IN PHYSICAL EDUCATION. (3) II.  
Mr. Saa Ke  
The basic essentials in physiology and physiology of activity necessary in teaching desirable health practices; selection of activities to meet individual and group needs. Designed primarily for leaders in physical education and recreation but open to others.

HISTORY

Professors Hunter, Marder; Associate Professors Sakamaki, White, Murphy, Johnson; Assistant Professor Stalker.

100 WORLD CIVILIZATION. (3-3) YR.  
Staff  
A survey of the more significant political, social, economic, and intellectual factors in the development of civilization from the ancient Orient and classical Greece and Rome to the present day, with emphasis on the Western civilizations. Prerequisite for advanced courses in history.

110 INTRODUCTION TO AMERICAN HISTORY. (3) I, II.  
Staff  
The religious, cultural, and social backgrounds of the American people. Prerequisite for advanced courses in American history.

201 HISTORY OF THE FAR EAST. (3-3) YR.  
Mr. Sakamaki  
Survey of the political, social, and economic history of the Far East as a unit.

208 EXPANSION OF EUROPEAN CIVILIZATION. (3) I.  
Mr. Sakamaki  
Survey of cultural changes and developments in Europe, the Western Hemisphere, and Asia resulting from European expansion.

209-210 HISTORY OF ENGLAND. (3-3) YR.  
Mr. Murphy  
A survey of the political, social, industrial, intellectual, and religious life of the English people. (Not offered 1953-54.)

211 CONSTITUTIONAL HISTORY OF ENGLAND. (3) I.  
Mr. Hunter  
A study of Anglo-Saxon institutions, Norman innovations; the legal, administrative, and parliamentary development under the Angevins; the limitation of royal power; and the rise of the cabinet system. (Alternate years; offered 1953-54.)
213 History of Modern Russia. (3) I. Mr. Marder
A survey of all aspects of Russian history and civilization from the beginning to the Bolshevik Revolution.

214 History of Soviet Russia. (3) II. Mr. Marder
A political, economic, social, and cultural study of Russia since the Bolshevik Revolution. History 213 is desirable, though not required, preparation.

220-221 History of the British Empire. (3-3) Yr. Mr. Murphy
Major trends in the development of the Empire to the present day. Consideration of present problems of the Commonwealth and Colonies. Prerequisite: History 100. (Alternate years; not offered 1953-54.)

225 History of China. (3-3) Yr. Mr. White
General survey of Chinese history; development of institutions; impact of Western culture upon Chinese civilization.

226 History of Japan. (3-3) Yr. Mr. Sakamaki
Historical survey of Japanese culture, government, economics, and institutions.

227 Southeast Asia. (3) I. Mr. White
General survey of Burma, Siam, Indo-China, Malaya, Indonesia, and the Philippine Republic; history of these states; relations with European nations and the United States.

228 China since 1895. (3) II. Mr. White
History since the Sino-Japanese war; economic, social, cultural, and political developments; relations with other Asiatic and with Occidental nations. (Alternate years; not offered 1953-54.)

229 American-Chinese Relations. (3) II. Mr. White
Diplomatic, economic, and cultural relations of the United States and China, with emphasis on American Far Eastern policy.

230 India, Pakistan, and Ceylon. (3) II. Mr. Sakamaki
General historical survey of South Asia from earliest times to the present.

241 Colonial Period of the United States. (3) I. Mr. Johnson
Expansion of Europe into the Western Hemisphere; the growth of American civilization under English rule, and the establishment of national independence.

242-243 History of the United States. (3-3) Yr. Mr. Stalker
A detailed political, economic, and social survey of the history of the American people, 1789 to the present.

244-245 Diplomatic History of the United States. (3-3) Yr. Mr. Johnson
History of American foreign policy, with emphasis upon recent developments.

246 American Thought and Culture. (3) II. Mr. Hunter
An advanced course in American social customs, institutions, and intellectual pursuits.
248 American Economic History. (3) I.  Mr. Stalker
Emphasis on the role of techniques, agricultural developments, the entrepreneur
and the rise of the labor movement. Economics 150-151 is recommended as desir­ible preparation.

249 Representative Americans. (3) II.  Mr. Stalker
A series of biographical sketches of leading characters in American history
from the Revolution to the present.

250 Early Civilization in the Far East. (3) I.  Mr. Sakamaki
Study of the origins of the peoples and cultures in Eastern Asia.

251 History of Thought in Japan. (3) II.  Mr. Sakamaki
Major schools of thought and important thinkers, social reformers, econom­ists,
statesmen, and educators of Japan.

252 Constitutional History of the United States. (3) II.  Mr. Stalker
The genesis, drafting, ratification, and development of the federal Constitution.

253-254 History of Hispanic America. (3-3) Yr.  Mr. Johnson
The political, economic, and social development of the Hispanic-American
Republics from colonial times to the present; emphasis on the ABC powers and
international relations of the Western Hemisphere.

257 Europe in the Nineteenth Century. (3) I.  Mr. Marder
The major political, social, economic, and intellectual trends in the evo'lu'­tion
of Europe from Napoleon to the end of World War I.

258 Europe since Versailles. (3) II.  Mr. Marder
A continuation of 257. Problems of Europe since World War I, with emphasis
upon the more recent period. History 257 is desirable, though not required, prepa­ration.

259 The West in American History. (3) I.  Mr. Stalker
Western expansion forces in the development of the economic, cultural, and
political trends of the nation.

276 History of the Hawaiian Islands. (3) I.  Mr. Hunter
A general course with some detail. Emphasis on the period of the monarchy.
(Alternate years; not offered 1953-54.)

277 The Pacific Region in Modern Times. (3-3) Yr.  Mr. Murphy
First contact of East and West; discovery and exploration; activities of traders
and missionaries; development of European and American interests; origin of cur­rent problems. (Alternate years; offered 1953-54.)

285 Russia in Asia. (3-3) Yr.  Mr. White
The growth and expansion of the Russian Empire and the Soviet Union into
the Near East, Middle East, and Far East; relationships with its Asiatic neighbo­rs
in those areas.

295 Cultural History of China. (3-3) Yr.  Mr. White
Principal stages of China’s social, intellectual, and political development from
the dawn of Sinitic culture to the invasion of the old empire by new forces from 
the Occidental world. (Alternate years; not offered 1953-54.)

299 DIRECTED READING. (AR.) I, II. 
Individual reading in (1) American History—Mr. Stalker; (2) Pacific History— 
Mr. Murphy; (3) Japanese History—Mr. Sakamaki; (4) European History— 
Mr. Marder; (5) English History—Mr. Murphy; (6) Hispanic-American History— 
Mr. Johnson; (7) Chinese History—Mr. White; (8) Hawaiian History—Mr. 
Hunter.

300 DIRECTED RESEARCH. (AR.) I, II. 
Individual research in the same fields as in 299.

310 SEMINAR IN HISTORICAL METHOD. (3) I. 
Mr. Hunter 
Training in the evaluation of sources and the preparation of theses.

311 SEMINAR IN AMERICAN DIPLOMATIC HISTORY. (3) II. 
Mr. Johnson 
The history of history and historians.

316 SEMINAR IN CHINESE HISTORY. (3) I. 
Mr. White 
Problems in modern Chinese history. (Alternate years; not offered 1953-54.)

HOME ECONOMICS 

PROFESSOR MILLER; ASSOCIATE PROFESSORS GRUELLE, FRE JEN, JONES; ASSISTANT 
PROFESSORS BOATMAN, UMBHIL, RAGON, DOUTY; INSTRUCTORS BARTOW, HENDER- 
SON, SATO, BENNETT, BLUE, JONES.

The following courses have no prerequisites, except for year level, and are 
open to students in any college or curriculum: Home Economics 100, 101, 250, 
262; Household Art 150, 152; and Household Science 152, 156.

GENERAL COURSES (HE) 

HE 100 ORIENTATION IN HOME ECONOMICS. (2) I. 
Mrs. Gruelle 
Factors contributing to success in college and development of habits for effective 
living. Assistance in self-evaluation and relationships involving other persons. 
Home economics in education; an introduction to the curriculum; vocational study 
and planning.

HE 101 HOME NURSING. (2) I, II. 
Miss Jones, Mrs. Sato 
Principles and practice of simple nursing procedures for home care and emer- 
gencies. Prevention of disease; physiological aspects of reproduction and the pren- 
atal period; care of mother and infant. The homemaker’s responsibility for home 
and community health. One lecture and one laboratory period.

HE 201 CONSUMER EDUCATION. (2) I. 
Miss Douty 
General problems of the consumer in purchasing foods, clothing, cosmetics, 
drugs, furniture, and equipment; consumer buying habits, testing bureaus, agencies 
protecting consumer, advertising, informative labeling; credit, installment buying. 
Prerequisite: Economics 140 or 150.
HE 221 Teaching Home Care of the Sick. (2) I. Mrs. Sato
Designed to meet the requirements of the American Red Cross as instructor in home care of the sick. Lectures, methods of teaching, and practice in class. Limited to home economics teachers, graduate nurses, vocational home economics juniors and seniors, and those with similar teaching background. Prerequisite: consent of instructor. (Alternate years; offered 1953-54.)

HE 250 Household Management. (3) I. Mrs. Gruelle
Contribution of homemaker and family members to better home living; management of time, energy, and money; selection, arrangement, and care of equipment. Two lectures and one laboratory period. Prerequisite: junior standing.

HE 251 Home Economics Education. (3) II. Miss Frojen
Curriculum content, teaching procedures, and current educational philosophies and practices as they apply to home economics education at the elementary, secondary, and adult levels. Prerequisite: Psychology 150 or 156; junior standing.

HE 252 Child Care and Training. (3) II. Miss Bennett
Importance of the preschool years in the development of the individual; a constructive program for training the normal child in the home. Planned especially for Home Economics students. Two lectures and one laboratory period. Prerequisite: credit or concurrent registration in Psychology 150 or 156.

HE 254 Family Housing. (2) I. Miss Umbel
Interpretation and evaluation of housing from the standpoint of needs, convenience, economy, aesthetic qualities, safety, health, and other values influencing the family. Two laboratory periods. Prerequisite: Art 142-143 or 150-151, or consent of instructor. Limited to 20 students. Laboratory fee $2.00.

HE 256 Home Furnishings. (2) II. Miss Umbel
Development of discrimination in the selection and arrangement of furnishings and accessories in relation to individual and family living. Practical applications for the consumer and homemaker. Two laboratory periods. Prerequisite: Home Economics 254. Limited to 20 students. Laboratory fee $2.00.

HE 262 Education for Family Life. (3) II. Miss Henderson
Relationship problems within the family; special emphasis upon the solution of individual problems as a basis for other satisfactory relations. Premarital instruction, husband-wife relationships, parent-child relationships. Open to both men and women.

HE 291 Home-Management Laboratory. (4) I, II. Miss Henderson
Living with a group of four to six students in a supervised residence for six weeks; practical application of training in home economics, meal preparation, time and money management, human relationships. Students share subsistence cost. Prerequisite: Home Economics 230, Household Science 272, and senior standing.

HE 299 Directed Reading or Research. (AR.) I, II. Staff
HE 300 Directed Reading or Research. (AR.) I, II.

Staff

(1) Agricultural Extension; (2) Clothing and Textiles; (3) Foods and Nutrition; (4) Home Economics Education; (5) Home Management; (6) Institutional Management. Prerequisite: consent of department chairman and instructor concerned.

HE 360 Special Problems in Home Economics. (2) I, II. Miss Frojen

Class and individual problems selected according to the needs of the fifth-year students in the Vocational Home Economics Program.

HOUSEHOLD ART (HA)

HA 110 Clothing and Textiles. (3) I. Miss Umbel

Principles of selection and construction. Study and use of commercial patterns; principles of fitting; fundamentals of textiles; use and care of sewing machine. One lecture and two laboratory periods. Prerequisite: Household Art 150. Laboratory fee $2.00.

HA 111 Family Clothing Problems. (3) II. Miss Umbel

Planning, care, and storage of family clothing. Construction techniques, design principles and fitting applied to clothing conservation problems. Consideration of children's clothing. One lecture and two laboratory periods. Prerequisite: Household Art 110, 150. Laboratory fee $2.00.

HA 150 Clothing Selection. (3) I, II. Miss Douty

Analysis of physical characteristics and application of principles of color, design, good grooming, wardrobe planning, and selection of appropriate dress. Open to the general student. Two lectures and one laboratory period. Laboratory fee $3.00.

HA 152 Historic Costume. (2) II. Miss Umbel

A survey of historic costume, showing how fashion has reflected the life of the people. Historic costume as inspiration for modern dress.

HA 214 Clothing Design and Construction. (2-2) Yr. Miss Douty

Design and construction of garments suitable to the individual student. Principle of draping applied to dressmaking, and blocking from foundation pattern in flat pattern designing. Two laboratory periods. Prerequisite: Household Art 110, 111, 150, or consent of instructor. Laboratory fee $4.00 each semester.

HA 255 Advanced Clothing. (3) II. Miss Douty

Consideration of fabrics, designs, and techniques in advanced problems of clothing construction; study and use of commercial patterns. Two laboratory periods. Prerequisite: Household Art 111, or consent of instructor. Laboratory fee $2.00.

HA 299 Problems in Clothing and Textiles. (AR.) I, II. Staff

Independent investigation of a problem selected from the following areas: (1) clothing selection or construction, (2) textiles, (3) historic costume or design, (4) consumer problems, (5) related art. Prerequisite: consent of instructor and department chairman.
HOUSEHOLD SCIENCE (HS)

HS 102 ADVANCED FOOD PREPARATION. (3-3) YR.   
Staff
Economics of food selection; experimental food preparation; meal planning and serving. One lecture and two laboratory periods. Prerequisite: Household Science 150; Chemistry 103 or 104. Laboratory fee $8.00 each semester. Sections limited to 16 students each.

HS 150 ELEMENTARY FOOD PREPARATION. (3) I, II.  
Mrs. Bartow
Fundamental processes of food preparation; practical application in meal planning to provide good nutrition and promote good food habits. For Home Economics majors only. One lecture and two laboratory periods. Laboratory fee $8.00. Sections limited to 16 students.

HS 152 FOOD PREPARATION. (3) I, II.  
Mrs. Bartow
Fundamental problems in the preparation of food for adequate meals; practical experience in meal planning, preparation, and table service. Not open to students majoring in Home Economics. Two 3-hour laboratory periods weekly. Prerequisite: junior standing. Laboratory fee $8.00. Sections limited to 16 students.

HS 155 NUTRITION FOR NURSING STUDENTS. (3) II.  
Miss Ragon
The role of good nutrition throughout the life cycle. Emphasis in laboratory on practical basic knowledge needed in the preparation and service of food. Two lectures and one laboratory period. Laboratory fee $5.00.

HS 156 SURVEY OF NUTRITION. (2) I, II.  
Miss Ragon
A study of the factors involved in the selection of a diet to promote good health, with emphasis on foods used in Hawaii. For general students, both men and women. Not open to students majoring in Home Economics. Laboratory fee $1.00.

HS 157 DIET THERAPY. (3) II.  
Miss Ragon
Intended to give nursing students a knowledge of the necessary modifications of normal nutrition to meet the special dietary needs in abnormal conditions. Two lectures and one laboratory period. Prerequisite: Household Science 155. Laboratory fee $5.00.

HS 250 DIET AND DISEASE. (3) II.  
Miss Ragon
Diet therapy under abnormal conditions. Two lectures and one laboratory period. Prerequisite: Household Science 277. Laboratory fee $5.00.

HS 260 QUANTITY COOKERY. (3) I.  
Mrs. Jones
Food problems of institutions; preparation and serving of food in large quantities, menu planning, and food costs. One lecture and two laboratory periods. Prerequisite: Household Science 102.

HS 261 INSTITUTIONAL MANAGEMENT. (3) II.  
Mrs. Jones
Organization and administration of food departments of institutions such as college cafeterias, college residence halls, and hospitals. Prerequisite: Household Science 260.

HS 263 INSTITUTIONAL BUYING. (3) I.  
Miss Blue
Selection and purchase of foods and equipment for an institution. Prerequisite: credit or concurrent registration in Household Science 260.
HOUSEHOLD SCIENCE (HS)

HS 102 ADVANCED FOOD PREPARATION. (3-3) YR.  
Staff  
Economics of food selection; experimental food preparation; meal planning and serving. One lecture and two laboratory periods. Prerequisite: Household Science 150; Chemistry 103 or 104. Laboratory fee $8.00 each semester. Sections limited to 16 students each.

HS 150 ELEMENTARY FOOD PREPARATION. (3) I, II.  
Mrs. Bartow  
Fundamental processes of food preparation; practical application in meal planning to provide good nutrition and promote good food habits. For Home Economics majors only. One lecture and two laboratory periods. Laboratory fee $8.00. Sections limited to 16 students.

HS 152 FOOD PREPARATION. (3) I, II.  
Mrs. Bartow  
Fundamental problems in the preparation of food for adequate meals; practical experience in meal planning, preparation, and table service. Not open to students majoring in Home Economics. Two 3-hour laboratory periods weekly. Prerequisite: junior standing. Laboratory fee $8.00. Sections limited to 16 students.

HS 155 NUTRITION FOR NURSING STUDENTS. (3) II.  
Miss Ragon  
The role of good nutrition throughout the life cycle. Emphasis in laboratory on practical basic knowledge needed in the preparation and service of food. Two lectures and one laboratory period. Laboratory fee $5.00.

HS 156 SURVEY OF NUTRITION. (2) I, II.  
Miss Ragon  
A study of the factors involved in the selection of a diet to promote good health, with emphasis on foods used in Hawaii. For general students, both men and women. Not open to students majoring in Home Economics. Laboratory fee $1.00.

HS 157 DIET THERAPY. (3) II.  
Miss Ragon  
Intended to give nursing students a knowledge of the necessary modifications of normal nutrition to meet the special dietary needs in abnormal conditions. Two lectures and one laboratory period. Prerequisite: Household Science 155. Laboratory fee $5.00.

HS 250 DIET AND DISEASE. (3) II.  
Miss Ragon  
Diet therapy under abnormal conditions. Two lectures and one laboratory period. Prerequisite: Household Science 277. Laboratory fee $5.00.

HS 260 QUANTITY COOKERY. (3) I.  
Mrs. Jones  
Food problems of institutions; preparation and serving of food in large quantities, menu planning, and food costs. One lecture and two laboratory periods. Prerequisite: Household Science 102.

HS 261 INSTITUTIONAL MANAGEMENT. (3) II.  
Mrs. Jones  
Organization and administration of food departments of institutions such as college cafeterias, college residence halls, and hospitals. Prerequisite: Household Science 260.

HS 263 INSTITUTIONAL BUYING. (3) I.  
Miss Blue  
Selection and purchase of foods and equipment for an institution. Prerequisite: credit or concurrent registration in Household Science 260.
HS 264 Problems in Hospital Management. (4) I, II. Mrs. Boatman
Field practice for senior and graduate student dietitians in an approved institution. Prerequisite: Household Science 260, 277; consent of instructor.

HS 265 Institutional Accounts. (3) II. Miss Blue
Principles of accounting applied to management of school cafeterias, tearooms, residence halls, and other food service units. One lecture and two laboratory periods. Prerequisite: Household Science 260.

HS 266 Residence Hall Management. (Ar.) I, II. Mrs. Boatman
Planning and directing preparation of meals in a university women's residence hall; directing of housekeeping in residence hall. Prerequisite: Household Science 260, 261, 263, 265, and 277.

HS 270 Nutrition for Public Health Nurses. (3) I. Miss Ragon
The dietary needs of individuals and families; emphasis on nutritive values of local foods and racial diets. Two lectures and one laboratory period. Laboratory fee $5.00.

HS 272 Elementary Nutrition. (4) I. Miss Ragon
Basic principles of nutrition as related to the understanding of individual food needs. Planning of adequate diets with foods available in Hawaii. Two lectures and two laboratory periods. Prerequisite: Household Science 102 or consent of instructor. Laboratory fee $8.00.

HS 273 Food Habits in Hawaii. (3) II. Mrs. Grueille
The planning and preparation of meals for various racial groups at different income levels; emphasis on adequate diets at minimum cost. One lecture and two laboratory periods. Prerequisite: Household Science 272. Laboratory fee $8.00.

HS 277 Advanced Nutrition. (3) II. Miss Miller
Energy, protein, and mineral metabolism; chemical and physical properties, and nutritional significance of the vitamins. Dental health. Simple animal feeding experiments. Two lectures and one laboratory period. Prerequisite: Household Science 272; Chemistry 232. Laboratory fee $8.00.

HS 299 Directed Reading or Research. (Ar.) I, II. Staff
(1) Consumer Problems, (2) Dietary Problems, (3) Experimental Cookery, (4) Food Investigation, (5) Home Management Problems. Prerequisite: consent of instructor and department chairman. Laboratory fee $3.00 per credit hour.

HS 300 Directed Research in Nutrition. (Ar.) I, II. Miss Miller
Problems according to preparation of each student. (1) Nutritional Investigations, (2) Animal and Human Feeding Experiments. Prerequisite: Household Science 277; consent of instructor. Laboratory fee $3.00 per credit hour each semester.

HS 301 Dietary Studies. (Ar.) I, II. Miss Miller, Staff
Individual, group, family, and/or institutional studies of food habits and the nutritive value of diets. Prerequisite: Household Science 277; consent of instructor. Open to qualified seniors.
HS 305 Laboratory Methods in Nutrition. (3) I, II. Miss Miller
Growth experiments with laboratory animals; vitamin determinations by chemical, biological, and microbiological methods; food analyses; basal metabolism; balance experiments with animals or humans. Prerequisite: Household Science 277; Chemistry 230, 232. Laboratory fee $10.00. (Not offered 1953-54.)

HS 351 Seminar in Nutrition. (1) II. Miss Miller
Review of current literature; preparation of reports; reviews of articles on assigned topics. Prerequisite: consent of instructor.

INTERDEPARTMENTAL SEMINAR

330 Pacific Islands Research. (2-2) Yr. Staff
Interdepartmental seminar dealing with scientific hypotheses about social and cultural change in the Pacific Islands area. May be repeated. Prerequisite: consent of instructor.

LIBRARY SCIENCE

Students may enroll in Library Science courses only after consultation with instructors concerned.

260 Library Observation. (1-1) Yr. Mrs. Geiser
An orientation to library routine conducted as a means of determining the student's aptitude for school library work. Laboratory periods arranged in Teachers College libraries. Students expecting to specialize in Library Science must register concurrently for Library Science 262 the first semester and Education 244 the second semester. Students may enter second semester. (Not offered 1953-54.)

262 Administration of School Libraries. (3) I. Miss Crawford
Methods of organizing various types of library materials and keeping essential records. Objectives and contributions of the school library to the educational program. (Not offered 1953-54.)

268 Cataloguing and Classification. (3) II. Miss Crawford
Introduction to the principles of dictionary cataloguing, classifying according to the Dewey Decimal Classification system, assigning subject headings, and filing. Emphasis upon cataloguing and classifying children's books. Prerequisite: typing ability. (Not offered 1953-54.)

269 Advanced Cataloguing. (2) I. Miss Crawford
Practice in more detailed cataloguing problems for students planning to work in secondary school libraries, or for in-service students with some previous training or experience. Prerequisite: Library Science 268; typing ability. (Not offered 1953-54.)

284 Book Selection and Reading Guidance. (3) II. Mrs. Geiser
Principles and criteria of book selection; evaluation and selection of books in relation to reading interests of children and needs of the school curriculum. Ways of promoting the use of books for both informational and recreational reading. Prerequisite: Education 244 or equivalent.
286 Promoting Library Use. (2) II. Miss Crawford
Methods of developing skills and interest in the use of books and libraries by means of library instruction, the use of puppets, dramatization, book talks, storytelling, displays and exhibits, club groups, and other publicity techniques. Prerequisite: Library Science 284. (Not offered 1953-54.)

290 School Library Problems. (2) II. Miss Crawford
Emphasis upon problems of the teacher-librarian in relation to selection, organization, and circulation of books, pamphlets, pictures, periodicals, and recordings. Prerequisite: Library Science 262 or equivalent. (Not offered 1953-54.)

354 Library Internship. (14) I, II. Mrs. Geiser
Full-time service in laboratory or public school libraries under special supervision. Restricted to fifth-year students. Prerequisite: Library Science 260, 262, 268, 284, Education 254.

MATHEMATICS

Professors Holmes, Gregory; Associate Professor Townes; Assistant Professors Comba, Davis; Instructors Clark, Vitousek.

150 Plane Trigonometry. (3) I, II. Staff
Prerequisite: two years of high school algebra; one year of plane geometry. No credit if taken after 152.

151 College Algebra. (3) I, II. Staff
Prerequisite: two years of high school algebra; one year of plane geometry.

152 Plane Analytical Geometry. (3) I, II. Staff
Prerequisite: Mathematics 150; credit or concurrent registration in Mathematics 151.

153 Differential Calculus. (3) I, II. Staff
Prerequisite: Mathematics 152.

154 Integral Calculus. (3) I, II. Staff
Prerequisite: Mathematics 153.

155 Calculus Applications. (3) I, II. Mr. Townes, Mr. Gregory
Includes partial differentiation, multiple integration, and elementary differential equations. Prerequisite: Mathematics 154.

252-253 Differential Equations. (3-3) Yr. Mr. Comba
Theory and application of ordinary, total, and partial differential equations. Fourier and other series. Prerequisite: Mathematics 155 or the equivalent.

254-255 Advanced Calculus. (3-3) Yr. Mr. Gregory
Power and Fourier series, special integrals, vectors and tensors, complex variables. Laplace transforms, calculus of variation, matrix algebra. Prerequisite: Mathematics 155 or the equivalent. (Not offered 1953-54.)

275 Theory of Equations. (3) II. Mr. Townes
Elementary theorems in roots of equations, solution of numerical equations, determinants. Prerequisite: Mathematics 153.
276 Vector Analysis. (3) II. 

280 Statistical Methods. (3) I. 

281 Advanced Statistical Methods. (3) II. 

299 Directed Reading. (AR.) I, II. 
Individual reading in Modern Synthetic Geometry, Theory of Functions of a Complex Variable, Real Variable Theory, and Theory of Tensors. Prerequisite: consent of department chairman and instructor concerned.

300 Directed Reading or Research. (AR.) I, II. 
Prerequisite: Graduate standing in Mathematics and consent of department chairman.

MEDICAL TECHNOLOGY

This sequence of courses meets the technical training requirements of the Registry of Medical Technologists of the American Society of Clinical Pathologists.

266 Medical Technology. (4) 
Student technical training in a cooperating laboratory under the supervision of a qualified director. Prerequisite: Bacteriology 262, 264. Offered only in summer sessions.

267-268 Medical Technology. (12-12) Yr. 
Student technician training in a cooperating laboratory under the supervision of a qualified director. Prerequisite: Medical Technology 266.

MILITARY SCIENCE

Professor Carpenter; Associate Professor Taylor; Assistant Professors Adjemian, Maling, Robbins, Wood; Instructors Carroll, Flynn, Goodman, Hamilton, Holck, Malarz, Morris, Copeland.

100 First Year Military Science. (1-1) Yr. 
Military organization and policy of the United States, evolution of warfare, map reading, military psychology, first aid and hygiene, and elements of national power. Common to Infantry and Field Artillery instruction. Three hours a week. Special uniform and awards fee 50 cents (not refundable).

150 Second Year Military Science. Infantry. (1-1) Yr. 
Introduction to Infantry technique; leadership, drill, and exercise of command. Three hours a week. Special uniform and awards fee 50 cents (not refundable).
151 SECOND YEAR MILITARY SCIENCE. ARTILLERY. (1-1) YR. STAFF
Introduction to Artillery technique; leadership, drill, and exercise of command. Three hours a week. Special uniform and awards fee 50 cents (not refundable).

200 THIRD YEAR MILITARY SCIENCE. INFANTRY. (3-3) YR. STAFF
Infantry tactics and techniques; leadership, drill, and exercise of command. Five hours a week. Open to selected students. Prerequisite: Military Science 150 or equivalent. Special uniform and awards fee 50 cents (not refundable).

201 THIRD YEAR MILITARY SCIENCE. ARTILLERY. (3-3) YR. STAFF
Artillery tactics and technique; leadership, drill, and exercise of command. Five hours a week. Open to selected students. Prerequisite: Military Science 151 or equivalent. Special uniform and awards fee 50 cents (not refundable).

250 FOURTH YEAR MILITARY SCIENCE. INFANTRY. (3-3) YR. STAFF
Infantry tactics and technique; military administration, military teaching methods, military law and boards, psychological warfare, leadership, drill, and exercise of command. Five hours a week. Open to selected students. Prerequisite: Military Science 200. Special uniform and awards fee 50 cents (not refundable).

251 FOURTH YEAR MILITARY SCIENCE. ARTILLERY. (3-3) YR. STAFF
Artillery tactics and technique; military administration, military teaching methods, military law and boards, psychological warfare, leadership, drill, exercise of command. Five hours a week. Open to selected students. Prerequisite: Military Science 201. Special uniform and awards fee 50 cents (not refundable).

255 SUMMER CAMP. (2) STAFF
Infantry field training, weapons operation and firing, camp organization and sanitation, physical training, field and combat problems. Camp attendance required between Military Science 200 and 250 unless deferment is authorized.

256 SUMMER CAMP. (2) STAFF
Artillery field training, weapons operation and firing, camp organization and sanitation, physical training, field and combat problems. Camp attendance required between Military Science 201 and 251 unless deferment is authorized.

MUSIC

Professor Rian; Associate Professors Vine, Smith; Assistant Professor van Bronkhorst; Instructor Kahananui; Lecturers Kerr, Bacon, Thaanum.

110 MUSIC APPRECIATION. (3) I, II. MR. VAN BRONKHORST
An introduction to music from the listener's point of view, with emphasis on orchestral literature from the classical through the modern period. Emphasis on listening to recorded music. Course fee $2.00.

111 MUSIC APPRECIATION. (3) II. MR. VAN BRONKHORST
A study of music from the listener's point of view with emphasis on opera, ensemble music, and modern trends. Prerequisite: Music 110. Course fee $2.00.
150 RUDIMENTS OF MUSIC. (3) I, II.  
Mr. van Bronkhorst  
The elements of musicianship covering terminology, notation, sight singing, and rhythmic and melodic dictation. A basic course for all prospective teachers. May be required of music majors who lack experience and training.

159 INSTRUMENTAL MUSIC. (2-2) Yr.  
Intended for students preparing to teach instrumental music. Designed to give a basic knowledge of the instruments of the band and orchestra.

160-161 THEORY. (4-4) Yr.  
Miss Smith  
A course designed to give understanding of the basic rhythmic, melodic, harmonic, and formal elements of eighteenth- and nineteenth-century music, and drill in their performance, recognition, and notation.

170-171 HISTORY AND LITERATURE OF MUSIC. (3-3) Yr.  
Mr. van Bronkhorst  
A complete study of the development of music from the beginning of history up to the present time. Nationalities, schools, and composers in detail. Course fee $2.00. (Not offered 1953-54.)

209 UNIVERSITY CHORUS. (1) I, II.  
Mr. Vine  
Three times a week. May be repeated.

210 UNIVERSITY A CAPPELLA CHOIR. (1-1) Yr.  
Mr. Rian  
Three times a week. May be repeated.

251-252 MUSIC, ELEMENTARY CURRICULUM. (2-2) Yr.  
Mrs. Kahananui  
Organization and direction of music in childhood experience. A survey of materials and procedures. Prerequisite: Music 150.

260-261 ADVANCED THEORY. (3-3) Yr.  
Miss Smith  

265 COUNTERPOINT. (2) I.  
Miss Smith  
A survey of the contrapuntal elements of music and their use in composition from the fourteenth century to the present. Prerequisite: Music 160-161, 260-261.

266 BAND. (1) I, II.  
Mr. Rian  
Three times a week. May be repeated.

267 ORCHESTRA. (1) I, II.  
Mr. Rian  
Three times a week. May be repeated.

268 COMPOSITION. (2) II.  
Miss Smith  
An introductory course in composition, including the study of selected masterpieces and creative writing in the smaller forms. Admission only upon recommendation of the department. Prerequisite: Music 160-161, 260-261.

270 CONDUCTING. (3) I.  
Mr. Rian  
Designed to prepare conductors for school, community, and church music. Training and organizing choral and instrumental groups, ensemble singing and
playing, conducting technique, and choral and instrumental literature. Prerequisite: Music 160-161, 170-171, 210, 266, or approval of the department chairman.

280-281 ORCHESTRATION. (2-2) YR.  
Mr. Rian  
A course in arranging and composing for band, orchestra, and chamber groups. Prerequisite: Music 160-161, 170-171, 266, 270, or approval of the department chairman.

285-286 SCHOOL MUSIC. (3-3) YR.  
Mr. Rian  
The objectives, materials, and procedures from preschool through high school. Intended for students in Teachers College who are concentrating on music. Others may register with approval of the department chairman. Prerequisite: Music 160-161.

287 PIANO METHODS. (2-2) YR.  
Miss Smith  
Methods for class and private instruction in piano.

APPLIED MUSIC

Instruction given in piano, organ, voice, and orchestral instruments in individual half-hour lessons either once or twice a week. Lessons are not made up unless the instructor is notified a reasonable time in advance of the absence. Lessons occurring on holidays are not made up. Registration for lessons and choice of teachers must be approved by the department chairman.

One public appearance in each of the junior and senior years is required of all students majoring in music. This requirement may be satisfied by successful participation in student recitals.

Assignment to Applied Music courses is based on tests and auditions given by the department during the Freshman Orientation Period. In order to receive credit in Applied Music courses a student must meet the following minimum requirements:

\textit{Satisfactory work in Music 160-161, or the equivalent.}

\textbf{Piano}—Play any major or minor scale in octaves, at a moderate tempo; Bach Two-Part Invention or a dance from one of the suites; a sonata by Haydn or Mozart; a modern composition as difficult as the sonata.

\textbf{Voice}—Sing on pitch, with correct phrasing and musical intelligence, standard songs in good English. Demonstrate ability to read a simple song at sight and have a knowledge of the rudiments of music. Have a promising voice. (Some knowledge of piano is strongly recommended.)

\textbf{Violin}—Play major and minor scales, arpeggios, simple Kreutzer etudes, a sonata by Handel, Haydn, Mozart, or Schubert; a more modern work displaying special technique peculiar to the violin.

\textbf{Organ}—Same as piano.

\textit{Orchestral instruments other than violin}—Entrance requirements may be had by writing the Music Department.

\textbf{FEES PER SEMESTER}

\begin{tabular}{ |l|c| }
\hline
\textbf{One class lesson each week} & \$20.00 \\
\textbf{One lesson each week (half hour)} & \$15.00 \\
\textbf{Two lessons each week (half hour each)} & \$90.00 \\
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Courses

101-102 Class Instruction. (1-1) Yr. Staff
Class instruction in piano and voice, and orchestra and band instruments at the freshman level.

103-104 Class Instruction. (1-1) Yr. Staff
Class instruction in piano and voice, and orchestra and band instruments at the sophomore level.

105 Individual Instruction. (Ar.) Yr. Staff
Piano, organ, voice, or orchestral instruments. For non-music majors, or music majors who intend it as a secondary medium of performance. May be repeated.

149 Individual Instruction. (Ar.) Yr. Staff
Piano, organ, voice, or orchestral instruments at the freshman level. For prospective music majors.

169 Individual Instruction. (Ar.) Yr. Staff
Piano, organ, voice, or orchestral instruments at the sophomore level. For prospective music majors.

249 Individual Instruction. (Ar.) Yr. Staff
Piano, voice, organ, or orchestral instruments at the junior level. For music majors.

269 Individual Instruction. (Ar.) Yr. Staff
Piano, voice, organ, or orchestral instruments at the senior level. For music majors.

349 Individual Instruction. (Ar.) Yr. Staff
Piano, voice, organ, or orchestral instruments at the graduate level. For music majors.

Nursing

Associate Professor Jones; Assistant Professor Wolfe; Lecturers Lee, Connor, Lynn, MacBride, Canfield.

100-101 Introduction to Nursing. (2-2) Yr. Mrs. Wolfe
Designed to develop skill in simple nursing procedures. Emphasis on needs of the family in promotion of health, prevention of illness, and care of the sick. Consideration of hygiene of pregnancy, care of babies, and care of the aged and convalescent. Study of community health facilities.

102 Nursing Arts. (3) Mrs. Wolfe
Introduction to the comprehensive care of the hospitalized patient. Nutritional, postural, emotional, and health education needs of patients and the performance of nursing functions to meet these needs. Practice in simple nursing care situations in hospitals, homes, and institutions. Offered only in summer sessions.

105 Professional Adjustments. (1) I. Miss Jones
The function of the nurse in the community; obligations and ethical respon-
sibilities; the evolution of nursing through history; present-day opportunities and needs.

110-111 Medical and Surgical Nursing. (8-8) Yr.
Study of etiology, pathology, symptoms, transmission, complications, treatment; prevention and rehabilitation as related to common medical and surgical conditions. Practice in planning and executing comprehensive patient care in wards and out-patient departments. Theory and practice in operating room technique and in medical and surgical asepsis.

115 Pharmacology. (3) I. Mrs. Wolfe
The study of drugs and solutions. Fundamentals of metrology and terminology associated with drug therapy, and the expected action, uses, characteristics, therapeutic effects, toxic effects, and their treatment. Methods of administration.

200 Psychiatric Nursing. (8)
Study of the causes, manifestations, treatment, and nursing needs of the mentally ill. Consideration of psychological factors in other types of illness and the close relationship between mental and physical factors. Supervised practice in the nursing care of persons with mental illness. Offered only in summer sessions.

210 Tuberculosis Nursing. (8)
The study of tuberculosis as a communicable disease and methods of prevention, early detection, treatment, patient education, nursing care, and rehabilitation. Practice in comprehensive care of patients, including out-patient and home follow-up. Offered only in summer sessions.

250 Ward Management. (3) I. Mrs. Wolfe
The study of hospital organization; the head nurse’s and ward supervisor’s relation to the various departments. The organization of the ward, and management and supervision of ward personnel.

251 Ward Teaching. (3) II. Mrs. Wolfe
The place of the ward supervisor and head nurse in carrying out the objectives of the general educational program of the school of nursing. Opportunities, methods, and relationships involved in teaching students on the ward to plan for individualized nursing care.

253 Comparative Nursing Procedure. (3) II. Mrs. Wolfe
Evaluation of basic nursing procedures, with emphasis upon underlying scientific principles.

254 Legal Aspects of Nursing. (2) II.
A study of legislation as it affects the development of the status of nurses, nursing and nursing education, and the legal aspects of the nurse’s relationships to the hospital, the patient, and the community. (Not offered 1953-54.)

257 Economics of Nursing Service. (2) I.
Some economic problems of hospitals as community agencies; analysis of current economic situations as they affect nursing service and nursing education. (Not offered 1953-54.)
260 PRINCIPLES OF SUPERVISION. (2) I.  
Miss Jones  
A study of the fundamental principles of supervision and their application to situations in nursing, with emphasis on the improvement of service through the growth of the individual worker.

261 TEACHING NURSING ARTS. (2) I.  
Mrs. Wolfe  
A study of the aims and scientific principles underlying nursing procedures. Analysis of the methods, content, and materials used in teaching nursing arts. Prerequisite: Education 250-251, or consent of instructor.

263 SOCIAL AND HEALTH ASPECTS OF NURSING. (2) II.  
A study of how the resources of the hospital and other community agencies may be used to develop the nurse's understanding of the patient's needs as a member of a family and a community, and the nurse's responsibility to help him meet those needs. (Not offered 1953-54.)

264 CURRICULUM DEVELOPMENT IN SCHOOLS OF NURSING. (2) II.  
Study and analysis of curricula in nursing education; the development of curricula in relation to objectives, selection and organization of content, and methods and evaluation of the program. Prerequisite: Consent of instructor. (Not offered 1953-54.)

268 SUPERVISED PRACTICE. (3) II.  
Mrs. Wolfe  
Observation and supervised participation in a teaching or supervisory situation involving nursing procedures. Prerequisite: Consent of instructor.

280 PUBLIC HEALTH NURSING. (4-4) YR.  
Miss Jones  
The development, functions, methods, techniques, and relationships of public health nursing; emphasis on the social, preventive, and teaching aspects of service to the family and the community. One half day weekly in field observation and participation.

281 HEALTH TEACHING IN NURSING. (2) II.  
Miss Jones  
Basic principles underlying teaching and learning; selection and organization of materials used in health teaching; methods used with groups and individuals.

282-283 PUBLIC HEALTH. (3-3) YR.  
Mr. Lee, Miss Connor  
Principles of public health and preventive medicine and their application in protecting and promoting the health and welfare of citizens through organized community effort. Maintenance of proper health for mother, infant, and child is stressed.

290 FIELD PROGRAM. (10) I, II. Miss Jones, Miss MacBride, Field Staff  
Instruction and guided experience in home visiting for bedside and instructive care, in school health work, in maternal and child health conferences, and in chest and other clinics. Approximately 39 hours a week.

291-292 INTERVIEWING IN PUBLIC HEALTH NURSING. (2-2) YR.  
Miss Canfield  
General principles of interviewing as demonstrated through the use of actual case material from public health nursing records. Runs concurrently with 293-
294, and material is chosen to illustrate dynamics of behavior as they are considered in that course.

293-294 DYNAMICS OF DEVELOPMENT. (2-2) YR. MR. LYNN
The various aspects and successive stages of emotional and social development of the child. Normal sequences of parent-child relations are considered first, followed by a study of the abnormal arrestments and disturbances which the public health nurse can detect and help correct. Runs concurrently with 291-292.

PHILOSOPHY

PROFESSOR MOORE; ASSOCIATE PROFESSOR McCARTHY; ASSISTANT PROFESSOR NAGLEY.

100 INTRODUCTION TO PHILOSOPHY. (3) I, II.
The problems, methods, and fields of philosophy.

110 BUSINESS ETHICS. (3) I, II. MR. MOORE
A consideration of basic ethical concepts as applied to business enterprise and the professions.

150 HISTORY OF PHILOSOPHY. (3) I. MR. MOORE
Western philosophy from the era of great Greek thinkers to the Renaissance. Prerequisite: sophomore standing.

151 MODERN PHILOSOPHY. (3) II. MR. MOORE
Western philosophy from the Renaissance to the present day. Desirable preparation: Philosophy 150.

200 ETHICS, PHILOSOPHIES OF LIFE. (3) I. MR. NAGLEY
Major philosophies and typical theories of the nature of the good life and of the basic values of human living; consideration of Eastern as well as Western philosophies of life.

210 CONTEMPORARY PHILOSOPHY. (3) II. MR. NAGLEY
A study of recent developments in European and American philosophy. Prerequisite, one of the following: Philosophy 100, 150, 151, 252.

240 PHILOSOPHY IN LITERATURE. (3) II. MR. McCARTHY
Literary expression of philosophical ideas. Consideration of such writers as Goethe, Dostoevsky, Mann, Hemingway, Proust, Joyce, Sartre, and T. S. Eliot. (Alternate years; not offered 1953-54.)

252 TYPES OF PHILOSOPHY. (3) I. MR. NAGLEY
Study of such basic philosophies as Naturalism, Idealism, Mysticism, Pragmatism, Skepticism, etc. (Not offered 1953-54.)

253 PROBLEMS OF PHILOSOPHY. (3) I. MR. NAGLEY
Persistent specific problems of philosophy, primarily those concerning nature, man, God, etc.

256 CLASSICAL INDIAN CIVILIZATION. (3) II.
Distinctive characteristics of the people of India; their intellectual habits and emotions as expressed in society, philosophy, literature, politics, and religion.
PHILOSOPHY

257 Contemporary Indian Civilization. (3) II.
Similar to 256 but with emphasis upon the modern period. (Not offered 1953-54.)

262 Philosophy of Art. (3) I.
A systematic study of the nature and function of art from the points of view of creation, appreciation, and criticism. Particular attention to the arts of painting, sculpture, music, and poetry. (Alternate years; offered 1953-54.)

265 Philosophy, East and West. (2) II.
An introductory survey of the basic systems and methods of Eastern and Western philosophy, with special attention to similarities and contrasts.

268 American Philosophy. (3) I.

270 Indian Philosophy. (3) II.
Fundamental philosophical systems and movements in India, including the Vedas, Upanishads, and Six Systems of Hinduism and the unorthodox philosophies, Charvaka, Jainism, and Buddhism.

271 Chinese Philosophy. (2) I.
A historical survey of the important philosophical schools and tendencies in China, ancient and modern.

273 The Vedanta Philosophy. (3) II.
A comprehensive study of the philosophy of the Upanishads and the Vedanta system in its main forms. (Not offered 1953-54.)

274 Contemporary Indian Philosophy. (3) II.
A study of recent philosophical movements and tendencies, and their significance in present-day India. (Not offered 1953-54.)

275 Philosophy of Religion. (3) II.
The sources and validity of beliefs associated with various great religions. Analysis of the relation of science, philosophy, theology, and religion, and of religion to individual and social life.

280 Elementary Logic. (3) I.
An introduction to deductive and inductive logic. Problems of clear thinking in science, argumentation, and ordinary discourse. Special attention to the techniques of propaganda analysis.

283 Buddhist Philosophy. (3) II.
Buddhist philosophy in India, China, Korea, and Japan, and its influence on Far Eastern culture and thought.

286 Philosophy in Contemporary Science. (3) I.
The philosophical implications of recent trends in physical science. Particular attention to the development of operationalism. (Not offered 1953-54.)

287 Scientific Method. (3) II.
A systematic study of the methods and procedures of reliable knowledge in the natural and social sciences. (Not offered 1953-54.)
288 Symbolic Logic. (3) II.  
Mr. McCarthy  
A survey of the methods and forms of modern logic, with attention to the nature of the deductive system and the relationship between logic and mathematics. Prerequisite: Philosophy 280 or 12 credits in mathematics. (Not offered 1953-54.)

299 Directed Reading. (Ar.) I, II.  
Staff  
Reading, consultations, and written or oral reports in the following fields: (1) Metaphysics; (2) Methodology; (3) Ethics; (4) Indian Philosophy; (5) Chinese Philosophy; (6) Buddhist Philosophy; (7) East-West Philosophy. Intended for advanced students and those with special interests. Prerequisite: consent of instructor.

300 Reading and Research. (Ar.) I, II.  
Staff  
Reading and research in the same fields as in 299. Prerequisite: graduate standing; consent of instructor.

PHYSICS

Professor Eller; Associate Professor Miyake; Instructor Steiger; Assistant McCracken.

102 College Physics. (4-4) Yr.  
Mr. Steiger  
Three lectures and one laboratory period. Prerequisite: Mathematics 150 and credit or concurrent registration in Mathematics 151. Laboratory fee $6.00 each semester.

104 Engineering Physics. (5-5) Yr.  
Mr. Eller  
Three lectures, one laboratory period, and one problem working period. Prerequisite: Mathematics 153; credit or concurrent registration in Mathematics 154. Laboratory fee $6.00 each semester.

151 Fundamentals of Communication. (3) I.  
Mr. Miyake  
A general electricity course covering both DC and AC theory and applications with emphasis on communication circuits. Two lectures and one laboratory period. Prerequisite: Mathematics 150. Laboratory fee $6.00.

153 Principles of Radio. (3) II.  
Mr. Miyake  
Fundamentals of radio theory and design, and construction of radio receiving and amplifying equipment. Two lectures and one laboratory period. Prerequisite: Physics 151. Laboratory fee $6.00.

202 Electrical Engineering. (3-2) Yr.  
Mr. Eller  
Electric power circuits and machinery, and the application of thermionic devices in power equipment. Two lectures and one laboratory period. Prerequisite: senior standing in Engineering; Physics 275 desirable preparation. Laboratory fee $6.00 each semester.

253 Electrical Measurements. (3) II.  
Mr. Eller  
The study and application of the methods of measurement of the fundamental electric and magnetic quantities. One lecture and two laboratory periods. Prerequisite: Physics 102; Mathematics 154. Laboratory fee $6.00.
254 Advanced Radio. (3) I.  
**Mr. Miyake**  
Advanced radio theory and practice. Theory and design of the more complex radio equipment, including transmitters. Two lectures and one laboratory period. Prerequisite: Physics 153; Mathematics 154. Laboratory fee $6.00.

255 Light. (3) II.  
**Mr. Steiger**  
Principles of geometric and physical optics. Prerequisite: Physics 275.

256 Optics Laboratory. (1) II.  
**Mr. Steiger**  
Experiments in geometric and physical optics. One laboratory period. Prerequisite: credit or concurrent registration in Physics 255. Laboratory fee $6.00.

258 Electronics. (3) II.  
**Mr. Miyake**  
The theory and applications of electronic phenomena and electronic devices. Prerequisite: Physics 275.

262 Sound. (3) I.  
**Mr. Miyake**  
Theory of sound and its applications. Prerequisite: Physics 102; Mathematics 154.

263 Theoretical Mechanics. (3) II.  
**Mr. Eller**  
Principles of statics and dynamics. Prerequisite: Physics 102; Mathematics 154.

270 Heat. (3) II.  
**Mr. Miyake**  

275 Electricity and Magnetism. (3) I.  
**Mr. Eller**  
Electric and magnetic phenomena. Prerequisite: Physics 102; Mathematics 154.

276 Electricity and Magnetism Laboratory. (1) I.  
**Mr. Eller**  
Methods of electric and magnetic measurements. One laboratory period. Prerequisite: credit or concurrent registration in Physics 275. Laboratory fee $6.00.

280 A Survey of Modern Physics. (3) I.  
**Mr. Steiger**  
An introductory treatment of some phenomena depending on the quantization of energy and the atomicity of matter. Prerequisite: Physics 275; Mathematics 155.

281 Atomic and Nuclear Physics. (3) II.  
**Mr. Steiger**  
A study of the structure of the atom and its nucleus, radioactivity, and the energy relationships involved. Prerequisite: Physics 280.

299 Individual Work in Advanced Physics. (Ar.) I, II.  
**Staff**  
Prerequisite: consent of instructor.

300 Directed Reading or Research. (Ar.) I, II.  
**Staff**  
Prerequisite: graduate standing in physics; consent of instructor.

302 Theoretical Physics. (3-3) Yr.  
**Mr. Steiger**  
The dynamics of rigid bodies and fluids, origin of spectra, and electromagnetic theory. Prerequisite: Mathematics 253; advanced work in mechanics, light, and electricity and magnetism.
350 Seminar. (1-1) Yr.  Staff
Discussions and papers on physical theory and recent developments in physics. Prerequisite: graduate standing or consent of department chairman.

PSYCHOLOGY

Professors Livesay, Herrick, White, Weaver; Associate Professors Vinacke, Bitner, Fick; Assistant Professors Crowell, Arkoff, Digman, Dole.

Psychology 150 (or the equivalent) is prerequisite to all other courses in Psychology, with the exception of 100 and 156.

100 Psychology of Effective Study. (3) I, II.  Mr. Dole
The application of psychological principles to effective study. Problems in self-management and college adjustment.

150 General Psychology. (4) I, II.  Staff
A survey of the facts and principles fundamental to human behavior. Individual differences, personality, motivation, sensation, emotion, learning, and thinking. Three lectures and one laboratory period. Laboratory fee $1.00.

156 Introduction to Psychology. (3) I.  Staff
Intended for Teachers College, Home Economics, and Vocational Agriculture students, but open to Engineering and Nursing students by special permission. Not open to Arts and Sciences students.

185 Developmental Psychology. (3) I, II.  Staff
Emotional, mental, physical, and social development of the child from infancy through adolescence; interests and abilities at the different age levels.

250 Applied Psychology. (3) II.  Mr. Weaver
Application of psychological principles to problems of personal efficiency and to the fields of education, law, medicine, commerce, and human relations. Supplements and follows Psychology 156.

254 Principles of Guidance. (3) I.  Mr. Bitner
Psychological bases; methods and scope of educational, vocational, and personal guidance. Prerequisite: Psychology 260, 264, 292, and 295.

256 Business and Industrial Psychology. (3) I.  Mr. Weaver
Psychological factors involved in advertising, salesmanship, selection and control of personnel, job analysis, fatigue and efficiency of workers, and accident analysis and safety.

257 Principles of Counseling. (3) II.  Mr. Fick
Counseling as a technique in individual guidance. Needs; objectives; psychological bases of counseling; procedure; available services. Prerequisite: Psychology 185 and 254, or consent of instructor.

258 Group Techniques of Guidance. (2) II.  Mr. Fick
The structure and behavior of social groups; the group as an instrument for
studying and modifying individual behavior. Prerequisite: Psychology 185 and credit or concurrent registration in 292, or consent of instructor. (Not offered 1953-54.)

260 STATISTICAL TECHNIQUES. (3) I, II. MR. WEAVER, MR. DIGMAN
Use of statistical techniques in psychological problems: measures of central tendency and variability; graphic methods; reliability of measures and scores; zero order correlation.

264 PSYCHOLOGICAL MEASUREMENTS. (3) II. MR. WEAVER
The construction, validation, and administration of psychological tests; interpretation and application of scores; familiarization with various types of group tests. Prerequisite: Psychology 260.

267 EXPERIMENTAL PSYCHOLOGY. (3) I, II. MR. DIGMAN
Training in laboratory techniques. Experiments in cutaneous and kinesthetic sensation, reaction time, vision, audition, and motor and verbal learning processes. Desirable preparation: Psychology 260 or the equivalent. Laboratory fee $2.00.

270 PHYSIOLOGICAL PSYCHOLOGY. (3) I.
A study of the physiological processes as related to an understanding of such activities as vision, hearing, learning, emotion, memory, and thinking.

272 PSYCHOLOGY OF LEARNING. (3) I. MR. DIGMAN
A study of the major conditions influencing learning and forgetting; the role of motivation, rewards, and practice; theoretical interpretations of the learning process.

274 PSYCHOLOGY OF THINKING. (3) I. MR. VINACKE
The psychological factors and methods involved in thinking. Concept formation, problem solving, creative imagination, artistic thinking, attitudes, and opinions.

275 SYSTEMATIC PSYCHOLOGY. (3) II. MR. DIGMAN
The various systems of psychology: structuralism, functionalism, behaviorism, purposivism, Gestalt, and the various dynamic psychologies.

280 SOCIAL PSYCHOLOGY. (3) II. MR. VINACKE
The psychology of human relations; psychological factors that determine the behavior of an individual in his social relationships. Two lectures and one laboratory period.

283 PSYCHOLOGY OF PERSONALITY. (3) I. MR. VINACKE
The development of personality; components of personality; critical evaluation of research on various aspects of personality.

286 POLITICAL PSYCHOLOGY. (3) I. MR. VINACKE
A study of political behavior in individuals and groups; the voter, the politician, political parties; psychological problems which arise in the conduct of the government. (Not offered 1953-54.)

290 CLINICAL PSYCHOLOGY. (3) II.
Methods and scope of clinical psychology; available individual tests and other
instruments used in measuring intelligence and personality factors; the use and meaning of scores in child and adult cases; applications to psychological diagnosis. Prerequisite: Psychology 260 and 264.

292 MENTAL HYGIENE. (3) I, II.  
Mr. Livesay  
Conditions requisite to mental health and satisfactory social adjustment; causes and means of preventing maladjustments and neuroses.

295 ABNORMAL PSYCHOLOGY. (3) I, II.  
Mr. Crowell  
The nature and causes of psychoneuroses and psychoses; abnormalities of intelligence; incipient abnormal traits manifested in everyday life; psychotherapy.

298 SENIOR SEMINAR. (1) II.  
Mr. Weaver  
Required of all seniors majoring in psychology. Not open to others.

299 DIRECTED READING. (Ar.) I, II.  
Staff  
Prerequisite: consent of instructor.

300 DIRECTED READING OR RESEARCH. (Ar.) I, II.  
Staff  
Prerequisite: graduate standing.

320 SEMINAR IN METHODS OF RESEARCH. (2) I.  
Mr. Weaver  
The fundamentals of research and thesis preparation. Applications to specific problems. Prerequisite: consent of instructor.

321 GENERAL SEMINAR. (2) II.  
Mr. Vinacke  
Selected topics as determined by the needs and interests of the group. Presentation and discussion of thesis problems. Prerequisite: consent of instructor.

351 ADVANCED EDUCATIONAL PSYCHOLOGY. (3) I, II.  
Mr. White  
Application of experimental evidence in psychology to major educational problems; the bearing of recent psychological theories upon education.

356 PROBLEMS IN CLINICAL PSYCHOLOGY. (3) I.  
Mr. Herrick  
Clinical case studies: histories; selection of tests; interview methods; interpretations; recommendations and follow-up. Prerequisite: consent of instructor.

360 ADVANCED STATISTICAL TECHNIQUES. (3) II.  
Mr. Digman  
Statistical treatment and interpretation of psychological data: sampling procedures, elementary probability theory, tests of significance of statistical hypotheses, analysis of variance, correlational techniques, factor analysis.

362 INDIVIDUAL INTELLIGENCE TEST TECHNIQUES. (3) I, II.  
Staff  
Practice in the administration and interpretation of individual tests such as the Stanford-Binet, Wechsler-Bellevue, Preschool Scales, Detroit, etc. May be repeated. Prerequisite: consent of instructor. Laboratory fee $5.00.

364 PROJECTIVE TECHNIQUES. (3) II.  
Mr. Crowell  
Theory and application of projective techniques, with emphasis on the Rorschach and Thematic Apperception Tests.

382 HISTORY OF PSYCHOLOGY. (3) I.  
Mr. Digman  
The development of psychology from ancient to modern times, with particular attention to the origins of the various theories. (Not offered 1953-54.)
RELIGION

Professor Zeigler; Lecturers Mark, Dunstan, Griswold.

150 Introduction to the Study of Religion. (3) I. Mr. Zeigler
   The nature of religion and its relationship to other areas of life and thought.

151 Problems in Religious Thought. (3) II. Mr. Zeigler
   The ways in which religious faith has been undergirded by rational thought; emphasis upon modern developments.

200 Old Testament Survey. (3) I. Mr. Mark
   The Old Testament from the literary and philosophical points of view; emphasis on practical values of the book for life today.

201 New Testament Survey. (3) II. Mr. Mark
   The New Testament from the literary and philosophical points of view; emphasis on practical values of the book for life today.

208 The Life of Jesus and Its Significance Today. (2) I. Mr. Zeigler
   A study of the known life of Jesus; emphasis on the great central issues.

209 The Teachings of Jesus. (2) II. Mr. Zeigler
   A study of the known teachings of Jesus; their philosophical and practical implications.

215 Historical Development of the Bible. (2) II.
   Survey of the present knowledge of the origin and development of the English Bible in the light of historical, archaeological, and literary research. (Not offered 1953-54.)

221 Great Personalities in Christianity. (3) II.
   The lives and contributions of a number of outstanding persons. A biographical approach to the role of religion in life and the development of Christian faith. (Not offered 1953-54.)

226 History of Religion in the United States. (3) I. Mr. Griswold
   Survey of the influence of religion in the founding of the colonies and the development of the nation. Special attention to "revivals," the role of the frontier, the emergence of the many churches, and the movements toward unity.

240 The Beginnings of Christianity. (3) I.

241 The Christian Church since the Reformation. (3) II.
   Brief survey of the Middle Ages and the Reformation. Study of the history of the church in modern times. (Not offered 1953-54.)

250-251 Comparative Study of Religions. (3-3) Yr. Mr. Zeigler
   Origin, development, literature, practices, and major ideas of the great religions. Reading in the sacred literature of the great religions.
271 RELIGION AND LITERATURE. (2) II.  
MR. ZEIGLER  
Interpretations of religion that have appeared in the literature of the English­speaking world. (Not offered 1953-54.)

272-273 RELIGION AND THE ARTS. (3-3) Yr.  
The influence of religion upon the arts such as architecture, painting, music, literature, poetry, and drama; and the contributions of the arts to religion. An appreciative yet critical approach to religion and its role in the social process. (Not offered 1953-54.)

282-283 THE HISTORY OF RELIGION. (3-3) Yr.  
MR. ZEIGLER  
The problem of the origin of religion and its development from primitive animism to the present. Attention to the historical origins of the different religious systems. (Not offered 1953-54.)

286 CHRISTIAN ETHICS. (2) II.  
MR. ZEIGLER  
The nature of Christian ethics; its relation to other major ethical systems and to metaphysical theories.

300 DIRECTED READING. (AR.) I, II.  
MR. DUNSTAN, MR. ZEIGLER  
Prerequisite: graduate standing.

SOCIAL WORK

PROFESSORS HANDLEY, SIKKEMA; ASSOCIATE PROFESSORS COLEMAN, JAMBOR; LECTURERS ICHYASU, KIMMICH.

200 THE FIELD OF SOCIAL WORK. (3) I, II.  
MR. JAMBOR  
A non-professional orientation course intended to acquaint the student with the philosophy, scope, and aims of social work. Prerequisite: junior standing.

305 SOCIAL CASEWORK. (2) I.  
MISS SIKKEMA  
An introduction to the basic principles and processes of social casework. Selected case records used as material for study and discussion.

306 SOCIAL CASEWORK. (2) II.  
MISS SIKKEMA  
A continuation of 305, with special emphasis upon social diagnosis and skill in the treatment of casework problems. To be taken concurrently with 360-361. Prerequisite: Social Work 305.

308 SOCIAL GROUP WORK. (2) I.  
An introduction to the basic principles and processes of group work.

309 SOCIAL GROUP WORK. (2) II.  
A continuation of 308, with emphasis upon understanding the individual in groups, and skill in the use of the helping process. To be taken concurrently with 360-361. Prerequisite: Social Work 308.

310 DYNAMICS OF HUMAN BEHAVIOR. (2) I.  
MR. COLEMAN  
Personality growth and development from infancy through old age. Interpretation of the individual's behavior in the light of physical, psychological, and social factors which have contributed to his maladjustment.
312 Group Work, Program Activities. (2) II. Miss Ichiyasu
The program as a tool in meeting individual and group needs. The process of program development; basic program activities; differentials in age and types of groups. To be taken concurrently with 360-361.

315 Community Organization. (2) II. Mr. Jambor
Methods and processes used in the field of community organization in social work. A description and analysis of types of agencies and services primarily concerned with social welfare planning.

324 History of Social Work. (2) I. Mrs. Handley
Survey of the major trends in the development of social work thought and action in England and America as a basis for modern social work practice.

325 Child Welfare. (2) I. Miss Sikkema
Survey of the development of specialized services for children in both public and private fields, including the consideration of current practice. Illustrative material from the various fields of child welfare service.

326 Treatment of Juvenile Delinquency. (2) II. Mr. Coleman
Social casework practice in relation to problems of juvenile delinquency.

330 Health and Disease. (2) II. Miss Sikkema
This course emphasizes social work problems associated with illness; the personal and social implications of illness and of the treatment of diseases.

350 Public Welfare. (2) II. Mrs. Handley
The development of public welfare in the United States with emphasis upon the public assistance programs. Open to seniors.

351 Social Insurance. (2) II. Mr. Jambor
A study of old age, unemployment, workmen's compensation, invalidity, and health insurance. Social insurance legislation and administration, with consideration of coverage, contributions, and benefits.

352 Social Statistics and Research. (2) II.
Problems and procedures in social research that are part of social work administration and planning. Application of elementary statistical techniques to the particular problems of describing the social needs and social services of the community.

353 Legal Aspects of Social Work. (2) I. Mr. Jambor
The principles of law with which the social worker should be familiar. Problems in judicial administration and substantive law that affect individuals in relation to social problems.

355 Public Welfare Administration. (2) II. Mrs. Handley
Administrative principles and problems in public welfare services. Emphasis upon state public welfare agencies; their relationship to other levels of government and to other administrative bodies. Problems of administrative management.

360-361 Supervised Field Work. (3-3) Yr. Staff
University field work units are maintained in public and private welfare
agencies. The minimum time requirement in field work is 15 hours a week. To
be taken concurrently with a social work method course (casework, group work,
or community organization). Limited to full-time students.

362-363 Advanced Supervised Field Work. (4-4) Yr. Staff
Field work placement in a social agency selected with reference to aptitudes,
choice, or needs of the student. To be taken concurrently with an advanced course
in social work method (casework, group work, or community organization).
Limited to full-time students.

365 Advanced Social Casework. (2) I. Mr. Coleman
Case discussion of generic casework concepts as they apply in work with
emotionally disturbed individuals; evaluation of treatment processes and factors
which affect the case worker's function. To be taken concurrently with 362.

366 Seminar in Social Casework. (2) II. Mr. Coleman
The analysis and evaluation of case material contributed from the student's
experience and from selected records.

367 Casework with Children. (2) I. Mr. Coleman
Casework concepts in the care of children. Emphasis on methods of diagnosis
and treatment for emotionally disturbed children and children who indicate serious
behavior problems. Prerequisite: 365; consent of instructor.

370 Advanced Social Group Work. (2) I.
Analysis of the use of volunteers in group work; their recruitment, selection,
placement, training, and supervision. To be taken concurrently with 362.

371 Seminar in Social Group Work. (2) I.
Analysis and evaluation of case material contributed from the student’s ex-
perience and from selected records.

375 Advanced Social Psychiatry. (2) II. Mr. Kimmich
Dynamics of behavior in the neuroses and in functional and organic psychoses,
with emphasis on current treatment processes.

380 Seminar in Public Welfare Administration. (2) II. Mrs. Handley
An analysis of current problems and practices in the organization and admin-
istration of public welfare services.

383 Administration of Social Work Agencies. (2) I. Mr. Jambor
Administration of social work agencies with emphasis upon the relationship
between structure and function. Problems of internal administration such as per-
sonnel management, program direction, research and planning, budget control, and
public relations.

385 Methods of Supervision in Social Casework. (2) II. Miss Sikkema
The supervisory process in social work as it relates to the field of social cas-
work. Open to agency workers who are potential or actual supervisors.

386 Methods of Supervision in Social Group Work. (2) I.
The principles, methods, and problems of supervision in social agencies as they
relate to the field of social group work. Open to agency workers who are potential or actual supervisors.

387 CURRENT PRACTICE IN COMMUNITY AGENCIES. (2) I. MR. JAMBOR
A seminar primarily for students specializing in community organization, including those taking field work in that area. Neighborhood organizations, recent trends toward citizens' councils, health committees, and regional councils in both public and private welfare fields.

390 CULTURAL FACTORS IN SOCIAL WORK PRACTICE. (2) I. MRS. HANDLEY
The significance of psychocultural factors in the development of personality and behavior. Use of records which illustrate cultural diversity and conflicts as they relate to social work practice. Prerequisite: Social Work 310 and Sociology 262.

399 SEMINAR IN RESEARCH. (2) I. MRS. HANDLEY, STAFF
Principles of objective fact-finding, primary and secondary sources of social data, sampling, organization of material, relationship to an advisory committee or expert technical consultant, and preparation of a report or thesis.

SOCIOMETRY

PROFESSORS LIND, GLICK; ASSOCIATE PROFESSORS CHENG, HORMANN; ASSISTANT PROFESSORS YAMAMURA, ESTEL; INSTRUCTOR YAMAMOTO.

Either Sociology 151, or Anthropology 160 and Sociology 161, or the equivalent is prerequisite to all advanced courses in Sociology.

151 INTRODUCTION TO THE STUDY OF SOCIETY. (3) I, II. STAFF
An orientation course. The basic social relationships and the corresponding social structures.

161 STUDY OF MAN AND SOCIETY. (3) II. MR. YAMAMURA, MR. ESTEL
An orientation course, to follow Anthropology 160, as part of an integrated year course that combines the contents of Anthropology 150 and Sociology 151. Open only to Teachers College students.

250 COMMUNITY FORCES. (3) I, II. MR. HORMANN, MR. YAMAMOTO
The basic factors and forces operating in contemporary society, with special attention to Hawaii. An orientation course designed for students planning careers in teaching, vocational home economics, recreation, public health, medicine, and other professions. Not open to students majoring in sociology except by consent of instructor.

251 FOLK AND PEASANT COMMUNITY. (3) I. MR. HORMANN
A study of the social organization and culture of preliterate and peasant peoples in contrast to that of urban peoples; special reference to the villages of China and Japan.

253 RURAL SOCIOLOGY. (3) I. MR. YAMAMURA
254 The Urban Community. (3) I. Mr. Yamamoto
Sociological principles applied to the modern city. Structure, growth, social
and personal life organization in an urban setting, with special reference to Hon­
lulu. Field trips.

255 Social Disorganization. (3) I. Mr. Hormann
The factors in society which condition the disorganization of communities,
institutions, groups, and personalities. An integrated approach to such social prob­
lems as conflict, delinquency, dependency, and degeneracy. Desirable preparation
for courses in juvenile delinquency and criminology.

256 Race and Culture Contacts in Hawaii. (3) I. Mr. Lind
The dominant conceptions of race and race relations in Hawaii, and an analysis
of the principal factors affecting them. Problems of culture contacts in a com­
mercial and plantation frontier.

257 Race Relations in the Pacific. (3) I. Mr. Glick
A survey of typical situations of race and culture contacts in the Pacific area.

258 Race Relations. (3) II. Mr. Glick
The sociological significance of race and race relations; typical situations and
processes; conflict and accommodations; caste; race prejudice; miscegenation;
effects of race relations upon personality.

259 Peoples and Institutions of Japan. (3) I. Mr. Yamamoto
Social change in the institutional patterns and attitudes of different social
classes in Japan, with special attention to the accelerated change under the army
of occupation.

262 Social Control. (3) I. Mr. Lind
A survey of the devices for subjecting the individual and the group to broader
social definitions. The role of tradition, ceremonial, and dogma in the socialization
and discipline of the individual. (Not offered 1953-54.)

263 Public Opinion and the Community. (3) II. Mr. Yamamura
Analysis of the nature and functions of public opinion in the contemporary
world. Formation and polling of public opinion. Problems of interviewing and
sampling. (Not offered 1953-54.)

264 Juvenile Delinquency. (3) II. Mr. Yamamura
The nature, extent, and causes of juvenile delinquency. The study of the delinquent as a person. Methods of control.

265 Criminology. (3) I. Mr. Cheng
The nature, causes, and treatment of crime with special attention to criminal
prosecution and prison administration.

266 Social Institutions. (3) I. Mr. Cheng
The nature, origin, structure, functions, growth, and decline of institutions.
Interrelations and integration of major institutions. (Not offered 1953-54.)

267 The Family. (3) I, II. Mr. Cheng, Mr. Yamamura
The family as a universal institution; human nature and the family; changing
structure and functions in the Orient and Occident; courtship and marriage in the immigrant family.

268 Human Migrations. (3) I.  
Mr. Cheng  

269 Personality and Culture. (3) II.  
Mr. Yamamoto  
The origin and development of personality as the subjective aspect of culture; the function of communication; human nature and the mores; personal life organization.

270 Population and Society. (3) II.  
Mr. Yamamura  
Society analyzed in terms of the quantitative and qualitative aspects of population. Sociological aspects of birth and death rates, natural increase, and mobility.

271 Human Ecology. (3) I.  
Mr. Yamamura  
Basic concepts, principles, and techniques of human ecology. Factors affecting distribution and movement of population, utilities, and social institutions.

272 Collective Behavior. (3) I.  
Mr. Glick  
Elementary and spontaneous forms of group behavior; social unrest; the crowd and the public; mass behavior and mass movements; the operation of publics in democratic societies.

273 Social Movements. (3) II.  
Mr. Glick  

274 Social Change. (3) II.  
Mr. Cheng  
The nature of and the major factors affecting social change; war as illustrating social change; the role of invention and science; social forecasting. (Not offered 1953-54.)

275 American Society in Transition. (3) II.  
Mr. Hormann  
The major trends in American society, particularly as reflected in the war and postwar periods.

276 Development of Social Thought. (3) II.  
Mr. Yamamoto  
The history of sociology and anthropology as phases in the total development of social forces and action. Historical and contemporary trends against a background of social forces.

277 Peoples and Institutions of China. (3) I.  
Mr. Cheng  
An analysis of Chinese social philosophies and their influence on basic institutions and traits of the people. The nature and effect of the impact of Western culture.

280 Social Statistics. (3) I.  
Mr. Yamamura  
An introduction to statistical methods and resources as applied to social research data.
282 METHODS OF SOCIAL RESEARCH. (3) I, II.  
Mr. Glick  
The values and limitations of the common methods of social research for various types of studies. Laboratory and field work. Prerequisite: nine credits in sociology or consent of instructor.

285 INDUSTRIAL SOCIOLOGY. (3) II.  
Mr. Hormann  

299 DIRECTED READING. (AR.) I, II.  
Staff  
Prerequisite: consent of instructor.

300 DIRECTED READING OR RESEARCH. (AR.) I, II.  
Staff  
Prerequisite: graduate standing; consent of instructor.

351 GRADUATE SEMINAR. (2-2) Yr.  
Mr. Lind  
Prerequisite: consent of instructor.

SPEECH

Professors Smith, Murray; Associate Professor Hoshor; Assistant Professors Carr, Krantz, Lefforge, Newcomer, Will, Bentley; Instructors Breneman, Fox, Hervey, Larson, Lewis, McCabe, Linn.

100 FUNDAMENTALS OF SPEECH. (1) I, II.  
Staff  
A general introduction to speech as social control. Information concerning speech and speech production; discussion of standards of acceptable student practice in speech performance. Conferences required. Course fee $1.00.

101 SOUNDS AND RHYTHMS OF SPOKEN ENGLISH. (1) I, II.  
Staff  
Intensive training in the sounds and rhythms of general American speech. Continued emphasis on the effective communication of ideas. Conferences required. Course fee $2.00.

102 DEVELOPMENT OF ORAL SKILL. (1) I, II.  
Staff  
The effective use of speech sounds and rhythms in practical speaking situations. Attention to correct English idiom and grammar. Conferences required. Course fee $2.00.

105 SPEECH IMPROVEMENT FOR PROSPECTIVE TEACHERS. (1) II.  
Staff  
The basic principles of sounds and rhythms of general American speech. Methods and techniques to be used in vocal development and the elimination of grammatical and idiomatic errors frequent in Hawaii. Conferences required. Course fee $1.00.

106 VOICE AND PRONUNCIATION FOR PROSPECTIVE TEACHERS. (1) I.  
Staff  
Special attention to the development of voice, adequate for teaching. Emphasis on projection, vocal variety, and pronunciation. Conferences required. Course fee $1.00.

107 LANGUAGE SKILLS FOR PROSPECTIVE TEACHERS. (1) II.  
Staff  
Conversation, discussion, storytelling, etc., with special attention to vocabulary, idiom, and grammar. Conferences required. Course fee $1.00.
150 **Public Address. (3) I, II.**
Basic principles of speech composition and delivery; preparation and delivery of speeches with attention to principles studied; special attention to individual problems.

151 **Advanced Public Address. (3) II. Mr. Hoshor, Mr. Newcomer**
Special attention to speech composition; persuasive speaking adapted to the audience and the occasion; study and delivery of deliberative, professional, social, and ceremonial speeches. Prerequisite: Speech 150.

201 **Principles of Effective Reading. (3) I. Mr. Smith**
Study of relationship between silent and oral reading with intensive practice in getting and giving meanings from the printed page.

204 **Training of the Speaking Voice. (2) I, II. Miss Bentley**
A study of the physical and physiological bases of voice production with emphasis on the vocal problems of nasality, inaudibility, and monotony. Prerequisite: Speech 100 and permission of the instructor or recommendation of the department.

220 **Phonetics. (3) I. Mr. Smith**
English phonetics as applied to articulation, standards of pronunciation, the teaching of speech, speech correction, and dialect study.

221 **Principles of Speech Correction. (3-3) Yr. Mr. Hervey**
First semester: survey of principal theories, therapies, and philosophies dealing with the rehabilitation of the person handicapped in speech; second semester: organic and psychogenic speech problems. Clinical observation required.

222 **Speech Therapy. (3) I. Staff**
An intensive course in testing and remedial procedures. Review of applicable test forms and testing techniques; methods of diagnosis of speech difficulties; individual work with speech problems. Prerequisite: Speech 221.

223 **Advanced Speech Therapy. (3) II. Staff**
Continuation of 222. The pedagogical principles involved in lesson planning for individual and group work; forms and practices in university, hospital, and public school programs. Prerequisite: Speech 222 and consent of instructor.

224 **Hearing and Speech. (3) I. Mrs. Krantz**
The nature of hearing and its effect on speech. Pertinent fundamentals of audiology, audiometry, otology, acoustics, and residual hearing. Training in use of audiology, audiometry, otology, acoustics, and residual hearing. Training in use

228 **Semantics. (3) II. Mr. Smith**
The role of language in human understanding. A study of verbal meaning and implication. Practice in the use of language for clarity, accuracy, and proper evaluation.

230 **Oral Reading. (1) I, II. Staff**
Principles of and individual practice in getting and giving meanings of the written and printed word. For prospective teachers. Course fee $1.00.
232 **Advanced Interpretation.** (3) II. Mr. Smith

Study of literary forms and intensive practice in reading examples aloud. Pre-requisite: Speech 201 or 231; two semesters of literature.

250 **Group Leadership and Discussion.** (3) I. Mr. Hoshor

Training in methods of analysis and discussion of contemporary social, political, and economic problems. Special attention given to the problems of leadership and group dynamics.

251 **Public Discussion.** (1) I, II. Mr. Lefforge, Mr. Newcomer

Analysis and briefing of social, political, and economic problems. Participation required in debating and public discussion before campus and community audiences. May be repeated for a total of 6 credits toward graduation.

265 **Speech for the Classroom Teacher.** (3) I, II. Staff

The teacher's total speech behavior in the teaching situation. Integration of speech improvement techniques and procedures with all classroom activities, emphasizing speech problems in Hawaii.

270 **Introduction to Radio.** (3) I. Mr. Will

A survey of the radio and television industries; their historical development and present status as business and art forms and as media of communication.

271 **Radio Production.** (3) II. Mr. Will

The production and presentation of radio programs. Training in the evaluation and introduction of scripts; auditioning; use of music and sound effects; directing, handling of rehearsals and control room techniques. Prerequisite: Speech 272 or consent of instructor.

272 **Radio Workshop.** (2-2') Yr. Mr. Will

Practice in the technique of production and participation. Scripts are produced and students assigned various roles in the production process. Prerequisite: Speech 270 or consent of instructor. Laboratory fee $2.00 each semester.

275 **Radio Program Planning.** (3) I. Mr. Will

The objectives and methods in commercial and public service programming, including the building of individual program ideas; development of educational and school broadcast programs; problems of audiences, station policies, and facilities. Prerequisite: consent of instructor. (Alternate years; not offered 1953-54.)

278 **Radio Writing.** (3) I. Mr. Will

Group and individual analysis of radio script preparation. A general introduction to radio writing with emphasis upon the non-dramatic forms: commercials, musical continuity, talks, interviews, and group discussions. Prerequisite: consent of instructor. (Alternate years; offered 1953-54.)

279 **Advanced Radio Writing.** (3) II. Mr. Will

Dramatic writing for the air: plotting, characterization, use of music and sound, editing, and cutting for time. Current market techniques. Prerequisite: Speech 278. Laboratory fee $2.50. (Alternate years; not offered 1953-54.)

295 **Persuasion: A Study in Rhetoric.** (3) I. Mr. Hoshor

The factors involved in influencing the attitudes, beliefs, and actions of au-
dences; analysis of oral propaganda. Classical and contemporary theories and examples are examined.

298 SPECIAL PROBLEMS. (AR.) I, II.  

299 DIRECTED READING. (AR.) I, II.  
Individual reading in the same fields as in 298. Prerequisite: consent of instructor.

300 RESEARCH. (AR.) I, II.  
Individual research in the same fields as in 298 and 299. Designed primarily for students working on thesis topics. A total of six credits may be earned in this course. Prerequisite: undergraduate major in Speech or the equivalent; consent of adviser.

310 SEMINAR IN RESEARCH METHODS. (3-3) YR.  
Mr. Hoshor  
Reading and student problems for familiarity with bibliographies, research methods, and analysis and reporting of data.

320 SEMINAR IN SPEECH CORRECTION. (3) II.  
Staff  
Extensive reading and research problems in the etiology and therapy of speech deviations.

330 SEMINAR IN INTERPRETATION. (3) I.  
Mr. Smith  
Review of current literature in interpretation; preparation of reports. Prerequisite: consent of instructor.

350 SEMINAR IN RHETORIC AND PUBLIC ADDRESS. (3) II.  
Mr. Lefforge  
Review of studies in rhetoric and public address; preparation of reports. Prerequisite: consent of instructor.

370 SEMINAR IN RADIO BROADCASTING. (3) II.  
Mr. Will  
Extensive reading and problems with bibliographies, analyses, and reporting of data; inclusion of philosophical aspects of the broadcasting industry and the general media of communication. (Alternate years; offered 1953-54.)

SURVEY COURSES

100 SURVEY OF THE NATURAL SCIENCES. (3-3) YR.  
Mr. Palmer  
Items from various fields of natural science selected to illustrate what is known and how it has been learned. The materials for the first semester are drawn from the physical sciences, and for the second semester from the biological sciences. Students may enter the second semester by consent of instructor.

150 INTRODUCTION TO NATURAL SCIENCES. (4) I.  
Mr. Kiyosaki  
An overview of the natural sciences designed to give the student insight into scientific method and the basic subject matter of the various fields of science in their interrelationships. Lectures, discussions, demonstrations, and laboratory. Laboratory fee $5.00. Open only to students in Teachers College.
151 **INTRODUCTION TO NATURAL SCIENCES.** (4) II.  
Mr. Kiyosaki  
A continuation of 150. Open only to students in Teachers College.

250 **HISTORY OF SCIENCE.** (2) I.  
Mr. St. John  
Progress and discoveries in physical and biological science from ancient to modern times. Readings and reports. Prerequisite: junior standing; two semesters of biological or physical science, one of which must include laboratory work. (Alternate years; not offered 1953-54.)

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**ZOOGOGY AND ENTOMOLOGY**

*Professors Bess, Hiatt, Tester, Tuthill, van Weel, Hardy, Newell; Associate Professors Matthews, Gosline, Hsiao, Chu, Banner, Sherman; Instructor Mitchell; Lecturers Carter, Sette, Brock.*

100 **GENERAL ZOOLOGY.** (4) I, II. Mr. Banner, Mr. Matthews, Staff  
Zoological principles; studies of structure, development, relationships, and distribution of animals. This course and Botany 100 comprise an introduction to the biological sciences. Two lectures, one conference hour, and two laboratory periods. Laboratory fee $6.00.

110 **PRINCIPLES OF HUMAN BIOLOGY.** (3) I. Mr. Matthews  
Biological principles relating to man: man's place in nature, the structure and function of the organ systems, human diseases, how and what we inherit, human evolution and eugenics, and the biological aspects of human behavior. Not open to students who have had 100. Lectures and demonstrations.

151 **COMPARATIVE ANATOMY OF THE VERTEBRATES.** (4) II. Mr. Hsiao, Staff  
Study of the structure and relationship of the vertebrate groups and discussion of typical vertebrates. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Laboratory fee $9.00.

170 **GENERAL ENTOMOLOGY.** (4) I, II. Mr. Tuthill, Mr. Hardy  
Structure, habits, biology, and classification of insects. Emphasis on insects characteristic of Hawaii. Studies of insects in the field, and laboratory studies with living insects. Two lectures and two laboratory periods. Prerequisite: Zoology 100 or Botany 100; both recommended. Laboratory fee $3.00.

191 **ELEMENTARY HUMAN ANATOMY AND PHYSIOLOGY.** (3) I. Mr. Hsiao  
A general survey of the gross anatomy and physiology of the human body. Two lecture-demonstration periods. Laboratory fee $3.00. Not open to students who have had 291.

200 **SCIENCE OF THE SEA.** (3) I.  
Mr. Hiatt  
A non-technical account of the seas; their origin, water movements, and life, with special attention to oceanographic exploration, fertility, and the world's great fisheries. Frequent field trips to the coral reef and oceanographic laboratories on Oahu and on oceanographic vessels offshore. Prerequisite: one year of science courses.

240 **INTRODUCTION TO ECOLOGY.** (2) I.  
Mr. Hiatt  
Animals in relation to their biotic and physical environment; animal communities in the sea, on the shore, and on the land. Prerequisite: Zoology 100.
245 ZOOGEOGRAPHY. (2) II.  
Mr. Gosline
Marine and terrestrial animal distributions and the physiographic, climatic, and historic factors affecting them. Prerequisite: Zoology 100. Desirable preparation: Zoology 240, Geology 151. (Alternate years; not offered 1953-54.)

253 PARASITOLOGY. (3) I.  
Mr. Chu
The general field of parasitology with reference to the parasites and parasitic diseases affecting man and domestic animals; emphasis on classification, comparative morphology, life history, and control. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Laboratory fee $5.00.

254 INSECT MORPHOLOGY. (3) I.  
Mr. Tuthill
Comparative and gross morphology of insects, with attention to structures emphasized in systematic and economic entomology. Homologies of structures in the various groups of insects; anatomy; development in representative groups. Two lecture-laboratory periods. Prerequisite: Zoology 170. Laboratory fee $1.00.

255 SYSTEMATIC ENTOMOLOGY. (3) II.  
Mr. Tuthill
Classification of insects; orders and families. Use of taxonomic tools. Two lecture-laboratory periods. Prerequisite: Zoology 254. Laboratory fee $2.00.

256 MEDICAL AND VETERINARY ENTOMOLOGY. (3) I.  
Mr. Hardy
A study of insects and other arthropods in relation to the spread and causation of human and animal diseases; emphasis on the Pacific, the Orient, and the United States. Two lectures and two laboratory periods. Prerequisite: Zoology 170. Laboratory fee $6.00. (Alternate years; offered 1953-54.)

257 SCALE INSECTS. (3) I.  
Mr. Hardy
The scale insects of Hawaii with emphasis on taxonomy, field and laboratory techniques, economic importance, and control. Two lecture-laboratory periods. Prerequisite: Zoology 170. Desirable preparation: Botany 102. Laboratory fee $5.00. (Alternate years; not offered 1953-54.)

260 HISTOLOGY. (3) II.  
Mr. Hsiao
Studies of tissues, principles of histology, and microscopic anatomy of a limited number of vertebrate animals. Two lectures and two laboratory periods. Prerequisite: Zoology 151. Laboratory fee $6.00.

261 VERTEBRATE EMBRYOLOGY. (3) I.  
Mr. Hsiao
Principles of embryology illustrated by a detailed study of the development of the frog, chick, and pig. Two lectures and two laboratory periods. Prerequisite: Zoology 151. Laboratory fee $8.00.

262 MICROTECHNIQUE. (3) I, II.  
Mr. Matthews
The fixing, staining, and mounting of tissues and entire animals and organs. Two lecture-laboratory periods. Prerequisite: Zoology 151. Laboratory fee $15.00.

273 ECONOMIC ENTOMOLOGY. (3) II.  
Mr. Sherman
A general consideration of insect pests; chemical, biological, and cultural control. Laboratory exercises on Hawaiian insects of economic importance. Field trips and reports. Two lectures and two laboratory periods. Prerequisite: Zoology 170. Laboratory fee $3.00.
275 **General Ichthyology.** (3-3) Yr.  
Mr. Gosline  
First semester: anatomy, physiology, life history, ecology, and distribution of fishes. Second semester: the classification of fishes with particular reference to Hawaiian species. Laboratory fee $8.00.

276 **Biometry.** (3) I.  
Mr. Tester  
Elementary statistical methods and their application to biological data. Two lecture-laboratory periods. Prerequisite: Mathematics 151. Desirable preparation: Mathematics 152.

277 **Biometrical Analysis.** (3) II.  
Mr. Tester  

280 **Comparative Anatomy of Invertebrates.** (3) I.  
Mr. Banner  
Comparative anatomy, development, and phylogeny of the invertebrate animals. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Laboratory fee $6.00.

281 **Taxonomy of Marine Invertebrates.** (3) II.  
Mr. Hiatt  
Identification and classification of reef and shore fauna. Students select a particular group for concentrated study of taxonomic methods. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Desirable preparation: Zoology 280. Laboratory fee $6.00. (Alternate years; offered 1953-54.)

282 **Marine Ecology.** (3) II.  
Mr. Hiatt  
Natural history, behavior, and relation of invertebrates and fishes to their complete environment, with emphasis on marine communities found in Hawaii. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Desirable preparation: Zoology 281. Laboratory fee $6.00. (Alternate years; not offered 1953-54.)

284 **Comparative Invertebrate Physiology.** (3) II.  
Mr. van Weel  
Comparative studies on digestion, respiration, circulation, excretion, ciliary and muscular movement, receptors, coordination by nervous action and hormones, and reproduction with emphasis on marine invertebrates. Two lecture-laboratory periods. Prerequisite: Zoology 291; Physics 102. Laboratory fee $8.00.

285 **Animal Evolution.** (2) II.  
Mr. Gosline  
The processes of evolution, particularly the interaction between population genetics and natural selection in animals. Prerequisite: Zoology 100. Desirable preparation: Agriculture 254.

286 **History of Zoology.** (2) I.  
Mr. Banner  
The development of zoological science as a specialized field of human knowledge. Prerequisite: Zoology 100.

287 **Methods of Fishery Investigation.** (3) I.  
Mr. Tester  
Appropriate methods of investigation applied to problems in fishery biology, with emphasis upon those problems concerning pelagic and shore fisheries of the
central Pacific area. Prerequisite: Zoology 275 or equivalent and 276. Desirable preparation: Zoology 277.

290 Oceanography. (3) II.  
Theory and techniques of physical, chemical, and biological oceanography, with emphasis upon the pelagic life of the oceans and its relation to the physical and biological environment. Two lectures and two laboratory periods. Prerequisite: Zoology 280; Chemistry 103; Physics 102. Desirable preparation: Zoology 240; Chemistry 230. Laboratory fee $10.00. (Alternate years; not offered 1953-54.)

291 General Physiology. (3) I.  
Physical and chemical properties of protoplasm and functions of the systems of organs of the animal body, with emphasis on the fundamental principles of physiology. Two lectures and two laboratory periods. Prerequisite: Zoology 100; Chemistry 149. Desirable preparation: Chemistry 230; Physics 102. Laboratory fee $10.00.

298 General Zoology Seminar. (1) II.  
Presentation of reports upon research, or reviews of zoological literature. Prerequisite: senior standing. Required of students majoring in zoology or entomology.

299 Directed Reading or Research. (AR.) I, II.  
Prerequisite: consent of instructor.

300 Directed Research. (AR.) I, II.  
Direct research in the fields of ichthyology, fisheries biology, marine zoology, oceanography, ecology, anatomy, histology, cytology, physiology, entomology, genetics, and parasitology. Prerequisite: graduate standing and consent of instructor.

311 Entomology Seminar. (1) I.  
The literature of entomology with emphasis upon current literature and recent advances. Reviews and reports on research. Prerequisite: advanced standing in entomology or consent of instructor. May be repeated. Required of graduate students majoring in entomology.

312 Seminar in Marine Zoology. (1) I.  
Presentation of reports upon research or reviews of literature pertaining to marine zoology. Prerequisite: graduate standing. May be repeated. Graduate students majoring in marine zoology are required to take this course, 313, or 314.

313 Seminar in Fisheries Biology. (1) I.  
Presentation of reports on investigations and literature pertaining to fisheries biology, with stress on problems relating to pelagic fisheries of the Pacific. Prerequisite: graduate standing.

314 Seminar in Advanced Marine and Fisheries Biology. (1) II.  
Presentation of reports on investigations and literature on pelagic fishery problems, and their relation to oceanography and ecology of the sea. Open only to advanced students in marine and fisheries biology.
315 Zoological Literature. (1) I. MR. HIATT
A survey of zoological literature with stress upon bibliographic tools. Prerequisite: graduate standing. Required of all candidates for advanced degrees in zoology or entomology.

316 Preparation of Scientific Manuscripts. (1) II. MR. TUTHILL
Consideration of styles and methods of preparing scientific manuscripts for publication; proofreading and editing. Prerequisite: senior or graduate standing. Required of all candidates for advanced degrees in zoology or entomology.

320 Development of Marine Invertebrates. (3) II. MR. BANNER
A study of the developmental stages of invertebrates from the principal marine phyla. Descriptive embryology and the larval development studied from living specimens collected locally. Two lectures and two laboratory periods. Prerequisite: Zoology 261 and 280. Desirable preparation: Zoology 281. (Alternate years; not offered 1953-54.)

350 Advanced Systematic Entomology. (3) II. MR. TUTHILL
Problems in systematic entomology. Classification of special groups. Nomenclatorial problems; the international code. Two lecture-laboratory periods. Prerequisite: Zoology 255 or consent of instructor. Laboratory fee $1.00. (Alternate years; offered 1953-54.)

352 Insect Ecology. (3) I. MR. BESS
Insects as living units in an environment of physical and biotic factors. Habitats, populations, autecology, and synecology. Two lectures and one laboratory period. Prerequisite: Zoology 255 or the equivalent, or advanced standing in entomology. (Alternate years; not offered 1953-54.)

353 Biological Control of Pests. (3) I. MR. BESS
Fundamental concepts of biological control. Problems involved in the introduction of beneficial enemies of insect and weed pests, and a critical study of major biological control projects throughout the world. Two lectures and one laboratory period. Prerequisite: Zoology 255 or the equivalent. (Alternate years; offered 1953-54.)

354 Insect Toxicology. (4) II. MR. SHERMAN
Principles and problems involved in the chemical control of insect pests. Studies in insect toxicology and insect physiology from the standpoint of how they affect the use of insecticides in the control of insect pests. Two lectures and two laboratory periods. Prerequisite: Chemistry 149; Zoology 273 or the equivalent. (Alternate years; offered 1953-54.)

355-356 Insect-Transmitted Diseases of Plants. (3-1) YR. MR. CARTER
Lectures and laboratory studies in the first semester and current literature in the second semester. Prerequisite: graduate standing. Second semester may be repeated.

357 Acarology. (3) II. MR. NEWELL
Biology, structure, and classification of mites. Laboratory studies on mites of Hawaii and other parts of the world. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Laboratory fee $4.00. (Alternate years; not offered 1953-54.)
370 **Principles of Systematic Zoology.** (3) I.  
Mr. Gosline  
Taxonomic categories and the processes of evolution involved in their development; presentation of taxonomic data; rules of zoological nomenclature. Prerequisite: graduate standing or consent of instructor. (Alternate years; offered 1953-54.)

387 **Population Dynamics.** (3) II.  
Mr. Tester  
Laws of increase and decrease in populations with special reference to fish; theory of fisheries management; methods of estimating vital statistics of fish populations. Prerequisite: Zoology 287 or the equivalent. (Alternate years; offered 1953-54.)

388 **Fisheries Management.** (3) II.  
Mr. Tester  
Survey of outstanding programs of fisheries investigation: problems, methods of attack, and results; prediction of fluctuation in abundance and control of fishing effort to produce maximum sustained yield. Prerequisite: Zoology 287 or the equivalent. Desirable preparation: Zoology 387. (Alternate years; not offered 1953-54.)

391 **Advanced General Physiology.** (3) II.  
Mr. van Weel  
Some of the major problems in general physiology and the methods available for their study. Two lecture-laboratory periods. Prerequisite: Zoology 291. Laboratory fee $8.00. (Alternate years; not offered 1953-54.)

392 **Physiological Ecology.** (3) II.  
Mr. van Weel  
The physiological aspects of adaptation to the physical and biotic features in the environment. Feeding, digestion, respiration, osmo-regulation, sense organs, behavior, and other factors in relation to the environment; special attention to marine species. Two lecture-laboratory periods. Prerequisite: Zoology 291. (Desirable preparation: Zoology 240. Laboratory fee $8.00. (Alternate years; offered 1953-54.)
### SUMMARY OF ENROLLMENT FOR 1952-53

#### (A) In University Credit Courses

<table>
<thead>
<tr>
<th>Candidates for Degrees, Diplomas, and Certificates</th>
<th>1st Semester</th>
<th>2nd Semester</th>
<th>Year</th>
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<td><strong>Graduate School</strong></td>
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<td>Advanced Degree</td>
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<td>Five-Year Diploma</td>
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<td>Social Work Certificate</td>
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<td><strong>College of Arts and Sciences</strong></td>
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<td>Juniors</td>
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<td>Sophomores</td>
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<td><strong>College of Business Administration</strong></td>
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<td>Juniors</td>
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<td>Freshmen</td>
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<td><strong>Total</strong></td>
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<td><strong>TOTAL DEGREE CANDIDATES</strong></td>
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<tr>
<td><strong>TOTAL CERTIFICATE AND DIPLOMA CANDIDATES</strong></td>
<td>133</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL CLASSIFIED STUDENTS</strong></td>
<td>4,060</td>
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</tr>
<tr>
<td><strong>Not Candidates for University Degrees or Certificates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduates</td>
<td>198</td>
<td>176</td>
<td></td>
</tr>
<tr>
<td>Professional Teaching Certificate</td>
<td>99</td>
<td>156</td>
<td></td>
</tr>
<tr>
<td>Undergraduates</td>
<td>215</td>
<td>212</td>
<td></td>
</tr>
<tr>
<td>Auditors</td>
<td>28</td>
<td>40</td>
<td></td>
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<tr>
<td><strong>Total</strong></td>
<td>540</td>
<td>584</td>
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</tr>
</tbody>
</table>
| **TOTAL STUDENTS HONOLULU CAMPUS**                 | 4,600        | 4,395        | 5,089*
| **TOTAL STUDENTS HICKAM,** DOWNTOWN CENTERS**      | 526          | 339          | 662*
| **TOTAL STUDENTS HILO BRANCH,** Correspondence Courses | 80           | 72           | 229*
| Duplicates                                         |              | -40          |      |
| **Grand Total**                                    |              |              | 6,025* |
SUMMARY OF ENROLLMENT FOR 1952-53 —(continued)

(B) In Non-Credit Courses

<table>
<thead>
<tr>
<th>Campus</th>
<th>1952</th>
<th>1953</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honolulu</td>
<td>1,505</td>
<td>1,305</td>
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</tr>
<tr>
<td>Other Centers</td>
<td>219</td>
<td>154</td>
<td>373</td>
</tr>
</tbody>
</table>

Although the majority of students register for both semesters, some drop out at the end of the first semester and others enter at the beginning of the second semester. Therefore, the figures used in this column represent the total number of individuals registered for the year rather than the sum of the first and second semester registrations.
Index

Abrums, Tom E., 5, 136
Academic year, 2
Academy of Arts, 36
Accreditation of the University, 33
Adjemian, George Ro., 36
Adler, Jacob, S., 113, 115, 116
Administrative officers, University, 5
Admission of Students, 38
Agricultural Engineering Institute, 40, 85
Agricultural Experiment Station, 28, 77, 83, 86
Agriculture, 78
Agriculture, College of, 77-87
Air Science, 47, 99
Akamine, Ernest Ko., 28
Akana, David, 28
Alicata, Joseph Eo., 25
Aim, Richard So., 121, 128, 129, 130, 131
Amato, Anthony Jo., 121, 128, 129
Aoki, George Mo., 28
Applied Science, College of, 63-71
Aquarium, 34
Aragaki, Minoru, 25
Architecture (See Prearchitecture)
Arkoff, Abe, 6, 24, 172
Armstrong, Fred E., 6, 121, 129
Art, 102
Arts and Sciences, College of, 16-62
Asato, James K., 6
Asian and Pacific languages, 106
Aspinwall, Dorothy, 6, 140
Attendants of the University of Hawaii, 54
Atherton, Charles, House, 36
Athletics and recreation, 48
Atkinson, Phillip S., 6, 113, 114, 117
Attendance at classes, 44
Auditors in classes, 37, 40, 41
Awada, Minoru, 25
Awards (See Prizes and awards)

Bachman, Paul S., 4, 5, 6, 144, 145
Bacon, Ruth O., 6, 162
Bacteriology, 108
Balbaugh, Carolyn R., 6, 125
Banner, Albert H., 6, 186, 188, 189, 190
Barkley, Marjorie B., 6, 147, 149, 150
Bartow, Mary L., 6, 114, 117
Beaumont, John H., 6, 25, 95, 99
Bell, Donald W., 6, 123, 125
Bennett, Hannah L., 6
Bennett, J. Gardner, 6, 133, 134
Bentley, Lucie F., 6, 121, 122, 182
Bess, Henry A., 6, 25, 186, 190
Beyers, Otto J., 6, 125, 129
Bice, Charles M., 7, 28, 91, 96
Bilger, Earl M., 7, 118, 119, 120
Bilger, Leonora N., 7, 118, 120, 121
Bilsborrow, Eleanor J., 7, 136
Biological Laboratory (See Marine Biological Laboratory)
Bird, Kermit M., 21
Bishop Museum, Bernice Pauahi, 35
Bittner, Harold M., 5, 7, 31, 172
Blalock, John R., 28
Blue, Josephine C., 7, 154, 157, 158
Board of Athletic Control, 48
Board of Regents, 4, 33
Boatman, Elsie M., 7, 154
Bookstore, University, 36
Botany, 109
Bouslog, Charles S., 7, 136, 139
Bowers, Francis A., 25
Bowers, Neil M., 7
Bowman, Marcia B., 7, 136
Boyd, Joseph H., 28
Branthoover, Barbara J., 25
Breneman, Lucille, 7, 182
Britten, Edward J., 7, 109, 110, 111, 112, 113
Brock, Vernon E., 7, 186
Brown, Dorothy S., 32
Brown, Hubert E., 7, 147, 149, 151
Bucklin, Thetis M., 7, 147, 150
Buildings (See Campus and buildings)
Burkett, George L., 7, 140
Busnell, Oswald A., 8
Business, 113
Business Administration, College of, 88-90
Cafeteria, University, 36, 54
Calendar, University, 2
Campus and buildings, 35
Canfield, Claire, 8, 165, 167
Cannon, Garland H., 8
Carpenter, Giles R., 8, 161
Carr, Elizabeth B., 8
Carroll, Roger C., 8, 161
Carter, Katherine L., 29
Carter, Walter, 8, 186, 190
Castro, Evelyn H., 8, 156
Cavelti, John E., 8, 118, 119
Chang, Annie Tom, 25
Charlot, Jean, 8, 100, 102, 103, 104, 105, 106

194
<table>
<thead>
<tr>
<th>Chemistry, 118-121</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheng, Ch'eng-K'un, 8, 179, 180, 181</td>
</tr>
<tr>
<td>Chidester, Lorna, 24</td>
</tr>
<tr>
<td>Chinese, 106</td>
</tr>
<tr>
<td>Chiu, Arthur N. L., 8, 133</td>
</tr>
<tr>
<td>Chong, Lily Pao-Hu, 8, 106, 107</td>
</tr>
<tr>
<td>Chong, Wing You, 28</td>
</tr>
<tr>
<td>Chu, George W., 8, 108, 109, 186, 187</td>
</tr>
<tr>
<td>Chui, Edward C. F., 147, 148, 151</td>
</tr>
<tr>
<td>Chun, Dai Ho, 8, 125, 130</td>
</tr>
<tr>
<td>Chun, Edwin Y., 28</td>
</tr>
<tr>
<td>Clark, Richard H., 8, 160, 161</td>
</tr>
<tr>
<td>Clarke, Adna G., 8</td>
</tr>
<tr>
<td>Classics, 121</td>
</tr>
<tr>
<td>Clay, Horace F., 28</td>
</tr>
<tr>
<td>Clements, Harry F., 25</td>
</tr>
<tr>
<td>Clopton, Robert W., 8, 125, 131, 132</td>
</tr>
<tr>
<td>Coff, Phyllis F., 24</td>
</tr>
<tr>
<td>Coleman, Tom B., 9, 176, 178</td>
</tr>
<tr>
<td>College aptitude tests, 38</td>
</tr>
<tr>
<td>College of Agriculture, 77-87</td>
</tr>
<tr>
<td>College of Applied Science, 63-71</td>
</tr>
<tr>
<td>College of Arts and Sciences, 56-62</td>
</tr>
<tr>
<td>College of Business Administration, 88-90</td>
</tr>
<tr>
<td>Colors, University, 33</td>
</tr>
<tr>
<td>Comba, Paolo, 9, 160, 161</td>
</tr>
<tr>
<td>Congdon, Charles F., 9, 113, 114, 117</td>
</tr>
<tr>
<td>Conner, Mervyn L., 9, 118, 119</td>
</tr>
<tr>
<td>Connor, Anglie, 9, 165, 167</td>
</tr>
<tr>
<td>Cool, Bruce J., 9, 25</td>
</tr>
<tr>
<td>Cooke, Anson R., 25</td>
</tr>
<tr>
<td>Cooperating institutions, 35</td>
</tr>
<tr>
<td>Costrophine, Phyllis J., 28</td>
</tr>
<tr>
<td>Courses, 95-191</td>
</tr>
<tr>
<td>Cox, J. Halley, 9, 102</td>
</tr>
<tr>
<td>Crawford, Carolyn, 9, 159, 160</td>
</tr>
<tr>
<td>Credits, 42</td>
</tr>
<tr>
<td>Crooker, Elizabeth P., 9, 125</td>
</tr>
<tr>
<td>Crowell, David H., 9, 172, 174</td>
</tr>
<tr>
<td>Curricula</td>
</tr>
<tr>
<td>College of Agriculture, 77-87</td>
</tr>
<tr>
<td>College of Applied Science, 63-71</td>
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<td>College of Arts and Sciences, 56-62</td>
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<td>College of Business Administration, 88-90</td>
</tr>
<tr>
<td>Daniel, L. Scott, 9</td>
</tr>
<tr>
<td>Davis, Frances E., 9, 160</td>
</tr>
<tr>
<td>Davis, Orrel, 9</td>
</tr>
<tr>
<td>Day, A. Grove, 9, 136, 137, 138</td>
</tr>
<tr>
<td>Degree requirements, 44</td>
</tr>
<tr>
<td>Degrees, diplomas, and certificates</td>
</tr>
<tr>
<td>bachelor of arts, 56</td>
</tr>
<tr>
<td>bachelor of business administration, 88</td>
</tr>
<tr>
<td>bachelor of education, 72</td>
</tr>
<tr>
<td>bachelor of science, 63, 76</td>
</tr>
<tr>
<td>doctor of philosophy, 93</td>
</tr>
<tr>
<td>five-year diploma, 73</td>
</tr>
<tr>
<td>master's degree, 92</td>
</tr>
<tr>
<td>teacher's professional certificate, 93</td>
</tr>
<tr>
<td>Deming, Horace G., 9</td>
</tr>
<tr>
<td>Derstine, Virginia, 9, 116</td>
</tr>
<tr>
<td>DeShlefs, Louis E., 9, 99</td>
</tr>
<tr>
<td>Digman, John M., 9, 172, 173, 174</td>
</tr>
<tr>
<td>Dispensary, 48</td>
</tr>
<tr>
<td>Dodd, Verna L., 28</td>
</tr>
<tr>
<td>Doi, M. James, 28</td>
</tr>
<tr>
<td>Dole, Arthur A., 32, 172</td>
</tr>
<tr>
<td>Dormitories (See Living accommodations)</td>
</tr>
<tr>
<td>Doy, Maxwell S., 10, 109, 110, 112, 113</td>
</tr>
<tr>
<td>Dowe, Stephen M., 25</td>
</tr>
<tr>
<td>Douty, Helen L., 10, 154, 156</td>
</tr>
<tr>
<td>Drama and Theatre, 121</td>
</tr>
<tr>
<td>Dunn, William E., 32</td>
</tr>
<tr>
<td>Dunstan, J. Leslie, 10, 175, 176</td>
</tr>
<tr>
<td>Easley, John A., 10</td>
</tr>
<tr>
<td>Ecke, E. Gustav, 10, 102, 103, 104, 106</td>
</tr>
<tr>
<td>Economics, 123</td>
</tr>
<tr>
<td>Edmondson, Charles H., 10</td>
</tr>
<tr>
<td>Education, 125 (See also Teachers College)</td>
</tr>
<tr>
<td>Elbert, Samuel H., 10, 106, 107, 108</td>
</tr>
<tr>
<td>Elementary curriculum, 72</td>
</tr>
<tr>
<td>Eller, Willard H., 10, 170, 171</td>
</tr>
<tr>
<td>Elliott, Donald F., 10, 140, 141, 142</td>
</tr>
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<td>Elliott, Ralph C., 28</td>
</tr>
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<td>Embree, Ella L., 10, 140, 141</td>
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<td>Emory, Kenneth P., 10, 100, 101, 102</td>
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<tr>
<td>Employment (See Expenses)</td>
</tr>
<tr>
<td>Engineering, 133</td>
</tr>
<tr>
<td>Engineering curriculum, 63</td>
</tr>
<tr>
<td>English, 136</td>
</tr>
<tr>
<td>Engman, Charles A., 10, 133, 135</td>
</tr>
<tr>
<td>Enrollment, 192</td>
</tr>
<tr>
<td>Entomology (See Zoology and Entomology)</td>
</tr>
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<td>Entomology, U. S. Bureau of, 35</td>
</tr>
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<td>Erast, Earle C., 10, 121, 122, 123</td>
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<tr>
<td>Estel, Leo A., 10, 100, 101, 102</td>
</tr>
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<td>European languages, 140</td>
</tr>
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<td>Evans, John R., 10</td>
</tr>
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<td>Everly, Hubert V., 10, 130</td>
</tr>
<tr>
<td>Ewing, Claude H., 10, 125, 126, 132</td>
</tr>
<tr>
<td>Expenses, student, 54 (See also Tuition and fees)</td>
</tr>
<tr>
<td>Experiment Station, 25-28, 84</td>
</tr>
<tr>
<td>Extension Courses (See Extension Division)</td>
</tr>
<tr>
<td>Extension Division, 34</td>
</tr>
<tr>
<td>Extension Service in Agriculture and Home Economics, 28-32, 86</td>
</tr>
<tr>
<td>Feagin, Genevieve M., 28</td>
</tr>
<tr>
<td>Fees (See Tuition and fees)</td>
</tr>
<tr>
<td>Ferguson, John B., 10</td>
</tr>
<tr>
<td>Fick, Reuel L., 11, 129, 131, 132</td>
</tr>
<tr>
<td>Field, Ernest E., 11, 99</td>
</tr>
<tr>
<td>Fitzgerald, William R., 28</td>
</tr>
</tbody>
</table>
| Fitzsimmons, Lorraine F., 11, 125, 12/
Five-year diploma, 73
Flynn, James P., 11, 161
Forbes, Fritz W., 11, 125, 128
Foster, Zera C., 28
Fox, Lester, 11, 182
French, 140
Freshman Orientation Period, 40
Frierson, James W., 11, 136, 137
Frodyma, Michael M., 11, 118, 119
Frojen, Boletha, 11, 1f4, H6
Fruit Fly Laboratory, 35
Fujii, Jeanne T., 28
Fujimoto, Giichi, 25
Fujimura, Thomas H., II
Fujoka, Judith S., II
Fujoka, Norito, II, 106, 107
Fukunaga, Edward T., 2S
Fusler, Shirley Y., II
Gagner, Alice M., 29
Gladys M., II, 14S, 149, 150
Gibson, Lillian R., 11, 147, 149, 150
Geiser, Cynthia B., 11, 127, 159, 160
Geography, 142
Geology, 143
Geese, Dorothy L., 11, 136, 138
German, 140
Gibson, Lillian R., 11, 147, 150
Gillespie, Margaret C., 12
Gillette, Frma M., 12
Glick, Clarence E., 12, 179, 180, 181, 182
Glover, Lee, 12, 113, 115, 116, 118
Goodell, Dale N., 29
Goodman, Carrol, 12, 161
Godine, William A., 12, 186, 187, 188, 191
Gufo, Y. Baron, 5, 12, 29, 95, 96
Government, 144
Grade points, 42
Graduate School, 91-94
Graduate students, 40, 41, 91-94
Graduation requirements, 44
Graham, Matthew M., 12
Green, Carleton, 12, 136, 137, 138, 139
Gregory, Christopher, 12, 160
Grissow, Walter H., 12, 175
Gruelle, Katherine B., 12, 154, 155, 158
Guillaume, David F., 12
Gustafson, Ralph D., 12, 125
Gustuson, Donald, 12, 147, 148
Hale Laulima, 55
Hamilton, Paul E., 12, 161
Hamiton, Richard A., 12, 25, 95, 96
Handley, Katharine N., 5, 13, 176, 177, 179
Haramoto, Frank H., 26
Hard, D. Elmo, 13, 26, 186, 187, 189
Harloe, Bartley M., 13, 133, 134
Hawaiian Agricultural Experiment Station, 25-28, 77, 84-85
Hawaii School of Religion, 175
Hawaiian, 107
Hawaiian Sugar Planters' Association, 35
Haworth, Gordon C., 13, 99
Hayama, Ethel S., 29
Health and Physical Education, 147
Hendershot, Esther N., 29
Henderson, Dorothy, 13, 154, 155
Henke, Louis A., 5, 13, 26, 95
Herbaria, 36
Herrick, Colin J., 5, 13, 24, 172, 174
Hervey, Wesley D., 13, 182, 183
Hiatt, Robert W., 13, 186, 188, 189, 190
Hirakawa, Mary O., 32
History, 151
History of the University, 33
Hoober, Ralph C., 13, 113, 118, 123, 124
Hogan, Patrick J., 13, 99
Holck, Wilbert S., 13, 161
Holden, Margaret E., 32
Holmes, Wilfred J., 5, 13, 160
Home Economics, 154
Honma, Harun H., 29
Honmyo, Frillee T., 29
Honolulu Academy of Arts, 35
Honolulu Stadium, 36
Honors at graduation, 43 (See also Prizes and awards)
Horan, Claude F., 13, 102, 103, 105, 106
Hormann, Bernhard L., 13, 179, 180, 181, 182
Hosaka, Edward Y., 29
Hoover, John P., 13, 182, 183, 184, 185
Ishio, Sidney C., 13, 186, 187
Hubbard, Betty Jo, 29
Hunter, Charles H., 14, 151, 152, 153, 154
Hunter, Miller T., 29
Hutchinson, Ann L., 14
ICHIIYASU, Makiko, 14, 176, 177
Ige, Thomas H., 14, 113, 114, 115, 116, 117, 123, 124, 125
Ihrig, Judson L., 14, 118, 119, 120, 121
In, Andrew W. S., 14, 125, 128
Inns, Helen P., 29
Inouye, Frank T., 32
Inouye, Margaret A., 14
Institute of Pacific Relations, 35
Instructional staff, 5-24
Ishida, Jack T., 29
Ishii, Mamoru, 26
Ito, Mabel L., 29
Iwanaga, Isaac L., 26
Iwane, John, 29
Jambor, Harold A., 14, 176, 177, 178, 179
Japanese, 107
Jenkins, Esther C., 14, 125
INDEX

Jenson, Clara A., 14, 140, 141
Johnson, Donald D., 14, 151, 152
Johnson, Harriet L., 14, 125, 127
Johnson, Jeanne D., 12
Jones, Anne W., 14, 114, 157
Jones, Virginia A., 5, 14, 114, 165, 167
Jones, William W., 14, 99
Judd, Henry P., 14

Kahale, Edward, 14, 106, 107
Kahananui, Dorothy M., 14, 162, 163
Kamemoto, Haruyuki, 26, 95, 98
Kamins, Robert M., 15, 32
Kanehirai, Yoshinori, 26
Kaulukukui, Thomas K., 15
Kawano, Yoshihiko, 26
Keller, Arthur R., 15
Keller, Eloise L., 29
Kentzler, Ruth P., 15
Kerr, Marian, 15, 125, 127
Kilgore, Dorothea J. L., 15
Kimmich, Robert A., 15, 182, 183
Kimura, Sueko, 15, 102, 105
Kingrey, Kenneth G., 15, 102, 103, 104, 105
Kirkpatrick, Arthur L., 15
Kiyosaki, Ralph H., 15, 125, 185, 186
Klinkman, Helen A., 15, 24
Kohn, Edgar C., 15
Lefforge, Orland S., 15, 182, 184, 185
Kuykendall, Ralph S., 15

Korean, 108
Korn, Alfons L., 15, 136, 137, 138, 139
Kosaki, Richard H., 15, 32, 144, 147
Krantz, Henrietta C., 15, 182, 183
Krauss, Frederick G., 15
Kumabe, Bunki, 29
Kuykendall, Ralph S., 15

Laboratory Schools (See Teachers College Laboratory Schools)
Lang, Catherine E., 15, 125, 127
Larsen, Norma A., 26
Larson, Valentine G., 16, 182
Law (See Prelaw)
Lee, Richard K. C., 16, 165
Lee, T. Samuel, 16, 106, 108
Leebrick, Karl C., 16
Lind, Andrew W., 16, 179, 180, 182
Linguistics, 108
Linn, James R. L., 16, 182

Living accommodations, 54

Loans, 51
Lohman, Marion L., 16, 109, 110, 111, 112, 113
Lowers, James K., 16, 136, 138
Luke, Kan Jung, 16, 113, 117
Luomala, Katharine, 16, 100, 101, 102
Luquiens, Huc-Mazelet, 16
Lyman, Clarence, 29
Lynn, John G., 16, 165, 168

MacBride, Alison, 16, 165, 167
MacNeil, Helen B., 5

Majors and minors in College of Arts and Sciences, 56-57
Malarz, Theodore E., 17, 161
Maling, Robert C., 17, 161
Manchester, Curtis A., 17, 142, 143
Maney, Florence A., 17, 136
Marder, Arthur J., 17, 151, 152, 153, 154

Marine Biological Laboratory, 36
Mark, Stephen, 17, 175
Martin, Robert M., 17, 131, 132
Maruyama, Charles I., 29
Mason, Leonard E., 17, 100, 101, 102
Masters, Edgar J., 17, 99
Masumoto, Sachiko, 30
Mathematics, 160
Matsumoto, Dan K., 30
Matsumoto, Hiromu, 25
Matsusaka, Yoshito, 26

Medical Technology, 65-66, 161
Medical School, 161
Medical Technology, 65-66, 161
Medicine (See Premedicine)
Meller, Norman, 5, 17, 32, 144, 146
Mendenhall, Mildred C., 24, 32
Michitani, Irene T., 30
Mikata, Keicho, 30
Military Science, 161
Miller, Carey D., 17, 26, 154, 158, 159
Miller, Virginia N., 18, 136
Mitchell, Wallace C., 18, 26, 186
Miya, Iwao, 17, 170, 171
Miya, James S., 32
Montgomery, Ellen L., 30
Moore, Charles A., 18, 168, 169
Morgan, Ralph J., 18, 99
Motobu, Tatsumi, 30
Mueller, Bertha, 18, 140, 141
Murakishi, Harry H., 26
Murray, Elwood, 18, 182
Murphy, Thomas D., 18, 151, 152, 153
Music, 162
Myers, Beverly M., 30

Nagley, Winsfield E., 18, 168, 169
Nakagawa, Yukio, 30
Nakasato, Masaru G., 26
Nakasone, Henry Y., 26
Nakata, Shigeru, 26
Naughton, John J., 18
Naughton, John J., 18
Newcomer, Lloyd R., 18, 162, 169
Newell, Irwin M., 18, 27, 186, 190
Nickerson, Thomas, 5
Nihida, Toshiyuki, 27
Nitta, Evelyn H., 30
Noda, Daniel S., 18, 125, 128

Non-credit courses (See Extension Division)

Norris, Ben, 18, 102, 105, 106

Nursing, 67-70

Obee, Olive, 18, 161
O'Brien, Ethel M., 18, 147, 149
Odom, Irma, 18, 161
Office of Student Personnel, 31
Office of Student Residences, 55
Officers of the University, 5
Oishi, Grace, 18, 161
Okamoto, Maude S., 30
Okimoto, Mary M., 32
Okubo, Shigoe, 19, 133, 134, 135, 136
Okumoto, Ralph H., 30
Okumura, Fuyuki, 30
Orr, Kathryn J., 27
Ota, Robert M., 30
Overton, Irwin L., 27
Outdoor Theatre (See Andrews, Arthur L., Theatre)

Pacific and Asiatic languages, 106
Pacific Relations, Institute of, 35
Palafax, Anastacio L., 27
Palmer, Harold S., 19, 143, 144, 185
Pecker, Irving O., 19, 140
Pendleton, Edwin C., 19, 123, 124, 125
Phillips, Perry F., 19, 30, 95, 96
Philosophy, 168
Photography, 112
Physical Education (See Health and Physical Education)

Physics, 170
PErier, Kathleen W., 19, 113, 115
Pineapple Research Institute of Hawaii, 35
Poole, Charles F., 19, 27, 95, 98, 99
Porter, M. Rosemond, 19, 125
Porteus, Stanley D., 19
Portuguese, 141

Powers, Kenneth H., 19, 99
Prater, Burnice E., 19, 99
Prescarchitecture, 65
Prelaw, 59
Premedical and Predental Programs, 60
Premedicine, 60
Preschool-primary curriculum, 72, 74
Presocial work, 62
Prize, Samuel, 19, 27, 95, 97
Prizes and awards, 51
Psychological and Psychopathic Clinic, 24, 34
Psychology, 172
Public Administration, 61
Public Health Nursing, 68
Ragon, Eleanor E., 19, 154, 157, 158
Rathburn, Tone J., 19, 147, 149, 150
Recreational leadership curriculum, 70-71
Reddin, Mary, 19, 125, 127
Regents, 4, 33
Registration, 40-41
Regular students, 38
Related services, 34
Religion, 175
Religion, Hawaii School of, 35
Reserve Officers' Training Corps (See Military Science and Air Science)
Residence accommodations (See Living accommodations)
Residence requirements, 45
Reynolds, Walker K., 19, 99
Rian, Norman D., 19, 162, 163, 164
Rievenberg, Saul H., 20
Riley, Merrill K., 30
Rippeton, John C., 27
Robbins, Stephen L., 20, 161
Roberts, Harold S., 5, 20, 123, 124, 125
Roberts, Norman K., 30
Robinson, Hester A., 20, 102, 103, 106
Rook, Herbert H., 20, 133, 135, 136
Rosenberg, Morton M., 20, 27, 95, 97, 99
Roth, Maybelle F., 20, 140
Russian, 140
Rust, Irwin W., 20, 30, 95, 96
Saake, Alvin C., 20, 147, 148, 149, 150, 151
St. Denis, Naomi K., 20
St. John, Harold, 20, 109, 110, 111, 113, 186
Sakamaki, Shunzo, 20, 151, 152, 153
Sakamoto, Soichi, 20, 147, 148, 149
Sato, J. J., 20, 154, 155
Saunders, Allan F., 20, 144, 145, 147
Sayers, E. Vern, 20
Scheuer, Paul F., 20, 118
Schmidt, Joseph W., 21
Scholarships, 49
Scholastic standards, 43
School of Social Work, 94, 176
Schwartz, Lillian R., 30
Secondary curriculum, 72, 74
INDEX

<table>
<thead>
<tr>
<th>Name</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sekiguchi, Nao</td>
<td>27</td>
</tr>
<tr>
<td>Senate, University</td>
<td>34</td>
</tr>
<tr>
<td>Sette, Oscar E.</td>
<td>21, 186, 189</td>
</tr>
<tr>
<td>Shanks, Claude F.</td>
<td>21, 99</td>
</tr>
<tr>
<td>Sherman, G. Donald</td>
<td>21, 27, 95, 96, 97, 99</td>
</tr>
<tr>
<td>Sherman, Martin</td>
<td>21, 27, 186, 187, 190</td>
</tr>
<tr>
<td>Shigeta, Daniel T.</td>
<td>31</td>
</tr>
<tr>
<td>Shigeta, Y. James</td>
<td>31</td>
</tr>
<tr>
<td>Shirakawa, Takumi</td>
<td>31</td>
</tr>
<tr>
<td>Shoji, Kobe</td>
<td>21, 27</td>
</tr>
<tr>
<td>Sifford, Eloise M.</td>
<td>21</td>
</tr>
<tr>
<td>Sikkema, Mildred</td>
<td>21, 176, 177, 178</td>
</tr>
<tr>
<td>Sinclair, Gregg M.</td>
<td>4, 5</td>
</tr>
<tr>
<td>Skorpen, Joseph M.</td>
<td>5</td>
</tr>
<tr>
<td>Smith, Barbara B.</td>
<td>21, 162, 163, 164</td>
</tr>
<tr>
<td>Smith, Elbert G.</td>
<td>21</td>
</tr>
<tr>
<td>Smith, Joseph F.</td>
<td>21, 182, 183, 184, 185</td>
</tr>
<tr>
<td>Snow, Isabel L.</td>
<td>21, 125, 127</td>
</tr>
<tr>
<td>Social Work</td>
<td>176</td>
</tr>
<tr>
<td>Sociology</td>
<td>179</td>
</tr>
<tr>
<td>Spanish</td>
<td>141</td>
</tr>
<tr>
<td>Speech</td>
<td>182</td>
</tr>
<tr>
<td>Spellacy, Edmund F.</td>
<td>5, 21, 144, 145, 146, 147</td>
</tr>
<tr>
<td>Spoehr, Alexander</td>
<td>21, 100, 101</td>
</tr>
<tr>
<td>Sports</td>
<td>48</td>
</tr>
<tr>
<td>Stalker, John N.</td>
<td>21, 151, 152, 153</td>
</tr>
<tr>
<td>Stauffer, Robert B.</td>
<td>21, 144, 145, 146, 147</td>
</tr>
<tr>
<td>Steiger, Walter R.</td>
<td>21, 170, 171</td>
</tr>
<tr>
<td>Steempel, Daniel</td>
<td>21, 136, 139</td>
</tr>
<tr>
<td>Stepp, Beatrice</td>
<td>21</td>
</tr>
<tr>
<td>Storey, William B.</td>
<td>22, 27, 95, 96, 99</td>
</tr>
<tr>
<td>Stormont, John L.</td>
<td>31</td>
</tr>
<tr>
<td>Strohm, Robert E.</td>
<td>22, 27, 95, 98</td>
</tr>
<tr>
<td>Stroven, Carl G.</td>
<td>5, 22, 156, 138</td>
</tr>
<tr>
<td>Stuart, Margaret</td>
<td>31</td>
</tr>
<tr>
<td>Student Personnel, Office of</td>
<td>31, 54</td>
</tr>
<tr>
<td>Students, Classification of</td>
<td>37</td>
</tr>
<tr>
<td>Sueoka, Toshiko L.</td>
<td>22, 125, 130</td>
</tr>
<tr>
<td>Sumida, Y. Dick</td>
<td>31</td>
</tr>
<tr>
<td>Summer session</td>
<td>49</td>
</tr>
<tr>
<td>Survey courses</td>
<td>185</td>
</tr>
<tr>
<td>Taam, Cheuk-Woon</td>
<td>22, 106, 107</td>
</tr>
<tr>
<td>Takahashi, Makoto</td>
<td>27</td>
</tr>
<tr>
<td>Takahashi, T. Francis</td>
<td>31</td>
</tr>
<tr>
<td>Takii, Shiro</td>
<td>31</td>
</tr>
<tr>
<td>Takishita, Francis M.</td>
<td>31</td>
</tr>
<tr>
<td>Tamashiro, Minoru</td>
<td>27</td>
</tr>
<tr>
<td>Tanada, Yoshinori</td>
<td>27</td>
</tr>
<tr>
<td>Tanaka, Tokushi</td>
<td>28</td>
</tr>
<tr>
<td>Taylor, James C.</td>
<td>22, 161</td>
</tr>
<tr>
<td>Teachers College</td>
<td>73-76</td>
</tr>
<tr>
<td>Teachers College Laboratory Schools</td>
<td>76</td>
</tr>
<tr>
<td>Teacher's professional certificate</td>
<td>37, 73</td>
</tr>
<tr>
<td>Technical agriculture</td>
<td>80</td>
</tr>
<tr>
<td>Teho, Fortunato G.</td>
<td>31</td>
</tr>
<tr>
<td>Tester, Albert L.</td>
<td>22, 186, 188, 189, 191</td>
</tr>
<tr>
<td>Thaunam, William</td>
<td>22, 162</td>
</tr>
<tr>
<td>Theatre Group</td>
<td>54</td>
</tr>
<tr>
<td>Tilden, Irvin L.</td>
<td>22</td>
</tr>
<tr>
<td>Tinker, Spencer</td>
<td>22, 125, 127</td>
</tr>
<tr>
<td>Townes, Stanmore B.</td>
<td>22, 160</td>
</tr>
<tr>
<td>Traffic violations</td>
<td>46</td>
</tr>
<tr>
<td>Transfer by students between colleges</td>
<td>42</td>
</tr>
<tr>
<td>Transfer to or from other institutions</td>
<td>43</td>
</tr>
<tr>
<td>Trapido, Joel</td>
<td>22, 121, 122</td>
</tr>
<tr>
<td>Traut, Gladsy M.</td>
<td>22, 125, 127</td>
</tr>
<tr>
<td>Trimble, Alice P.</td>
<td>31</td>
</tr>
<tr>
<td>Tropical crop production</td>
<td>79</td>
</tr>
<tr>
<td>Tuition and fees</td>
<td>45</td>
</tr>
<tr>
<td>Tuthill, Leonard D.</td>
<td>22, 186, 187, 190</td>
</tr>
<tr>
<td>Tuttle, Daniel W.</td>
<td>22, 144, 145, 146, 147</td>
</tr>
<tr>
<td>Ueda, Motoi</td>
<td>31</td>
</tr>
<tr>
<td>Umbel, Oma</td>
<td>22, 154, 155, 156</td>
</tr>
<tr>
<td>Unclassified students</td>
<td>37, 40</td>
</tr>
<tr>
<td>Undergraduate students</td>
<td>37, 41, 44</td>
</tr>
<tr>
<td>Unit, definition of</td>
<td>38</td>
</tr>
<tr>
<td>United States Fish and Wildlife Service</td>
<td>35</td>
</tr>
<tr>
<td>University Calendar</td>
<td>2</td>
</tr>
<tr>
<td>University Extension Division</td>
<td>32, 48</td>
</tr>
<tr>
<td>Uyehara, Yukuo</td>
<td>22, 106, 107, 108</td>
</tr>
<tr>
<td>van Bronkhorst, Warren</td>
<td>23, 162, 163</td>
</tr>
<tr>
<td>van Weel, Pieter B.</td>
<td>23, 186, 188, 189, 191</td>
</tr>
<tr>
<td>Vasconcellos, Henry B.</td>
<td>23, 147</td>
</tr>
<tr>
<td>Veterans, admission of</td>
<td>38</td>
</tr>
<tr>
<td>Vinacke, W. Edgar</td>
<td>23, 172, 173, 174</td>
</tr>
<tr>
<td>Vine, Richard W.</td>
<td>23, 162, 163</td>
</tr>
<tr>
<td>Vitiesek, Martin</td>
<td>23, 160</td>
</tr>
<tr>
<td>Vocational agriculture</td>
<td>78</td>
</tr>
<tr>
<td>Vocational education</td>
<td>76</td>
</tr>
<tr>
<td>Volcano Laboratory</td>
<td>34</td>
</tr>
<tr>
<td>Vollrath, Harvey M.</td>
<td>31</td>
</tr>
<tr>
<td>Wachter, William M.</td>
<td>23, 133, 134, 135</td>
</tr>
<tr>
<td>Wadsworth, Harold A.</td>
<td>5, 23, 95, 97, 98</td>
</tr>
<tr>
<td>Walker, Claude</td>
<td>23, 116, 117, 118</td>
</tr>
<tr>
<td>Watanabe, Shichiro</td>
<td>23, 106, 107</td>
</tr>
<tr>
<td>Wayman, Oliver</td>
<td>23, 28, 95, 97, 98</td>
</tr>
<tr>
<td>Weaver, Herbert B.</td>
<td>23, 172, 173, 174</td>
</tr>
<tr>
<td>Webster, Ernest C.</td>
<td>23</td>
</tr>
<tr>
<td>Weeth, Howard J.</td>
<td>23, 28, 95, 97</td>
</tr>
<tr>
<td>Weidenkopf, Janet</td>
<td>23</td>
</tr>
<tr>
<td>Weigand, H. William</td>
<td>23</td>
</tr>
<tr>
<td>Wery, Katherine H.</td>
<td>32</td>
</tr>
<tr>
<td>White, Bruce</td>
<td>5, 23, 125</td>
</tr>
<tr>
<td>White, Edward T.</td>
<td>5, 32</td>
</tr>
<tr>
<td>White, John A.</td>
<td>23, 111, 112, 113</td>
</tr>
<tr>
<td>Will, Edgar G.</td>
<td>23, 182, 184, 185</td>
</tr>
<tr>
<td>Wilson, W. Willard</td>
<td>5, 24, 136, 137, 139</td>
</tr>
<tr>
<td>Winston, Vivian A.</td>
<td>31</td>
</tr>
<tr>
<td>Withdrawal by students</td>
<td>41</td>
</tr>
<tr>
<td>Wolfe, Cynthia L.</td>
<td>24, 165, 166, 167</td>
</tr>
<tr>
<td>Women's Residence Hall</td>
<td>54-55</td>
</tr>
<tr>
<td>Wong, Helene H.</td>
<td>24</td>
</tr>
<tr>
<td>Wood, William C.</td>
<td>24, 161</td>
</tr>
<tr>
<td>Yamaguchi, Rokuro</td>
<td>31</td>
</tr>
<tr>
<td>Yamamoto, George K.</td>
<td>24, 179, 180, 181</td>
</tr>
<tr>
<td>Name</td>
<td>Pages</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Yamamoto, Sueki</td>
<td>31</td>
</tr>
<tr>
<td>Yamamura, Douglas S.</td>
<td>24, 179, 180, 181</td>
</tr>
<tr>
<td>Yang, Sarah L.</td>
<td>24, 127</td>
</tr>
<tr>
<td>Yee, Warren Y. J.</td>
<td>31</td>
</tr>
<tr>
<td>Younge, Otto R.</td>
<td>24, 28, 95, 97</td>
</tr>
<tr>
<td>Zane, Betty K. K.</td>
<td>31</td>
</tr>
<tr>
<td>Zeigler, Harley H.</td>
<td>24, 175, 176</td>
</tr>
<tr>
<td>Zeitlin, Harry</td>
<td>24, 118, 119, 120</td>
</tr>
<tr>
<td>Zoology and Entomology</td>
<td>186</td>
</tr>
</tbody>
</table>