ANNOUNCEMENT
OF THE
ADULT EDUCATION DIVISION

Including Afternoon, Evening
and Saturday Courses

1936-1937
ADMINISTRATIVE STAFF

David L. Crawford, LL.D., President of the University
R. Ray Scott, Ph.D., Director
Etta R. Washburn, B.A., Associate Director
Mabel D. Vernon, M.A., In Charge of Visual Education
Bertha S. Wedemeyer, B.A., Secretary
Masao Miyamoto, Photographer

CALENDAR
1936-1937

1936

Sept. 14-18 Registration, extension students rural Oahu and other islands (see page 9) Mon.-Fri.
Sept. 14-18 Instruction, extension courses begins Mon.-Fri.
Sept. 28-Oct. 3 Registration, part-time resident students at hours announced on page 8 Mon.-Sat.
Sept. 28 Instruction, campus courses begins Monday
Nov. 11 Armistice Day Wednesday
Nov. 26-28 Thanksgiving Recess Thurs.-Sat.
Dec. 19 Christmas Recess begins at noon Saturday

1937

Jan. 4 Work resumed, campus courses Monday
Jan. 25-30 Mid-year examinations, extension courses Mon.-Fri.
Feb. 1-6 Registration, extension students Mon.-Fri.
Feb. 1-6 Instruction, extension courses begins Mon.-Fri.
Feb. 8-13 Mid-year examinations, campus courses Mon.-Sat.
Feb. 19, 20, 23 Registration, part-time resident students Fri., Sat., Tues.
Feb. 19 Instruction, campus courses begins Friday
Feb. 22 Washington's Birthday Monday
Mar. 26-27 Good Friday Recess Fri.-Sat.
June 14-19 Final examinations, campus courses Mon.-Sat.
June 22 Twenty-sixth Annual Commencement Tuesday
ADVISERS

The following advisers will be in their offices during registration week at the hours designated, to assist students in the planning of their programs and to approve their registration cards.

College of Arts and Sciences:
Dean Wm. H. George, Room 116, Hawaii Hall
Mon.-Fri., 1-4 p.m.; Sat. 9-12 m.; Mon., Tues., 7:15-9 p.m.

Dr. Merton K. Cameron, Room 208, Hawaii Hall
Mon.-Fri., 1-4 p.m.; Mon., Tues., 7:15-9 p.m.

College of Applied Science:
Prof. Ernest C. Webster, Room 104, Hawaii Hall
Mon.-Thurs., 1-4 p.m.; Sat. 8-12 m., Mon., Tues., 7:15-9 p.m.

Teachers College:
Dr. Thayne M. Livesay, Room 117, Hawaii Hall
Adviser for Secondary School group.
Mon.-Fri., 1-4 p.m.; Sat. 8-12 m.; Mon., Tues., 7:15-9 p.m.

Dr. Ephraim V. Sayers, Room 119B, Teachers College
Adviser for Elementary School group.
Mon.-Fri., 2:30-3:30 p.m.; Sat. 8-12 m.; Mon., Tues., 7:15-9 p.m.

RESIDENT INSTRUCTING STAFF

ROMANZO ADAMS, Ph.D., Professor of Sociology
A.B., Univ. Michigan, 1897; M.A., Univ. Michigan, 1898; Ph.D., Univ. Chicago, 1904.

FRED E. ARMSTRONG, M.S., Associate Professor of Agricultural Education
B.S., Clemson College, 1916; M.S., Univ. Minnesota, 1921; Graduate Study, Univ. Minnesota, 1932-1933.

MARGUERITE ASHFORD, J.D., Lecturer in Business Law
B.L., Univ. California, 1914; J.D., Univ. Michigan, 1915.

MARJORY E. BABCOCK, Ph.D., Assistant Director, Psychological Clinic

PAUL S. BACHMAN, Ph.D., Associate Professor of Political Science

KATHERINE BAZORE, M.A., Assistant Professor of Home Economics
B.S., Ohio State Univ., 1917; M.A., Teachers College, Columbia Univ., 1925.

ROSS S. BEAN, B.S., Assistant Professor of Botany
B.S., Brigham Young Univ., 1921; Graduate Study, Univ. California, 1925-1927, 1933-1934.

JOHN H. BEAUMONT, Ph.D., Horticulturist, Hawaii Agricultural Experiment Station
B.S., West Virginia Univ., 1917; Ph.D., Univ. Minnesota, 1925; Special Research, Univ. Chicago, 1920, Cornell Univ., 1921-1922.

LA VERNE M. BENNETT, M.A., Instructor in Health and Physical Education

EARL M. BILGER, Ph.D., Associate Professor of Chemistry

LEONORA N. BILGER, Ph.D., Collaborator in Chemical Research
ELIZABETH D. W. BROWN, Ph.D., Instructor in Natural Science
B.A., Maryville College, 1905; M.A., Maryville College, 1911; B.A., Univ. Michigan, 1908; M.S., Univ. Michigan, 1909; Ph.D., Univ. Michigan, 1912; Biological Laboratory, Woods Hole; Cornell Univ.; Yale Univ.

WALTER CARTER, Ph.D., Entomologist, P.P.C.A. Experiment Station
B.S., Univ. Montana, 1923; M.S., Univ. Minnesota, 1924; Ph.D., Univ. Minnesota, 1928.

NORTHRUP CASTLE, Lecturer in Navigation
Univ. Hawaii, 1930-1932, 1935-1936; Master Mariner in Steam (limited), 1934; Master Mariner in Sail, 1936.

ROYAL N. CHAPMAN, Ph.D., Director, P.P.C.A. Experiment Station
B.A., Univ. Minnesota, 1914; M.A., Univ. Minnesota, 1915; Ph.D., Cornell Univ. 1917.

KENNETH CHUN, B.A., Instructor in Chinese Language
B.A., Univ. Hawaii, 1931; Yenching Univ.

ADNA G. CLARKE, LL.B., Colonel U.S.A. (Retired), Professor of Police Administration
LL.B., Kansas Univ., 1897; B.A., Kansas Univ., 1900; Graduate Artillery School, 1906; Distinguished Graduate, School of the Line, 1913; Graduate Army Staff College, 1914.

WILLIS B. COALE, Ph.D., Assistant Professor of English

JULIUS L. COLLINS, Ph.D., Geneticist, P.P.C.A. Experiment Station
B.S., Univ. California, 1918; Ph.D., Univ. California, 1923.

MERVYN I. CONNER, D.D.S., Lecturer in Dental Hygiene
D.D.S., Univ. Southern California, 1932.

JOHN WESLEY COULTER, Ph.D., Assistant Professor of Geography
B.A., Univ. California, 1919; M.A., Univ. California, 1921; Ph.D., Univ. Chicago, 1926.

J. J. DELPECH, C.P.A., Lecturer in Accounting
B.A., Stanford Univ., 1923; C.P.A., California State Board of Accountancy, 1927; assistant in charge, Henry Davis Audit Co., Honolulu.

FRANK T. DILLINGHAM, M.A., Professor of Chemistry and Sugar Technology
B.S., Worcester Polytechnic Institute, 1901; M.A., Yale Univ., 1916; Fellow in Plant Nutrition, Univ., California, 1922-1923.

CHARLES H. EDMONDSON, Ph.D., Professor of Zoology
Ph.B., Univ. Iowa, 1919; M.S., Univ. Iowa, 1904; Ph.D., Univ. Iowa, 1906.

LESLIE E. EICHELBERGER, M.A., Lecturer in Education
A.B., Denver Univ., 1908; M.A., Denver Univ., 1930; Older Boys' Work Secretary, Y.M.C.A., Honolulu.

JESSIE SHAW FISHER, Instructor in Education
Teachers College, Columbia Univ., 1908-1910, 1911-1912.

F. RAYMOND FOSBERG, M.S., Assistant in Botany
B.A., Pomona College, 1930; M.S., Univ. Hawaii, 1935.

CYNTHIA B. GEISER, M.A., Librarian, Teachers College Branch
A.B., Western State College, Colorado, 1926; M.A., Univ. Hawaii, 1929.

WILLIAM H. GEORGE, Ph.D., Professor of History and Political Science and Dean of the College of Arts and Sciences

MATTHEW M. GRAHAM, C.P.A., Professor of Accounting

CARLOS HANCEY, B.S., Instructor in Education
Diploma, Brigham Young College, 1925; B.S., Utah State College, 1928.

LOUISE C. HARRIS, M.A., Lecturer in English
B.A., Univ. Oregon, 1933; Graduate Study, Claremont College, Santa Barbara State Teachers College; Mills College; Teacher, Hanahauoli School, Honolulu.

FLORENCE HENDERSON, Ph.D., Lecturer in Speech
A.B., Univ. Denver, 1921; M.A., State Univ. Iowa, 1927; Ph.D., Univ. Wisconsin, 1935.
LOUIS A. HENKE, M.S., *Professor of Agriculture*  
B.S., Univ. Wisconsin, 1912; M.S., Univ. Wisconsin, 1923; Graduate Study, Univ. Wisconsin, 1929-1930.

HAROLD J. HOFlich, Ph.D., *Instructor in Economics and Business*  
B.A., Univ. Oregon, 1925; Ph.D., Univ. California, 1933.

W. J. HOMAN, Ph.D., *Professor of Religion*  
B.A., Pennsylvania College, 1922; M.R.E., Boston Univ., 1924; Ph.D., Yale Univ., 1934.

MARIA HÖRMANN, B.A., *Assistant Professor of German Language*  
Staatsexamen für Höhere Tochterschulen, Berlin, Germany, 1905; B.A., Univ. Hawaii, 1923.

STEPHEN B. JONES, Ph.D., *Instructor in Geography*  

HENRY C. JUDD, B.A., *Professor of Hawaiian Language and History*  
B.A., Yale Univ., 1901; Graduate Study, Auburn Seminary, 1903-1906.

DOROTHY M. KAHANANUI, B.S., *Instructor in Music*  
Diploma, Territorial Normal and Training School, 1913, 1927; Diploma, Univ. Extension Conservatory of Music, Chicago; Univ. Hawaii; B.S., New York Univ., 1931.

FELIX M. KEESING, D.Litt., *Associate Professor of Anthropology*  

RALPH S. KUYKENDALL, M.A., *Assistant Professor of History*  
B.A., College of Pacific, 1910; M.A., Univ. California, 1918.

E. CYNTHIA LARRY, M.A., *Lecturer in English*  

GEORGE F. LARSEN, *Lecturer in Police Administration*  
Univ. Hawaii; Univ. Calif.; Captain, Honolulu Police Department.

SHAO CHANG LEE, M.A., *Professor of Chinese Language and History*  
Graduate, Canton Christian College, China, 1911; Graduate, Tsing Hua College, Peiping, China, 1913; A.B., Yale Univ., 1917; M.A., Columbia Univ., 1918.

ANDREW W. LIND, Ph.D., *Associate Professor of Sociology*  

THEODORE F. LINDEMAN, *Lecturer in Meteorology*  
Georgetown University, 1923; Navy Meteorological School, 1925; Chief Aerographer, U.S.N.

MAURICE B. LINFORD, Ph.D., *Pathologist, P.P.C.A. Experiment Station*  
B.S., Utah Agricultural College, 1922; M.A., Utah Agricultural College, 1924; Ph.D., Univ. Wisconsin, 1927.

THAYNE M. LIVESAY, Ph.D., *Professor of Education and Psychology*  

HUC-MAZELET LUQUIENS, B.F.A., *Assistant Professor of Art*  

OSCAR C. MAGISTAD, Ph.D., *Director, Hawaii Agricultural Experiment Station*  
B.S., Univ. Wisconsin, 1922; M.S., Univ. Wisconsin, 1923; Ph.D., Univ. Wisconsin, 1924.

EVA MÈTRAUX, *Instructor in Romance Languages*  
University of Berlin, 1923-1924; Licence es Lettres, Univ. Lausanne, 1925; Director of Alliance Francaise, Tucuman, Argentina, 1928-1929.

BERTHA MÜLLER, Ph.D., *Instructor in German*  

HAROLD S. PALMER, Ph.D., *Professor of Geology*  
B.A., Yale Univ., 1912; Ph.D., Yale Univ., 1923; Graduate Study, Univ. Vienna, 1926-1927.
JOHN H. PAYNE, Ph.D., Instructor in Chemistry
B.S., Butler Univ., 1927; M.A., Univ. Cincinnati, 1928; Ph.D., Univ. Cincinnati, 1930; Research Fellow, Univ. Munich, 1930-1931.

IRVING O. PECKER, A.B., Professor of Romance Languages
A.B., Boston Univ., 1912; Alliance Francaise, Sorbonne, Paris; French Consul and Spanish Consul to the Hawaiian Islands; Officier de l'Instruction Publique; White Cross Spanish Order of Naval Merit; Chevalier de la Legion d'Honneur.

HENRY H. REMPEL, M.Ed., Instructor in Art

SHUNZO SAKAMAKI, M.A., Instructor in Japanese

EPHRAIM V. SAYERS, Ph.D., Professor of Education

LAURA V. SCHWARTZ, Ph.D., Assistant Professor of English
B.A., College of the Pacific, 1920; M.A., Stanford University, 1921; Ph.D., Stanford Univ., 1924; Oxford Univ., 1932.

R. RAY SCOTT, Ph.D., Associate Professor of Education and Director of the Adult Education Division
Ph.B., Hiram College, 1914; Graduate Study, Union Theological Seminary, 1915; M.A., Columbia Univ., 1916; Graduate Study, Univ. Wisconsin, Univ. Chicago, Univ. Pittsburgh; Ph.D., Ohio State Univ., 1932.

D. RANSOM SHERRETZ, M.A., Lecturer in Police Administration

MADORAH E. SMITH, Ph.D., Assistant Professor of Education and Psychology
B.A., Fargo College, 1907; Lenox College; Univ. Washington; M.A., Iowa State Univ., 1918; Ph.D., Iowa State Univ., 1925.

HAROLD ST. JOHN, Ph.D., Professor of Botany

CARL G. STROVEN, M.A., Instructor in English

JESSE A. TANNER, Ph.D., Assistant Professor of Education

WILLIAM H. TAYLOR, Ph.D., Assistant Professor of Economics

VERNE WALDO THOMPSON, B.Mus., Lecturer in Music

YUKUO UYEHARA, B.A., Instructor in Japanese Language
B.A., Univ. Hawaii, 1931; Graduate Study, Univ. Hawaii, 1932; Waseda Univ., Tokyo, 1933.

HAROLD A. WADSWORTH, B.S., Professor of Agriculture

LORLE WEEBER, Ph.D., Lecturer in Education
A.B., Bryn Mawr College, 1912; A.M., Bryn Mawr College, 1913; Cornell Univ.; Univ. Pennsylvania; Ph.D., Columbia Univ., 1916.

DANIEL M. WELLER, Instructor in Botany

CARROLL P. WILSIE, Ph.D., Assistant Professor of Agronomy and Genetics
B.S., Univ. Wisconsin, 1926; Graduate Study, Univ. Illinois, 1926-1927; Ph.D., Michigan State College, 1931; Hawaii Expt. Station Agronomist.

ARTHUR E. WYMAN, B.S., Assistant Professor of Dramatic Art
B.S., Dartmouth, 1911.
THE UNIVERSITY OF HAWAII

The University of Hawaii was established by act of the Territorial Legislature in 1907. It is a land-grant university, and bears the same relation to the Territory that the several state universities bear to their respective states. It draws about one-half its financial support from Territorial appropriations. Although the University has never received a grant of land, such as was provided for the similar colleges of the states by the original Morrill Act of 1862, it benefits by the Second Morrill Act of 1890. It is open to all who are qualified, regardless of sex, color, or nationality.

The University of Hawaii has a fully accredited standing in the Association of American Universities. Students may transfer to other American and European universities on the same basis as may students of the foremost American universities. Students may also transfer to the leading Oriental universities.

ORGANIZATION

The University comprises a College of Applied Science, a College of Arts and Sciences, a Teachers College, a graduate division which includes the Graduate School of Tropical Agriculture, the Oriental Institute, and several non-academic units.

ADULT EDUCATION DIVISION

The Adult Education Division comprises the evening session, off-campus courses, University lectures, radio education, visual education and play loan service.

The evening session offers courses in the afternoon, evening, and on Saturdays, primarily for the benefit of adults who cannot attend at other times. Regular members of the University faculty supplemented by a few other instructors in special fields comprise the teaching staff. All evening session courses give full residence credit. They should not be confused with non-credit courses or off-campus credit courses offered by the Adult Education Division. While each regular credit course carries general university credit, the acceptability of such credit toward a degree, i.e., B.A., B.S., Ed.B., M.A., etc., depends on the policy and requirements of the particular college concerned or of the Committee on Graduate Study.

Extension courses offering university credit are given in class centers throughout the Territory.

It is the policy of the Adult Education Division to offer educational advantages to all classes of society who are not interested in a college degree and to lend encouragement to every worthwhile program of adult education undertaken in the Territory in the interest of the public welfare. Non-credit courses, both on and off the campus, are announced from time to time. Any individual or group interested in this type of service may apply to the Director of the Adult Education Division.

Service clubs, women's clubs, teachers' organizations, schools and similar organizations may secure speakers for special occasions through the lecture service. By special arrangement, an entire series by one lecturer may also be secured. Lectures and entertainments of public interest are arranged throughout the year in Farrington Hall and whenever possible, such lectures will be broadcast for the enjoyment of those in outlying districts.

It is planned to broadcast courses offering university credit and short series of lectures on popular subjects for the benefit of those who cannot take advantage of the courses and lectures in Honolulu.

The visual education service aims to assist teachers in the correct use of all types of visual aids and to distribute such material as films, film strips, glass slides and stereographs to schools, churches, and other educational agencies throughout the Territory.
The purpose of the play loan service is to assist schools and amateur theatrical groups in the selection of material suitable for school or community entertainment. Plays are loaned free of charge for inspection purposes.

ADMISSION

Part-time students who wish to take work for credit applicable to degrees are classified as follows: (1) Unclassified students, (2) Graduate students, (3) Extension students. Students who wish to enroll in courses which offer university credit, but who are not eligible for or not interested in earning such credit, are classified as (4) Special students and (5) Auditors.

Admission of Unclassified Students

Mature persons, ordinarily only those at least 21 years of age, who present satisfactory evidence of their ability to carry on the work desired, may register as Unclassified students, taking a limited program of courses. Persons less than 21 years of age may be admitted as Unclassified students, provided they are able fully to meet the entrance requirements for regular Freshman standing but desire to carry only a limited program of courses not leading toward a bachelor's degree.

Persons of some maturity who have had experience that manifestly prepares them for college work may be given entrance credit for such work. What forms of work will be given credit and how many credits will be granted cannot be stated in advance, but each case will be considered individually.

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

Admission of Graduate Students

For information concerning the admission of Graduate students see pages 44-46 of the regular University Catalogue and Announcement of Courses, 1936-1937.

Admission of Extension Students

Rules applicable to the admission of Extension students in courses for credit off the campus are the same as those applicable to Unclassified students.

Credits gained in extension courses conducted by the University of Hawaii may be applied toward the Bachelor's degree, but not more than 25 per cent of the total credits required to be earned at the University for the degree may be extension course credits, and such credits are not counted as fulfilling the residence requirement.

Admission of Special Students

Qualified persons who are unable or who do not care to meet the regular University entrance requirements may be admitted to certain undergraduate courses as Special students. Special students attend classes and take part in the courses for which they are registered but they do not receive university credit for the work done.

Admission of Auditors

Auditors are persons who attend certain undergraduate courses as listeners. They do not participate in classroom discussion, are not expected to do work prescribed for Unclassified and Special students, and do not receive credit. Persons desiring the privilege of attending classes as Auditors should make application to the Registrar at the time of registration. If the application is granted, the Auditor will be issued an auditor's card which must be signed by the Director of the Adult Education Division. Auditors pay the regular course fees.

REGISTRATION DATES

FOR COURSES ON THE CAMPUS

Part-time students of all classifications will register in Hawaii Hall on September 28-October 2 inclusive, from 1-4 p.m., on September 28 and 29 from 7:15-9 p.m., and on Saturday, October 3 from 8 a.m.-12 noon.
Any part-time student enrolling in courses after 12 o'clock noon on October 3 must pay a late registration fee of $1.00.

Instruction begins on Monday, September 28.

The University reserves the right to withdraw any course because of insufficient enrollment or for other valid reasons.

REGISTRATION FOR EXTENSION COURSES

Because the University year no longer coincides with the elementary and secondary school terms, due to a later opening and closing date for the former, it has been thought best to maintain registration dates for extension courses much the same as in the past, thus enabling teachers enrolled in extension courses to close their work with the close of their school term.

Registration will be conducted during the week of September 14-18 by the instructor in charge at the time, day, and place indicated in the announcement of courses.

The day set for registration is not in all cases the same day of the week as for class meetings throughout the semester.

The official semester covers 18 weeks. The work of the first semester must be completed by January 30, 1937, and the work of the second semester by June 19, 1937.

No registration for credit is permitted after the third meeting of any class.

TUITION AND FEES

Part-time students, including Unclassified, Graduate, Extension, Specials and Auditors, taking a program of less than 10 credit hours, pay a tuition fee of $5.00 a credit hour.

No refunds will be made after the two weeks' interval following the announced registration days. For courses on the campus this two weeks' interval closes October 17. For courses in extension this closes October 2. During this period, changes of schedule or withdrawal may be made without penalty or forfeiture.

All fees must be paid as part of registration and no registration card will be finally accepted until it is endorsed showing payment.

Laboratory and special course fees are indicated in the description of courses.
COURSES OF STUDY

Courses from 100-199 are designed for students of Freshman and Sophomore or lower division standing. Those from 200-299 are open to Juniors and Seniors or upper division students and graduate students. Courses numbered 300 and above are graduate courses, but specially qualified Seniors may be admitted upon consent of the instructor.

Because of the professional nature of certain afternoon and evening courses, registration in these courses is restricted to students and teachers enrolled in Teachers College, except in cases where the students and teachers in other colleges secure the permission of their respective deans and the dean of Teachers College. Such courses are marked with an asterisk.

AGRICULTURE

300 Research Work  Henke & Agricultural Staff
Situated in a climate where out-of-doors experimental work can be carried on the year round, Hawaii affords ideal opportunities for research in tropical agriculture. First and second semesters. Credits and hours to be arranged.

ANTHROPOLOGY

300 Advanced Reading and Research  Keesing
Open to qualified students who secure the approval of the instructor. Credits and hours to be arranged.

310 Seminar in Anthropology  Staff
A study of advanced problems in anthropology, open to Senior or Graduate students by arrangement. First and second semesters, 2 credits each. Hours to be arranged.

400 Thesis Research  Keesing
Graduate students engaged in the preparation of a thesis for the Master's degree will register in this course. A total of 6 credits can be secured for thesis work. Hours to be arranged.

ART

Courses 160-161, 261 and 268 may be taken by persons who are not able to report until 2:30. The work missed is made up at another time.

150-151 Art Structure  Rempel
The study of the elements and principles underlying all art. First semester, exercises in line, mass, and color harmony to stimulate appreciation. Second semester, advanced exercises in composing abstract and naturalistic forms. Slide lectures and studio. First and second semesters, 2 credits each. This is a fundamental course, upon which all other courses are based, and is prerequisite to all advanced work. Hours to be arranged.

160-161 Oil Painting  Luquiens
Study of naturalistic form and color in oils, emphasizing composition, plane structure, and character of subject presented. First semester, still life. Second semester, the living model, head, and costume. Prerequisites: Art 154-155 or special permission of instructor. Two periods. First and second semesters, 2 credits each. Second semester studio fee, $3.00. T.Th. 1:30-4.
261 Applied Art for Kindergarten-Primary Years  Fisher

The course makes a study of the various types of art activities, freehand and constructive, suited to the growth of creative ability in the fine arts as a part of the daily interests of children in the kindergarten and primary years. Four hours of class work a week. First semester, 2 credits. T. Th. 1:30-3:30.

263 Applied Art for the Secondary School Years  Fisher

A course designed to provide the secondary school teacher with the technique of art instruction in the secondary school program. Attention is given to tools, materials and processes of crafts. First semester, 2 credits. M. 3-5.

268 Landscape Painting  Luquiens

Basic study of naturalistic landscape in oils, emphasizing compositions, color, and landscape technique. Prerequisites: Art 160-161. Two periods, out of doors and studio. First semester, 2 credits. W.F. 1:30-4:00.

282 Painting and Drawing  Rempel

Work in still life, native flowers and perspective. Design and composite discussions built around the problems involved. Choice of any medium of expression. No prerequisites as the class will be conducted in two divisions, one for beginning students and one for advanced work. First and second semesters, 2 credits. Hours to be arranged.

BIOLOGY

240 Biology  Brown

A general course in elementary biology designed especially for teachers in service, in which the fundamental biological principles underlying the plant and animal worlds will be stressed. The morphology, physiology, and ecology of selected type specimens leading from the lower to the higher forms, will be studied in the laboratory and field. Not open to students having had Biology 236, 250, or 251. First and second semesters, 2 credits each. M. 3-4:30.

BOTANY

160 Flower and Tree Identification  Fosberg

A popular course in the identification of common cultivated plants, weeds, and native plants of the Territory. Fee $2.00. Not open to students who have taken Botany 102. First semester, 2 credits. T. 7:30-9:00 p.m.

161 Plant Geography  St. John

A study of the distribution of plants throughout the world. The vegetation of forests, grasslands, deserts, tundra, mountains, and oceans, with special attention to origin, development, ecology, and economic importance. Fee, $2.00. Two hours of illustrated lectures a week. First semester; 2 credits. Th. 7:30-9:00 p.m.

210 Botanical Seminar  Botanical Staff

Presentation of seminar reports, reports upon research, or reviews of current botanical literature. Recommended for Juniors, Seniors, and Graduates, and may be taken repeatedly. One recitation hour per week. First and second semesters, 1 credit each. F. 4:30.

300 Botanical Research  St. John, Bean or Weller

Open to Graduate students who show sufficient preparation and ability to carry on studies of an investigational nature. Laboratory fee $1.00 per credit hour. Hours and credits to be arranged.

302 Research in the Botanical Phases of Tropical Agriculture  St. John

Open to students in the Graduate School of Tropical Agriculture. Planned for original investigations in tropical botany. Hours and credits to be arranged.

303 Plant Pathology Seminar  Linford

The plan of this seminar is to review the present knowledge in selected fields of plant pathology. A topic will be selected which is agreeable to those interested. First semester, 1 credit. Hours to be arranged.
304 Research in Plant Pathology

Open to qualified students in the Graduate School of Tropical Agriculture with the permission of the instructor. Hours and credits to be arranged.

305 Absorption and Movement of Water in Plants

A seminar dealing with the question of availability, absorption and movement of water in the plant together with some effects of water on plant growth and development. First semester, 1 credit. Hours to be arranged.

351 Plant Physiological Literature

Required of students taking Botany 350. The aim of the course is to encourage exhaustive studies on certain topics of advanced Plant Physiology. First and second semesters. Hours and credits to be arranged.

400 Thesis Research

Graduate students engaged in the preparation of the Master's thesis will register for this course. Hours and credits to be arranged.

BUSINESS

152-153 Principles of Accounting

This course duplicates the subject matter covered in Business 150-151. Organized primarily for unclassified evening session students. Credit will not be allowed in both this course and Business 150-151. Prerequisite: Unclassified student status or permission of the instructor. First and second semesters, 3 or 4 credits each. T. Th. 7:30-9 p.m.

260-261 Business Law

This course deals with the following topics: nature and sources of law, judicial procedure, contracts, agency and sales, partnerships and corporations, negotiable instruments, personal and real property, suretyship and guaranty, bankruptcy, and insurance. Prerequisite: Junior standing or permission of the instructor. First and second semesters, 2 credits each. M. 7:30-9:10 p.m.

305-306 Seminar in Accounting

First and second semesters, maximum of 3 credits. Hours to be arranged.

310-311 Seminar in Merchandising

First and second semesters, maximum of 3 credits. Hours to be arranged.

CHEMISTRY

302 Research in Chemistry

Open to qualified students in the Graduate School of Tropical Agriculture with permission of instructor. Hours and credits to be arranged.

310 Seminar: Chemical and Physical Studies in Biological Fields

Recent advances in physico-chemical, organo-chemical, and analytical problems in biological processes. Topics to be included are potentiometric measurements, radiations and chemical change, asymmetric molecular structures, chemical composition of biological substances, and spectro and X-ray methods of analysis. Prerequisite: one year of Physical Chemistry or special arrangement with instructor. 1 credit. Hours to be arranged.

315 Chemical Literature

A library course in which articles appearing in current chemical periodicals are studied, and topics are assigned for reports. Prerequisites: Chemistry 101 or 102, 150, 152, 153, and 230. May be taken in conjunction with Chemistry 211, 216, and 217. First and second semesters, 1 credit to 3 credits each.
318 Chemistry Research  Dillingham, Bilger, Bilger

The conducting of a research problem and preparation of a related thesis in pure or applied chemistry. Elective course restricted to Senior and Graduate students. Hours, credits, and fees to be arranged. Laboratory fees and breakage deposits not less than $3.00 each credit per semester. Prerequisites: Chemistry 101 or 102, 150, 152, 153, 161, 230, or their equivalents. Prerequisite or parallel: Chemistry 211, 212, 216, or 217.

400 Thesis Research  Staff

Graduate students engaged in the preparation of a Master's thesis in Chemistry will register for this course. Credits to be arranged. Laboratory fees and breakage deposits $3.00 each credit per semester. Prerequisites: Chemistry 101 or 102, 150, 152, 153, 161, 230, or their equivalents. Prerequisite or parallel: Chemistry 211, 212, 216, or 217.

DENTAL HYGIENE

256 Dental Caries  Connor

A consideration of the causation, progress and sequelae of caries. Preventive measures. Composition, location, differentiation and causes of accretions, deposits and stains found upon the teeth. Their harmful results and preventive measures. First semester, 2 credits. T.Th. 3:30.

ECONOMICS

305-306 Seminar in General Economics  Cameron

First and second semesters, maximum of 3 credits each. Hours to be arranged.

310-311 Seminar in International Economics and Trade  Taylor

First and second semesters, maximum of 3 credits each. Hours to be arranged.

315-316 Seminar in Finance  Hoflich

First and second semesters, maximum of 3 credits each. Hours to be arranged.

400 Thesis Research  Staff

Hours and credits to be arranged.

EDUCATION

*280 The Kindergarten Curriculum  Weeber

The course is a study of the principles that determine the selection of subject matter and the organization of the modern kindergarten curriculum. Some attention is given to the evolution of the modern kindergarten-primary curriculum. First semester, 2 credits. M. 3-4:30.

291 Adult Education  Scott

A study of the movement, its significance for the times, and the problems of administration it raises. Considerable attention is given to the possibility of the development of a territory-wide program of adult education in Hawaii, and to agencies, such as the parent-teacher association, available for aiding the organization of the program. Open as an elective to Seniors and Graduate students. First semester, 2 credits. T. 3-4:30.

*292 Adolescent Leadership, Programs and Methods  Eichelberger

A brief but careful summary of each of the principal programs for boys and girls in this Territory. A study of the theory of program building based on group needs with the leader helping the group discover and carry out its own objectives and purposes. Principles of leadership and methods of program evaluation. An additional hour of field work each week required. First semester, 3 credits. T. 3:30-5.
*300 Reading or Research

An opportunity is offered for qualified Graduate students to work on research problems or do intensive reading in some field of education. Registration only after consultation with the staff members concerned. First or second semester, 1 to 3 credits. Hours to be arranged.

*340 Philosophy of Education

A re-examination of certain basic philosophic questions, the answers to which constitute the viewpoints which guide in the solution of problems of policy in education, followed by an attempt to construct a working theory of education—of administration, curriculum, method—which will serve best in a democracy. Registration by permission of the instructor. First or second semester, 3 credits. T. 3:30-5; Th. 3:30-4:30.

*345 Seminar in Philosophy of Education

Advanced study of controversial problems in education. Open to a limited number who have earned from 2 to 4 credits in Education 340. First and second semesters, 2 credits each. M. 3:30-5.

*350 History of Education

A survey of the development of educational thought and practice, from the time of the Greeks down to the present, with special attention to the origins of the influences responsible for the modern school systems. Registration only by permission of instructor. First or second semester, 3 credits. M. 3:30-5; W. 3:30-4:30.

*361 Mental Deficiency and Abnormality

A consideration of the causes and principal types of deficiency and abnormality. This course is designed to aid in recognizing subnormal and neurotic children, and in making the proper educational adjustments. Registration only by permission of instructor. First semester, 3 credits. T. 3:30-5; Th. 3:30-4:30.

*380 Seminar in Research and Thesis Writing

This course is designed to assist Graduate students in thesis preparation and will deal principally with research technique and thesis development. Registration only by permission of instructor. First semester, 2 credits. S. 10:30-12.

*400 Thesis Research

Graduate students engaged in the preparation of a Master's thesis in education will register for this course. Credits to be arranged.

ENGLISH

100(h) Composition

The principles of exposition, description and narration; analysis of illustrative specimens; frequent written exercises, and individual conferences with instructor; occasional exercises in oral composition; collateral reading. Designed to lead not only to correctness of expression, but also to a knowledge of constructive principles. Either this course or English 102 is required of all Freshmen in the Colleges of Applied Science and Arts and Sciences. Collateral reading fee, $1.00. First and second semesters, 3 credits each. T. Th. 7:30-8:45 p.m.

131 Literature of the Pacific

A survey chiefly of the literature of the South Seas, including narratives by Melville, Stevenson, London, Conrad, Maugham, Nordhoff and Hall, and other writers deserving but less well known. Attention will be directed to the effect of western civilization on native life as reflected in the literature. Open only to Freshmen and Sophomores. First and second semesters, 1 credit each. S. 9:30.

135(b) General English

This is a continuation of English 103 which covers work in composition and literature with attention to information, critical standards and appreciation. First and second semesters, 3 credits. M. W. F. 2:30.
162-163 Modern Drama Wyman
A critical reading of selected modern plays with special emphasis upon dramatic values. First and second semesters, 3 credits each. T. Th. 3:30-5.

210(a) Directed Reading Schwartz
Weekly reading, with informal class reports and discussion, of some important books which are not read in connection with other courses. The grade in the course will be determined by the amount and nature of the reading, and the quality of the reports. Open only to a limited number having the consent of the instructor. First and second semesters, 2 credits each. M. 3:30.

283 Elementary Speech Correction Henderson
Elementary phonetics with emphasis on ear training and the application of phonetics to the correction of functional defects of articulation. 2 credits. Th. 3:30-5:00.

*286 Dramatics in the Elementary Grades and in the Junior High School Harris
A workshop course, consisting of study of source material and practical application in pantomime, stories adapted in dramatic form, the festival and its use in portraying folk life, short plays suitable for children, and puppetry as a hobby and a legitimate project in dramatic art. (Two groups will be formed if a sufficient registration of both elementary and junior high school teachers is secured.) First semester, 2 credits. S. 10:30-12.

300 English Seminar
Designed primarily for Graduates, though properly qualified Seniors may be admitted. The intensive study of movements, periods or authors, either British or American. Weekly meetings for reports and discussions. First and second semesters, 2 credits each. Hours to be arranged.

400 Thesis Research Staff
Hours and credits to be arranged. First and second semesters.

ENTOMOLOGY

302 Research in Entomology Chapman, Carter
Open to qualified students in the Graduate School of Tropical Agriculture with the permission of the instructor. Hours and credits to be arranged.

350 Insect Ecology Chapman
A review of autecology and synecology with special emphasis upon recent advances. A critical review of the evidence on the effects of physical and biotic factors on insects and insect populations. Discussions and assigned readings. Experimental work to be arranged by the students individually. First semester, 2 credits. Hours to be arranged.

FRENCH

101(b) Nineteenth Century French Novel Metraux
Reading of selected masterpieces of Hugo, Daudet, Balzac, Sand and others. Conversation, lectures and essays. Prerequisite: one year of French in college or two years in preparatory school. First and second semesters, 3 credits each. T. Th. 3:30-5.

201 Phonetics Pecker
A study of French sounds. Required of those majoring in Romance languages. Conversation and diction. First and second semesters, 1 credit each. S. 8:30.

GENETICS

300 Seminar in Genetics Collins
The seminar will make a critical review of current, fundamental researches in the field of experimental genetics by means of reports upon assigned readings. Prerequisite: advanced study in genetics. First and second semesters, 2 credits each. Hours to be arranged.
302 Research in Genetics
Collins, Wilsie
Open to qualified students in the Graduate School of Tropical Agriculture with the permission of the instructor. Hours and credits to be arranged.

GEOGRAPHY

180 Elementary Meteorology
Lindeman
The atmosphere and its constituents; the effect of pressure and temperature on weather; the formation of rain, clouds, fog, etc., conditions conducive to storms, showers, hurricanes, and tornadoes, lightning, thunder, and mirages; climate and ocean currents; the weather map and the preparation of the weather forecast. First and second semesters, 2 credits each. M. 7:30-9 p.m.

300 Geography Seminar
Coulter, Jones
Special work in geography may be arranged for students capable of advanced study. Registration only on consent of instructor. Hours and credits to be arranged.

400 Thesis Research
Coulter, Jones
Graduate students engaged in the preparation of a Master's thesis in geography will register in this course. Credits to be arranged.

GEOLOGY

300 Geology Seminar
Palmer
Special work in geology may be arranged for students capable of more advanced work. Registration only on consent of instructor. First or second semester. Hours and credits to be arranged.

GERMAN

100(b) Elementary German
Hörmann, Müller
A course for beginners in the German language. Grammar developed from easy reading material. Exercise in reading and translating German. Singing of German folk songs. First and second semesters, 3 credits each. M. W. F. 2:30.

101(a) Intermediate German
Müller
Continuation of German grammar according to methods used in first year. A vocabulary is built up by discussing pictures. Reading and practice of sight reading in class. In the second semester students keep a diary in German which is corrected by the instructor. First and second semesters, 3 credits each. M. W. 7:30-8:45 p.m.

200 Advanced German
Hörmann
Rapid reading for comprehension. German classics: Lessing, “Minna von Barnhelm” and “Nathan der Weise”; Schiller, “Wallenstein” and “Don Karlos”; Goethe, “Goetz von Berlichingen” and “Egmont”; Buerger, “Balladen.” Free compositions. This course is conducted entirely in German. (Alternates with German 201.) First and second semesters, 3 credits each. T. Th. 3:30-5.

202 Advanced Scientific German
Hörmann
An advanced course in German scientific reading, with especial stress on sentence construction characteristic of scientific writing. Sight translation of scientific material is practiced in class. This course prepares for the reading requirements of an advanced degree. Students may repeat this course for additional credit for the reading matter is changed each year. Prerequisite: two years of college German or permission of the instructor. First and second semesters, 1 credit each. T. 5-6.

HAWAIIAN

250 Great Leaders in Hawaii
Judd
A study of some of the great leaders in the political, industrial, educational, social and religious development of these islands. This will be a biographical approach to the study of Hawaiian history. First semester, 2 credits. T. 3-4:30.
HISTORY

250 History of Early Civilization in the Far East Sakamaki
A general survey of the development of civilization in Eastern Asia. Subjects to be treated include physical environment, flora and fauna, early man, and races of Asia, neolithic, chalcolithic and prehistoric ages, Shang and Chow dynasties, iron age and diffusion of civilization of Eastern Asia. First semester, 2 credits. T. 7:30-9 p.m.

253 History of Hispanic America
The political, social, and economic development of the Hispanic American republics, with consideration of such topics as the Monroe Doctrine, intervention, and Pan-Americanism. Prerequisite: History 140, or consent of the instructor. First and second semesters, 2 credits each. Th. 3:30-5.

276 History of the Hawaiian Islands Kuykendall
A general course in some detail, with emphasis on the period of the monarchy. Lectures, assigned reading, and exercises. First semester, 2 credits. T. 3:30-5.

310 Seminar in Historical Method
Designed to give Graduate students training in the evaluation of sources and the preparation of theses. Open to qualified Seniors and Unclassified students by consent of instructor. First semester, 2 credits. S. 10:30.

315 Seminar in Japanese History Sakamaki
Open to Graduates and Seniors majoring in history. First and second semesters, 2 credits each. Hours to be arranged.

327 Seminar in Hawaiian History Kuykendall
A seminar course open only by permission of the instructor to Graduate and Unclassified students. The course must be taken for both semesters. First and second semesters, 2 credits each. Hours to be arranged.

400 Thesis Research Staff
Graduate students engaged in the preparation of a Master’s thesis in History will register for this course. Credits to be arranged.

HOME ECONOMICS

H.S.249-349 Research Bazore
Problems according to preparation of student. Investigation of nutritional problems; animal and human feeding experiments. For Seniors and Graduates. Laboratory fee $5.00 per semester. Hours and credits to be arranged.

H.S.400 Thesis Research Staff
Hours and credits to be arranged.

LIBRARY SCIENCE

262 Organization and Administration of School Libraries Geiser
A course dealing with two aspects of school library service: (a) the relation of the library to the school program, and (b) the essentials of library organizations. First and second semesters, 2 credits each. S. 9:30-11:30.

MATHEMATICS

156-157 Navigation Castle
A general course in navigation including astronomy, charts, sailing directions, navigational instruments, chronometer errors, compass errors, compass correction, dead reckoning, and navigation by astronomical observation. First and second semesters, 2 credits each. Th. 7:30-9 p.m.
MUSIC

200 Music Appreciation  Thompson
Course to promote intelligent appreciation of great musicians and their masterworks. How to listen to music; history of the art of music; analysis of diverse forms of composition; demonstrations on various instruments with discussions of their functions in the symphony orchestra; lectures on masterpieces with illustrations on the phonograph. Special attention to the work of the Honolulu Symphony Orchestra. First and second semesters, 2 credits each. W. 7:30-9 p.m.

*262 Classicism and Romanticism in Music  Kahananui
A comparison will be made between the development of art, literature and music as influenced by environment. This will involve reading representative pieces of literature, viewing outstanding art contributions (painting, sculpture, architecture) and listening to the music of representative composers. First semester, 2 credits. F. 3-4:30.

267 Concert Orchestra  Hancey
This course will include a study of overtures, concert selections, accompaniments and light symphony. Members will be required to play at all public appearances of the orchestra. Open to advanced students by permission of the director. First or second semester, 2 credits. M.W. 2:30-4:30.

ORIENTAL STUDIES

Chinese

101B Intermediate Course for Occidental Students  Chun
Continues the study of 250 more foundation characters and idioms each semester. Reading, construction of characters and sentences, dictation, conversation, translation, and composition. First and second semesters, 3 credits each. M.W. 3:30-5.

200B Advanced Chinese for Occidental Students  Chun
Study of foundation characters and idioms. Reading of short stories, poems, and newspaper articles. Letter writing, composition, and translation. First and second semesters, 3 credits each. M. W. 7:30-9 p.m.

241 History of Oriental Religions  Lee
A study of the religious movements in the Orient, both ancient and modern. Lectures on Confucianism, Taoism, Buddhism, Shinto, Folk Cults, and Christian Missions in China and Japan. Library fee $1.00 per semester. Permission of instructor required. First and second semesters, 2 credits each. F. 3:30-5.

250-251 Chinese Literature in English  Lee
Lectures and discussions on the development of Chinese literature. Reading of the classical and modern masterpieces of Chinese prose and verse. During the first semester a study will be made of the language with which Chinese literature is composed and of the various forms and styles of writing. The poetical works of Li Po, Tu Fu, and Po Chi I will be studied somewhat in detail. The second semester will deal with the representative prose writers of the Sung, Ming, and Tsing periods. A detailed study will be made of two historical novels—"The Romance of the Three Kingdoms" and "All Men Are Brothers" and two plays—"The Pi Pa Ki" and "The Orphan of the Chao Family." Library fee $1.00. Permission of instructor required. First and second semesters, 2 credits each. M. 3:30-5.

300 Seminar in Chinese Historical Literature  Lee
Open only by permission of the instructor to Graduate and Special students. Hours and credits will be arranged for each individual student.

Japanese

102B First Year Colloquial Japanese for Occidental Students  Uyehara
Pronunciation and conversation, using the Romanized spelling. The use of simple words and idiomatic phrases in very day conversation. Reading and translation
of Romanized readers and magazines. First and second semesters, 3 credits each. M. W. 7:30-9 p.m.

103B Second Year Colloquial Japanese for Occidental Students Uyehara
Continuation of the first year. Reading, translation, and writing in Katakana, Hiragana, and simple Chinese characters. Study of Japanese language readers and magazines. First and second semesters, 3 credits each. T. Th. 7:30-9 p.m.

400 Thesis Research OrientaI Institute Staff
Graduate students engaged in the preparation of a Master's thesis in Oriental Studies will register for this course. Credits to be arranged.

PHYSICAL AND HEALTH EDUCATION

224 Physical and Health Education in the Secondary School Years Bennett
A course designed for prospective teachers of physical education and health in the secondary schools, with emphasis upon suitable activities for children of adolescent age. First or second semester, 2 credits. T. Th. 3:30-5.

PHYSICS

361 Physical Research Staff
Students possessing requisite qualifications will be permitted to pursue original investigations, under the supervision of the department. Hours and credits to be arranged.

400 Thesis Research Staff
Graduate students engaged in the preparation of a Master's thesis will register for this course. Hours and credits to be arranged.

POLICE ADMINISTRATION

153(b) Criminal Investigation Larsen
A study of notebook records, exhibits, blood stains, fingerprints, photographs, weapons, and the proper means of procuring, preserving, and presenting the facts. First semester, 2 credits. Th. 7:30-9 p.m.

257(b) Criminology Sherretz
The problem of crime and criminals; extent and cost of crime; the making of the criminal; the history of punishment; modern penal institutions with field trips to same; the machinery of justice. First semester, 2 credits. M. 7:30-9 p.m.

POLITICAL SCIENCE

271 Government of American Territories and Dependencies Bachman
Legal status, federal control, governmental organization and political problems of the territories and dependencies of the United States with special emphasis on the government of Hawaii. Prerequisites: Political Science, 150, 151. First and second semesters, 2 credits each. M. 7:30-9 p.m.

301 Seminar in Far Eastern International Relations Bachman
Prerequisites: Senior or Graduate standing and at least 15 hours of Political Science including Political Science 200 or 266. First and second semesters, 2 credits each. F. 3-4:30.

310 Seminar in the History of Political Theory George
Open to qualified Seniors and Graduate students. First semester, 2 credits. Hours and credits to be arranged.

400 Thesis Research Staff
Graduate students engaged in the preparation of a Master's thesis in Political Science will register for this course. Credits to be arranged.
PSYCHOLOGY

280 Social Psychology Babcock
The psychology of human relations. A survey of the various psychological factors which operate to determine the behavior of an individual in his many social relationships. Prerequisite: Psychology 150 or the equivalent. First semester, 2 credits. T. 3:30-5.

300 Reading Research Staff
An opportunity is offered for qualified Graduate students to work on research problems or do intensive reading in some field of Psychology. Registration only by permission of the staff member concerned. First or second semester, credits to be arranged.

RELIGION

100(b) Fundamental Problems Homan
In this course an attempt is made to consider the contribution of religion and morals to human happiness. Open to Freshmen and Sophomores only. 1 credit. S. 8:30.

210 Great Religious Personalities Homan
A careful study of some of the notable men and women in the field of religion; a character analysis of the people studied; a study of the contribution of each person to the life of today. A lecture course supplemented by selected readings. First semester, 2 credits. Th. 3:30-5.

250 Principles of Religious Education Homan
A study of the historical background of present-day religious education; a careful consideration of principles of organization and administration; agencies of religious education; buildings and equipment; leadership training; and principles for the religious education of children, young people and adults. First semester, 2 credits. M. 3:30-5.

SOCIAL SCIENCE

290 Traffic Safety Training Clarke
This course has been planned to meet the increasing demand for teachers trained in the fundamental principles of traffic safety. First and second semesters, 2 credits each. W. 3-4:30.

SOCIOLOGY

256 Race Relations In Hawaii Lind
A summary of research findings relative to race relations in Hawaii. Interracial marriage and the amalgamation of the races. The persistence of old world traits and the assimilation of American patterns. First semester, 3 credits. M. W. 7:30-9 p.m.

280-281 Individual Research in Sociology Staff
Open to advanced students of sociology capable of pursuing local research problems under guidance of the staff. First and second semesters. Registration by permission. Credits and hours to be arranged.

282-283 Directed Reading in Sociology Staff
Designed for advanced students of sociology desirous of acquainting themselves with the literature of the field. First and second semesters. Registration by permission. Credits and hours to be arranged.

350-351 Race and Culture Contacts in Hawaii Adams, Lind
A seminar course including lectures relating to race relations research. Intended for students engaged in the study of race and culture contacts in Hawaii. Open to Seniors or Graduate students with permission of instructor. First and second semesters, 2 credits each. T. 7:30-9 p.m.
400 Thesis Research  Staff

Research technique and the preparation of the thesis. Required of all candidates for the advanced degree. First and second semesters. Hours and credits to be arranged.

SOIL SCIENCE

300 Nutrient Availability in Soils  Magistad

This course will be conducted as a seminar, and will deal with current literature and experiments in progress. Base exchange, nitrogen and potash availability, and methods of determining availability will be considered. First semester, 1 credit. Hours to be arranged.

302 Research in Soil Bacteriology, Soil Chemistry  Magistad, Wadsworth

Open to qualified students in the Graduate School of Tropical Agriculture with the permission of the instructor. Hours and credits to be arranged.

350 The Nitrogen Cycle

This course will be conducted as a seminar, and will include a detailed, critical and comprehensive study of the various transformations of nitrogenous material in nature from microbiological and chemical standpoints. Practical aspects of these phases are to be stressed. Special attention to current literature. 1 credit. Hours to be arranged.

ZOOLOGY

210 Zoological Seminar  Zoological Staff

Presentation of seminar reports, reports upon research, or reviews of current zoological literature. Recommended for Juniors, Seniors and Graduates; may be taken repeatedly. One recitation hour a week. First and second semesters, 1 credit each. Th. 4:30.

270 Systematic Zoology  Edmondson

A systematic survey of the invertebrate and vertebrate fauna of Hawaii (exclusive of insects) in which structure, phylogenetic relationships and distribution are emphasized. Attention may be concentrated on one or a few groups, if desirable. Prerequisite: Two years of zoological work. Laboratory fee, $1.00 per credit hour. First and second semesters. Hours and credits to be arranged.

300 Research  Staff

Students with sufficient preparation are encouraged to undertake the investigation of special zoological problems with reference to land, fresh water, or marine animals. Laboratory fee not less than $5.00 per semester. Hours and credits to be arranged.

301 Principles of Applied Entomology

A survey of problems in economic entomology from the standpoint of history as well as recent advances. This course will be given in collaboration with members of the Graduate School of Tropical Agriculture and others. Prerequisites: Zoology 254-255 or consent of instructor. Three lectures per week. First and second semesters, 3 credits each. Hours to be arranged.

400 Thesis Research  Staff

Students engaged in the preparation of the Master's thesis will register for this course. Credits to be arranged.

CORRESPONDENCE COURSE

Educ. E.203 Vocational Agriculture Education  Armstrong

This course is designed to give concrete help to those teaching vocational agriculture in Hawaii. Fundamental principles; organization and methods adapted to this type of education; related subjects; extra-curricula activities. Registration by permission of instructor. 1 or 2 credits. (For further information write directly to instructor.)