UNIVERSITY OF HAWAII

1953 - 1955

GRADUATE SCHOOL

ANNOUNCEMENT

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September 1953
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UNIVERSITY CALENDAR*

1953

Sept. 19, Saturday—8:00 A.M.-1:00 P.M. Registration of Graduate Students
Sept. 21, Monday—2:30-5:00 P.M. 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. 15, Friday............................................................ Last day for final examination, Ph.D. degree
Jan. 16, Saturday......................................................... Last day of instruction, first semester
Jan. 19, Tuesday.......................................................... Final examinations begin
Jan. 22, Friday............................................................ Last day for final examination, Master's degree
Jan. 28, Thursday........................................................ All theses due at Graduate School Office
Jan. 29, Friday............................................................ First semester ends
Feb. 13, Saturday—8:00 A.M.-1:00 P.M. Registration of Graduate Students
Feb. 15, Monday—2:30-5:00 P.M. 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, April 17, Saturday................................. Easter recess
Apr. 30, Friday............................................................ Second deficiency reports due
May 17, Monday.......................................................... Last day of withdrawal from courses
May 27, Thursday........................................................ Last day for final examination, Ph.D. degree
May 29, Saturday........................................................ Last day of instruction, second semester
May 31, Monday.......................................................... Holiday following Memorial Day
June 1, Tuesday.......................................................... Final examinations begin
June 3, Thursday........................................................ Last day for final examination, Master's degree
June 9, Wednesday...................................................... All theses due at Graduate School Office
June 10, Thursday........................................................ Second semester ends
June 11, Friday.......................................................... Kamehameha Day (Holiday)
June 13, Sunday.......................................................... Baccalaureate Service
June 16, Wednesday..................................................... Commencement

*The 1954-'55 Calendar should correspond, allowing for the usual yearly calendar shift of one day forward.
ADMINISTRATION

Gregg M. Sinclair, LL.D. ........................................ President of the University
Paul S. Bachman, Ph.D. ........................................... Vice-President and Dean of Faculties
Thayne M. Livesay, Ph.D. ....................................... Dean of the Graduate School
Edmund F. Spellacy, Ph.D. ........................................ Veterans' Adviser
Carl G. Stroven, Ph.D. ........................................... Librarian
Helen B. MacNeil, M.A. ........................................... Registrar
Joseph M. Skorpen, B.A. ........................................... Treasurer
Katharine N. Handley, M.S.W. .......................... Director of the School of Social Work

GRADUATE COUNCIL


BOARD OF REGENTS

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GRADUATE FACULTY

Jacob Adler, B.S. ........................................... Associate Professor of Business
Abe Arkoff, Ph.D. ........................................... Assistant Professor of Psychology
Phillip S. Atkinson, M.A. .......................... Instructor of Business Education
Paul S. Bachman, Ph.D. ........................................... Professor of Government
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Charles S. Bouslog, Ph.D. ........................................... Associate Professor of English
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WALTER CARTER, Ph.D.  
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WALTER CARTER, Ph.D.  
JOHN E. CAVELTI, Ph.D.  
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Robert A. Kimmich, M.D. ................................................ Lecturer in Social Work
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Kenneth G. Kingrey, M.A ............................................... Assistant Professor of Art
Arthur L. Kirkpatrick, M.A ............................................. Assistant Professor of Economics
M. Helena KLINKMAN, M.A ............................................. Assistant Professor of Psychology
Alfons L. Korn, M.A ...................................................... Associate Professor of English
Richard H. Kosaki, M.A ................................................ Instructor in Government
Henrietta C. Krantz, M.A ............................................... Assistant Professor of Speech
Orland S. Lefforge, M.A ................................................ Assistant Professor of Speech
Amos P. Leib, M.A ....................................................... Assistant Professor of English
Andrew W. Lind, Ph.D .................................................... Professor of Sociology
Thayne M. Livesay, Ph.D ............................................... Professor of Psychology
Marion L. Lohman, Ph.D ................................................ Associate Professor of Botany
James K. Lowers, Ph.D .................................................. Associate Professor of English
Katharine Luomala, Ph.D ............................................... Professor of Anthropology
Curtis A. Manchester, Ph.D ........................................... Associate Professor of Geography
Arthur J. Marder, Ph.D ............................................... Professor of History
Robert M. Martin, Ph.D ................................................ Assistant Professor of Education
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Donald C. Matthews, Ph.D ............................................ Associate Professor of Zoology
Harold E. McCarthy, Ph.D ............................................. Associate Professor of Philosophy
Donald C. McGuire, Ph.D ............................................. Assistant Professor of Agriculture
Harue O. McVay, M.A .................................................... Instructor in Art
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Hester A. Robinson, M.A ................................................ Associate Professor of Art
Morton M. Rosenberg, Ph.D ........................................... Professor of Agriculture
Harold St. John, Ph.D ................................................... Professor of Botany
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<tr>
<td>Shunzo Sakamaki, Ph.D.</td>
<td>Associate Professor of History</td>
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<td>Allan F. Saunders, Ph.D.</td>
<td>Professor of Government</td>
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<td>Paul F. Scheuer, Ph.D.</td>
<td>Assistant Professor of Chemistry</td>
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<td>Oscar E. Sette, M.A.</td>
<td>Lecturer in Zoology</td>
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<td>G. Donald Sherman, Ph.D.</td>
<td>Professor of Agriculture</td>
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<td>Martin Sherman, Ph.D.</td>
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<td>Kôbe Shoji, Ph.D.</td>
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<td>Mildred Sikkema, M.S.S.</td>
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<td>Elbert G. Smith, Ph.D.</td>
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<td>Joseph F. Smith, M.A.</td>
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<td>Cheuk-Woon Taam, Ph.D.</td>
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<td>Albert L. Tester, Ph.D.</td>
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<td>Stanmore B. Townes, Ph.D.</td>
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<td>Associate Professor of Drama and Theatre</td>
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<td>Daniel W. Tuttle, M.A.</td>
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<td>Yukuo Uyehara, M.A.</td>
<td>Associate Professor of Asiatic and Pacific Languages</td>
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<td>Pieter B. van Weel, Ph.D.</td>
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<td>W. Edgar Vinacke, Ph.D.</td>
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<td>Otto R. Young, Ph.D.</td>
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<td>Harley H. Zeigler, Ph.D.</td>
<td>Professor of Religion</td>
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<td>Harry Zeitlin, Ph.D.</td>
<td>Assistant Professor of Chemistry</td>
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GENERAL INFORMATION

Because of the strategic location of the Territory of Hawaii and its unique mixture of the races and cultures of the Occident, Orient, and South Pacific, the Graduate School of the University of Hawaii is able to provide unusual opportunities for advanced study in certain of the natural and social sciences, and of economic, social, and administrative problems of Pacific island peoples.

The Hawaiian economy is largely dependent upon tropical agriculture—sugar and pineapple production. The highly technical character of these industries has brought together a large and competent group of scientists in the related biological and physical sciences. University instructional personnel and laboratory equipment are supplemented by the staffs and facilities of co-operating research institutions such as the Experiment Station of the Hawaiian Sugar Planters' Association, the Pineapple Research Institute, the Hawaii Agricultural Experiment Station, and the Bernice P. Bishop Museum, with its large collections of Hawaiian and South Pacific plants and insects.

The large proportion of people of Oriental ancestry in the population of Hawaii and the close ties with the Orient have stimulated interest in the cultures and civilizations of the Far East. The University has an outstanding collection of Orientalia, with a library of some 83,533 volumes in Chinese, Japanese, and Korean. The excellent Asiatic collection of the Honolulu Academy of Arts is open to University students. The University also offers special facilities for the study of Oriental languages and the translation of source materials. Racial differences are studied by the members of the Psychological Clinic and Department of Psychology and race relations by the Hawaii Social Research Laboratory of the Sociology Department.

Ready access to the ocean affords students of marine zoology a natural laboratory for the study of tropical and subtropical marine life. The Hawaii Marine Laboratory offers facilities for graduate students. Scientists on the staff of the United States Fish and Wildlife Service Laboratory, located on the campus, co-operate with the regular faculty in offering a graduate program in marine zoology.

Excellent library facilities are provided by a number of institutions. The University Library contains 243,395 bound volumes and 495,557 unbound parts and pamphlets and serves as a depository for government publications. Included in the Library are extensive collections of research materials relating to the Pacific and the Far East. Publications in Chinese, Japanese, and Russian are catalogued in English, and translation facilities are available. Other collections open to graduate students are the Library of Hawaii, a general public library in downtown Honolulu; the reference library on Pacific and especially Polynesian history and culture at the Bishop Museum; the Hawaiian Mission Children’s Library, with material on missionary activities in the Pacific; the Public Archives, emphasizing Hawaiian history; the library of the Academy of Arts; and libraries of the Hawaiian Sugar Planters’ Association and the Pineapple Research Institute of Hawaii. In addition, the Hawaiian Volcano Observatory at Kilauea Crater has a collection of publications relating to volcanology and seismology. Efforts have been made by these libraries to avoid needless duplication in their respective collections.
ADMISSION

Students with baccalaureate degrees from accredited institutions of higher learning (American or foreign) may apply to the Dean of the Graduate School for admission. Such applications should be accompanied by official transcripts of undergraduate record and of any graduate work completed. Graduates of institutions other than the University of Hawaii may also be requested to supply the results of the Graduate Record Examination. All admissions are provisional until such records are deposited with the Graduate School. Admission to the Graduate School simply permits registration in graduate courses for which the student's previous training has prepared him.

ADMISSION TO CANDIDACY

Admission to candidacy, after the student has enrolled in the University, requires the recommendation of a qualifying committee, usually composed of the graduate faculty members of the major department. Prospective candidates should inform the office of the Graduate School as soon as possible after the initial registration, so that they may be notified as to the time and place of the qualifying conference. Ordinarily, no one will be considered unless he had an average grade of B or better for all undergraduate courses in the major, or in all courses taken during the last two years of undergraduate work. Those who fail to meet these standards may be allowed to register as unclassified graduate students for a semester in order to demonstrate whether or not they can do satisfactory work at the graduate level. If this semester's work is adequate, the subsequent qualifying committee may recommend that the rule be waived.

Specifically, the qualifying conference is intended to: (1) determine the adequacy of the undergraduate background; (2) indicate courses needed to meet any inadequacies of preparation; and (3) approve the area and approximate title of the thesis problem. This last step may be postponed when the student is not prepared to submit a thesis proposal and an interim adviser appointed.

Candidates who fail to complete all requirements within five years after admission to candidacy must again qualify for candidacy, and those who fail to complete successfully two or more courses taken after admission to candidacy are automatically dropped from candidacy.

Students not interested in advanced degrees and those working for the professional certificate of the Territorial Department of Public Instruction need not meet the requirements for admission to candidacy.

REGISTRATION AND GRADES

Graduate students may not register for more than 16 credit hours in a semester nor for more than 7 in a six-week summer session. Graduate assistants, whose duties ordinarily require 20 hours per week, are restricted to 8 hours of course work with a maximum of 9 in exceptional cases. Courses taken by audit are included in the designated maximum.

Registration after the officially designated period is permitted only in exceptional cases for valid reasons, and the procedure is as follows: (1) during the first seven days following the last official day of registration, written ap-
proval must be obtained from the Dean of the Graduate School; (2) subsequent to the seventh day, written approval must be obtained from the Dean and the instructor concerned, and students may enroll only in individual reading or research courses, the thesis course (400), or as auditors.

Change of registration is made on an official blank issued by the office of the Graduate School. This blank must be returned to the Registrar bearing the required signatures. Complete withdrawal from the University is applied for on a form issued by the Registrar, and this blank must be returned to that office with the proper signatures.

During the first five weeks of a semester a formal withdrawal is marked W on the student's record. A withdrawal at a later date, but prior to the last two weeks of class instruction in a semester, is marked W if the work of the student in the course 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 the Dean may permit complete withdrawal from the University for legitimate reasons. A student who ceases to attend a course without complying with the official withdrawal procedure receives a failure in the course.

The Graduate School reserves the right to deny further registration to any student whose work is below the required level.

Seniors in the University of Hawaii may carry a limited amount of graduate work during their last semester as undergraduates, provided that the total number of credit hours for which they are registered during that semester does not exceed 16.

Courses numbered 300-399 are intended primarily for graduate students and carry grades of H (honors), S (satisfactory), or U (unsatisfactory). Certain courses numbered 200-298 carry graduate credit provided a grade of A or B is earned. Graduate students enrolled in undergraduate courses are graded on the undergraduate scale of A to F. No credit is granted in thesis research courses (number 400 in each field) until the thesis has been accepted. Failure to make satisfactory progress on a thesis does not entitle a student to a refund of tuition fees.

TUITION AND FEES

Tuition and registration fees for graduate students are the same as those for undergraduates. Students registered for 12 or more credit hours in any semester pay $100 for tuition and $10 for registration per semester. Students registered for fewer than 12 credit hours in any semester and all students in summer sessions pay $8.00 per credit hour. Laboratory and course fees vary with the individual course. Persons who register after the announced day of registration pay a fee of $1.00.

A fee of $2.00 is charged for each change of registration after the official registration period, unless such changes are due to reasons beyond the control of the student.

All recipients of advanced degrees are required to pay a diploma fee of $5.00 and an additional fee of $4.00 to cover the cost of binding two copies of the thesis.
LIVING ACCOMMODATIONS AND EXPENSES

The University is quite limited in housing facilities. Women may live in the new women’s residence, Mary Dillingham Frear Hall, at $90 per semester. For men the Men’s Housing Barracks and the Charles Atherton House (a YMCA dormitory adjoining the campus) provide accommodations. Requests for assignment to University facilities should be addressed to the office of Student Residences, Administration 126, University of Hawaii, Honolulu 14, Hawaii; for Atherton House to the Director, Charles Atherton House, 1810 University Avenue, Honolulu 14, Hawaii. To supplement campus housing the University maintains a file of off-campus dormitories, rooming houses, single rooms in private homes, and apartments.

There are no campus housing facilities for married students.

The University cafeteria serves three meals a day, six days a week, at an average cost of $2.00 per day.

Minimum expenses of the average student are estimated at from $800 to $1,200 a year for board, room, tuition, registration, course fees, and books. These estimates do not include the cost of clothing, laundry, transportation, and other personal items.

GRADUATE ASSISTANTSHIPS AND SCHOLARSHIPS

The University offers a number of assistantships to graduates of accredited institutions of higher learning who have satisfactory scholastic records and an adequate undergraduate background in the major field. Graduate assistants serve as readers or part-time laboratory assistants and carry a limited program of study. The initial remuneration is $1,692, payable in twelve monthly installments, and exemption from registration and tuition fees. The period of service is September 15 to June 15. Applications should be addressed to the Dean of Faculties and should be filed before April 15. Each application must be accompanied by a transcript of academic record, a photograph, and a letter of recommendation from a professor under whom the applicant has taken his major courses.

A limited number of tuition scholarships are available for students from abroad. Application should be made to the Dean of the Graduate School.

THESIS REQUIREMENT

A thesis in the major field is required of all candidates for advanced degrees. When the thesis problem has been approved by the department graduate faculty, the department chairman informs the office of the Graduate School of the candidate’s name and proposed thesis title and suggests a thesis committee, including one member from outside the department. The thesis committee, appointed by the Dean of the Graduate School, subsequently approves the thesis outline, procedure, and bibliography and forwards five signed copies to the office of the Graduate School for consideration by the Graduate Council. After approval of the outline by the Council, the candidate may register for the thesis research course (400).

A graduate student may undertake a research problem when the subject is primarily in one field but has close relationship to other fields; in such an
event, at the time the student submits his thesis proposal, it must be ensured that: (1) the student possesses sufficient knowledge of the related field or fields to be able to deal competently with the research and thesis; and (2) a representative of the related field is placed on the student's thesis committee.

After the thesis committee has been appointed, the candidate should look to the chairman of this committee for primary direction regarding research methods and the preparation of results. It is the responsibility of the chairman to see that all members of the committee are kept informed of the scope, plan, and progress of both the research and the thesis. A brochure on instructions for thesis preparation is available at the office of the Graduate School.

Copies of the completed thesis must be submitted to committee members at least two weeks prior to the date of the final examination. The original and first carbon copies must be deposited with the secretary of the Graduate School before the close of the session in which the degree is to be conferred.

A majority of the members of the thesis committee must approve both the thesis and the examination on the thesis. A minority member has the right of appeal to the Graduate Council for a final decision. The chairman must ensure that the final form of the thesis, including revisions and amendments agreed upon, is acceptable to a majority of the committee. Only the chairman is required to sign the thesis. The committee members express their approval or disapproval on a special form issued by the office of the Graduate School.

Department chairmen have the privilege of being ex-officio members of all thesis committees in the department.

THE PROFESSIONAL CERTIFICATE

The Department of Public Instruction of the Territory of Hawaii issues the professional teaching certificate to teachers in the employ of the Department who, after receiving the Bachelor of Education degree or its equivalent, earn a total of 30 semester hours, 7 of which must be in graduate courses (300-399) in education, including Education 340 (Philosophy of Education) and 3 in psychology—Psychology 351 (Advanced Educational Psychology). For purposes of such certification, the Bachelor of Education equivalent is defined as a bachelor's degree with 18 semester hours in education courses and practice teaching under the supervision of an accredited teacher training institution.

SCHOOL OF SOCIAL WORK

The University offers a two-year graduate program for prospective social workers. The first year is basic to all types of social work and includes fundamental principles underlying all fields of practice in the profession.

Candidates must submit an application, a statement of why they are interested in social work, and transcripts of academic work taken at institutions other than the University of Hawaii. Notice of acceptance will be sent to successful candidates, and written corroboration of intention to register is requested.

Admission of employed social workers to certain courses is permitted and encouraged in order to assist the social agencies of the community in their staff development programs. Admission to courses does not admit part-time students.
as degree candidates. If such students later desire to become degree candidates, they must follow regular admission procedures. Not more than 12 semester hours completed while a part-time student may be applied toward the degree.

Admission to the School of Social Work, in addition to the baccalaureate degree (see page 8), requires the following: (1) a minimum of 30 semester hours of undergraduate social science, with 6 hours each from economics, government, psychology, and sociology, and (2) evidence of personal qualifications necessary for success in social work. University of Hawaii graduates are also expected to have had Social Work 200.

FOREIGN STUDENTS

It is expected that consular officers will issue visas only to foreign students who have sufficient command of the English language to carry on successfully in an American university. The University of Hawaii Graduate School reserves the right to deny admission or refuse further registration to students who are deficient in this respect.
Dean Livesay Assists President Sinclair in Presentation of Diplomas at Commencement
The University of Hawaii confers the degrees of Master of Arts, Master of Business Administration, Master of Education, Master of Fine Arts, Master of Science, and Master of Social Work. The Master of Arts degree is given in Anthropology, Art, Drama and Theatre, Economics, English, Far East Studies, Geography, Government, History, Mathematics, Pacific Islands Area Studies, Philosophy, Psychology, Sociology, and Speech; the Master of Science degree in Bacteriology, Botany, Chemistry, Entomology, Genetics, Nutrition, Physics, Soil Science, Vegetable Crops, and Zoology; and the Master of Fine Arts degree, for creative production rather than research, in Art, Drama and Theatre, English, and Speech.

Following are the minimum requirements for the master's degrees. Additional requirements are stated by departments in the latter half of this bulletin.

RESIDENCE

The minimum residence requirement is one academic year (two semesters) or four six-week summer sessions. All work must be completed within the seven years preceding the date upon which the degree is conferred.

COURSE CREDIT

Thirty semester hours are required, of which 6 are ordinarily allowed for thesis research. A maximum of 12 may be counted for thesis research in the Master of Science areas.

A minimum of 6 credits, exclusive of thesis research, must be earned in courses numbered 300-399, including at least one graduate seminar related to the major field. A maximum of 4 credits may be allowed in the directed reading and research (300) course, other than thesis research. Some departments require a course in methods of research and thesis preparation. A reading knowledge of a foreign language is required in some fields.

A maximum of 8 semester hours of graduate credit may be transferred from accredited institutions, when approved by the major department.

No graduate credit is allowed for extension courses.

Candidates must be registered for the thesis research course (400) during the session in which the work for the degree is to be completed.

EXAMINATIONS

Graduate students are expected to take all examinations in courses for which they desire credit.

A comprehensive examination covering the fundamentals of the major field is required of all master's candidates after they have completed 9 to 12 semester hours of graduate work at the University of Hawaii. Failure to pass the comprehensive examination after two trials automatically drops a student from candidacy.

A final oral examination on the thesis and related material, conducted by
the thesis committee and open to all faculty members, is required. As an alternative, the committee chairman may have the candidate present his results at a departmental graduate seminar, but all members of the thesis committee must be present. Candidates should notify the office of the Graduate School at the beginning of the semester or summer session in which the work is to be completed, and arrangements for the final examination should be made at least one month prior to the end of the term.

SUMMARY OF PROCEDURE

1. Application for admission to the Graduate School.
2. Filing of notice of intention to work for a degree.
3. Qualifying conference.
4. Admission to candidacy and appointment of
   (a) thesis committee or
   (b) interim adviser.
5. Comprehensive examination.
8. Final examination.
10. Granting of the degree.

THE DOCTOR OF PHILOSOPHY DEGREE

The degree of Doctor of Philosophy is the highest degree conferred in course. It is a research degree and is conferred only for scholarly attainment and an original contribution to knowledge in a special field.

Candidates are accepted only in Botany, Chemistry, Entomology, Genetics, Soil Science, and Zoology (marine aspects)—areas in which the teaching staff, library and laboratory equipment, and co-operative relationships with other research institutions make it possible to offer thorough training. A majority of these areas are closely related to tropical agriculture, which affords many vital research problems.

Minimum requirements are stated below. Additional requirements are stipulated by the departments.

RESIDENCE AND CREDIT

The minimum residence period is three academic years (six semesters) or the equivalent. One year's credit is allowed for a master's degree if approved by the doctoral committee. At least one academic year of 30 semester hours of course work beyond the master's degree must be completed at the University of Hawaii.

No graduate credit is allowed for extension courses.

Candidates must be registered for the thesis research course (400) during the session in which the work for the degree is to be completed.

LANGUAGE REQUIREMENT

A reading knowledge of two foreign languages useful in the student's research and approved by the doctoral committee is required. Competence must
be certified by the appropriate language departments. Failure to meet this requirement by the end of the fourth semester results in a reduced program of graduate work until such time as it is satisfied.

EXAMINATIONS

In addition to the regular course examinations, doctoral candidates must pass a searching oral, or oral and written, comprehensive examination in the major field and a final oral examination in defense of the thesis. The comprehensive examination must be taken by the beginning of the academic year in which the degree is to be conferred.

Arrangements for the final examination must be made at least one month in advance, and it must occur at least two weeks before the end of the session. The doctoral committee conducts the comprehensive and final examinations, and the latter is open to all members of the faculty.

THESIS

In addition to the specifications under thesis requirement (see page 10), the doctoral dissertation is expected to be a scholarly presentation of an original contribution to knowledge resulting from independent research and should be suitable for publication.

DOCTORAL COMMITTEE

Following admission to candidacy and the selection of a research project, the subsequent work of a Ph.D. candidate is under the supervision of a doctoral committee composed of not less than five members of the Graduate Faculty. This committee determines the required languages and necessary course work, advises in the research, and conducts the comprehensive and final examinations.

SUMMARY OF PROCEDURE

1. Application for admission to the Graduate School.
2. Filing of notice of intention to work for a degree.
3. Qualifying conference.
4. Admission to candidacy and appointment of
   (a) doctoral committee or
   (b) interim adviser.
5. Approval of thesis proposal.
7. Comprehensive examination.
11. Granting of the degree.
THE FIELDS OF GRADUATE STUDY
REQUIREMENTS AND COURSES

Courses numbered 200-298 are upper division courses but open to graduate students when needed to complete a major field. Courses numbered 300 and above are graduate courses.

Graduate credit for courses not listed in this bulletin may be obtained only by approval of the Dean of the Graduate School.

As the Graduate Bulletin covers a two-year period and courses vary considerably from year to year, only the number and title of courses are given. Graduate students should consult the time schedules issued prior to the opening of sessions for information on courses offered, credit, instructors, etc.

In addition to the minimum requirements stated in the forepart of this bulletin, specific requirements are here indicated by fields of study.

ANTHROPOLOGY

LEONARD E. MASON, M.A., Graduate Council Representative

Twenty-four semester hours of undergraduate credit in anthropology, of which 6 may be from closely related fields, are required. In addition, introductory courses in geography, psychology, sociology, and zoology are recommended.

Courses for the graduate major must be selected from those listed below. Required courses are marked with an asterisk. A maximum of 6 credits may be earned in related courses in economics, geography, government, history, psychology, and sociology.

ANTHROPOLOGY

250 Hawaiian Culture
251 The Polynesians and Their Culture
252 Peoples of the Pacific
253 Micronesia in a Modern World
254 Peoples of Southern Asia
255 Peoples of Northern Asia
256 The American Indian
257 Peoples of Africa
265 Primitive Society
266 Culture Conflict in Pacific Dependencies
267 Primitive Religion
268 Primitive Art
269 Folklore
270 Archeology
271 Anthropological Classics
272 Economic Life of Primitive Peoples
273 Physical Anthropology
*300 Directed Reading or Research
310 Seminar in Oceania
311 Applied Anthropology
312 Techniques of Field Work
*400 Thesis Research
The Master of Arts degree is given only in the field of Far Eastern Art and requires an adequate undergraduate background in the history of art, both East and West, and a reading knowledge of French or German, with an elementary knowledge of the other in either case.

The Master of Fine Arts degree is offered for creative studio work in fine arts (drawing, painting, graphics), ceramics, and weaving and requires an undergraduate major in art and an adequate working knowledge of the history of art covering all major movements and styles but not requiring a specialist's detail within the periods. Candidates in fine arts should have proficiency in one or more of the standard painting, drawing, or graphic media and talent sufficient for creative work approaching a professional level. Candidates in ceramics should have a working knowledge of glaze calculations, loading and firing kilns (including design and construction), and reasonable competence in wheel throwing, ceramic sculpture, or creative work by casting, jiggering, or pressing. Candidates in weaving should be familiar with design and the uses of color and texture, must demonstrate proficiency in warping, threading, and weaving on professional-type looms, and must have a working knowledge of loom construction and historical development.

Courses for the graduate major must be selected from those listed below. Courses marked with a dagger are required in painting; those marked with an asterisk are required in ceramics; and those marked with a double dagger are required in weaving. The department chairman will advise as to required courses in art history. A maximum of 10 hours may be earned in certain advanced courses in anthropology, classics, English, history, music, and philosophy, or other fields, with the approval of the committee chairman.

The Master of Arts thesis (History) may be presented with or without illustrative studio work. The Master of Fine Arts thesis will ordinarily consist of two parts: (1) a project or group of projects in the chosen creative field, and (2) a written presentation in the nature of an extended catalogue or a technical or critical essay in support of the creative work.
257 Advertising Art
260 Advanced Ceramics
261 Ceramic Research and Design
265 Water Color Painting
266 Graphic Arts
268 Landscape Painting
269 Life Class
272 Illustration
273 Design Materials
276 Advanced Weaving
280-281 Advanced Oil Painting (Still Life and Figure)
300 Directed Work
*360 Ceramic Design and Research
†376 Design and Research in Weaving
†380 Problems in Painting
‡†390 General Seminar
395 Seminar in Oriental Art
‡†400 Thesis Research

BACTERIOLOGY

GEORGE W. CHU, Sc.D., Graduate Council Representative (1953-54)
OSWALD A. BUSHELL, Ph.D., Graduate Council Representative (1954-55)

A minimum of 18 semester hours of undergraduate credit in bacteriology, basic courses in botany and zoology, the specific courses general chemistry, organic chemistry, and college physics, and a foreign language are required.

Courses for the graduate major must be selected from those listed below. In addition, the following related courses are required: biochemistry, mycology, parasitology, biometry, and preparation of scientific manuscripts. Recommended, but not required, are plant pathology, agricultural chemistry, medical entomology, and general physiology.

BACTERIOLOGY

250 Economic Microbiology
260 Medical Bacteriology
262 Laboratory in Medical Bacteriology
264 Immunology
300 Directed Research
312 Seminar
400 Thesis Research

BOTANY

HAROLD ST. JOHN, Ph.D., Graduate Council Representative

A minimum of 18 semester hours of undergraduate credit in botany, including courses in cryptogams, physiology, taxonomy, and anatomy or morphology, are required. The undergraduate program must also include basic courses in bacteriology and chemistry.

These basic requirements are applicable both to the M.S. and Ph.D. degrees.

Courses for the major must be selected from those listed below. Required

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7x195 ,...

19 courses are marked with an asterisk. A knowledge of French, German, or Latin may be required for the M.S. degree, and two are required for the Ph.D. degree. All candidates must register for the graduate seminar, Botany 310.

**BOTANY**

- 201 Systematic Botany of Flowering Plants
- 202 Taxonomy and Exploration
- 230 Phycology
- 253 Plant Ecology
- 254 Advanced Taxonomy
- 259 Mycology
- 262 Structure of Economic Plants
- 263 Plant Pathology
- 264 Plant Pathology Technique
- 268 Plant Microtechnique
- 269 Plant Anatomy
- 273 Advanced Plant Physiology-Biophysics
- 274 Laboratory Technique in Biophysics
- 275 Advanced Plant Physiology-Biochemistry
- 276 Laboratory Technique in Biochemistry
- 279 Morphology of Cryptogamic Plants
- 281 Cytology
- 282 Biological Photography
- 283 Elementary Plant Physiology
- 300 Directed Research
- *310 Botanical Seminar
- 312 Advanced Botanical Problems
- 330 Molds, Yeasts, and Actinomycetes
- 331 Experimental Marine Botany
- 351 Plant Physiology Seminar
- 358 Advanced Mycology
- 365 Taxonomy of the Dicotyledons
- 367 Taxonomy of the Higher Dicotyledons
- 378 Nomenclature
- 379 Plant Disease Literature
- 380 Cytogenetics
- *400 Thesis Research

**BUSINESS ADMINISTRATION**

*LEE GLOVER, M.A., Graduate Council Representative*

The degree of Master of Business Administration requires a minimum of 24 semester hours of undergraduate courses in business and economics, including elementary principles of economics, money and banking, business statistics, and elementary accounting.

Courses must be selected from those listed below. Required courses are marked with an asterisk. One or more courses in economics, and courses in related fields up to a maximum of 6 credits, may be elected.

**BUSINESS**

- 210 Elements of Industrial Relations
Candidates for advanced degrees (M.S. and Ph.D.) must have had a minimum of 36 semester hours of undergraduate credit in chemistry, including courses in general chemistry, organic chemistry, qualitative analysis, quantitative analysis, and physical chemistry. Students whose undergraduate major did not require physical chemistry may take the course for graduate credit.

Courses in the major must be selected from those listed below. Required courses are marked with an asterisk. The thesis research may be in inorganic, analytical, organic, biological, or physical chemistry.

**CHEMISTRY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>236</td>
<td>Agricultural Chemistry</td>
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<tr>
<td>238</td>
<td>Advanced Inorganic Chemistry</td>
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<tr>
<td>246</td>
<td>Industrial Chemistry</td>
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<tr>
<td>*249</td>
<td>Advanced Organic Chemistry</td>
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</tbody>
</table>
For an advanced degree in drama and theatre, candidates should present an adequate undergraduate background in the humanities, preferably in English, other languages and literatures, art and music, and in theatre or speech. Ordinarily, at least 30 semester hours of credit should have been earned in these fields. Additional work in history, philosophy, psychology, and sociology is desirable; to a limited extent, work in the latter areas may be substituted for that of the first-mentioned fields.

Courses must be selected from those listed below. A total of at least 6 credits must be from Drama and Theatre 220-221, 230-231, 240, and 245, and 6 from 250, 260, and 265. All candidates are required to take either Drama and Theatre 320 or 350, and 400.
ECONOMICS
LEE GLOVER, M.A., Graduate Council Representative

A minimum of 24 semester hours of undergraduate work in economics and business, including elementary principles, money and banking, and either business statistics or elementary accounting, is required.

Courses must be chosen from those listed below. One or more courses in business, and courses in related fields up to a maximum of 6 credits, may be elected. All candidates are required to take either Economics 310 or 315, and Economics 400.
ECONOMICS

258 Economic Resources of the United States
261 Public Finance
262 Government Finance in Hawaii
264 Intermediate Economic Theory
265 Government and Business
266 Fiscal Policy and Management
270 Public Utilities
275 Trends in Labor-Management Relations
281 Labor Problems
282 American Trade Unionism
283 Labor Legislation
285 International Trade and Finance
287 Public Relations
289 Arbitration of Grievances
291 Agricultural Economics
292 Land Economics
294 Research in Industrial Relations
296 History of Economic Thought
300 Directed Reading or Research
310 Seminar in Labor Problems
315 Seminar in Economic Problems
400 Thesis Research

EDUCATION

ROBERT W. CLOPTON, Ph.D., Graduate Council Representative

The Bachelor of Education degree or the equivalent (including credit for supervised teaching) and successful teaching experience are required as a background for the Master of Education degree.

In general, courses must be selected from those listed below. A limited number of other upper division education courses and a maximum of 10 hours in fields other than education may be allowed when they are of special relevance to the research. Required courses are marked with an asterisk.

EDUCATION

292 Workshops
300 Directed Reading or Research
326 Administration of the Secondary School
327 Administration of the Elementary School
328 Supervision of Instruction
329 Curriculum Construction
332 Clinical Procedures in Reading
334 Teaching English, Secondary
*340 Philosophy of Education
345 Seminar in Philosophy of Education
*350 History of Education
362 Organization and Administration of Guidance
363 Seminar in Educational Administration
364 Tests and Inventories in Guidance
365 Seminar in Supervision of Instruction
Candidates are expected to present 24 semester hours of undergraduate credit in English, or closely related subjects, including courses in English composition, introduction to English literature, American literature, and Shakespeare. In addition, courses in English history or in classical literature are desirable. A fair reading knowledge of an ancient or modern European language is required. Courses for the graduate program are to be selected from the following list. Required courses are marked with an asterisk.

**ENGLISH**

Carleton Green, Ph.D., Graduate Council Representative

Candidates for the M.S. or Ph.D. degree in entomology should have com-
pleted a minimum of 18 semester hours of undergraduate credit in entomology and zoology, including general zoology, general entomology, economic entomology, general physiology, insect morphology, and systematic entomology. In addition, they should have credit for two years of chemistry (including inorganic and organic), one year of physics, and courses in algebra, botany, and genetics.

Courses for the graduate program must be selected from those listed below. Certain courses in closely related fields may be allowed. Required courses are marked with an asterisk. For the Ph.D. degree, additional work will be determined by the doctoral committee.

**ZOOLOGY AND ENTOMOLOGY**

240 Introduction to Ecology  
*254 Insect Morphology  
*255 Systematic Entomology  
256 Medical and Veterinary Entomology  
257 Scale Insects  
*273 Economic Entomology  
276 Biometry  
277 Biometrical Analysis  
280 Comparative Anatomy of Invertebrates  
284 Comparative Invertebrate Physiology  
286 History of Zoology  
*291 General Physiology  
(For Genetics, see Agriculture 254 and 262)  
300 Directed Research  
*311 Entomology Seminar  
*315 Zoological Literature  
*316 Preparation of Scientific Manuscripts  
350 Advanced Systematic Entomology  
352 Insect Ecology  
353 Biological Control of Pests  
354 Insect Toxicology  
355-356 Insect-Transmitted Diseases of Plants  
357 Acarology  
387 Population Dynamics  
392 Physiological Ecology  
*400 Thesis Research

**FAR EAST STUDIES**

YUKUO UYEHARA, M.A., Graduate Council Representative

The minimum undergraduate requirement in the area of Far East Studies is 37 semester hours from the following fields: anthropology, art, economics, geography, government, history, language, literature, philosophy, sociology, and religion. In addition, a reading knowledge of Chinese, Japanese, or Korean is required.

The major field may be China, Japan, or Korea. Courses must be selected from those listed below. At the discretion of the candidate's committee, additional work in language may be required.
CHINESE
200 Third-Year Chinese
250-251 Chinese Literature in English
293-294 Methods in Chinese Studies
300 Directed Reading or Research

JAPANESE
203 Japanese Translation and Interpretation
260 Japanese Literature in English
300 Directed Reading or Research

KOREAN
200 Third-Year Korean

ANTHROPOLOGY
254 Peoples of Southern Asia
255 Peoples of Northern Asia
300 Directed Reading or Research

ART
220 History of Far Eastern Art
222 Indian and Indonesian Art
225 The Beginnings of Chinese Art
229 Chinese Painting
230 Chinese Architecture
231 Applied Arts of China
233 Museum Studies in Far Eastern Art
395 Seminar in Oriental Art

DRAMA AND THEATRE
350 Seminar in Oriental Theatre

GEOGRAPHY
255 Geography of Asia
256 Geography of Japan
257 Geography of China
264 Geography of India and Southeast Asia
300 Directed Research

GOVERNMENT
262 Government and Politics of the Far East
263 International Relations of the Far East
300 Directed Reading or Research
303 Seminar in Far Eastern Politics

HISTORY
201 History of the Far East
225 History of China
226 History of Japan
227 Southeast Asia
Candidates for M.S. or Ph.D. degrees in genetics must present a minimum of 20 semester hours of undergraduate preparation in genetics, botany, chemistry, entomology, mathematics, and zoology.

Ph.D. candidates are required to spend a year (30 semester hours) of course work at the graduate level in a mainland institution with a strong department of genetics.

Courses for the graduate program are to be selected from those listed below, but the supervising committee may allow or recommend others in the same or allied fields.

AGRICULTURE

254 Principles of Genetics
262 Advanced Genetics
28

278 Principles of Plant Breeding
300 Directed Research
302 Genetics Seminar
312 Applied Agricultural Statistics
400 Thesis Research

BOTANY
201 Systematic Botany of Flowering Plants
202 Taxonomy and Exploration
253 Plant Ecology
254 Advanced Taxonomy
268 Plant Microtechnique
281 Cytology
282 Biological Photography
300 Directed Research
310 Botanical Seminar
365 Taxonomy of the Dicotyledons
367 Taxonomy of the Higher Dicotyledons
380 Cyto-technique

ZOOLOGY
276 Biometry
277 Biometrical Analysis
285 Animal Evolution
300 Directed Research
316 Preparation of Scientific Manuscripts

GEOGRAPHY

CURTIS A. MANCHESTER, Ph.D., Graduate Council Representative

The undergraduate preparation should include a minimum of 18 semester
hours in geography, basic courses in geology, history, anthropology, or soci-
ology, and government or economics, and a reading knowledge of a foreign
language.

Courses for the graduate major are to be selected from those listed below.
Required courses are marked with an asterisk. A maximum of 10 hours may
be taken in advanced courses in related fields.

GEOGRAPHY

*250 Cartography
252 Geography of North America
255 Geography of Asia
256 Geography of Japan
257 Geography of China
258 Geography of Europe
261 World Geographic Patterns
*262 Weather and Climate
263 Geography of the Pacific Islands
264 Geography of India and Southeast Asia
*271 Political Geography
A Master Receives His Hood at Commencement
A minimum of 18 semester hours of undergraduate courses in government (or political science), including American government, international relations, introduction to public administration, and modern political philosophy, or the equivalent in each case, is required of all candidates.

The graduate program is made up from the courses listed below. Candidates may specialize in one of three areas—international relations and organization, public administration, or political philosophy. International relations and organization requires Government 261, 264, 268, and 303, and History 244-245; public administration requires Government 283, 284, 288, 310, and either 248 or 254; political philosophy requires Government 289, 290, 291, and 307. A maximum of 6 hours may be elected from other social science areas (anthropology, economics, history, psychology, sociology), as determined by the supervising committee. A course in methods of research is required.

GOVERNMENT

240 Democracy and Communism
248 State Government and Administration
252 Introduction to Constitutional Law
254 Municipal Government and Administration
256 American Political Parties
257 Campaigns and Elections
259 Pressure Groups, Propaganda and Public Opinion
260 International Relations
261 International Organization
262 Government and Politics of the Far East
263 International Relations of the Far East
264 Postwar International Relations
265 Great Britain and France
266 The USSR and Satellites
268 International Administration
270 Government of Hawaii
271 Government of Dependencies
276 The Legislative Process
282 Introduction to Public Administration
283 Personnel Administration
284 Introduction to Administrative Law
287 Problems of American Government
288 Problems in Public Administration
289 Ancient and Medieval Political Thought
290 Early Modern Political Thought
291 Recent Political Thought
293 American Political Thought
298 Field of Political Science
300 Directed Reading or Research
302 Seminar in International Relations
303 Seminar in Far Eastern Politics
304 Seminar in Public Law
305 Seminar in Politics
307 Seminar in Political Theory
310 Seminar in Public Administration
400 Thesis Research

HISTORY

CHARLES H. HUNTER, Ph.D., Graduate Council Representative

The minimum undergraduate background is 18 semester hours in history, of which 10 must be in courses relating to the general field of the thesis.

Courses for the graduate program must be selected from those listed below. Required courses are marked with an asterisk. A maximum of 6 hours may be elected from closely related advanced courses in such areas as government, economics, or foreign languages.

HISTORY

201 History of the Far East
208 Expansion of European Civilization
209-210 History of England
211 Constitutional History of England
213 History of Modern Russia
214 History of Soviet Russia
220-221 History of the British Empire
225 History of China
226 History of Japan
227 Southeast Asia
228 China since 1895
229 American-Chinese Relations
230 India, Pakistan, and Ceylon
241 Colonial Period of the United States
242-243 History of the United States
244-245 Diplomatic History of the United States
246 American Thought and Culture
248 Economic History of the United States
249 Representative Americans
250 Early Civilization in the Far East
251 History of Thought in Japan
252 Constitutional History of the United States
253-254 History of Hispanic America
257 Europe in the Nineteenth Century
258 Europe since Versailles
259 The West in American History
276 History of the Hawaiian Islands
277 The Pacific Region in Modern Times
285 Russia in Asia
295 Cultural History of China
300 Directed Research
*310 Seminar in Historical Method
311 Seminar in American Diplomatic History
*313 Seminar in Historiography
316 Seminar in Chinese History
*400 Thesis Research

MATHEMATICS

Christopher Gregory, Ph.D., Graduate Council Representative

The minimum undergraduate preparation is 27 semester hours in mathematics, including analytical geometry, differential and integral calculus, and advanced calculus. College physics is also required. One or more of the following courses are recommended but not required: differential equations, theory of equations, vector analysis, statistics, and logic.

Courses in the major are to be selected from those listed below. Required courses are marked with an asterisk. A maximum of 12 hours may be elected from the following related courses: symbolic logic, electricity and magnetism, theoretical mechanics, survey of modern physics, atomic and nuclear physics, and theoretical physics.

MATHEMATICS

252-253 Differential Equations
254-255 Advanced Calculus
275 Theory of Equations
276 Vector Analysis
280 Statistical Methods
281 Advanced Statistical Methods
*300 Directed Reading or Research
*360 Seminar
*400 Thesis Research

NUTRITION

Katherine B. Gruelle, M.A. Graduate Council Representative

Candidates for the M.S. degree in Nutrition are required to have completed an undergraduate major in either home economics or chemistry, including an adequate number of courses in foods and nutrition. If the undergraduate major was home economics, it must have included the following chemistry courses: inorganic, organic, qualitative and quantitative analysis.

The graduate program is determined from the courses listed below. Required courses are marked with an asterisk. In addition, courses in statistical methods and thesis writing are required. A maximum of 9 hours may be elected from chemistry or other science, business and economics, education, or some other related field.

HOME ECONOMICS

300 Directed Reading or Research
PACIFIC ISLANDS AREA STUDIES

LEONARD E. MASON, M.A., Graduate Council Representative

The required undergraduate background is 18 semester hours of courses in the area in the following fields: anthropology, economics, education, geography, government, history, linguistics, literature, psychology, sociology, and speech. A basic course in either anthropology or geography of the Pacific Islands and a reading knowledge of French, German, Hawaiian, Japanese, or Spanish are also required. Candidates are expected to utilize the particular language in course work and thesis research.

Courses are to be selected from those listed below in such manner as to provide an integrated program bearing upon a particular field of interest. At least three departments, other than language, must be represented. Additional work in language may be required. In valid instances, courses relating to the Pacific Islands in certain fields of science, such as agriculture, bacteriology, botany, chemistry, nutrition, and zoology, may be substituted.

ANTHROPOLOGY

250 Hawaiian Culture
251 The Polynesians and Their Culture
252 Peoples of the Pacific
253 Micronesia in a Modern World
266 Culture Conflict in Pacific Dependencies
300 Directed Reading or Research
310 Seminar in Oceania

ECONOMICS

292 Land Economics
300 Directed Reading or Research

EDUCATION

300 Directed Reading or Research
390 Public School Administration

ENGLISH

263 Literature of the Pacific
300 Directed Reading or Research

GEOGRAPHY

263 Geography of the Pacific Islands
280 Micronesia
300 Directed Research

**GOVERNMENT**
268 International Administration
271 Government of Dependencies
283 Personnel Administration
300 Directed Reading or Research

**HISTORY**
221 History of the British Empire
276 History of the Hawaiian Islands
277 The Pacific Region in Modern Times
300 Directed Research

**INTERDEPARTMENTAL SEMINAR**
330 Pacific Islands Research

**LINGUISTICS**
260-261 Survey of Pacific Languages
300 Directed Reading or Research

**PACIFIC ISLANDS**
400 Thesis Research

**PSYCHOLOGY**
280 Social Psychology
300 Directed Reading or Research

**SOCIOLOGY**
250 Community Forces
253 Rural Sociology
256 Race and Culture Contacts in Hawaii
257 Race Relations in the Pacific
300 Directed Reading or Research
351 Graduate Seminar

**PHILOSOPHY**

CHARLES A. MOORE, Ph.D., Graduate Council Representative

The minimum undergraduate requirement is 18 semester hours in philosophy, including courses in history of philosophy, ethics, and logic. A course in general psychology is also required.

Courses must be selected from those listed below. Required courses are indicated by an asterisk. Recommended related courses are: American thought and culture, history of thought in Japan, philosophy of education, and early modern political thought.

**PHILOSOPHY**

*210 Contemporary Philosophy
240 Philosophy in Literature
252 Types of Philosophy
*253 Problems of Philosophy
256 Classical Indian Civilization
257 Contemporary Indian Civilization
262 Philosophy of Art
265 Philosophy, East and West
268 American Philosophy
270 Indian Philosophy
271 Chinese Philosophy
273 The Vedanta Philosophy
274 Contemporary Indian Philosophy
275 Philosophy of Religion
283 Buddhist Philosophy
286 Philosophy in Contemporary Science
287 Scientific Method
288 Symbolic Logic
*300 Directed Reading or Research
(Metaphysics, Methodology, Ethics, Indian Philosophy, Chinese Philosophy, Buddhist Philosophy, East-West Philosophy)
304 Seminar in Buddhist Philosophy
*400 Thesis Research

PHYSICS

WILLARD H. ELLER, Ph.D., Graduate Council Representative

Candidates for the M.S. degree in Physics must present a minimum of 18 semester hours, including courses in general physics, light, electricity and magnetism, mechanics, and modern physics. Courses in general chemistry, mathematics through calculus, and mechanical drawing are also required.

Courses for the graduate program must be selected from those listed below. Required courses are indicated by an asterisk. The following related courses are recommended: structural mechanics, hydraulics, advanced calculus, and mathematics of theoretical physics.

PHYSICS

253 Electrical Measurements
255 Light
256 Optics Laboratory
258 Electronics
262 Sound
263 Theoretical Mechanics
270 Heat
275 Electricity and Magnetism
276 Electricity and Magnetism Laboratory
280 A Survey of Modern Physics
281 Atomic and Nuclear Physics
*300 Directed Reading or Research
*302 Theoretical Physics
*400 Thesis Research
PSYCHOLOGY

HERBERT B. WEAVER, Ph.D., Graduate Council Representative

The undergraduate requirement in psychology is 28 semester hours, including general and experimental psychology and training in mathematics extending at least through college algebra.

Courses are to be selected from those listed below. Required courses are indicated by an asterisk. A maximum of 6 hours may be elected from closely related courses in anthropology, philosophy, physics, sociology, and zoology.

PSYCHOLOGY

250 Applied Psychology
254 Principles of Guidance
256 Business and Industrial Psychology
257 Principles of Counseling
258 Group Techniques of Guidance
*260 Statistical Techniques
*264 Psychological Measurements
*267 Experimental Psychology
*270 Physiological Psychology
272 Psychology of Learning
274 Psychology of Thinking
*275 Systematic Psychology
*280 Social Psychology
283 Psychology of Personality
286 Political Psychology
290 Clinical Psychology
292 Mental Hygiene
*295 Abnormal Psychology
300 Directed Reading or Research
*320 Seminar in Methods of Research
*321 General Seminar
351 Advanced Educational Psychology
356 Problems in Clinical Psychology
360 Advanced Statistical Techniques
362 Individual Intelligence Test Techniques
364 Projective Techniques
*382 History of Psychology
*400 Thesis Research

SOCIAL WORK

KATHARINE N. HANDLEY, M.S.W., Graduate Council Representative

In addition to the undergraduate requirements for admission to the School of Social Work (see page 11), candidates for the Master of Social Work degree must complete the basic graduate curriculum in social work (at least 28 semester hours of designated courses), including 6 hours in field work.

The full graduate program comprises 48 semester hours selected from the courses listed below, including at least 10 semester hours (750 clock hours) of supervised field work. Courses marked with an asterisk are required of students.
completing the basic program at the University of Hawaii. Those marked with a dagger are additional requirements for degree candidates. The choice of advanced courses either in casework or group work depends upon the major interest of the student.

SOCIAL WORK

*305 Social Casework
306 Social Casework
*308 Social Group Work
309 Social Group Work
*310 Dynamics of Human Behavior
312 Group Work, Program Activities
*315 Community Organization
324 History of Social Work
325 Child Welfare
326 Treatment of Juvenile Delinquency
*330 Health and Disease
*350 Public Welfare
351 Social Insurance
*352 Social Statistics and Research
353 Legal Aspects of Social Work
355 Public Welfare Administration
*360-361 Supervised Field Work
†362-363 Advanced Supervised Field Work
365 Advanced Social Casework
366 Seminar in Social Casework
367 Casework with Children
370 Advanced Social Group Work
371 Seminar in Social Group Work
375 Advanced Social Psychiatry
380 Seminar in Public Welfare Administration
†383 Administration of Social Work Agencies
385 Methods of Supervision in Social Casework
386 Methods of Supervision in Social Group Work
387 Current Practice in Community Organization Agencies
390 Cultural Factors in Social Work Practice
399 Seminar in Research
†400 Thesis Research

SOCIOLOGY

ANDREW W. LIND, Ph.D., Graduate Council Representative

The minimum undergraduate requirement is 18 semester hours of sociology, including an introductory course and three of the following: the family, human migrations, personality and culture, population and society, human ecology, and collective behavior. In addition, courses in anthropology, economics, government, philosophy, and psychology are recommended.

The graduate program is made up from the courses listed below. Required courses are indicated by an asterisk. A maximum of 6 hours may be elected in related courses in anthropology, economics, history, and psychology.
SOCIETY

251 Folk and Peasant Community
253 Rural Sociology
254 The Urban Community
255 Social Disorganization
256 Race and Culture Contacts in Hawaii
257 Race Relations in the Pacific
258 Race Relations
259 Peoples and Institutions of Japan
262 Social Control
263 Public Opinion and the Community
264 Juvenile Delinquency
265 Criminology
266 Social Institutions
267 The Family
268 Human Migrations
269 Personality and Culture
270 Population and Society
271 Human Ecology
272 Collective Behavior
273 Social Movements
274 Social Change
275 American Society in Transition
*276 Development of Social Thought
277 Peoples and Institutions of China
280 Social Statistics
*282 Methods of Social Research
285 Industrial Sociology
300 Directed Reading or Research
*351 Graduate Seminar
*400 Thesis Research

SOIL SCIENCE

G. DONALD SHERMAN, Ph.D., Graduate Council Representative

Candidates for the M.S. or Ph.D. degree in Soil Science must have completed 18 semester hours of undergraduate credit in soil science and related subject matter fields and two years of college chemistry. The related subject matter fields are bacteriology, chemistry (analytical and physical), geography, mineralogy, physics, and plant physiology.

Ph.D. candidates are required to spend a year (30 semester hours) of course work on the graduate level in a mainland institution with a strong department of soil science.

Courses in the major field are to be selected from those listed below. Required courses are marked with an asterisk. Supplementary courses in related fields will be required, as determined by the area of specialization. Candidates may specialize in tropical soil genesis and classification, soil management, weathering of soils, and the fundamental physical and chemical properties of soils.
SPEECH

JOSEPH F. SMITH, M.A., Graduate Council Representative

The minimum undergraduate requirement is 24 semester hours of speech from the following areas: general speech education, speech correction, phonetics and speech science, interpretation, forensics and public address, theatre, radio, pedagogy, and audiology.

Courses must be selected from those listed below. Required courses are indicated by an asterisk. In addition, candidates must demonstrate a satisfactory level of speech skill in a platform appearance before a faculty committee.

SPEECH

220 Phonetics
221 Principles of Speech Correction
222 Speech Therapy
223 Advanced Speech Therapy
224 Hearing and Speech
228 Semantics
232 Advanced Interpretation
250 Group Leadership and Discussion
265 Speech for the Classroom Teacher
271 Radio Production
272 Radio Workshop
275 Radio Program Planning
278 Radio Writing
279 Advanced Radio Writing
295 Persuasion: A Study in Rhetoric
298 Special Problems
300 Research
*310 Seminar in Research Methods
320 Seminar in Speech Correction
330 Seminar in Interpretation
350 Seminar in Rhetoric and Public Address
370 Seminar in Radio Broadcasting
*400 Thesis Research
VEGETABLE CROPS
CHARLES F. POOLE, Ph.D., Graduate Council Representative

The minimum undergraduate requirement is 18 semester hours of vegetable crops courses, including courses basic to vegetable crop production from such related fields as botany, chemistry, entomology, genetics, and soils.

Courses are to be selected from those listed below, but a limited number from closely related areas may be allowed. Required courses are indicated by an asterisk.

AGRICULTURE

*209 Advanced Vegetable Crops
*210 Systematic Vegetable Crops
250 Soils
*254 Principles of Genetics
256 Principles of Agronomy
262 Advanced Genetics
267 Soil Analysis
268 Soil Diagnosis Laboratory
*278 Principles of Plant Breeding
300 Directed Research
301 Advanced Soil Technology
302 Genetics Seminar
304 Horticultural Seminar
*312 Applied Agricultural Statistics
*400 Thesis Research

ZOOLOGY
ROBERT W. HIATT, Ph.D., Graduate Council Representative

Candidates for the M.S. or Ph.D. degree in Zoology (marine aspects in the latter case) must present a minimum of 18 semester hours of undergraduate preparation, including courses in comparative anatomy of vertebrates, embryology, and general physiology. In addition, they should have completed two years of chemistry (inorganic and organic), one year of physics, and courses in algebra and botany.

Courses must be selected from those listed below. Required courses are marked with an asterisk. For the M.S. degree, a maximum of 6 hours may be elected from related courses in botany, chemistry, genetics, mathematics, and physics. For the Ph.D. degree, additional work will be stipulated by the doctoral committee.

ZOOLOGY

240 Introduction to Ecology
245 Zoogeography
253 Parasitology
260 Histology
*261 Vertebrate Embryology
262 Microtechnique
275 General Ichthyology
276 Biometry
277 Biometrical Analysis
280 Comparative Anatomy of Invertebrates
281 Taxonomy of Marine Invertebrates
282 Marine Ecology
284 Comparative Invertebrate Physiology
285 Animal Evolution
286 History of Zoology
287 Methods of Fishery Investigation
290 Oceanography
*291 General Physiology
   (For Genetics, see Agriculture 254 and 262)
300 Directed Research
*312 Seminar in Marine Zoology
*313 Seminar in Fisheries Biology
*314 Seminar in Advanced Marine and Fisheries Biology
*315 Zoological Literature
*316 Preparation of Scientific Manuscripts
320 Development of Marine Invertebrates
370 Principles of Systematic Zoology
387 Population Dynamics
388 Fisheries Management
391 Advanced General Physiology
392 Physiological Ecology
*400 Thesis Research