Announcement of Graduate Studies 1949-1950
UNIVERSITY CALENDAR

1949

Sept. 24, Saturday, 8:00 A.M.-1:00 P.M. ... Registration of graduate students
Sept. 26, Monday, 2:30 P.M.-5:00 P.M. ... Instruction begins
Oct. 8, Saturday ... Last day of registration for new courses
Oct. 29, Saturday ... Last day of withdrawal from courses without penalty
Nov. 1, Tuesday ... First deficiency reports due
Nov. 11, Friday ... Armistice Day (holiday)
Nov. 23, Wednesday ... Last day for removal of "Incompletes"
Nov. 24, Thursday, through Nov. 26, Saturday ... Thanksgiving recess
Dec. 6, Tuesday ... Second deficiency reports due
Dec. 21, Wednesday ... Last day of instruction before Christmas recess
Dec. 21, Wednesday ... Last day to arrange final oral examinations, first semester

1950

Jan. 5, Thursday ... Instruction resumes
Jan. 21, Saturday ... Last day of instruction, first semester
Jan. 23, Monday ... Final examinations begin
Jan. 25, Wednesday ... Last day for final oral examinations, first semester
Jan. 30, Monday ... Franklin D. Roosevelt's Birthday (holiday)
Jan. 31, Tuesday ... Last day to submit theses for Library, first semester
Feb. 1, Wednesday ... First semester ends
Feb. 11, Saturday, 8:00 A.M.-1:00 P.M. ... Registration of graduate students
Feb. 13, Monday ... Holiday following Lincoln's Birthday
Feb. 14, Tuesday, 2:30 P.M.-5:00 P.M. ... Registration of graduate students
Feb. 22, Wednesday ... Washington's Birthday (holiday)
Feb. 25, Saturday ... Last day of registration for new courses
Mar. 18, Saturday ... Last day of withdrawal from courses without penalty
Mar. 21, Tuesday ... First deficiency reports due
Mar. 25, Saturday ... Charter Day
Mar. 27, Monday ... Prince Kuhio Day (holiday)
Apr. 6, Thursday ... Last day for removal of "Incompletes"
Apr. 7, Friday, Apr. 8, Saturday ... Easter recess
Apr. 25, Tuesday ... Second deficiency reports due
May 1, Monday ... Last day to arrange final oral examinations, second semester
May 27, Saturday ... Last day of instruction, second semester
May 29, Monday ... Final examinations begin
May 30, Tuesday ... Memorial Day (holiday)
May 31, Wednesday ... Last day for final oral examinations, second semester
June 5, Monday ... Last day to submit theses for Library, second semester
June 7, Wednesday ... Second semester ends
June 12, Monday ... Holiday following Kamehameha's Birthday
June 14, Wednesday ... Commencement
June 26, Monday ... Registration for the summer session

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Aerial view of the University of Hawaii Campus
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GRADUATE STUDY AT THE UNIVERSITY OF HAWAII

The University of Hawaii is the only institution offering graduate work in the vast area of the Pacific, extending from California to the Philippines and from New Zealand to Alaska. By virtue of its location at one of the major "crossroads of the Pacific," with access to the rich research facilities of the Far East and the Pacific islands, the University can offer special opportunities for students interested in pursuing graduate work in certain of the natural and social sciences. The University of Hawaii also gives work leading to the master's degree in most of the basic arts and sciences.

The Territory of Hawaii is itself a notable example of the mingling of the peoples and cultures of the Orient, the Occident, and the South Pacific, and it provides unusually favorable conditions for the study of racial and cultural contacts and change. Hawaii's relative proximity to the Trust Territories in Micronesia and to the dependent areas of Polynesia, as well as Hawaii's own experience as an American territorial outpost, gives to the University special significance as a center for studies of the economic, social, and educational problems of Pacific island people. For the teacher, missionary, administrator, journalist, or research worker whose interests lie in Pacific and Asiatic countries, graduate study in the University affords an opportunity to acquire knowledge essential to the practice of his profession in those areas.

Hawaii's large population of persons of Oriental ancestry and its contacts with the Orient have encouraged special attention at the University to the cultures and civilizations of the Far East. The University has one of the outstanding American collections of Orientalia, with a library of some 77,000 volumes in Chinese and Japanese. Students also have access to the excellent Asiatic collection of the Honolulu Academy of Arts. Special facilities for the study of Oriental languages and for the translation of source materials are also available at the University.

Tropical agriculture and the associated basic sciences are additional areas in which Hawaii has special advantages to offer the graduate student. The highly technical character of sugar and pineapple production in the Islands has brought together a large and competent group of scientists in the biological and physical sciences. The University's instructional personnel and laboratory equipment in these fields are supplemented by the staffs and facilities of cooperating agricultural research institutions such as the Experiment Station, Hawaiian Sugar Planters' Association, the Pineapple Research Institute of Hawaii, the University of Hawaii Agricultural Experiment Station, and the Bernice P. Bishop Museum, with its extensive collections of
Hawaiian and South Pacific plants and insects. Because of the concentration here of scientists and of exceptional research opportunities within these fields, the University has offered graduate work leading to the doctor of philosophy degree in those sciences basic to tropical agriculture.

The mid-Pacific location of Hawaii offers students of marine biology a natural laboratory for the study of tropical and subtropical marine life. Facilities at the Hawaii Marine Laboratory are available to graduate students. Scientists on the staff of the United States Fish and Wildlife Service Laboratory, located on the University campus, cooperate with the regular faculty in offering a graduate curriculum in marine zoology which now extends to the doctor of philosophy degree. Students trained in the University program are qualified to participate in the investigations of Pacific oceanic fisheries conducted by the Federal government.

LIBRARIES AND RELATED INSTITUTIONS

The University Library contains approximately 190,000 bound volumes and 400,000 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 obtainable.

Other collections available 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; and libraries of the Hawaiian Sugar Planters' Association and the Pineapple Research Institute of Hawaii, of special interest to students of tropical agriculture. 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.

Graduate students of the University, when properly qualified and sponsored by members of the University staff, may take advantage of the materials and facilities of research and scientific services directly affiliated with the University. These include the Psychological and Psychopathic Clinic, which specializes in research on racial differences and in individual clinical examinations; the Legislative Reference Bureau, concerned with the study of current legislative and governmental problems; the Hawaii War Records Depository, charged with the collection of data relating to Hawaii's part in World War II; and
the Hawaii Social Research Laboratory, with its emphasis on study of basic social trends, including race relations, in Hawaii.

The Hawaiian Sugar Planters' Association has assisted in the establishment, on the University campus, of the Agricultural Engineering Institute, which is designed to provide both instruction and research on problems relating to mechanized crop production. Also situated on the campus is the laboratory maintained by the United States Bureau of Entomology for the study of fruit fly pests in Hawaii.

**GRADUATE STUDY IN THE SUMMER SESSIONS**

A six-week session from late June to early August affords opportunity for graduate work in the summer. Candidates for the Master of Education degree may find it possible to complete most of their requirements by attending summer sessions.
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ADMISSION

Admission to the Graduate Division is granted to graduates of accredited American or foreign colleges and universities. Application for admission should be made to the Dean of the Graduate Division and should be accompanied by an official transcript of undergraduate record and of any graduate work completed at any other institution. Admission is provisional until such records are on file. These transcripts become a permanent part of the University files.

Admission to the Graduate Division implies only permission to enroll in graduate courses for which the student's previous training has prepared him. Admission to candidacy for an advanced degree occurs only on the recommendation of a qualifying committee of the faculty after the student has enrolled at the University.

Graduate students not interested in earning an advanced degree and those working for the professional certificate issued by the Territorial Department of Public Instruction need not meet the requirements for admission to candidacy.

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

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 sixteen.

REGISTRATION AND GRADES

Graduate students may not register for more than sixteen credit hours in any semester or for more than seven credit hours in a six-week summer session. The number of credit hours which may be carried by student assistants is limited by the nature of their duties. The ordinary course load of a full graduate assistant is eight credit hours with a maximum of nine credit hours per semester.

A grade of B or better must be obtained in a course numbered 200 to 299 if it is to be credited toward an advanced degree. Work in courses numbered 300 to 399 is graded H (Honors), S (Satisfactory), or U (Unsatisfactory). 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 is not a basis for a valid claim to a refund of tuition fees.

Candidates for advanced degrees failing to complete successfully two or more courses taken after admission to candidacy are automatically dropped from candidacy.
REQUIREMENTS FOR ADVANCED DEGREES

THE MASTER'S DEGREE

The University awards the master's degree in arts, science, education, and social work, with specializations in the following fields: agriculture, anthropology, bacteriology, botany, business, chemistry, economics, education, English, entomology, Far East area studies, genetics, geography, government, history, nutrition, philosophy, physics, psychology, social work (case work, group work), sociology, speech, zoology.

Admission to Candidacy. A graduate of an accredited institution may be admitted to candidacy for the master's degree during the first semester of residence. Such admission is granted only after a committee representing the department in which the candidate proposes to work for an advanced degree is satisfied as to the adequacy of his undergraduate preparation and his probable ability to pursue graduate work successfully.

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

1. Ability to use written English effectively as demonstrated by grades in undergraduate courses in English composition or by a special examination conducted by the University English Department.

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

3. A good undergraduate scholastic record, with a grade of B or better in undergraduate courses in the major field or with an average of at least B in all courses carried in the junior and senior years. Students failing to meet this requirement may be permitted to enroll in the Graduate Division on a provisional basis, and if their record of a semester or more at the graduate level is adequate, the qualifying committee may recommend to the Graduate Council that this rule be waived.

A graduate student desiring to work for an advanced degree should notify the Dean of the Graduate Division of his intentions on a form obtainable from the office of the Dean. The student will subsequently be notified of the time when he is to appear before the qualifying committee of his department.

Residence. The minimum period of residence is one academic year (two semesters) or four six-week summer sessions. All credits applying toward the master's degree must be obtained within the seven years preceding the date on which the degree is granted. Exceptions to this rule may be made for students whose program of study was interrupted.
by military service. Candidates failing to obtain the degree within five years after admission to candidacy must again qualify for candidacy.

**Course Work.** Thirty semester hours of graduate study are required for the master's degree. All work connected with the thesis must be registered for as thesis research (course number 400 in each major field). For thesis research the usual credit allowance is six hours, but a maximum of twelve hours may be allowed in the natural and physical sciences. At least six credits, exclusive of the thesis, must be earned in courses primarily for graduate students (300–399). The remaining credits may be earned in courses numbered 200 to 299, but additional work must be done in such courses and a grade of A or B must be earned. All courses offered by the candidate should be in his major field of interest or in one or two closely allied fields. Candidates for the Master of Education degree are restricted to one minor of six to ten credits. A reading knowledge of a foreign language is required in certain fields and, at the discretion of the qualifying committee, may be required of a candidate in any field.

Students admitted to candidacy after September 1, 1947, must take at least one seminar relating to their major fields and a course in methods of research and thesis writing. They are likewise restricted to four semester hours in courses in directed reading and research, other than thesis research.

Graduate work completed at other institutions, to a maximum of eight semester hours, may be accepted as fulfilling part of the requirements for the master's degree.

No extension course may be counted toward an advanced degree.

**The Thesis.** A thesis is required of all candidates for the master's degree and should be selected within the field of the major. The thesis problem must be approved by the candidate's qualifying committee and by the Graduate Council, following which the candidate may register for the thesis research course (number 400 within each field) and a faculty committee is appointed to supervise the preparation of the thesis. The thesis must be written in acceptable English and show evidence of ability to conduct research intelligently and to arrive at logical conclusions.

Candidates must notify the Dean of the Graduate Division at the beginning of the semester or term in which they expect to receive their degrees and must submit copies of the completed thesis to members of the committee for final checking at least two weeks before the close of the term. Instructions on the form of the thesis may be obtained from the Dean of the Graduate Division.

**The Final Examination.** Arrangements for the final examination should be made at least one month prior to the end of the semester or summer session in which the candidate expects to receive the degree.
The examination is conducted by the members of the candidate's advisory committee and any other persons specially designated. It is open to all faculty members. The examination is on the thesis but may cover any fundamental knowledge required for the research work or necessary to the conclusions reached. If the results of the examination are satisfactory, a typewritten and a carbon copy of the thesis, both signed by the members of the examining committee, must be turned over to the Dean of the Graduate Division for deposit in the Library to become the permanent possession of the University. At the same time, a summary or abstract of the thesis, in 400 to 500 words, must be filed at the office of the Graduate Division.

THE DOCTOR OF PHILOSOPHY DEGREE

Work leading to the degree of doctor of philosophy is offered only in those fields in which the University, by virtue of its special facilities of teaching staff, library, and research equipment and its cooperative relations with other research institutions, can offer thorough advanced training. The program is designed to give the student a comprehensive and thorough command of a chosen field of knowledge and to train him in the methods of research and scholarship. The candidate must give evidence of distinguished scholastic attainments and must demonstrate the ability to conduct independent research and to make a worthy contribution to existing knowledge.

Doctoral candidates are accepted at present in the following fields: chemistry, soil science, and marine zoology. Other fields may be added as circumstances warrant.

Admission to Candidacy. Notice of intention to work toward the doctor’s degree should be given on special forms provided at the office of the Dean of the Graduate Division as early as possible during the graduate student's career. A doctoral committee of not less than five members from the graduate faculty shall be appointed to determine the candidate's fitness and preparation for work leading to the doctor's degree in the field selected. The doctoral committee shall also assist the candidate in the preparation of a course of study, conduct his oral comprehensive and final examinations, and supervise and pass upon the dissertation.

In addition to the requirements specified on page 13, students wishing to become candidates for the doctor's degree must:

1) Pass an oral, or oral and written, comprehensive examination in the fields of his major and supporting subjects. The written examination may be administered by the major department, but the oral examination must be conducted by his doctoral committee. The comprehensive examination must be taken not later than the beginning of the academic year in which the final examination occurs.

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(2) Complete all required course work as outlined by the doctoral committee.

(3) Present certification of reading knowledge of the required foreign languages (see below).

(4) Secure the approval of his committee and the Graduate Council of a dissertation problem.

**Language Requirement.** A reading knowledge of German and at least one other foreign language useful in the student's chosen field of specialization is required. The second language is selected by the mutual assent of the student, his doctoral committee, and the Dean of the Graduate Division. The appropriate language department must certify to the student's ability to read the prescribed language. All foreign language requirements must be completed by the end of the fourth semester of graduate work, and students delinquent in this respect will not be permitted to enroll for a full program of graduate work.

**Residence and Course Work.** At least six full semesters of graduate study or the equivalent are required. One year's credit will be allowed for a master's degree provided it is approved by the doctoral committee. A student must complete at least one undivided academic year of thirty hours of course work at the University of Hawaii beyond the master's degree.

**The Thesis.** The student must present an acceptable thesis on some topic in the field of his major subject. The dissertation must give evidence of independent and original research and of scholarly analysis. It must also exhibit creditable literary workmanship and be suitable for publication.

The thesis shall be typewritten in approved form, and copies of the completed manuscript shall be filed with the chairman of his committee at least two weeks prior to the date of the final examination. After the thesis has been successfully defended in the final examination, two copies (the original and first carbon), both signed by the members of the doctoral committee, shall be presented to the office of the Graduate Division for permanent deposit in the University Library. At the same time, an abstract of the thesis, not exceeding 1000 words in length and suitable for publication, shall also be filed at the office of the Graduate Division.

**The Final Examination.** Arrangements for the final examination must be made at least one month in advance and it must be taken at least two weeks before the end of the semester. This examination is designed to test the candidate's ability to defend his thesis in the light of the generally recognized principles and the accepted body of knowledge within his major field. It shall be conducted by the candidate's doctoral committee and shall be open to all faculty members.
THE TEACHER'S PROFESSIONAL CERTIFICATE

The Department of Public Instruction of the Territory of Hawaii grants the professional certificate to teachers in the employ of the Department who complete the following work: a total of thirty semester hours of graduate work, ten of which must be earned in courses primarily for graduates (300 to 399) including Philosophy of Education and Advanced Educational Psychology.

SCHOOL OF SOCIAL WORK

The University of Hawaii offers a two-year program to men and women who wish to become trained social workers. The first year of graduate work is basic to all types of social work and the curriculum is planned to provide content which includes fundamental principles underlying all fields of practice in the profession. Students who satisfactorily complete the year (two semesters) are awarded a Certificate in Social Work. The curriculum for the Master of Social Work degree requires an additional year of graduate study (a total of four semesters).

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

Admission of employed social workers to certain courses in the regular curriculum 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 to the School of Social Work as candidates for the degree or certificate. If a part-time student desires at a later date to become a candidate for the degree or certificate, he must follow the regular procedure for admission. Not more than 12 semester hours completed while a part-time student may be applied toward the degree or certificate.

Admission to the School of Social Work requires, in addition to the usual eligibility to graduate standing at the University of Hawaii (see page 12), the following:

1. A minimum of 30 hours of undergraduate social science, including six semester hours in each of the following areas: the nature of social organization; motivations to behavior; the nature of our economic order; the structure and function of government. Applicants from the University of Hawaii are expected to have taken, as undergraduates, the course entitled The Field of Social Work.

2. Evidence of personal qualifications that promise to make an applicant useful in social work.
Candidates for the Certificate in Social Work must complete satisfactorily the basic curriculum (at least 28 semester hours of designated courses), of which 6 credits are in field work and represent 450 clock hours of supervised experience in a social agency. A written comprehensive examination covering the first year's work may be required for the certificate.

Candidates for the Master of Social Work degree are required to complete a four-semester program (48 semester units), including at least 10 units of supervised field work (750 clock hours), and pass an oral comprehensive examination covering the two-year program and the thesis.

Detailed information regarding the requirements and program may be obtained by applying to the Director of the School of Social Work, University of Hawaii, Honolulu 14, Hawaii.

TUITION AND FEES

Tuition and registration fees for graduate students are the same as those for undergraduates. Students registered for ten or more credit hours in any semester pay $50 for tuition and $10 for registration per semester. Students registered for fewer than ten credit hours in any semester and all students in summer sessions pay $5.00 per credit hour. Laboratory fees, which are charged in many courses in the biological and physical sciences, 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 in registration after the initial registration, 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 their thesis.

LIVING ACCOMMODATIONS AND EXPENSES

Satisfactory housing accommodations are still at a premium in Honolulu, and prospective students are advised to make the necessary arrangements for lodging prior to their arrival in the city. At the present time the University does not have facilities for housing graduate students. Veterans, eligible under the G. I. Bill of Rights, may apply to the Veterans' Adviser for admission to the quarters provided in former army barracks located on the campus. Moderately priced living accommodations in private homes near the University are sometimes available, and prospective students may find it advantageous to apply to the Housing Counselor, Office of Student Personnel, for such openings.

Meals, at reasonable prices, may be obtained at the University Cafeteria, situated in Hemenway Hall on the campus.
Minimum expenses of the average student are estimated at from $600 to $950 a year for board, room, tuition, registration, course fees, and books. These estimates do not cover the cost of clothing, laundry, and other personal necessities, or of recreation.

**GRADUATE ASSISTANTSHIPS, SCHOLARSHIPS, AND FELLOWSHIPS**

The University offers a number of assistantships to graduates of accredited institutions of higher learning who wish to pursue graduate study in the fields in which the University offers advanced degrees. Graduate assistants serve as readers or part-time laboratory assistants and are expected to carry a limited program of graduate study. They receive remuneration of $1,290 and are exempt from all tuition and fees. The period of service is from September 15 to June 15. Applications should be received by May 1. Each application should 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, having a value of $100 each, are available for graduate students from abroad. Application should be made to the Dean of the Graduate Division.

**Fish and Wildlife Service Fellowships.** Through cooperative arrangements with the United States Fish and Wildlife Service several fellowships are available to citizen students working toward advanced degrees in marine zoology and the sciences related to fisheries. Recipients of these fellowships are employed in part-time research significant to fisheries in the following fields: chemical, electrical, and mechanical engineering, chemistry, bacteriology, marine biology, oceanography, physiology, and economics. They receive remuneration at an annual rate of either $2,724.00 or $2,974.80, plus whatever cost-of-living allowance is currently in effect (25 per cent at present), calculated on a full-time basis, to be reduced proportionately for part-time employment. Maximum employment contemplated is half-time for nine months of the academic year, plus full-time for the remaining three months of the fellowship year. Tuition fees are waived. Applications should be addressed to the Director, Pacific Oceanic Fishery Investigation, University of Hawaii.
THE FIELDS OF GRADUATE STUDY
REQUIREMENTS AND COURSES

The courses listed here numbered 200 to 299 are open to both graduates and undergraduates. Courses numbered 300 and higher are primarily for graduates.

Credit from courses not listed here may be applied toward an advanced degree only if the permission of the Dean of the Graduate Division is obtained.

Following each course description are the number of credits and the semester in which the course is given. Thus, (3) I indicates a 3-credit first-semester course; (3) II, a 3-credit second-semester course; (3) I and II, a 3-credit course repeated the second semester; (3-3) Yr., a 3-credit year course; (Ar.), that the credits are variable and must be arranged with the instructor; (n. o. 1949–50), that the course is not offered during 1949–50.

AGRICULTURE

The master's degree is offered in the following areas of specialization: genetics and plant breeding, vegetable crops, and soil science. A student wishing to qualify for a master's degree in any other field of agriculture may do so if an adequate program can be arranged which will meet the approval of the Graduate Council.

Requirements for admission to candidacy for the master's degree:

(1) Undergraduate preparation

**Genetics and Plant Breeding:** Courses in general botany, general zoology, and principles of genetics and a minimum of 18 undergraduate credits in courses basic to horticulture—principally botany, chemistry, entomology, genetics, and college algebra.

**Vegetable Crops:** A minimum of 18 undergraduate credits in vegetable crops courses or courses basic to vegetable production—principally botany, chemistry, entomology, pathology, genetics, and soils.

**Soil Science:** A minimum of 18 undergraduate credits including credit in soil science, organic chemistry, quantitative chemistry, plant physiology, bacteriology, and physics.

(2) An oral qualifying examination covering previous work in the selected field to be taken as soon as possible after becoming a graduate student.

The graduate program: Courses in the major field to be selected from those listed below and from associated fields with the approval of the qualifying committee. The following courses are required for each of the designated specializations:

---

20
**Genetics and Plant Breeding:**
- Agriculture 254, Principles of Genetics
- Agriculture 262, Advanced Genetics
- Agriculture 278, Principles of Plant Breeding
- Agriculture 292, Agricultural Applied Statistics
- Agriculture 302, Genetics Seminar
- Zoology 276, Biometry

**Vegetable Crops:**
- Agriculture 292, Agricultural Applied Statistics
- Agriculture 304, Horticultural Seminar
- Agriculture 309, Advanced Vegetable Crops
- Agriculture 310, Systematic Vegetable Crops

**Soil Science:**
- Agriculture 301, Advanced Soil Technology
- Agriculture 308, Soil Science Seminar

**Agriculture**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
<td>SOILS (4)</td>
<td>I</td>
<td>Mr. Sherman</td>
</tr>
<tr>
<td>254</td>
<td>PRINCIPLES OF GENETICS (3)</td>
<td>I</td>
<td>Mr. Mainland</td>
</tr>
<tr>
<td>258</td>
<td>GENETICS LABORATORY (1)</td>
<td>I</td>
<td>Mr. Mainland</td>
</tr>
<tr>
<td>262</td>
<td>ADVANCED GENETICS (3)</td>
<td>I</td>
<td>Mr. Mainland</td>
</tr>
<tr>
<td>267</td>
<td>SOIL ANALYSIS (3)</td>
<td>II</td>
<td>Mr. Sherman</td>
</tr>
<tr>
<td>268</td>
<td>SOIL DIAGNOSIS LABORATORY (2)</td>
<td>II</td>
<td>Mr. Sherman</td>
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<tr>
<td>278</td>
<td>PRINCIPLES OF PLANT BREEDING (3)</td>
<td>I</td>
<td>Mr. Poole</td>
</tr>
<tr>
<td>281</td>
<td>AGRICULTURAL MACHINERY (3)</td>
<td>I</td>
<td>Mr. Guillou</td>
</tr>
<tr>
<td>282</td>
<td>ADVANCED AGRICULTURAL MACHINERY (3)</td>
<td>II</td>
<td>Mr. Guillou</td>
</tr>
<tr>
<td>291</td>
<td>IRRIGATION PRACTICE (4)</td>
<td>II</td>
<td>Mr. Wadsworth</td>
</tr>
<tr>
<td>292</td>
<td>AGRICULTURAL APPLIED STATISTICS (3)</td>
<td>II</td>
<td>Mr. Poole</td>
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<td>300</td>
<td>DIRECTED READING AND RESEARCH (Ar.)</td>
<td>I and II</td>
<td>Staff</td>
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<td>301</td>
<td>ADVANCED SOIL TECHNOLOGY (3)</td>
<td>I</td>
<td>Mr. Sherman</td>
</tr>
<tr>
<td>302</td>
<td>GENETICS SEMINAR (1)</td>
<td>I and II</td>
<td>Mr. Mainland, Mr. Storey</td>
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<tr>
<td>303</td>
<td>ADVANCED SOIL CLASSIFICATION (Ar.)</td>
<td></td>
<td>Mr. Sherman</td>
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<tr>
<td>304</td>
<td>HORTICULTURAL SEMINAR (1)</td>
<td>I and II</td>
<td>Mr. Storey</td>
</tr>
<tr>
<td>308</td>
<td>SOIL SCIENCE SEMINAR (1)</td>
<td>II</td>
<td>Mr. Sherman</td>
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<tr>
<td>309</td>
<td>ADVANCED VEGETABLE CROPS (4-4) Yr.</td>
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<td>(Alternate years; n. o. 1949-50)</td>
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<td>310</td>
<td>SYSTEMATIC VEGETABLE CROPS (3)</td>
<td>II</td>
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<td>400</td>
<td>THESIS RESEARCH (Ar.)</td>
<td>I and II</td>
<td>Staff</td>
</tr>
</tbody>
</table>

**ANTHROPOLOGY**

Requirements for admission to candidacy for the master's degree:

(1) A minimum of 24 undergraduate credits in anthropology, of which 6 credits may be substituted from closely related fields
The graduate program: Courses in the major to 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 sociology, psychology, history, geography, economics, and government.

**Anthropology**

250 HAWAIIAN CULTURE (3) II  
251 POLYNESIANS AND THEIR CULTURE (3) I  
252 PEOPLES OF THE PACIFIC (3) I  
253 MICRONESIA IN A MODERN WORLD (3) II  
254 PEOPLES OF SOUTHERN ASIA (3) I  
255 PEOPLES OF NORTHERN ASIA (3) II  
256 THE AMERICAN INDIAN (3) I  
265 PRIMITIVE SOCIETY (3) I  
266 CULTURE CONFLICT IN PACIFIC DEPENDENCIES (3) I  
267 PRIMITIVE RELIGION (3) II (n. o. 1949–50)  
268 PRIMITIVE ART (3) II  
269 FOLKLORE (3) I (n. o. 1949–50)  
270 ARCHEOLOGY (3) II  
271 ANTHROPOLOGICAL CLASSICS (3) II  
*300 DIRECTED READING OR RESEARCH (Ar.) I and II  
*400 THESIS RESEARCH (Ar.) I and II

**BACTERIOLOGY**

Requirements for admission to candidacy for the master's degree:

(1) A minimum of 18 undergraduate credits in bacteriology and in closely related biological science courses, including basic courses in bacteriology, chemistry, zoology, and botany. In addition, the following undergraduate courses are required: general chemistry, organic chemistry, college physics, and a modern foreign language.

(2) An oral examination covering previous work in the field to be taken as soon as possible after becoming a graduate student.

The graduate program: Required courses in bacteriology are listed below. In addition, the following related courses are required: biochemistry, mycology, parasitology, biometry, and preparation of scientific manuscripts. Other related courses recommended but not required are: plant pathology, agricultural chemistry, hematology, entomology, and general physiology.
Bacteriology

250 Economic Bacteriology (2-2) Yr. Mr. Bushnell
260 Medical Bacteriology (3) I Mr. Bushnell
262 Laboratory in Medical Bacteriology (2) I Mr. Chu
264 Immunology (3) II Mr. Bushnell, Mr. Chu
300 Bacteriological Problems (Ar.) I and II Staff
310 Determinative Bacteriology (2) I and II Mr. Bushnell
400 Thesis Research (Ar.) I and II Staff

BOTANY

Requirements for admission to candidacy for the master's degree:

1. A minimum of 18 undergraduate credits in botany, including courses in cryptogams, physiology, taxonomy, and anatomy or morphology. A course in bacteriology and one in inorganic chemistry are also required.

2. An oral examination covering previous work in this field, to be taken upon completion of one semester of graduate study.

The graduate program: Courses in the major field to be selected from those listed below. Required courses are marked with an asterisk. A maximum of 6 credits may be earned in advanced courses in agriculture, anthropology, bacteriology, chemistry, geology, physics, and zoology. A knowledge of German, French, or Latin may be required. All candidates for the master's degree will be expected to enroll in the graduate seminar.

Botany

202 Taxonomy and Exploration (3) II Mr. St. John
253 Plant Ecology (4) II Mr. St. John
254 Advanced Taxonomy (1) I Mr. St. John
258 Advanced Mycology (3) I Mr. Lohman
263 Plant Pathology (3) II
   (Alternate years; o. 1949-50) Mr. Lohman
264 Plant Pathology Technique (3) II
   (Alternate years; n. o. 1949-50) Mr. Lohman
268 Plant Microtechnique (3) II
   (Alternate years; n. o. 1949-50) Mr. Britten
269 Plant Anatomy (3) I
   (Alternate years; n. o. 1949-50) Mr. Britten
273 Advanced Plant Physiology-Biophysics (3) I
   (Alternate years; n. o. 1949-50) Mr. Engard
274 Laboratory Technique in Biophysics (2) I
   (Alternate years; n. o. 1949-50) Mr. Engard
275 Advanced Plant Physiology-Biochemistry (3) II (Alternate years; o. 1949-50) Mr. Engard
276 Laboratory Technique in Biochemistry (2) II (Alternate years; o. 1949-50) Mr. Engard
MORPHOLOGY OF CRYPTOGAMIC PLANTS (3) I
(Alternate years; o. 1949–50)  Mr. Lohman

CYTOGENETICS (3) I  Mr. Britten

CYTOLOGY (3) I (Alternate years; n. o. 1949–50)  Mr. Britten

BIOLOGICAL PHOTOGRAPHY (3) II  Mr. Britten

BOTANICAL PROBLEMS (Ar.) I and II  Staff

BOTANICAL RESEARCH (Ar.)  Staff

BOTANICAL SEMINAR (1) I and II  Staff

PLANT PHYSIOLOGY SEMINAR (1) II  Mr. Engard

TAXONOMY OF THE DICOTYLEDONS (1) II
(Alternate years; o. 1949–50)  Mr. St. John

TAXONOMY OF THE HIGHER DICOTYLEDONS (1) II (Alternate years; n. o. 1949–50)  Mr. St. John

NOMENCLATURE (2) I
(Alternate years; n. o. 1949–50)  Mr. St. John

THESIS RESEARCH (Ar.) I and II  Staff

CHEMISTRY

Requirements for admission to candidacy for the master's degree:

(1) A minimum of 36 undergraduate credits in chemistry, including courses in general chemistry, organic chemistry, qualitative analysis, quantitative analysis, and physical chemistry. In addition, courses in college physics, college algebra, analytical geometry, and trigonometry are required at the undergraduate level. If Mathematics 153 (Differential Calculus) and Mathematics 154 (Integral Calculus) have not been taken at the undergraduate level, they must be included in the graduate program.

(2) Oral or written qualifying examination to be taken as soon as possible after becoming a graduate student.

The graduate program: Courses in the major field to be selected from those listed below. Required courses are marked with an asterisk.

Chemistry

AGRICULTURAL CHEMISTRY (3) II  Mr. Smith

ADVANCED INORGANIC CHEMISTRY (3) I
(Alternate years; n. o. 1949–50)  Mr. Sherk

ADVANCED ORGANIC CHEMISTRY (4) I  Mr. Sherk

ORGANIC ANALYSIS (4) II  Mr. Naughton

PHYSICAL CHEMISTRY (4–4) Yr.  Mr. Bilger

ADVANCED BIOCHEMISTRY (3) II  Mr. Bilger

COLLOIDAL CHEMISTRY (3) I  Mrs. Bilger

HISTORY OF CHEMISTRY (3) I  Mr. Smith

CHEMICAL LITERATURE (2) I and II  Mr. Smith
ECONOMICS AND BUSINESS

Requirements for admission to candidacy for the master's degree:

(1) A minimum of 24 undergraduate credits in economics and business, including elementary principles, money and banking, and either business statistics or elementary accounting.

(2) An oral examination covering previous work in the field (to be taken soon after becoming a graduate student).

The graduate program: Courses in the major field to be selected from those listed below. Required courses are starred. In addition, a course in methods of research is required. With the consent of his advisory committee, the candidate may include a maximum of 6 credits in related fields.

Economics

223–224 History of Economic Institutions
(3–3) Yr.

251 Economic Problems of Europe (3) I
(n. o. 1949–50)

252 Economic Problems of the Far East
(3) I (n. o. 1949–50)

254 The Economic System of Soviet Russia
(3) II (n. o. 1949–50)

263 International Finance (3) II

265 Principles and Problems of Economic Control (3) II (n. o. 1949–50)

270 Public Utilities (3) I

273 Ocean Transportation (3) II

276 Trusts and Industrial Combinations (3) I

277 Economics of Machine Industry (3) II

281 Labor Problems (3) I

283 Labor Legislation (3) I

285 International Trade (3) I

291 Agricultural Economics (3) I

292 Land Economics (3) II

296 History of Economic Thought (3) I

*300 Directed Reading or Research (2–2) Yr.

310 Seminar in Labor Problems (3) I
315 Seminar in Economic Problems (3) I
(n. o. 1949-50) Mr. Shoemaker, Staff

*400 Thesis Research (Ar.) I and II
Staff

Business

250 Intermediate Accounting (3) I Mr. Glover
251 Advanced Accounting (3) II Mr. Glover
254 Cost Accounting (3) I Mr. Glover
255 Analysis of Financial Statements (3) II Mr. Glover
256 Income Tax Problems (3) I Mr. Glover
257 Merchandise Accounting and Control (3) II Mr. Adler
258 Auditing (3) I Mr. Adler
261 Collective Bargaining (3) II Mr. Roberts
263 Personnel Management (3) II Mr. Ferguson
264 Principles of Business (3) I Mr. Cameron
265 Corporation Finance (3) II Mr. Luke
266 Investments and Investment Banking (3) I Mr. Kirkpatrick
267 Business Cycles and Business Forecasting (3) II Mr. Kirkpatrick
270 Principles of Marketing (3) I Mr. Hoeber
276 Retail Merchandising (3) I Mr. Luke
280 Sales Management (3) II Mr. Kraemer

*300 Directed Reading or Research (2-2) Yr. Staff
*400 Thesis Research (Ar.) I and II Staff

EDUCATION

Requirements for admission to candidacy for the master's degree:

(1) The Bachelor of Education degree or the equivalent. (Whether a given bachelor's degree is equivalent to the Bachelor of Education degree will be determined in each case by the Ed.M. Committee, which is the graduate committee of the Education Department.)

(2) Successful teaching experience.

(3) Satisfactory completion of the following courses:
   Education 340, 361, 390, and Psychology 351.

(4) A qualifying examination covering previous work in the field. This examination may be written or oral at the discretion of the Ed.M. Committee.

(5) Satisfactory completion of Education 380.

The graduate program: Courses in education to be selected from those listed below. Required courses are indicated by an asterisk. Six to 10 hours may be earned in advanced courses in one of the following fields: agriculture, anthropology and sociology, art, biological sciences, economics and business, English, geology and geography, health and physical education, his-
tory and government, home economics, library science, mathematics, philosophy, physical sciences, psychology, any foreign language, music, or speech.

**Education**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
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<tbody>
<tr>
<td>258</td>
<td>Audio-Visual Aids in Education (2) II</td>
<td>Mr. Beyers</td>
</tr>
<tr>
<td>259</td>
<td>Principles of Adult Education (3) I</td>
<td>Mr. Armstrong</td>
</tr>
<tr>
<td>265</td>
<td>Administration of the Guidance Program (2) II</td>
<td>Mr. Clopton</td>
</tr>
<tr>
<td>271</td>
<td>Principles of Vocational Education (3) II</td>
<td>Mr. Everly</td>
</tr>
<tr>
<td>289</td>
<td>History of Education (3) I and II</td>
<td>Mr. White</td>
</tr>
<tr>
<td>290-291</td>
<td>Teaching of Slow Learners (2-2) Yr.</td>
<td>Mr. Haan</td>
</tr>
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<td>292</td>
<td>Workshops (usually 6 credits) in various fields</td>
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<td>of education offered in summer sessions and all</td>
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<td></td>
<td>numbered 292 with a lower-case letter indicating</td>
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</tr>
<tr>
<td></td>
<td>the field.</td>
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<tr>
<td>296</td>
<td>History of Education in Hawaii (2) II</td>
<td>Mr. White</td>
</tr>
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<td>300</td>
<td>Directed Reading or Research (Ar.)</td>
<td>Staff</td>
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<tr>
<td>*340</td>
<td>Philosophy of Education (3) I and II</td>
<td>Mr. Clopton</td>
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<tr>
<td>*361</td>
<td>Evaluation in Education (3) I and II</td>
<td>Mr. Chun</td>
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<td>363</td>
<td>Seminar in Educational Administration (2) I</td>
<td>Mr. Everly</td>
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<tr>
<td>365</td>
<td>Supervision of Instruction (2) II</td>
<td>Mr. Everly</td>
</tr>
<tr>
<td>366</td>
<td>Curriculum Development and Special Methods</td>
<td>Staff</td>
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<tr>
<td></td>
<td>in Adult Education (3) I (n. o. 1949-50)</td>
<td>Mr. Armstrong</td>
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<td>367</td>
<td>Administration of Adult Education (3) II</td>
<td>Mr. Clopton</td>
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<td>369</td>
<td>Seminar in Speech Pedagogy (3) I</td>
<td>Mr. Smith</td>
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<td>376</td>
<td>Seminar in Vocational Education (2) I and II</td>
<td>Mr. Armstrong</td>
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<td>*380</td>
<td>Research and Thesis Writing (3) I</td>
<td>Mr. Clopton</td>
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<tr>
<td>*390</td>
<td>Public School Administration (2) I and II</td>
<td>Mr. Everly</td>
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<td>396</td>
<td>Seminar in Curriculum Improvement (2) I</td>
<td>Staff</td>
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<tr>
<td>*400</td>
<td>Thesis Research (Ar.) I and II</td>
<td>Staff</td>
</tr>
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</table>

**ENGLISH**

Requirements for admission to candidacy for the master's degree:

1. A minimum of 24 undergraduate credits in English, or closely related subjects, including courses in English composition, an introduction to English literature, American literature, and Shakespeare. In addition, courses in English history and classical literature are desirable.

2. Courses indicating a fair reading knowledge of a modern European language or Latin.

3. A qualifying interview with the departmental committee, to determine the candidate's fitness for admission to candidacy.

A comprehensive written examination in English and American literature is a department prerequisite to registration in English 400.

The graduate program: Courses in English to be selected from those listed below. Required courses are marked with an asterisk.
**English**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
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<tr>
<td>205</td>
<td>Background of English Literature (3) I</td>
<td>Mr. Green</td>
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<tr>
<td>240</td>
<td>History of Literary Criticism (3) II</td>
<td>Mr. Day</td>
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<tr>
<td>250-261</td>
<td>American Literature (3-3) Yr.</td>
<td>Mr. Stroven</td>
</tr>
<tr>
<td>270</td>
<td>Chaucer (3) I (Alternate years; o. 1949-50)</td>
<td>Mr. Green</td>
</tr>
<tr>
<td>272</td>
<td>History of the English Language (3) I</td>
<td>Mr. Green</td>
</tr>
<tr>
<td>274</td>
<td>The English Drama to 1642 (Exclusive of Shakespeare)</td>
<td>Mr. Day</td>
</tr>
<tr>
<td>275</td>
<td>Non-dramatic Elizabethan and Seventeenth-Century English Literature (1558-1660) (3) I (Alternate years; n. o. 1949-50)</td>
<td>Mr. Korn</td>
</tr>
<tr>
<td>276-277</td>
<td>Shakespeare (3-3) Yr.</td>
<td>Mr. Ernst</td>
</tr>
<tr>
<td>280</td>
<td>Restoration and Eighteenth-Century Literature (3) II</td>
<td>Mr. Korn</td>
</tr>
<tr>
<td>282</td>
<td>Poetry and Prose of the Romantic Movement in England (3) I (Alternate years; n. o. 1949-50)</td>
<td>Mr. Day</td>
</tr>
<tr>
<td>284</td>
<td>Victorian Literature (Exclusive of the Novel) (3) II</td>
<td>Mr. Bouslog</td>
</tr>
<tr>
<td>285</td>
<td>The English Novel to 1832 (3) I</td>
<td>Mr. Korn</td>
</tr>
<tr>
<td>286</td>
<td>The English Novel, 1832-1900 (3) II</td>
<td>Mr. Korn</td>
</tr>
<tr>
<td>287</td>
<td>Modern Dramatic Literature (3-3) Yr.</td>
<td>Mr. Korn</td>
</tr>
<tr>
<td>288</td>
<td>Contemporary European Literature (3) I</td>
<td>Mr. Day</td>
</tr>
<tr>
<td>289</td>
<td>Contemporary American Literature (3) II</td>
<td>Mr. Day</td>
</tr>
<tr>
<td>*300</td>
<td>Directed Research. May be repeated for a maximum of 4 credits. (2) I and II</td>
<td>Staff</td>
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<tr>
<td>*310</td>
<td>Seminar in American or English Literature (2) II</td>
<td>Staff</td>
</tr>
<tr>
<td>*313</td>
<td>Seminar in Bibliography and Research Methods (1) I and II</td>
<td>Staff</td>
</tr>
<tr>
<td>*400</td>
<td>Thesis Research (Ar.) I and II</td>
<td>Staff</td>
</tr>
</tbody>
</table>

**FAR EAST AREA STUDIES**

Requirements for admission to candidacy for the master's degree:

1. A minimum of 37 semester hours of undergraduate credit in courses on the Area in the following disciplines: language, literature, history, government, economics, sociology, anthropology, geography, philosophy, religion, and art.
3. An oral examination covering previous work in the Area to be taken as soon as possible after becoming a graduate student.
The graduate program: The major field to be China, Japan, or Korea. Courses to be selected, with the advice and approval of the qualifying committee, from those listed below. At the discretion of the qualifying committee, additional language course work may be required.

**Chinese**

- **200** Third-Year Chinese (3-3) Yr. Mrs. Chong
- **250-251** Chinese Literature in English (3-3) Yr. Mr. Wu
- **280-281** Chinese Drama in English (3-3) Yr. Mr. Ching
- **293-294** Methods in Chinese Studies (3-3) Yr. Mr. Taam
- **300** Directed Reading or Research (Ar.) Staff

**Japanese**

- **203** Japanese Translation and Interpretation (3-3) Yr. Mr. Uyehara
- **260** Japanese Literature in English (2-2) Yr. Mr. Uyehara
- **300** Directed Reading or Research (Ar.) Mr. Uyehara

**History**

- **201** History of the Far East (3-3) Yr. Mr. Sakamaki
- **225** History of China (3-3) Yr. Mr. White
- **226** History of Japan (3-3) Yr. Mr. Sakamaki
- **229** History of the Relations between China and the Occident (3-3) Yr. Mr. White
- **250** History of Early Civilization in the Far East (3) I Mr. Sakamaki
- **251** History of Thought in Japan (3) II Mr. Sakamaki
- **285** Russia in Asia (3-3) Yr. Mr. White
- **295** Cultural History of China (3-3) Yr. (n. o. 1949-50) Mr. White
- **300** Directed Research (Ar.) Staff
- **315** Seminar in Japanese History (3) II Mr. Sakamaki
- **316** Seminar in Chinese History (3) I (n. o. 1949-50) Mr. White

**Anthropology**

- **254** Peoples of Southern Asia (3) I Miss Luomala
- **255** Peoples of Northern Asia (3) II Miss Luomala
- **300** Directed Reading or Research (Ar.) Staff

**Sociology**

- **259** Peoples and Institutions of Japan (3) II Mr. Yamamoto
- **277** Peoples and Institutions of China (3) II Mr. Cheng
- **300** Directed Reading or Research (Ar.) Staff

**Philosophy**

- **265** Philosophy, East and West (3) II Mr. Moore
- **270** Indian Philosophy (3) I Mr. Moore
- **271** Chinese Philosophy (3) I Mr. Wu
- **273** Modern Chinese Political Thought (3) II Mr. Wu
282 Taoist Philosophy (3) I (n. o. 1949–50) Mr. Suzuki
283 Buddhist Philosophy (3) I Mr. Suzuki
300 Reading and Research (Ar.) Staff
304 Seminar in Buddhist Philosophy (2) I Mr. Suzuki

**Government**

262 Government and Politics of the Far East (3) II Mr. Bridgham
263 International Relations of the Far East (3) I Mr. Leebrick
300 Directed Reading and Research (Ar.) Staff
303 Seminar in Government and Politics of the Far East (2) I and II Mr. Bridgham, Mr. Leebrick

**Economics**

252 Economic Problems of the Far East (3) I (n. o. 1949–50) Mr. Shoemaker
254 The Economic System of Soviet Russia (3) II (n. o. 1949–50) Mr. Shoemaker
300 Directed Reading or Research (Ar.) Staff

**Geography**

255 Geography of Asia (3) I Mr. Bowers
256 Geography of Japan (2) II Mr. Manchester
257 Geography of China (3) II Mr. Bowers
264 Geography of India and Southeast Asia (3) II Mr. Bowers
300 Directed Research (Ar.) Staff

**Far East**

400 Thesis Research (Ar.) I and II Staff

**GENETICS**

Requirements for admission to candidacy for the master's degree:

1. A minimum of 20 semester hours of undergraduate credit in elementary and advanced courses in botany, zoology, chemistry, and genetics.

2. An oral qualifying examination covering previous work in this field to be taken as soon as possible after registering as a graduate student.

The graduate program: Courses to be selected from those listed below and others from allied fields as recommended by the advisory committee.

**Botany**

253 Plant Ecology (4) II Mr. St. John
263 Plant Pathology (3) II Mr. Lohman
264 Plant Pathology Technique (3) II (n. o. 1949–50) Mr. Lohman
268 PLANT MICROTECHNIQUE (3) II (n. o. 1949-50) Mr. Britten
280 CYTOGENETICS (3) I Mr. Britten
281 CYTOLOGY (3) I (n. o. 1949-50) Mr. Britten
300 DIRECTED RESEARCH (Ar.) I and II Staff

Agriculture
254 PRINCIPLES OF GENETICS (3) I Mr. Mainland
262 ADVANCED GENETICS (3) I Mr. Mainland
278 PRINCIPLES OF PLANT BREEDING (3) I Mr. Poole
292 AGRICULTURAL APPLIED STATISTICS (3) II Mr. Poole
300 DIRECTED RESEARCH (Ar.) I and II Mr. Storey
302 GENETICS SEMINAR (1) I and II Mr. Storey, Mr. Mainland
400 THESIS RESEARCH (Ar.) I and II Staff

Zoology
276 BIOMETRY (3) I Mr. Tester
277 BIOMETRICAL ANALYSIS (3) II Mr. Tester
285 ORGANIC EVOLUTION (2) II Mr. de Laubenfels
351 CYTOLOGY (3) I Miss Heizer

GEOGRAPHY

Requirements for admission to candidacy for the master's degree:

1. An adequate background in geography and basic courses in geology, history, anthropology or sociology, and government or economics.

2. A reading knowledge of a foreign language.

3. An oral examination covering previous work in the field to be taken as soon as possible after becoming a graduate student.

The graduate program: Courses in the major to be selected from those listed below. Required courses are marked with an asterisk. Six to 10 hours may be earned in advanced courses in related fields.

Geography
*250 CARTOGRAPHY (3) I Mr. Manchester
252 GEOGRAPHY OF NORTH AMERICA (3) II (n. o. 1949-50)
255 GEOGRAPHY OF ASIA (3) I Mr. Bowers
256 GEOGRAPHY OF JAPAN (2) II Mr. Manchester
257 GEOGRAPHY OF CHINA (3) II Mr. Bowers
258 GEOGRAPHY OF EUROPE (3) II Mr. Manchester
260 GEOGRAPHY OF HAWAII (n. o. 1949-50)
261 WORLD GEOGRAPHIC PATTERNS (3) I and II Mr. Bowers
*262 WEATHER AND CLIMATE (3) I Mr. Bowers
263 GEOGRAPHY OF THE PACIFIC ISLANDS (2) I Mr. Manchester
264 GEOGRAPHY OF INDIA AND SOUTHEAST ASIA (3) I Mr. Bowers
271 POLITICAL GEOGRAPHY (3) II Mr. Bowers
Requirements for admission to candidacy for the master's degree:

(1) A minimum of 18 undergraduate credits in government, including American government, political theory, and international relations.

(2) An oral examination covering previous work in the field to be taken as soon as possible after becoming a graduate student.

The graduate program: Courses in the major field required of all candidates are Government 260, 282, 290, and 400, and a course in methods of research (Government 288, Psychology 260, His-
tory 310, or an equivalent). The candidate may specialize in one of the following four fields, in which case the additional courses listed below are required:

*International Relations*
- Government 261, International Organization
- History 245, Diplomatic History of the United States
- Economics 285, Foreign Trade

*Public Administration*
- Government 283, Personnel Administration
- Government 284, Administrative Law
- Government 286, State and Local Administration
- Government 288, Methods and Problems of Research in Public Administration

*Political Philosophy*
- Philosophy 200, Ethics—Philosophies of Life
- History 246, American Thought and Culture
- Government 290, Modern Political Philosophy

*Comparative Government*
- Government 266, Comparative Government
- Government 268, Government and Politics of the Soviet Union

A maximum of 6 credits may be earned in other social sciences (economics, history, sociology, anthropology, and psychology) as determined by the supervising committee. These courses will be selected to strengthen and widen the candidate's field of major interest.

*Government*

- 240 *Democracy and Communism* (3) I
- 248 *American State Government* (3) II
  (n. o. 1949-50)
- 252 *Introduction to Constitutional Law* (3) I
- 253 *International Law* (3) I
- 254 *Municipal Government* (3) I
- 256 *American Political Parties* (3) II
- 260 *International Relations* (2) II
- 261 *International Organization* (3) II
- 262 *Government and Politics of the Far East* (3) II
- 263 *International Relations of the Far East* (3) I
- 264 *Postwar International Problems* (3) I
- 266 *Comparative Government* (3) I
- 267 *American Foreign Relations* (3) II
- 270 *Government of Hawaii* (3) (n. o. 1949-50)
271 Government of Dependencies (3) II
(n. o. 1949–50) Mr. Leebrock
282 Introduction to Public Administration (3) I Mr. Spellacy
283 Personnel Administration (3) I Mr. Akina
284 Administrative Law (3) II Mr. Spellacy
285 Public Financial Management (3) II Mr. Spellacy
286 State and Local Administration (3) II Mr. Spellacy
288 Methods and Problems of Research in
Public Administration (3) II Mr. Spellacy
290 Modern Political Philosophy (3) II Mr. Saunders
300 Directed Reading and Research (Ar.) I and II Staff
302 Seminar in International Relations (2) II Mr. Bridgham
303 Seminar in Government and Politics of the
Far East (2) I and II Mr. Bridgham, Mr. Leebrock
304 Seminar in Public Law (2) I Mr. Spellacy
307 Seminar in Political Theory (2) II Mr. Saunders
310 Seminar in Public Administration (2) II Mr. Spellacy
400 Thesis Research (Ar.) I and II Staff

Requirements for admission to candidacy for the master's degree:

1. A minimum of 18 undergraduate credits in history, including 10 hours in courses relating to the general field of the thesis.
2. An oral examination covering previous work in the field to be taken as soon as possible after becoming a graduate student.

The graduate program: Courses in the major field to be selected from those listed below. Required courses are marked with an asterisk. A maximum of 6 credits may be earned toward the degree in such closely related advanced courses as government, international relations, economics, or foreign languages.

History

201 History of the Far East (3–3) Yr. Mr. Sakamaki
208 Expansion of European Civilization (3) I Mr. Sakamaki
209–210 History of England (3–3) Yr. Mr. Murphy
211 Constitutional History of England (3) I
(n. o. 1949–50) Mr. Hunter
213 History of Modern Russia (3) I Mr. Delzell
214 History of Soviet Russia (3) II Mr. Delzell
220–221 History of the British Empire (3–3) Yr. Mr. Murphy
225 History of China (3–3) Yr. Mr. White
226 History of Japan (3–3) Yr. Mr. Sakamaki
229 History of the Relations between China and
the Occident (3–3) Yr. Mr. White
242–243 History of the United States (3–3) Yr. Mr. Hunter
245 Diplomatic History of the United States (3) I Mr. Hunter
246 American Thought and Culture (3) II  Mr. Hunter
250 History of Early Civilization in the Far East (3) I  Mr. Sakamaki
251 History of Thought in Japan (3) II  Mr. Sakamaki
252 Constitutional History of the United States (3) II (n. o. 1949–50)  Mr. Hunter
253–254 History of Hispanic America (3–3) Yr.  Mr. Johnson
257 Europe in the Nineteenth Century (3) I  Mr. Delzell
258 Europe Since Versailles (3) II  Mr. Delzell
276 History of the Hawaiian Islands (3) I  Mr. Kuykendall
277 The Pacific Region in Modern Times (2–2) Yr. (n. o. 1949–50)  Mr. Kuykendall
285 Russia in Asia (3–3) Yr.  Mr. White
295 Cultural History of China (3–3) Yr.  Mr. White
(n. o. 1949–50)  Staff
300 Directed Research (Ar.)  Staff
*310 Seminar in Historical Method (3) I  Mr. Hunter
311 Seminar in American Diplomatic History (3) I  Mr. Johnson
*313 Seminar in Historiography (3) II  Mr. Hunter
315 Seminar in Japanese History (3) II  Mr. Sakamaki
316 Seminar in Chinese History (3) I (n. o. 1949–50) Mr. White
*400 Thesis Research (Ar.) I and II  Staff

Nutrition

Requirements for admission to candidacy for the master's degree:

1. An undergraduate major in home economics, chemistry, or general science which includes courses in foods and nutrition. In addition, courses in chemistry and college algebra are required.

2. An oral qualifying examination to be taken upon completion of one semester of graduate work.

The graduate program: Courses to be selected from those listed. Required courses are marked with an asterisk. In addition, courses in statistical methods and thesis writing are required. A minor (6 to 9 credits) may be chosen in chemistry or some other field of science, in business and economics, or in education.

Home Economics

300 Directed Reading or Research (Ar.) I and II  Staff

Household Science

250 Diet and Disease (3) II  Mrs. Gruelle
*273 Food Habits in Hawaii (4) II  Miss Miller
277 Advanced Nutrition (3) II  Miss Miller
299 Directed Research in Experimental Cookery (Ar.) I and II  Staff

35
PHILOSOPHY

Requirements for admission to candidacy for the master's degree:

(1) A minimum of 18 semester hours of undergraduate credit in philosophy, including courses in history of philosophy, ethics, and logic. A course in general psychology is required.

(2) An oral qualifying examination to be taken as soon as possible after registering for graduate work.

The graduate program: Courses to 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, Modern Political Philosophy.

Philosophy

*210 CONTEMPORARY PHILOSOPHY (3) II
*252 TYPES OF PHILOSOPHY (3) I
*253 PROBLEMS OF PHILOSOPHY (3) II
262 AESTHETICS (3) I (n. o. 1949–50)
265 PHILOSOPHY, EAST AND WEST (3) II
270 INDIAN PHILOSOPHY (3) I
271 CHINESE PHILOSOPHY (3) I
275 PHILOSOPHY OF RELIGION (3) I
281 CONFUCIAN PHILOSOPHY (3) I (n. o. 1949–50)
282 TAOIST PHILOSOPHY (3) I (n. o. 1949–50)
283 BUDDHIST PHILOSOPHY (3) I
286 PHILOSOPHY OF SCIENCE (3) I
287 SCIENTIFIC METHOD (3) II
*288 SYMBOLIC LOGIC (3) II
*300 READING AND RESEARCH (Ar.)
303 SEMINAR IN CHINESE PHILOSOPHY (Ar.) (n. o. 1949–50)
304 SEMINAR IN BUDDHIST PHILOSOPHY (2) I
*400 THESIS RESEARCH (Ar.) I and II

PHYSICS

Requirements for admission to candidacy for the master's degree:

(1) A minimum of 18 undergraduate credits in physics, including courses in general physics, light, electricity and magnetism, mechanics, and modern physics. In addition, courses in general
chemistry, mathematics through calculus, and mechanical drawing are required.

(2) An oral qualifying examination covering previous work in the field to be taken as soon as possible after becoming a graduate student.

The graduate program: Courses in the major field to be selected from those listed below. Required courses are marked with an asterisk. Recommended related courses are: Structural Mechanics, Hydraulics, Advanced Calculus, and Mathematics of Theoretical Physics.

**Physics**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>258</td>
<td><strong>Electronics</strong> (3) I</td>
<td>Mr. Miyake</td>
</tr>
<tr>
<td>259</td>
<td><strong>Seismology</strong> (3) I</td>
<td>Mr. Eller</td>
</tr>
<tr>
<td>260</td>
<td><strong>Geophysics</strong> (3) II</td>
<td>Mr. Miyake</td>
</tr>
<tr>
<td>262</td>
<td><strong>Sound</strong> (3) II</td>
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</tr>
<tr>
<td>299</td>
<td><strong>Reading or Laboratory Work in Advanced Physics</strong> (Ar.)</td>
<td>Staff</td>
</tr>
<tr>
<td>*300</td>
<td><strong>Directed Reading or Research</strong> (Ar.)</td>
<td>Staff</td>
</tr>
<tr>
<td>*302</td>
<td><strong>Theoretical Physics</strong> (3–3) Yr.</td>
<td>Mr. Eller</td>
</tr>
<tr>
<td>*400</td>
<td><strong>Thesis Research</strong> (Ar.) I and II</td>
<td>Staff</td>
</tr>
</tbody>
</table>

**PSYCHOLOGY**

Requirements for admission to candidacy for the master’s degree:

(1) An adequate background in psychology. Ordinarily, 28 undergraduate credits in psychology, including general psychology and experimental psychology, will represent such background.

(2) An oral examination covering previous work in the field to be taken immediately after becoming a graduate student.

The graduate program: Courses to be selected from those listed below. Required courses are marked with an asterisk. A maximum of 6 credits may be earned in closely related courses in anthropology, philosophy, physics, sociology, and zoology.

**Psychology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>250</td>
<td><strong>Applied Psychology</strong> (3) II</td>
<td>Mr. Forbes</td>
</tr>
<tr>
<td>254</td>
<td><strong>Principles of Guidance</strong> (3) I</td>
<td>Mr. Bitner</td>
</tr>
<tr>
<td>256</td>
<td><strong>Business and Industrial Psychology</strong> (3) I</td>
<td>Mr. Forbes</td>
</tr>
<tr>
<td>257</td>
<td><strong>Principles of Counselling</strong> (3) II</td>
<td>Mr. Beyers</td>
</tr>
<tr>
<td>*260</td>
<td><strong>Statistical Techniques in Psychology</strong> (3) I and II</td>
<td>Mrs. Springer</td>
</tr>
<tr>
<td>*264</td>
<td><strong>Psychological Measurements</strong> (3) II</td>
<td>Mr. Briggs</td>
</tr>
<tr>
<td>*267</td>
<td><strong>Experimental Psychology</strong> (3) I and II</td>
<td>Mr. Forbes</td>
</tr>
<tr>
<td>*270</td>
<td><strong>Physiological Psychology</strong> (3) I</td>
<td>Mr. Morsh</td>
</tr>
<tr>
<td>272</td>
<td><strong>Psychology of Learning</strong> (3) I</td>
<td>Mr. Briggs</td>
</tr>
</tbody>
</table>
Requirements for admission to candidacy for the master’s degree:

(1) Successful completion of the basic graduate curriculum in social work (at least 28 semester hours of designated courses), including 6 semester hours in field work.

(2) An oral examination covering previous work in the field to be taken when application for admission to candidacy is made.

The full graduate program consists of 48 semester hours to be selected from the following. Courses marked with an asterisk are required of students completing the basic curriculum at this University. Those marked with a dagger are required in addition of students working toward the master's degree. The choice of advanced courses in either case work or group work depends upon the student’s major interest.

**Social Work**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>*305</td>
<td>Social Case Work (3) I</td>
<td>Miss Houwink</td>
</tr>
<tr>
<td>306</td>
<td>Social Case Work (2) I</td>
<td>Miss Houwink</td>
</tr>
<tr>
<td>*308</td>
<td>Social Group Work (3) I</td>
<td>Miss Lyle</td>
</tr>
<tr>
<td>309</td>
<td>Social Group Work (2) II</td>
<td>Miss Lyle</td>
</tr>
<tr>
<td>*310</td>
<td>Dynamics of Human Behavior (2) II</td>
<td>Mr. Guesnberg</td>
</tr>
<tr>
<td>*315</td>
<td>Community Organization (2) II</td>
<td>Miss Lyle</td>
</tr>
<tr>
<td>325</td>
<td>Child Welfare (2) II</td>
<td>Mrs. Handley</td>
</tr>
<tr>
<td>*330</td>
<td>Health and Disease (2) I</td>
<td>Miss Houwink</td>
</tr>
<tr>
<td>*350</td>
<td>Introduction to Public Welfare (2) I</td>
<td>Mrs. Handley</td>
</tr>
<tr>
<td>351</td>
<td>Social Insurance (2) II</td>
<td>Mr. Jambor</td>
</tr>
<tr>
<td>*352</td>
<td>Social Statistics and Research (2) I</td>
<td>Mr. Jambor</td>
</tr>
<tr>
<td>353</td>
<td>Legal Aspects of Social Work (2) II</td>
<td></td>
</tr>
</tbody>
</table>

*275 Systematic Psychology (3) II  Mr. Briggs
*280 Social Psychology (3) II     Mr. Vinacke
283 Psychology of Personality (3) I and II Mr. Vinacke
286 Political Psychology (3) I    Mr. Vinacke
290 Clinical Psychology (3) I     Mr. Vinacke
292 Mental Hygiene (3) I and II   Mr. Morsh
*295 Abnormal Psychology (3) I and II Mr. Morsh
300 Directed Reading or Research (Ar.) Staff
*320 Graduate Seminar on Methods in Research and Thesis Writing (2) I Mr. Forbes
*321 Graduate Seminar (2) II      Mr. Forbes
356 Problems in Clinical Psychology (3) I and II Mrs. Allen
362 Individual Intelligence Test Technique (3) I Clinic Staff
*382 History of Psychology (3) I (n. o. 1949–50) Mr. Briggs
*400 Thesis Research (Ar.) I and II Staff
SOCIOL OGY

Requirements for admission to candidacy for the master's degree:

(1) A minimum of 18 semester hours of undergraduate credit in sociology, including the introductory course and three of the following courses: The Family, Human Migrations, Personality and Culture, Population and Society, Human Ecology, and Collective Behavior. In addition, introductory courses in philosophy, economics, psychology, anthropology, and government are recommended.

(2) An oral qualifying examination to be taken as soon as possible after registering for graduate work.

The graduate program: Courses in the major to be selected from those listed below. Required courses are indicated by an asterisk. A maximum of 6 credit hours may be earned in related courses in economics, anthropology, psychology, and history.

Sociology

252 THE COMMUNITY (3) I (n. o. 1949–50) Mr. Yamamura
253 RURAL SOCIOLOGY (3) I
254 URBAN SOCIOLOGY (3) II (n. o. 1949–50)
255 SOCIAL DISORGANIZATION (3) II Mr. Hormann
Requirements for admission to candidacy for the master's degree:

(1) At least 24 credits in speech, including one course in each of the six major areas: speech correction, interpretation, rhetoric and public address, radio, theater, and speech education.

(2) An oral qualifying examination to be taken as soon as possible after registering as a graduate student.

The graduate program: Courses to be selected from those listed below. The qualifying committee will determine which courses are required in the case of each candidate. A maximum of 6 semester hours may be earned in closely related courses in other fields.

**Speech**

220 **Phonetics (3) I**   Mr. Wise
221 **Principles of Speech Correction (3-3) Yr.**   Mr. Parry
222 **Speech Therapy (3) I**   Mr. Parry
223 **Advanced Speech Therapy (3) II**   Mr. Parry
228 **Semantics (3) II**
232 **Advanced Interpretation (3) II**   Mr. Smith
241 **Acting (3-3) Yr.**   Mr. Trapido
242 **Theory and Practice of Direction (3) II**   Mr. Ernst
243 STAGECRAFT (3–3) Yr.  Mr. Trapido
244 HISTORY OF THE THEATER (3) II (n. o. 1949–50)  Mr. Ernst
245 AESTHETICS OF THE THEATER (3) I (n. o. 1949–50)  Mr. Ernst
246 MODERN THEORIES OF STAGE PRESENTATION (3) I Mr. Ernst
250 DISCUSSION (3) I  Mr. Lefforge
251 DEBATING (3) II  Mr. Ewbank
262 SPEECH IMPROVEMENT (1) I and II  Mrs. Krantz, Mr. Parry
265 SPEECH FOR THE CLASSROOM TEACHER (2) I and II  Staff
270 INTRODUCTION TO RADIO (3) I  Mr. Highlander
271 RADIO PRODUCTION (3) II  Mr. Highlander
272 RADIO WORKSHOP (2–2) Yr.  Mr. Highlander
278 RADIO WRITING (3) I  Mr. Highlander
279 ADVANCED RADIO WRITING (3) II  Mr. Highlander
295 RHETORIC (3) I  Miss Borchers
298 SPECIAL PROBLEMS (Ar.) I and II  Staff
300 RESEARCH (Ar.) I and II  Staff
310 SEMINAR IN RESEARCH TECHNIQUES AND METHODS (3–3) Yr.  Staff
320 SEMINAR IN SPEECH CORRECTION (3–3) Yr.  Mr. Parry, Staff
330 SEMINAR IN INTERPRETATION (3) I and II (n. o. 1949–50)  Mr. Smith, Staff
340 SEMINAR IN DRAMATICS (3) II  Mr. Ernst, Mr. Trapido, Staff
350 SEMINAR IN RHETORIC AND PUBLIC ADDRESS (3) I and II (n. o. 1949–50)  Staff
*400 THESIS RESEARCH (Ar.) I and II  Staff

**ZOOLOGY AND ENTOMOLOGY**

Requirements for admission to candidacy for advanced degrees:

1. Undergraduate preparation. Candidates planning to specialize in entomology should have completed a minimum of 18 undergraduate credits in zoology and entomology, including general zoology, general entomology, general physiology, insect morphology, and systematic entomology. Candidates in general or marine zoology should have completed a minimum of 18 undergraduate credits in zoology, including comparative anatomy of invertebrates and vertebrates, embryology, histology, genetics, and general physiology. Majors in all fields also should have completed two years of chemistry (including inorganic and organic), one year of physics, and courses in algebra and botany.

2. For the master's degree, the student must meet with the qualifying committee as soon as possible after registering as a graduate student.

3. For the doctor's degree, see requirements on pages 15 and 16.
The graduate program: Courses in the major field to be selected from those listed below. Courses marked with an asterisk are required of students specializing in entomology. Those marked with a dagger are required of students working toward a degree in zoology. For the master's degree, a maximum of 6 credits may be earned in related courses in botany, genetics, horticulture, and chemistry by candidates in entomology; and in botany, chemistry, genetics, mathematics, and physics by candidates in zoology. For the doctor's degree, additional requirements will be designated by the supervisory committee.

**Zoology**

240 **INTRODUCTION TO ECOLOGY (2) I**
Mr. Gosline, Mr. Hardy, Mr. Hiatt

245 **ZOOGEOGRAPHY (2) I (Alternate years; n. o. 1949–50)**
Mr. Gosline

253 **PARASITOLOGY (3) I**
Mr. Chu

*254 **INSECT MOPHOLoGY (3) I**
Mr. Tuthill

*255 **SYSTEMATIC ENTOMOLOGY (3) II**
Mr. Tuthill

256 **MEDICAL AND VETERINARY ENTOMOLOGY (3) I**
Mr. Hardy

†260 **HISTOLOGY (3) I**
Miss Heizer

†261 **VERTEBRATE EMBRYOLOGY (3) II**

262 **MICROTECHNIQUE (3) II**

266 **HEMATOLOGY (3) II**

273 **ECONOMIC ENTOMOLOGY (3) II**
Mr. Hardy

275 **GENERAL Ichthyology (3–3) Yr.**
Mr. Gosline

276 **BIOMETRY (3) I**
Mr. Tester

277 **BIOMETRICAL ANALYSIS (3) II**
Mr. Tester

†280 **COMPARATIVE ANATOMY OF INVERTEBRATES (3) I** Mr. Banner

281 **TAXONOMY OF MARINE INVERTEBRATES (3) II**
(Alternate years; o. 1949–50)

282 **ECOLOGY OF REEF AND SHORE FAUNA (3) II**
(Alternate years; n. o. 1949–50)
Mr. Hiatt

284 **COMPARATIVE INVERTEBRATE PHYSIOLOGY (3) II** Mr. Scheer

285 **ORGANIC EVOLUTION (2) II**
Mr. de Laubenfels

286 **History of Zoology (2) I**
Mr. de Laubenfels

287 **METHODS OF FISHERY INVESTIGATION (3) I**
Mr. Tester

290 **OCEANOGRAPHY (3) II (Alternate years; o. 1949–50)**
Mr. Banner

†*291 **GENERAL PHYSIOLOGY (3) I**
Mr. Scheer

† **PRINCIPLES OF GENETICS AND ADVANCED GENETICS,**
see Agriculture 254 and 262

300 **DIRECTED RESEARCH (Ar.)**
Staff

†310 **GENERAL ZOOLOGY SEMINAR (1) I**
Staff

*311 **ENTOMOLOGY SEMINAR (1) I**
Staff

†312 **SEMINAR IN MARINE ZOOLOGY (1) I**
Staff
†313 Seminar in Fisheries Biology (1) I Staff
†314 Seminar in Advanced Fisheries Biology (1) II Staff
†*315 Zoological Literature (1) I Staff
†*316 Preparation of Scientific Manuscripts (1) II Mr. Tuthill
320 Development of Marine Invertebrates (3) II
   (Alternate years; n. o. 1949–50) Mr. Banner
350 Advanced Systematic Entomology (3) II
   (Alternate years; o. 1949–50) Mr. Tuthill
351 Cytology (3) I Miss Heizer
352 Insect Ecology (3) I (Alternate years; o. 1949–50) Mr. Bess
353 Principles of Applied Entomology (3) I
   (Alternate years; n. o. 1949–50) Mr. Bess
355–356 Insect-Transmitted Diseases of Plants
   (3–1) Yr. Mr. Carter
370 Principles of Systematic Zoology (3) I
   (Alternate years; o. 1949–50) Mr. Gosline
387 Population Dynamics (3) II (Alternate years;
   o. 1949–50) Mr. Tester
388 Fisheries Management (3) II (Alternate years;
   n. o. 1949–50) Mr. Tester
391 Advanced General Physiology (3) II
   (Alternate years; n. o. 1949–50) Mr. Scheer
392 Physiological Ecology (3) II (Alternate years;
   o. 1949–50) Mr. Scheer
†*400 Thesis Research (Ar.) I and II Staff