University of Hawaii

General Catalogue

1957 - 1958
UNIVERSITY OF HAWAII

1957-1958 Calendar

First Semester

September 16-17, Monday and Tuesday...........................Orientation for freshmen
September 17, Tuesday............................................Registration of seniors
September 18, Wednesday.........................................Registration of juniors
September 19, Thursday..........................................Registration of sophomores
September 20, Friday.............................................Registration of freshmen
September 21, Saturday.........................................8:00 A.M. to 1:00 P.M. Registration of graduate
and unclassified students and auditors
September 23, Monday...........................................2:30 to 5:00 P.M. Registration of graduate
and unclassified students and auditors

Second Semester

February 5, Wednesday..........................................Registration of seniors and juniors
February 6, Thursday.............................................Registration of sophomores
February 7, Friday................................................Registration of freshmen
February 8, Saturday............................................8:00 A.M. to 1:00 P.M. Registration of graduate
and unclassified students and auditors
February 10, Monday.............................................2:30 to 5:00 P.M. Registration of graduate
and unclassified students and auditors

Second Semester

February 10, Monday.............................................Instruction begins
February 17, Monday.............................................Last day of registration for credit
February 22, Saturday...........................................Presidents’ Day (holiday)
March 3, Monday..................................................Last day of withdrawal from courses without “grade” penalty
March 21, Friday...................................................First deficiency reports due
March 26, Wednesday............................................Prince Kuhio Day (holiday)
April 3, Thursday..................................................Last day for removal of “Incompletes”
April 4-5, Friday and Saturday.................................Easter recess
April 25, Friday....................................................Second deficiency reports due
April 28, Monday...................................................Last day of withdrawal from courses
May 20, Tuesday....................................................ROTC graduation exercises
May 24, Saturday..................................................Last day of instruction
May 26, Monday....................................................Final examinations begin
May 30, Friday.....................................................Memorial Day (holiday)
June 5, Thursday..................................................Second semester ends
June 8, Sunday....................................................Commencement
# CONTENTS

| BOARD OF REGENTS | 6 |
| FACULTY AND STAFF | |
| Administration | 7 |
| Instruction | 8 |
| Hawaii Agricultural Experiment Station | 30 |
| Agricultural Extension Service | 32 |
| Office of Student Personnel | 36 |
| Legislative Reference Bureau | 36 |
| Affiliate Graduate Faculty | 37 |
| GENERAL INFORMATION | 39 |
| ACADEMIC INFORMATION | 45 |
| STUDENT ACTIVITIES | 63 |
| COLLEGE OF ARTS AND SCIENCES | 66 |
| COLLEGE OF APPLIED SCIENCE | 74 |
| TEACHERS COLLEGE | 83 |
| COLLEGE OF AGRICULTURE | 90 |
| COLLEGE OF BUSINESS ADMINISTRATION | 102 |
| COLLEGE OF GENERAL STUDIES | 106 |
| GRADUATE SCHOOL | 108 |

## ANNOUNCEMENT OF COURSES

| Agriculture | 112 |
| Air Science | 117 |
| Anthropology | 117 |
| Art | 119 |
| Asian and Pacific Languages | 123 |
| Bacteriology | 124 |
| Botany | 125 |
| Business | 128 |
| Chemistry | 133 |
| Dental Hygiene | 136 |
| Drama and Theatre | 137 |
| Economics | 138 |
| Education | 140 |
| Engineering | 146 |
| English | 149 |
| European Languages | 153 |
| Geography | 155 |
| Geology and Geophysics | 157 |
| Government | 158 |

| Health and Physical Education | 161 |
| History | 164 |
| Home Economics | 166 |
| Interdepartmental Courses | 170 |
| Library Science | 170 |
| Mathematics | 171 |
| Medical Technology | 172 |
| Military Science | 173 |
| Music | 173 |
| Nursing | 176 |
| Oceanography | 178 |
| Philosophy | 178 |
| Physics | 180 |
| Psychology | 182 |
| Religion | 185 |
| Social Work | 186 |
| Sociology | 188 |
| Speech | 191 |
| Zoology and Entomology | 194 |

## UNIVERSITY OF HAWAII HILO BRANCH

SUMMARY OF ENROLLMENT FOR 1956–57 | 200

INDEX | 201
BOARD OF REGENTS

TERM EXPIRES

J. Garner Anthony................................................................. 1957
Attorney at Law
Honolulu

Clayton J. Chamberlin, Ex Officio........................................... —
Superintendent, Department of Public Instruction
Honolulu

Hung Wai Ching............................................................... 1959
Real estate
Honolulu

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

Fred K. Lam............................................................................ 1959
Physician and Surgeon
Honolulu

Jack H. Mizuha....................................................................... 1959
Attorney at Law
Lihue, Kauai

Richard Penhallow.................................................................. 1959
Assistant Manager, Parker Ranch
Kamuela, Hawaii

Philip E. Spalding................................................................... 1957
Chairman of the Board, Hawaiian Electric Company
Honolulu

Willard Wilson, Ex Officio...................................................... —
Acting President, University of Hawaii
Honolulu

OFFICERS OF THE BOARD

Philip E. Spalding......................................................... Chairman
Fred K. Lam........................................................................ Vice-Chairman
Akiko Taira................................................................. Secretary

FORMER PRESIDENTS

John W. Gilmore, 1908–1913
B.S.A. 1898, M.S.A. 1906, Cornell

Arthur L. Dean, 1914–1927

David L. Crawford, 1927–1941
B.A. 1911, LL.D. 1933, Pomona; M.A. 1912, Stanford; LL.D. 1957, Hawaii

Gregg M. Sinclair, 1942–1955

Paul S. Bachman, July 1, 1955–January 9, 1957
B.S. 1922, Ohio State; M.A. 1925, Ph.D. 1927, University of Washington
FACULTY AND STAFF
1956-1957

Administration

PAUL S. BACHMAN, Ph.D., President of the University*
WILLARD WILSON, Ph.D., Acting President
WILFRED J. HOLMES, M.S., Vice-President and Dean of Administration
BRUCE E. WHITE, Ph.D., Acting Dean of the Faculties
ROBERT W. HIATT, Ph.D., Dean of the Graduate School and Director of Research
ALLAN F. SAUNDERS, Ph.D., Dean of the College of Arts and Sciences
WILLIAM M. WACHTER, M.S., Dean of the College of Applied Science**
HAROLD C. MARTIN, Ph.D., Acting Dean of the College of Applied Science
HUBERT V. EVERLY, Ph.D., Acting Dean of Teachers College
HAROLD A. WADSWORTH, B.S., Dean of the College of Agriculture
HAROLD S. ROBERTS, Ph.D., Dean of the College of Business Administration***
EDMUND F. SPELLACY, Ph.D., Dean of the College of General Studies
HAROLD M. BITNER, Ph.D., Dean of Student Personnel
SHUNZO SAKAMAKI, Ph.D., Dean of Summer Session
CARL G. STROVEN, Ph.D., Librarian
AMOS P. LEIB, M.A., Veterans' Adviser
JOSEPH M. SKORPEN, B.A., Treasurer
EDWARD T. WHITE, M.A., Director, Office of Admissions and Records
THOMAS NICKERSON, B.A., Director, Office of Publications and Information
ROBERT M. KAMINS, Ph.D., Director, Legislative Reference Bureau
KATHARINE N. HANDLEY, M.S.W., Director, School of Social Work
VIRGINIA A. JONES, M.Ed., Director, School of Nursing
FRANK T. INOYUE, Ph.D., Director, Hilo Branch
MORTON M. ROSENBERG, Ph.D., Director, Agricultural Experiment Station
Y. BARON GOTO, B.S., Director, Agricultural Extension Service

Emeriti

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

Armstrong, Fred E., Professor Emeritus of Vocational Education
  B.S. 1916, Clemson; M.S. 1921, Minnesota; Ph.D. 1940, Pennsylvania State

* Deceased January 9, 1957
** On leave 1956-57
*** Also designated as Director of the Industrial Relations Center
Bennett, J. Gardner, Professor Emeritus of Engineering
B.S. 1912, Cornell College; B.S. in C.E. 1918, C.E. 1925, Wisconsin

Edmondson, Charles H., Professor Emeritus of Zoology
Ph.B. 1903; M.S. 1904, Ph.D. 1906, Iowa

Graham, Matthew M., Professor Emeritus of Accounting
C.P.A., Hawaii Territorial Board of Accountancy

Henke, Louis A., Professor Emeritus of Agriculture
B.S. 1912, M.S. 1923, Wisconsin

Keller, Arthur R., Dean Emeritus
C.E. 1903, Cornell; LL.B. 1906, National University; M.S. 1916, Massachusetts Institute of Technology; M.S. in C.E. 1916, Harvard; Sc.D. (Hon.) 1942, Hawaii

Krauss, Frederick G., Professor Emeritus of Agriculture
Sc.D. (Hon.) 1921, Hawaii

Kuykendall, Ralph S., Professor Emeritus of History
B.A. 1910, College of the Pacific; M.A. 1921, California; L.H.D. 1956, Hawaii

Leebrick, Karl C., Professor Emeritus of Government
B.S. 1911, M.S. 1913, Ph.D. 1916, California

Luquiens, Huc-Mazeler, Professor Emeritus of Art
B.A. 1902, B.F.A. 1908, Yale

Palmer, Harold S., Professor Emeritus of Geology
B.A. 1912, Ph.D. 1923, Yale

Peeker, Irving O., Professor Emeritus of Romance Languages
B.A. 1912, Boston

Porteus, Stanley D., Professor Emeritus of Psychology
Sc.D. (Hon.) 1933, Hawaii

Ripperton, John C., Professor Emeritus of Agriculture
B.S. 1913, Municipal University of Wichita; M.S. 1916, Kansas State

Sayers, E. Vern, Professor Emeritus of Education
B.A. 1914, M.A. 1921, Indiana; Ph.D. 1929, Columbia

Sinclair, Gregg M., President Emeritus

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**Instruction**

Abbott, Agatin T., Associate Professor of Geology
B.A. 1939, Minnesota; Ph.D. 1952, University of Washington

Abrums, Tom E., Instructor in English
B.A. 1932, M.A. 1933, Colorado

Adam, Leona R., Assistant Professor of Nursing
B.S. 1944, Indiana

Adler, Jacob, Associate Professor of Business
B.S. 1933, Chicago; C.P.A. 1950, Hawaii Board of Accountancy

Akamine, Ralph N., Lecturer in Dental Hygiene
D.D.S. 1946, Washington University; M.S. 1951, Illinois (first semester only)
Allen, Master Sergeant Oliver V., Instructor in Military Science  
B.S. 1943, M.A. 1947, Minnesota

Alm, Julie N. (Mrs. Richard S.), Instructor in Education  
B.S. 1943, M.A. 1947, Minnesota

Alm, Richard S., Assistant Professor of Education  
B.S. 1942, M.A. 1948, Ph.D. 1954, Minnesota

Amato, Anthony J., Instructor in Education  
B.A. 1949, La Salle College; M.Ed. 1951, Pennsylvania State (on leave 1956–57)

Amioka, Shiro, Instructor in Education  
B.Ed. 1949, M.Ed. 1952, Hawaii

Ansberry, Merle, Professor of Speech  
B.A. 1929, M.A. 1931, California; Ph.D. 1937, Wisconsin

Aoki, Mitsuo, Assistant Professor of Religion  
B.A. 1940, Drury College; B.D. 1943, Chicago Theological Seminary

Arkoff, Abe, Assistant Professor of Psychology  
B.A. 1946, M.A. 1948, Ph.D. 1951, Iowa

Armour, Richard, Carnegie Visiting Professor of English  
B.A. 1927, Pomona College; M.A. 1928, Ph.D. 1933, Harvard (second semester only)

Asato, James K., Instructor in Health and Physical Education  
B.S. 1952, Hawaii; M.S. 1956, Illinois

Aspinwall, Dorothy B. (Mrs. Albion N.), Associate Professor of European Languages  
B.A. 1933, M.A. 1939, Alberta; Ph.D. 1948, University of Washington

Atkinson, Phillip S., Assistant Professor of Economics and Business  
B.S. 1948, Illinois State Normal University; M.A. 1952, New York

Austin, Thomas S., Associate Professor of Botany  
B.S. 1938, Grove City College; M.A. 1940, Buffalo; M.S. 1942, Yale

Avery, Don E., Assistant Professor of Engineering  
B.S. 1937, M.E. 1950, University of Washington

Avery, Donald M., Lecturer in Business  
B.A. 1943, Stanford (second semester only)

Balsbaugh, Carolyn R., Assistant Professor of Education and Principal, Preschool  
B.S. 1938, Temple; M.A. 1949, Columbia

Banner, Albert H., Associate Professor of Zoology  
B.S. 1935, Ph.D. 1943, University of Washington; M.S. 1940, Hawaii

Bartos, Otomar J., Instructor in Sociology  
B.A., M.A. 1954, Colorado

Bartow, Mary L. (Mrs.), Instructor in Home Economics  
B.A. 1919, Washington State

Beamer, Martha F. (Mrs. Milton D., Jr.), Instructor in Health and Physical Education  
B.Ed. 1952, Hawaii

Beaumont, John H., Senior Professor of Agriculture  
B.S. 1917, West Virginia; Ph.D. 1925, Minnesota

Bell, Donald W., Assistant Professor of Economics  
B.S. 1943, Montana State
Bellando, William P., *Lecturer in Dental Hygiene* (second semester only)

Bennett, Hannah L., *Instructor in Education*
  B.S. 1939, Northwest Missouri State College; M.A. 1947, Ohio State

Bentley, Lucie F., *Assistant Professor of Speech and of Drama and Theatre*
  B.A. 1928, Stanford; M.A. 1933, Cornell

Berk, Morton E., *Lecturer in Nursing*
  B.A. 1938, M.D. 1942, University of Louisville

Bernatowicz, Albert J., *Assistant Professor of Botany*
  B.A. 1948, Clark; M.A. 1952, Ph.D. 1953, Michigan

Bess, Henry A., *Senior Professor of Entomology*
  B.S. 1927, Alabama Polytechnic Institute; M.S. 1931, Florida; Ph.D. 1934, Ohio State

Beyers, Otto J., *Associate Professor of Education*
  B.A. 1933, Wayne; M.A. 1934, Ed.D. 1936, Washington University (on leave first semester)

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

Bieser, Marjorie F. (Mrs. Leonard V.), *Instructor in Education*
  B.Ed. 1940, Hawaii; M.A. 1947, Columbia (first semester only)

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

Bilger, Leonora N. (Mrs. Earl M.), *Senior Professor of Chemistry*
  B.A. 1913, M.A. 1914, Ph.D. 1916, Cincinnati

Bilsborrow, Eleanor J., *Instructor in English*

Bitner, Harold M., *Professor of Psychology*
  B.S. 1941, State Teachers College, Shippensburg, Pennsylvania; M.A. 1945, Duke; Ph.D. 1951, Ohio State

Black, Major Don W., *Associate Professor of Military Science*
  B.A. 1941, Kansas

Blackburn, Maurice, *Professor of Zoology*
  B.S. 1936, M.S. 1937, Sc.D. 1952, University of Melbourne

Boatman, Elsie M. (Mrs.), *Associate Professor of Home Economics and Director of Food Service*
  B.S. 1924, M.S. 1931, Iowa State

Bonk, William J., *Instructor in Anthropology and Sociology* (Hilo Branch)
  B.A. 1951, M.A. 1954, Hawaii

Boroughs, Howard, *Research Associate in Marine Zoology*
  B.A. 1949, Southern California; Ph.D. 1952, California Institute of Technology

Bouslog, Charles S., *Associate Professor of English*
  B.A. 1934, Indiana; M.A. 1948, Ph.D. 1951, Harvard

Bowers, Neal M., *Professor of Geography*
  B.S. 1938, Western Michigan College of Education; M.A. 1939, Ph.D. 1951, Michigan (on leave 1956–57)

Breneman, Lucille (Mrs. A. D.), *Instructor in Speech*
  B.A. 1935, Baylor; M.A. 1949, Hawaii
Brenneisen, Elizabeth K. (Mrs. Leo S.), Lecturer in English
B.A. 1940, Kansas; M.A. 1950, Arizona

Britten, Edward J., Associate Professor of Agriculture
B.S. 1940, M.S. 1941, Saskatchewan; Ph.D. 1944, Wisconsin

Brown, Dorothy S. (Mrs.), Assistant Professor of English
B.A. 1934, Hawaii; M.A. 1935, Stanford; Ph.D. 1956, University of Washington

Brown, Hubert E., Professor of Health and Physical Education
B.P.E. 1920, M.P.E. 1927, Springfield College; Ph.D. 1940, New York

Brown, Roy E., Lecturer in Government
B.A. 1923, Iowa State Teachers College; M.A. 1927, Ph.D. 1929, Iowa (first semester only)

Bucklin, Thetis M., Associate Professor of Health and Physical Education
B.S. 1935, Battle Creek College; M.S. 1936, Indiana; Ed.D. 1950, Columbia (on leave second semester)

Burack, Captain Emanuel, Assistant Professor of Military Science
B.S. 1950, College of the City of New York

Burke, Robert E., Assistant Professor of History
B.A. 1946, Chico State College; M.A. 1947, Ph.D. 1950, California

Burke, Thomas H., Instructor in Music
B.M. 1951, Drake; M.M. 1952, Manhattan School of Music

Burkert, George I., Instructor in European Languages
B.A. 1941, M.A. 1950, Oklahoma; Diploma 1948, Paris

Buscheck, Alfred J., Lecturer in Business
B.A. 1913, L.L.B. 1915, Wisconsin; J.S.D. 1931, Yale (second semester only)

Bushnell, Oswald A., Associate Professor of Bacteriology
B.S. 1934, Hawaii; M.S. 1935, Ph.D. 1937, Wisconsin

Caesar, Master Sergeant Daniel, Instructor in Military Science

Cagle, Technical Sergeant Thomas E., Instructor in Air Science

Camara, Anne C. (Mrs. Edward), Lecturer in Nursing
B.S. 1948, St. Louis University

Campbell, Robert L., Instructor in Education
B.S. 1946, Illinois Institute of Technology; M.Ed. 1951, Louisiana State

Canfield, Claire, Assistant Professor of Nursing
B.S. 1947, Wayne; M.A. 1950, Columbia

Carr, Elizabeth B. (Mrs.), Associate Professor of Speech
B.A. 1924, M.A. 1940, Oklahoma; Ph.D. 1953, Louisiana State

Carroll, Philip S., Instructor in Speech (Hilo Branch)
B.A. 1954, M.A. 1956, Denver

Carter, Walter, Professor of Zoology
B.S. 1923, Montana; M.S. 1924, Ph.D. 1928, Minnesota

Castro, Evelyn H. (Mrs. William C.), Instructor in English
B.A. 1938, San Jose State College; M.A. 1948, Hawaii

Charlor, Jean, Senior Professor of Art
D.P.A. 1946, Grinnell College; LL.D. 1956, St. Mary's College

Cheh, Jen C., Lecturer in Chinese
B.A. 1940, National Peiping Normal University; M.A. 1945, New Mexico
Cheng, Ch'eng-K'un, Associate Professor of Sociology  
B.A. 1932, Yenching; M.A. 1937, Ph.D. 1945, University of Washington

Cherry, James W., Lecturer in Nursing  
B.S. 1944, M.D. 1945, Arkansas

Ching, James C., Instructor in Speech  
B.A. 1951, Wabash College; M.A. 1953, Hawaii

Chiu, Arthur N. L., Assistant Professor of Engineering  
B.A., B.S. 1952, Oregon State; M.S. 1953, Massachusetts Institute of Technology

Cho, Samuel S., Lecturer in Business  
B.S. 1937, M.B.A. 1947, California (first semester only)

Chong, Lily Pao-Hu (Mrs.), Assistant Professor of Chinese  
B.A. 1937, Yenching; M.A. 1950, Hawaii (on leave 1956-57)

Chu, George W., Professor of Bacteriology and Zoology  
B.A. 1928, Lingnan; M.S. 1929, Yenching; Sc.D. 1934, Johns Hopkins

Chui, Edward F., Assistant Professor of Education  
B.S. 1947, M.A. 1948, Iowa

Chun, Dai Ho, Associate Professor of Education  
B.A. 1930, M.A. 1937, Hawaii; Ph.D. 1947, Ohio State (on leave 1956-57)

Clark, Francis E., Associate Professor of Education  
B.S. 1930, Northern State Teachers College; M.S. 1937, Ed.D. 1948, Colorado

Clark, Richard H., Assistant Professor of Mathematics  
B.S. 1940, Yale; M.A. 1949, Michigan

Clopton, Robert W., Professor of Education  
B.A. 1926, Maryville College; M.Ed. 1941, Hawaii; Ph.D. 1946, Northwestern

Comba, Paolo, Assistant Professor of Mathematics  
B.A. 1947, Bluffton College; Ph.D. 1951, California Institute of Technology

Congdon, Charles F., Assistant Professor of Business  
B.S. 1934, State Teachers College, West Chester, Pennsylvania; M.Ed. 1940, Hawaii;  
M.B.A. 1953, Columbia

Conner, Mervin I., Lecturer in Dental Hygiene  
D.D.S. 1926, California (second semester only)

Connor, Angie, Lecturer in Nursing  
B.S. 1933, Northwestern; M.D. 1937, Women's Medical College of Pennsylvania

Cooil, Bruce J., Professor of Agriculture  
B.S. 1936, Washington State; M.S. 1939, Hawaii; Ph.D. 1942, California

Corba, Nicholas B., Assistant Professor of Engineering  
B.S. 1940, State Teachers College, California, Pennsylvania; M.Ed. 1952, Pittsburgh

Core, Helen E., Instructor in Mathematics  
B.A. 1934, Michigan State Normal College; M.S. 1947, Michigan State

Cox, J. Halley, Associate Professor of Art  
B.A. 1933, San Jose State College; M.A. 1937, California

Cranch, D. Eleanor, Instructor in Nursing  
B.S. 1952, Pittsburgh; M.S. 1954, Yale

Crawford, Carolyn, Assistant Professor of Education  
B.A. 1933, B.A. in L.S. 1934, Michigan; M.S. 1936, Western Reserve
Crooker, Elizabeth P. (Mrs. F. Deal), *Instructor in Education*
B.A. 1931, Smith; M.A. 1933, Columbia

Cross, Robert F., *Lecturer in Agriculture*
D.V.M. 1946, M.S. 1950, Ohio State (first semester only)

Crowell, David H., *Associate Professor of Psychology*
B.A. 1941, Drew; Ph.D. 1948, Iowa

Crowell, Sergeant Robert H., *Instructor in Military Science*

Daniel, L. Scott, *Associate Professor of Engineering*
B.S. 1946, Montana State

Davenport, William W., *Assistant Professor of English*
B.A. 1937, M.A. 1938, Columbia (on leave first semester)

Davis, Frances E., *Assistant Professor of Mathematics*
B.S. 1936, Michigan State; M.A. 1941, Michigan (on leave second semester)

Davis, Orrel, *Instructor in Education*
B.A. 1927, M.A. 1941, Northwestern

Day, A. Grove, *Professor of English*
B.A. 1926, M.A. 1943, Ph.D. 1944, Stanford

Derstine, Virginia, *Instructor in English*
B.S. 1949, Pittsburgh; M.A. 1951, Hawaii

Desilet, Captain Alvin L., *Assistant Professor of Air Science*
B.S. 1950, Kansas State College

Digman, John M., *Assistant Professor of Psychology*
B.A. 1948, Ph.D. 1951, Ohio State

Dodge, Robert G., *Lecturer in Business*
B.S. 1942, Idaho; M.S. 1943, Denver; LL.B. 1947, University of Washington (first semester only)

Doi, Edith H., *Assistant Professor of Education*
B.Ed. 1944, Hawaii; M.A. 1949, Columbia

Dole, Arthur A., *Assistant Professor of Psychology*
B.A. 1946, Antioch College; M.A. 1949, Ph.D. 1951, Ohio State

Dury, Maxwell S., *Professor of Botany*
B.S. 1939, M.S. 1941, Oregon State; Ph.D. 1945, Stanford

Douty, Helen I., *Assistant Professor of Home Economics*
B.S. 1942, M.S. 1948, Cornell

Downs, James B. T., *Professor of Engineering*
M.E. 1934, M.S. 1938, Stevens Institute of Technology

Du Bois, Cora, *Carnegie Visiting Professor of Anthropology*
B.A. 1927, Barnard; M.A. 1928, Columbia; Ph.D. 1932, California (second semester only)

Dunn, William E., *Assistant Supervisor* (General Studies)
B.A. 1948, Hawaii

Eagers, Captain Joseph A., Jr., *Assistant Professor of Military Science*
B.S. 1949, United States Military Academy

Easley, John A., *Assistant Professor of Science* (Hilo Branch)
B.S. 1943, Wake Forest; M.Ed. 1952, Hawaii; Ph.D. 1955, Harvard
Ecke, Gustav E. W., Professor of Art  
Ph.D. 1922, Erlangen (on leave first semester)

Eidsen, Technical Sergeant Hugh R., Instructor in Air Science

Elber, Samuel H., Associate Professor of Pacific Languages and Linguistics  
B.A. 1928, Grinnell College; B.Lit. 1931, Columbia; Ph.D. 1950, Indiana

Eller, Willard H., Professor of Physics  
B.S. 1914, Ph.D. 1928, California; M.S. 1925, University of Washington

Emory, Kenneth P., Professor of Anthropology  
B.A. 1920, Dartmouth; M.A. 1923, Harvard; Ph.D. 1946, Yale

Erickson, Yvonne B. (Mrs. John A.), Instructor in Education  
B.Bd. 1949, Hawaii; M.A. 1952, George Peabody College for Teachers

Ernst, Earle, Professor of Drama and Theatre  
B.A. 1933,Gettysburg College; M.A. 1937, Ph.D. 1940, Cornell

Esch, Technical Sergeant Frederick H., Instructor in Air Science  
B.S. 1950, M.S. 1952, Utah

Evans, John R., Associate Professor of Engineering  
B.S. 1941, M.S. 1947, Michigan State

Everly, Hubert V., Associate Professor of Education  
B.Ed. 1934, M.Ed. 1938, Hawaii; Ph.D. 1946, Ohio State

Ewing, Claude H., Professor of Education  
B.Ed. 1933, Chicago; M.A. 1936, Colorado State College of Education; Ph.D. 1946, Northwestern (on leave 1956-57)

Ferdun, Clarence R., Lecturer in Vocational Agriculture  
B.S. 1931, Oregon State College; M.Ed. 1941, Hawaii

Ferguson, John B., Associate Professor of Economics and Business  
B.A. 1933, M.B.A. 1935, Stanford

Fitzsimmons, Lorraine F. (Mrs.), Assistant Professor of Education  
B.A. 1929, M.A. 1931, Colorado State College of Education

Fleece, Jeffrey A., Junior Supervisor (General Studies)  
B.A. 1941, Central College, Missouri; M.A. 1942, Vanderbilt; Ph.D. 1952, Iowa

Fletcher, Ralph V., Assistant Professor of Education  
B.A. 1948, California (Santa Barbara); M.A. 1950, Columbia

Forbes, Fritz W., Assistant Professor of Psychology (Hilo Branch)  

Fossum, Kathryn S., Assistant Professor of Education  
B.S. 1939, Minnesota; M.S. 1942, Oregon

Frierson, James W., Assistant Professor of English  
B.A. 1929, LL.B. 1933, Tulane; Ph.D. 1950, Stanford (on leave 1956-57)

Frisisko, William, Instructor in Education  
B.S. 1950, Illinois; M.A. 1952, Wyoming

Frodyma, Michael M., Assistant Professor of Chemistry  
B.S. 1942, Massachusetts; M.A. 1947, Columbia; M.S. 1949, Hawaii; Ph.D. 1952, George Washington

Frojen, Olga B., Assistant Professor of Nursing  
B.A. 1941, Marquette; M.A. 1944, New York
FACULTY

Fujimura, Thomas H., Assistant Professor of English
B.A. 1942, California; M.A. 1943, Nebraska; Ph.D. 1950, Columbia

Fujioa, Norito, Instructor in Japanese
B.A. 1948, M.A. 1952, Hawaii

Gay, May K., Assistant Professor of Health and Physical Education
B.A. 1923, Hawaii; M.A. 1925, Columbia

Geiser, Cynthia B. (Mrs. Ralph G.), Instructor in Education
B.A. 1926, Western State College of Colorado; M.A. 1929, Hawaii

Gelfand, Lawrence E., Assistant Professor of History
B.A. 1949, M.A. 1950, Western Reserve

George, Dorothy I., Assistant Professor of English
B.A. 1936, Louisiana State Normal College; M.A. 1937, Ph.D. 1950, Louisiana State

Gibson, Lillian R., Instructor in Health and Physical Education
B.B. 1930, State Teachers College, La Crosse, Wisconsin

Gilbert, James C., Assistant Professor of Agriculture
B.A. 1931, Pomona; M.A. 1933, Southern California; M.S. 1952, Hawaii

Gillespie, Margaret C. (Mrs. Charles J.), Instructor in Education
B.Ed. 1952, Hawaii

Gillette, Erma M. (Mrs. Glenn), Assistant in Education
R.N. 1937, Thomas D. Dee Memorial Hospital School of Nursing

Girolami, Guido, Assistant Professor of Botany
B.A. 1948, Ph.D. 1952, California

Glick, Clarence E., Professor of Sociology
B.A. 1927, De Pauw; M.A. 1928, Ph.D. 1938, Chicago

Glover, Lee, Lecturer in Business
B.S. 1925, Alabama; M.A. 1928, Chicago

Glynn, Samuel W., Lecturer in Dental Hygiene
D.D.S. 1925, California (second semester only)

Gordon, Betty F. (Mrs. Morton J.), Instructor in Speech
B.A. 1948, Cornell; M.A. 1949, Northwestern

Gordon, Morton J., Instructor in Speech
B.S. 1949, M.A. 1951, Columbia; M.A. 1955, Iowa

Gosline, William A., Professor of Zoology
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<table>
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<tr>
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B.A. 1953, Minnesota

Yorita, Peggy H., Assistant in Counseling
B.A. 1946, Hawaii

Legislative Reference Bureau

Awana, Henry T., Junior Researcher
B.A. 1948, Hawaii; LL.B. 1951, Denver

Holden, Margaret E., Junior Research Librarian
B.S. 1943, M.A. 1945, Wayne; B.L.S. 1948, Chicago

* Degrees listed under "Instruction."
Affiliate Graduate Faculty†

Anderson, E. J., Ph.D., Head, Pathology Department
Pineapple Research Institute

Ayres, A. S., Ph.D., Senior Agronomist, Experiment Station
Hawaiian Sugar Planters' Association

Baver, Leonard D., Ph.D., Director, Experiment Station
Hawaiian Sugar Planters' Association

Brock, Vernon E., M.A., Director, Division of Fish and Game
Territorial Board of Agriculture and Forestry

Burr, George O., Ph.D., Head, Department of Physiology and Biochemistry,
Experiment Station
Hawaiian Sugar Planters' Association

Cox, Doak C., M.A., Principal Geophysicist, Experiment Station
Hawaiian Sugar Planters' Association

Cushing, Robert L., Ph.D., Director
Pineapple Research Institute

Darroch, J. G., M.S., Principal Statistician, Experiment Station
Hawaiian Sugar Planters' Association

Dull, Gerald G., Ph.D., Associate Chemist
Pineapple Research Institute

Ekern, Paul C., Ph.D., Associate Soil Physicist
Pineapple Research Institute

Farden, Carl A., B.S., Statistician
Pineapple Research Institute

Gortner, Willis A., Ph.D., Head, Chemistry Department
Pineapple Research Institute

Gowing, Donald P., Ph.D., Plant Physiologist
Pineapple Research Institute

Gressitt, J. Linsley, Ph.D., Entomologist
Bernice P. Bishop Museum

Hance, Francis E., Ph.D., Principal Chemist, Experiment Station
Hawaiian Sugar Planters' Association

Hanson, Noel S., Ph.D., Senior Agronomist, Experiment Station
Hawaiian Sugar Planters' Association

* Degrees listed under "Instruction."
† Members of cooperating institutions, and available for service on graduate committees. They do not offer courses at the University.
Hilton, H. Wayne, Ph.D., *Principal Organic Chemist, Experiment Station*
Hawaiian Sugar Planters' Association

Humbert, R. P., Ph.D., *Principal Agronomist, Experiment Station*
Hawaiian Sugar Planters' Association

Ito, K., M.S., *Associate Entomologist*
Pineapple Research Institute

Kerns, Kenneth R., M.S., *Plant Breeder*
Pineapple Research Institute

King, Joseph, M.S., *Fishery Biologist*
Pacific Oceanic Fishery Investigations

Klemmer, H. W., Ph.D., *Associate Pathologist*
Pineapple Research Institute

Kondo, Yoshio, Ph.D., *Malacologist*
Bernice P. Bishop Museum

Krauss, Beatrice, M.S., *Associate Plant Physiologist*
Pineapple Research Institute

Leeper, Robert W., Ph.D., *Organic Chemist*
Pineapple Research Institute

Mangelsdorf, A. J., Ph.D., *Principal Geneticist, Experiment Station*
Hawaiian Sugar Planters' Association

Martin, J. P., M.S., *Principal Pathologist, Experiment Station*
Hawaiian Sugar Planters' Association

Murphy, Garth, M.A., *Fishery Biologist*
Pacific Oceanic Fishery Investigations

Payne, John H., Ph.D., *Principal Technologist, Experiment Station*
Hawaiian Sugar Planters' Association

Sakimura, K., *Associate Entomologist*
Pineapple Research Institute

Sanford, Wallace G., Ph.D., *Head, Agronomy Department and Plant Physiologist*
Pineapple Research Institute

Schmidt, Carl T., Ph.D., *Entomologist*
Pineapple Research Institute

Smith, Donald H., Ph.D., *Soil Chemist*
Pineapple Research Institute

Spiegelberg, Carl H., Ph.D., *Pathologist*
Pineapple Research Institute

Warner, John N., Ph.D., *Senior Geneticist, Experiment Station*
Hawaiian Sugar Planters' Association

Wismer, Chester A., Ph.D., *Senior Pathologist, Experiment Station*
Hawaiian Sugar Planters' Association

Wortman, Sterling, Ph.D., *Plant Breeder and Head, Plant Breeding Department*
Pineapple Research Institute

Young, H. Y., M.S., *Associate Chemist*
Pineapple Research Institute
THE UNIVERSITY OF HAWAII lies at the mouth of Manoa Valley in Honolulu, on the island of Oahu. It is three miles from the business center of Honolulu and two miles from Waikiki Beach. Ten other tracts of land on the islands of Oahu, Maui, and Hawaii bring the University's landholdings to 710 acres.

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

History. The institution was known as the College of Agriculture and Mechanic Arts from 1907 to 1911, and the College of Hawaii from 1911 to 1920. The College opened September 14, 1908, with five students in regular courses and a faculty of twelve. Before the end of the year thirty-one students had enrolled in special courses. The College was located on the grounds now occupied by Lincoln School in Honolulu until 1912 when it was moved to the present site. When the College of Arts and Sciences was added in 1920, the name was changed to the University of Hawaii. In 1931 the Territorial Legislature united the Territorial Normal and Training School with the University School of Education to form Teachers College of the University and placed the
property of the Normal School under the control of the Board of Regents of the University. The College of Agriculture was established in 1946, the College of Business Administration in 1949, and the College of General Studies in 1956. Prior to 1951 all graduate work was organized under the heading of Graduate Division, but in that year the name was changed to Graduate School.

Control and Accreditation. Government of the University resides in a Board of Regents appointed by the Governor of the Territory for individual terms of four years. Copies of statutes and bylaws of the Board of Regents are available upon request.

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

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

Academic Year. The academic year is divided into two 18-week semesters and a 6-week summer session.

University Colors, Symbol, Seal, Coat of Arms. University colors are green and white. The popular symbol traditionally used by students on campus is the rainbow. The seal is a torch and book entitled Ma Lama Lama (the light of knowledge) in a circle of the Pacific, with the motto of Hawaii, UA MAU KE EA O KA AINA I KA PONO (The Life of the Land is Preserved in Righteousness). The University coat of arms is an adaptation of the Hawaiian coat of arms and includes the motto of Hawaii.

Communications. Prospective students should address letters of general inquiry to the Office of Admissions and Records, University of Hawaii, Honolulu 14, Hawaii.

Administrative Organization

The University has six colleges: College of Arts and Sciences, College of Applied Science, Teachers College, College of Agriculture (including the Hawaii Agricultural Experiment Station and the Agricultural Extension Service), College of Business Administration, and College of General Studies. Graduate work is organized under the Graduate School. The Office of Student Personnel coordinates the work of admissions, counseling, and registration. Other administrative units are the Hilo Branch, the Library, the Legislative Reference Bureau, and the Summer Session.

Academic departments are units of the University as a whole, rather than of colleges, and are responsible to the Dean of Faculties on matters of finance and personnel. Co-ordination of the departments with the colleges in instructional matters is obtained through the Administrative Council, of which the President is chairman.
The University Senate acts as an advisory body to the President on matters of instruction and related problems.

**Related Services**

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

**Speech and Hearing Clinic.** Comprehensive speech and hearing rehabilitation services for children and adults. Diagnoses made, testing and therapy directed by clinic staff members with advanced students serving as clinicians. Registration fee charged non-university cases.

**Reading Clinic.** Diagnosis and therapy for reading disabilities; lessons in remedial reading with cases drawn from the campus and the community; work done by members of the classes in Education 294, 296-C, and 332, under the supervision of Clinic staff members. Small fees charged.

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

**Volcano Research Laboratory.** Located on the island of Hawaii, the Laboratory is conducted in co-operation with the U. S. Geological Survey, and offers research possibilities to both graduate students and investigators who wish to pursue their own studies in subjects pertaining to volcanology.

**Aquarium.** The Aquarium at Waikiki Beach is operated by the University as a place of education and entertainment for local residents and visitors.

**Hawaii Sociological Research Laboratory.** This Laboratory, located in Crawford Hall on the University campus, is staffed by members of the Sociology Department, and is concerned primarily with sociological studies relative to the peoples of Hawaii.

**Human Relations Area Files.** This organization, supported by sixteen major universities, systematically places basic information on various societies of the world in files at each member institution. Each file in this unique collection, located in the University Library, contains facts about a people or region that are judged to be of value to students of human behavior, social life, and culture.

**Industrial Relations Center.** This Center, located in Hawaii Hall on the campus, was established to promote a sound understanding of labor management.
problems in the community. It provides a library and reference service, for public use, of materials relative to labor management and relations; offers both credit and noncredit courses in the field of industrial relations; promotes lectures, conferences, and discussion groups; and conducts research on basic industrial relations problems.

Radio Office. Coordinates and supervises University radio and TV broadcasts. Operates station HUOH-FM, broadcasting four hours daily, five days a week. In conjunction with the Speech Department, provides courses and training in radio.

Psychological Research Center. The Psychological Research Center performs basic and applied research on problems involving the scientific approach to human behavior. It serves as a research and informational agency to which business, government, industry and others may bring psychological research problems.

Co-operating Institutions

Through co-operative agreements with institutions listed below, the University has added to its research facilities and expanded its services to the Territory.

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

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

Pacific and Asian Affairs Council. The Pacific and Asian Affairs Council, located adjacent to the University, sponsors lectures, seminars, and discussion meetings on international affairs, particularly on Asia and the Pacific. The Pacific House Library, which maintains close liaison with the University Library, provides excellent research facilities for the study of world affairs. The meeting rooms and facilities of Pacific House are available to student and faculty groups. In addition, the Council offers a special low-cost membership for University students.

Honolulu Academy of Arts. The Academy was built and endowed by Mrs. Charles M. Cooke. Its fine collections of art objects are available to the students and instructors of the University.

Hawaiian Sugar Planters' Association. In 1947 this Association provided $100,000 for the erection of a building on the University campus to house the
Agricultural Engineering Institute, where shop facilities are available for instructional and research purposes.

Fruit Fly Laboratory. A research laboratory and a corps of investigators are maintained on the University campus by the United States Bureau of Entomology for the study of fruit fly pests in Hawaii.

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

United States Fish and Wildlife Service. Permanent headquarters of this Service for Pacific Oceanic Fishery Investigations are located on the University campus. Certain members of the staff of the organization co-operate with the Department of Zoology and Entomology in offering advanced courses and in directing thesis research in fishery biology. Several fellowships are available to citizen students working toward advanced degrees. Requests for information or fellowship application forms should be addressed to the Director, Pacific Oceanic Fishery Investigations, University of Hawaii.

Campus and Buildings

The principal buildings on the campus are Bachman Hall, the Bookstore, the Chemistry Building, Crawford Hall, Dean Hall, the Engineering Quadrangle, Farrington Hall, Gartley Hall, Gilmore Hall, George Hall, the Gymnasium, Hawaii Hall, Hemenway Hall, Henke Hall, the Home Economics Building, the Gregg M. Sinclair Library, and Wist Hall and its laboratory centers (the Elementary School, the High School, Castle Memorial Hall, and Auditorium).

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

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

The Library contains 268,185 bound volumes and 692,383 unbound parts and pamphlets, exclusive of Teachers College Elementary School Library. Also, it serves as a depository for government publications. Extensive collections of Chinese and Japanese works and a growing collection of valuable books and periodicals about Hawaii and the Pacific islands make the University of Hawaii an excellent place to study international relations, especially those concerning the Pacific area. The Library files include local and mainland newspapers, and
literary, technical, and scientific periodicals. These materials are available to all persons complying with library regulations.

Hemenway Hall is the general social center for students and faculty with quarters for student organizations. A cafeteria is maintained in the Hall.

Residence accommodations on or near the campus include the Charles H. Atherton House, the University housing barracks for men, Hale Laulima, and Mary Dillingham Frear Hall.

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

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

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

Other buildings connected with the University include the ROTC buildings, Hawaii Annex, the Nutrition Laboratory, the United States Bureau of Entomology building, the United States Fish and Wildlife Service building, and 40 temporary office and classroom buildings on the campus. A part of the campus is occupied by an experimental farm, devoted to solving problems of Hawaii's dairymen, poultrymen, and livestock raisers. It also provides instructional facilities for students of agriculture.

The herbaria of the University and of the Bernice P. Bishop Museum, which are combined under the custodianship of the Museum, contain the most nearly complete collection of Hawaiian plants in existence and include some species now extinct. The most valuable parts are the cotypes of Dr. W. Hillebrand's species and the types of many new species collected by later botanists.
Students (other than auditors and those taking correspondence courses) are classified as undergraduate and graduate.

Undergraduate students are designated as regular or unclassified.

Regular students are those who are pursuing organized programs of study and who comply with the established regulations which lead, usually after four years of work, to the bachelor's degree. Regular students ordinarily carry full-time programs (12 semester hours or more), and for registration and classification purposes are divided as follows: freshmen, 1-24 credit hours completed; sophomores, 25-54; juniors, 55-88; seniors, 89 and above. Freshmen and sophomores are lower division students; juniors and seniors, upper division students.

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

Graduate students (graduates of this University or of other institutions of approved standing) are designated as degree candidates, five-year diploma candidates, and unclassified.

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

* Students taking fewer than 12 semester hours in any semester are considered "part-time" students. This classification, however, has significance only in so far as determination of fees is concerned. Both regular and unclassified students may be either part time or full time.
Five-year diploma candidates are graduate students following a curriculum leading to the diploma.

Unclassified graduate students are those who, although registered for credit, are not degree candidates. Some are working toward the professional certificate of the Department of Public Instruction, and others later become candidates for advanced degrees.

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

Admission

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

Those who wish to become regular or unclassified students and who have not previously earned credits in an institution of higher learning must apply to the Director, Office of Admissions and Records. A high school senior who plans to enter the University within a year should file his application during the final semester of his high school course. In any case, applications should be filed at least one month before the opening of the semester in which enrollment is desired. Requests for application forms and questions about admission should be addressed to the Director, Office of Admissions and Records.

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

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

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

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

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

Candidates from continental United States and certain foreign countries may, when authorized by the Office of Admissions and Records, take the scholastic aptitude test given by the College Entrance Examination Board (431 West 117th Street, New York City) and submit a certificate covering the results of this examination along with a complete record of work done in preparatory school. Such candidates should meet all admission requirements and await notice of acceptance before coming to Hawaii.

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

Minimum Unit Requirements for Admission

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<tr>
<th>From a 4-Year High School</th>
<th>Subject</th>
<th>From a 3-Year High School</th>
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<tr>
<td>3</td>
<td>ENGLISH</td>
<td>3</td>
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<td>1</td>
<td>ALGEBRA</td>
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<td>(Not required if the student had ninth-grade general mathematics in intermediate, i.e., junior high school.)</td>
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<td>6</td>
<td>ENGLISH—(In addition to the 3-unit minimum requirement in English.)</td>
<td>4</td>
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<tr>
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<td>SCIENCES—Physical, biological, and social.</td>
<td>(If applicant offers ninth-grade mathematics, this requirement is 5 units.)</td>
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<td>MATHEMATICS—(In addition to the 1-unit minimum requirement in mathematics.)</td>
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<td>FOREIGN LANGUAGES—(Entrance credit in foreign language is not granted unless the total number of foreign language units offered includes at least 2 units in some one language.)</td>
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<td>Any other subjects (except Physical Education and ROTC) credited by the high school toward its diploma (no less than ½ nor more than 2 units in any one subject) provided that these subjects have been pursued in accordance with regular classroom procedure involving a reasonable amount of preparation in addition to the time spent in class.</td>
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<td>15</td>
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<td>12</td>
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</table>
Special Requirements for Certain Programs. In addition to satisfying the requirements of the University as a whole, candidates for admission to certain programs of university work must meet special requirements. Each applicant should study the conditions set by the college he intends to enter and for the program he intends to pursue in that college. Special attention is directed to the following requirements.

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

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

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

Prospective students of agriculture should have had two years of algebra. Students with only one year must complete the second year by the end of the freshman year.

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

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

Students transferring from other than accredited institutions must meet University of Hawaii standards of admission. Upon the completion of a year's work (30 semester hours) at the University of Hawaii with an average grade of C or better, credit will be given for courses at the previous institution. Such credit, however, will not exceed sixty semester hours, and will be granted only for courses usually considered of lower division level.
Admission of Unclassified Students. Mature persons may register as unclassified students when their backgrounds, in the opinion of the Director of the Office of Admissions and Records, qualify them for credit work. No such student, however, will be admitted to a college or allowed to become a degree candidate until he has satisfied all admission requirements.

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

Admission of Auditors. Persons wishing to audit classes must have the written consent of the Director, Office of Admissions and Records, of the chairman of the department concerned, and of the instructor of the course. In general, auditors are not allowed in laboratory science, mathematics, language, English composition, speech, studio art courses, or in classes limited in size where credit students might thereby be excluded. By definition auditors are "listeners" and are therefore not allowed to participate in class discussions or examinations.

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

Registration, Withdrawal, and Other Changes

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

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

Registration of Graduate Students. Graduate students follow the same procedure in registration as do undergraduates.

Registration of Auditors and Unclassified Students. Auditors and unclassified students register after the period assigned to the registration of regular students, and in accordance with instructions issued at the beginning of each semester.
Auditing of Courses by Regular Students. Regular students are not permitted to audit courses in excess of the maximum student load.

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

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

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

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

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

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

Other Changes of Students' Programs of Study. A student may transfer from one of the University's colleges to another at the end of either semester. Application for transfer must be made on a form supplied by the Office of Admissions and Records or one of the deans concerned. The application must
be approved by the deans of the two colleges and should be returned to the Office of Admissions and Records at least two weeks before the end of the first semester, and by August 15 during the summer.

Credits, Grades, Grade Points, Grade-Point Ratios

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

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

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

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

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

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

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

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

Requirements for Continued Registration

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

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

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

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

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

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

5. Those whose progress in speech is unsatisfactory after three semesters of speech instruction, unless they register for, and attend regularly, a speech correction course. (Failure to remove a speech deficiency constitutes failure to meet graduation requirements.)

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

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

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

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

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

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

Student Discipline

University of Hawaii students are expected to observe accepted University and community standards of conduct. Disciplinary authority is exercised by the University Committee on Discipline, composed of the deans of the several colleges, faculty members and students appointed by the President of the University, and the Dean of Student Personnel.

Financial Obligations to the University. Students who have not adjusted their financial obligations of whatever sort (traffic violations, library fines, locker fees, laboratory breakage charges, transcript fees, loans past due, etc.) to the satisfaction of the University Treasurer, will (1) be denied further registration and (2) have recorded on their transcripts the notation "Denied further registration. See discipline file."

Undergraduate Degree Requirements

Credit and Grade-Point Requirements. The minimum credit requirement for the baccalaureate (bachelor's) degree in all colleges is 130. In addition, the student must have earned at least twice as many grade points as the total of registered credits.

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

The degrees of Bachelor of Arts (B.A.) and Bachelor of Fine Arts (B.F.A. in Art) are granted upon the satisfactory completion of the prescribed programs in the College of Arts and Sciences.

Satisfactory completion of a regular program in Teachers College leads to the award of the degree of Bachelor of Education (B.Ed.). Holders of bachelor degrees who complete the Teachers College five-year program, are awarded diplomas.
The degree of Bachelor of Business Administration (B.B.A.) is granted upon the satisfactory completion of a regular program in the College of Business Administration.

Residence Requirements. The University grants baccalaureate degrees only to those students who earn a minimum of 30 semester hours in residence (that is, in class or laboratory work at the University of Hawaii).

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

Time Within Which Work Must Be Completed. All graduation requirements for baccalaureate degrees must be completed within 10 years of the first registration. The college deans are empowered to extend this period in certain exceptional cases.

Credit by Examination. Undergraduate students who have been in attendance at the University of Hawaii for one semester may, upon presentation of evidence that they have had the equivalent of a course through experience or training but have not received college credit for the course, make application to the appropriate college dean, for credit by examination. Applications must be made before the end of the first six-week period of a semester, and only one examination in any course will be given during a semester. A fee is charged for each examination. (See p. 55.)

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

Course Examinations. Final examinations are required in all undergraduate courses except directed reading, research, or seminar courses. No examinations (other than short quizzes) are allowed during the two weeks just prior to the final examination period.

Tuition and Fees

Students registered for 12 or more credit hours in any semester pay $85.00 for tuition and $10.00 for registration per semester. Students registered for fewer than 12 credit hours in any semester pay $8.00 per credit hour. Summer Session students pay $8.50 per credit hour and an activities fee of $1.00.

Persons who register after the announced days of registration pay a late registration fee of $5.00.

All students registered for daytime courses pay a "Student Health Fee" of 75 cents each semester.

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

Veterans, or orphans of veterans, registering for the first time under any of the various federal veterans' bills should present a proper Certificate for Education and Training, or Certificate of Eligibility and Entitlement.
Laboratory fees, uniform and awards fees in Military Science, and special course fees are stated in the description of courses. If the instructor feels it is justified, students may be charged for excessive breakage of equipment.

Students who take the college aptitude test pay a $2.00 fee at the time of examination.

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

Withdrawal during

<table>
<thead>
<tr>
<th>Period of Instruction</th>
<th>Percentage Refunded</th>
</tr>
</thead>
<tbody>
<tr>
<td>First two weeks of instruction</td>
<td>80%</td>
</tr>
<tr>
<td>Third week of instruction</td>
<td>60%</td>
</tr>
<tr>
<td>Fourth week of instruction</td>
<td>40%</td>
</tr>
<tr>
<td>Fifth week of instruction</td>
<td>20%</td>
</tr>
<tr>
<td>Remainder of semester</td>
<td>0%</td>
</tr>
</tbody>
</table>

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

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

A fee of $5.00 must be paid to the Business Office before any degree is awarded to a student. The five-year diploma fee is $2.50.

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

Caps, gowns, and hoods for graduation ceremonies may be rented for $2.00.

A student who requests the Office of Admissions and Records to send a transcript of his work to another institution is not required to pay for the first copy but is charged $1.00 for each subsequent copy. Transcripts of students whose records indicate indebtedness to the University carry the following statement: "Denied further registration. See discipline file."

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

A fee of $10.00 is charged for any special examination in regularly constituted courses at other than the specified time.

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

At the request of the Associated Students of the University of Hawaii (ASUH) and with the consent of the Board of Regents, the University Business Office collects certain ASUH fees at the time tuition and registration fees are collected. These ASUH fees, approximately $10.00 each semester, include membership in the ASUH for undergraduates taking 12 or more credit hours (if more than 6 are in the day program), class dues, the use of Hemenway Hall, and participation in the social, cultural, and recreational programs provided by the Hemenway Hall Board of Governors. For other students the ASUH fee is optional. These fees are not collected for the summer session. Privileges that these fees purchase are described in the ASUH Handbook available to all students.
Military Training

Instruction is offered in military and air science and tactics in accordance with the requirements stipulated by Congress in legislation relating to land-grant colleges. The first two years of courses in military or air science must be taken by every male student who is an American citizen, who meets the required physical standards, whose twenty-fourth birthday has not passed at the time of enrollment in the University, who (1) is a freshman or sophomore, or (2) is an unclassified student carrying more than 11 credit hours of work and having fewer than 55 college credits. An alien or a student not physically qualified may register for the basic courses at his own expense with the consent of the department chairman. Students who have satisfactorily completed three years of training in the Junior Division may be excused from the first year; veterans with more than six months of military service may be excused from part or all of the first year by the dean of a college upon the recommendation of the department chairman; and veterans with more than one year of service may receive credit for the basic courses. All such students should clarify their status with the Military or Air Science Department prior to their first registration in the University.

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

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

Health, Physical Education, and Sports

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

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

At the dispensary a registered nurse is on duty throughout the day and a physician during certain hours. First-aid service is available to students suffering from minor ills and injuries; no charge is made for this service and no responsi-
Scholarship aid is provided through appropriations by the Territorial Legislature and contributions from private organizations. A few scholarships are supported by endowment funds. Awards are based, in general, on (1) character, (2) scholastic ability and achievement, and (3) financial need. The period covered is usually one year, the chief exception being in the case of the Territorial Scholarships which cover four years. The granting of a scholarship implies that the recipient is expected to carry a regular load of college work with success. A scholarship may be withdrawn at the close of any semester in which a satisfactory academic record is not maintained.

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

Students engaged in officially sanctioned varsity sports may be exempted from the normal Health and Physical Education requirement during the semester of such participation upon petition to the academic Dean and substantiation of such participation by the Director of Athletics.

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

Varsity sports are conducted independently of the activities of the Health and Physical Education Department. They are governed by a Board of Athletic Control composed of 11 members: three faculty members appointed by the President; three alumni members appointed by the Governing Board of the Alumni Association; three students—the president of the ASUH, and one senior and one junior appointed by the president of the ASUH, with approval of the Student Council; the Treasurer of the University, ex officio; and the Director of Athletics, ex officio. The Board forms policies for intercollegiate athletics, drafts budgets, and makes contracts and other arrangements for contests between the University of Hawaii and other colleges and athletic groups.

Although the University takes reasonable precautions, it assumes no responsibility for injuries received in sports or games.

Scholarships and Fellowships

Scholarship aid is provided through appropriations by the Territorial Legislature and contributions from private organizations. A few scholarships are supported by endowment funds. Awards are based, in general, on (1) character, (2) scholastic ability and achievement, and (3) financial need.

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

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

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

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

**Grants and Other Aids.** The Standard Oil Company of California provides two $400 grants to outstanding students. Information may be obtained from the Scholarship Committee.

The Sears Roebuck Foundation grants four $500 scholarships in general agriculture. These scholarships are administered by a committee of five—three representing the College of Agriculture and two, the University Scholarship Committee.

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

The John Fee Embree Scholarship of $300 is awarded to an outstanding upper division or graduate student in the Social Sciences, preferably Anthropology or Sociology.

Mildred and Leland Ira Doan offer two annual $500 scholarships to island students specializing in Chemistry.

The Li Foundation (New York) offers a fellowship of $5,000 including transportation, good for two years at an accredited American university for full-time graduate work leading to an advanced degree which may be obtained within a two-year period, to a Hawaii-born graduate of the University of Hawaii. Medicine, dentistry, or other professional fields requiring more than two years of graduate work are excluded. Candidates must furnish proof of good physical health, good moral character, democratic mindedness, and good command of English. In addition, they must have completed the baccalaureate degree not more than three years prior to the fellowship selection, must have been in the upper 5 per cent of the graduating class, and must be able to meet the academic requirements for acceptance as a full-time advanced degree candidate.

**Territorial Scholarships.** Twelve scholarships of $190 each, awarded annually to entering freshmen (two scholarships to residents of each representative district in Hawaii); held four years, provided that beneficiary maintains a satisfactory record of work on the campus; supported by the Territorial Legislature.

**Other Scholarships Administered by the Scholarship Committee.** Alonzo Gartley (in agriculture); ASUH Scholarship-Leadership grants; Chinese Community; Fushiminomiya Memorial Scholarship Endowment Fund; Harry H. Collins; Kenji Yamaguma Memorial; Korean University Club; Leora Parmelee
Scholarships Administered by Individuals and Private Organizations, with Assistance from the University Scholarship Committee. Associated Chinese University Women; Chinese Women's Club; City Mill Company; Hawaiian Pineapple Company; Honolulu Japanese Chamber of Commerce; Hung Wo and Elizabeth L. Ching; Kauai High School Alumni Association; Leilehua High School Alumni Association; Ralston Purina; Soroptimist Club; Te Chih Sheh; Wallace Rider Farrington (for graduates of Wallace Rider Farrington High School, sponsored by the Honolulu Star-Bulletin); West Kauai Naturalized Citizens Club; Western Pacific Teachers' Scholarship (sponsored by the Zonta Club of Honolulu); Yang Chung Hui.

Scholarships Administered Entirely by Private Organizations. The Scholarship Committee has no direct information about the independent awards listed. Buddhist Fellowship Society; Chinese University Club; "Chu" Baldwin Memorial (sponsored by Puunene Community Association); Easy Appliance Company; Elks (the Benevolent and Protective Order of Elks, Lodge No. 616, of Honolulu); Hawaii Federation, Young Buddhists Association; Honolulu Chapter, National Foundation for Infantile Paralysis; Honolulu Community Chest; Hui Hanalike; Jack Johnson Memorial Scholarship; Kalihi U-Drive Company; Leeward Oahu Lions Club; Luz-Vi-Min-Club of Maui; Maui A.J.A. Veterans Club; Molokai Lions Club; Pacific Fellowship (sponsored by the American Association of University Women); Pilot Club; Timarau Club of Honolulu; Wahiawa Chamber of Commerce; YWCA.

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

Prizes and Awards

Dean Prize for Undergraduate Research. In 1927 the faculty of the University, in honor of Dr. Arthur Lyman Dean, resigning President, established the Dean Prize Fund, the proceeds to be used in stimulating interest in undergraduate research. Any senior in the University may compete for this prize of not less than $25 nor more than $50 each year by presenting to the Dean Prize Committee a thesis in which he reports fully upon his research in any field of intellectual endeavor. The committee, appointed by the President, selects the thesis which in its judgment is the best example of originality, independence, logic, and form of presentation. The winning paper is placed in the Hawaiian Room of the Library.
Banks Memorial Prize. The Charles Eugene Banks Memorial Prize, the income from a $500 endowment, is awarded each year to the student whose manuscript is judged to be the best received in a creative writing contest.

O. C. Magistad Award of the Hawaiian Section of the American Chemical Society. A one-year student membership in the American Chemical Society, and subscriptions to several of the society's journals, are awarded each year to the outstanding senior majoring in chemistry. The name of the winner is engraved on a bronze plaque in the Chemistry Building.

Phi Beta Kappa Recognition Award. An award by the University of Hawaii Alpha Chapter of Phi Beta Kappa in recognition of high scholastic standing among sophomores in the College of Arts and Sciences.

Phi Kappa Phi Prize. The Hawaii chapter of Phi Kappa Phi honor society awards a $20 cash prize to the senior who graduates with the highest scholastic record in his class.

Carl F. Knobloch Prize in Government. Awarded to an outstanding student in government.

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

Real Dean Awards of Honor. The Associated Students of the University of Hawaii annually awards medals to students who, in the opinion of fellow students, have given time and effort willingly, untiringly, and without thought of reward to the promotion of ASUH activities.

Berndt Prizes for Extemporaneous Public Speaking. The Associated Students of the University of Hawaii annually awards medals to the students judged best in an extemporaneous speaking contest.

University Oratory Prizes. The Associated Students of the University of Hawaii annually awards medals to the students judged best in an oratorical competition.

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

Warrior of the Pacific Trophy. Since 1928 the United States Department of the Army has supervised an annual rifle marksmanship competition among Reserve Officers' Training Corps infantry units in American universities and colleges for the possession of a bronze statuette of a native Hawaiian soldier. Residents of Hawaii offer the trophy for the competition.
Hawaiian Pineapple Company Summer Travel Award. An annual award, for two juniors in home economics, based on scholarship, extracurricular activities, and ability. It provides a trip to the American Home Economics Convention, where the students assist with the Hawaiian Pineapple Company's exhibit and visit various educational institutions and commercial establishments employing home economists.

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

Major John A. Johnson Memorial Award. An annual award to the Army ROTC student with the best scholastic record at the end of the sophomore year who is approved for advanced training.

Captain H. Gaylord Dillingham Memorial Award. An annual award to the Air Force ROTC student with the best scholastic record at the end of the sophomore year who is approved for advanced training.

Hawaiian Botanical Society Award. An annual award, customarily $50, to a senior student on the basis of a thesis on an announced topic in theoretical or applied botany.

Das Prize in Asian History and Politics. An annual cash prize of $50, offered by the Taraknath Das Foundation, awarded to a senior selected by a faculty committee appointed by the President.

Sigma Pi Sigma Recognition Award. An award by the University of Hawaii Chapter of Sigma Pi Sigma in recognition of high scholastic standing among sophomores in physics.

Honors

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

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

In addition the University has campus chapters of six national honorary societies—Phi Beta Kappa (founded at William and Mary in 1776, encourages study in the liberal arts and sciences and recognizes high scholastic attainment in these areas; to be eligible for election a student must have pursued a broad
course of study, definitely liberal in character including work in foreign languages and mathematics, leading to the Bachelor of Arts degree; election to Phi Beta Kappa is regarded as one of the highest undergraduate honors; Alpha Chapter was installed at the University of Hawaii in 1952); Phi Kappa Phi (General Scholarship); Sigma Xi (Sciences); Pi Gamma Mu (Social Sciences); Phi Delta Kappa (Education); Sigma Pi Sigma (Physics); and Omicron Delta Kappa (Scholarship and Leadership in Activities).

Loan Funds

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

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

Summer Session

The University conducts two summer sessions, a six-week regular session and a three-week post session. The respective dates for 1958 are June 23 through August 1, and August 4 through August 22.

In the 1956 sessions some 190 courses were offered in 35 disciplines to 4,603 students. This is an increase from 3,714 students in 1954 and 4,214 in 1955.

Further information may be obtained from the office of the Dean of the Summer Session.
STUDENT ACTIVITIES

STUDENT ACTIVITIES are recognized as part of the University educational program. The Bureau of Student Activities is responsible for studying, encouraging and developing student participation in leadership and fellowship, sound programming and well-balanced living.

The Associated Students, a self-governing organization, promotes and directs undergraduate extracurricular activities and co-operates with the University administration in student affairs. All regular students who pay ASUH fees are members. An elected council directs its activities. The ASUH Handbook describes the organization and functions in detail.

Activities in which the ASUH engages are athletics (football, baseball, track, basketball, swimming, and minor sports), debating, dramatics, a semiweekly newspaper (*Ka Leo o Hawaii*), and a yearbook (*Ka Palapala*).

*Ka Leo* and *Ka Palapala* are integral parts of the curriculum in journalism and serve as workshops for English 120-121 (Newswriting) and English 222 (Publishing and Editing). Students are not eligible for positions on editorial staffs unless they are taking or have taken at least one of the regular courses in journalism.

The University of Hawaii Theatre Group presents plays which give opportunities for participation to the maximum number of students.

All regular students of the University are eligible to try out for membership in the music organizations. Tryouts for the A Cappella Choir, Chorus, University Band, Orchestra, and vocal and instrumental ensembles are conducted at the beginning of each school year, and at other times by special appointment.
Hemenway Hall is the center of campus activities, facilities, and services. Faculty, students, and alumni are represented on the Board of Governors, which administers the building and sponsors the programs. The Board is affiliated with the National Association of College Unions.

Student societies include some 70 scholastic, honorary, professional, religious, and social organizations.

The Bureau of Testing and Guidance offers educational, vocational, and personal counseling and gives aptitude, interest, and other psychological tests.

**Living Accommodations and Expenses**

Limited housing and eating facilities are maintained on the campus. The University cafeteria serves three meals a day, six days a week, at an average cost of $2.50 per day. The Snack Bar is open during the school day for light refreshments.

**Campus Housing.** Requests for assignment to University dormitories should be addressed to the Office of Student Residences, Bachman Hall 126, University of Hawaii, Honolulu 14, Hawaii.

**MARY DILLINGHAM FReAR HALL** has accommodations for 144 women. The rooms are attractively furnished, and each room has a large picture window with a view of either the Koolau Mountains or Diamond Head. All rooms are double, but arrangements may be made for single accommodations if space is available. Rent is $100.00 per semester, and $60.00 for the summer session. A snack bar operates during the early morning and evening hours.

**HALE LAULIMA** is a co-operative dormitory which houses 27 women in double rooms. Residents do the cooking and housekeeping. It is reserved for Island girls and assignments are based largely on financial need. Rent is $85.00 per semester. On school days only breakfast and dinner are served. Living expenses approximate $60.00 per month.

The new VETERANS' MEMORIAL DORMITORY will open in September, 1957. It has accommodations for 80 men in double rooms. The rooms are well furnished and each has a view of the mountains or the sea. Rent is $100.00 per semester, and $60.00 for the summer session.

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

**Off-Campus Housing.** To supplement campus housing, the University maintains a file of off-campus dormitories, rooming houses, single rooms in private homes, and a few apartments. The Office of Student Housing and Part-Time Employment gives all possible assistance in locating suitable accommodations after the student arrives.

**ATHERTON HOUSE,** the YMCA dormitory adjoining the campus, houses 68 men. Inquiries should be addressed to the Director, Charles Atherton House, 1810 University Avenue, Honolulu 14, Hawaii.
Expenses. Minimum expenses of the average student are estimated at from $1,000 to $1,500 a year for board, room, tuition, registration, course fees, class and student body fees, and books. These estimates do not include the cost of clothing, laundry, transportation, and other personal items. Students from outside the Territory should add the cost of transportation to and from Hawaii and additional items for adjustments in a new community. Some students earn part of their expenses by part-time employment.

For further information on either off-campus housing or part-time employment, address the Counselor for Student Housing and Part-Time Employment, Bachman Hall 130, University of Hawaii, Honolulu 14, Hawaii.
Admission requirements, except for the premedical and predental programs, are the same as those for admission to the University as a whole. (See pp. 46–49.)
Each freshman in the College is admitted, for lower division classification purposes, to one of the following groups, the selection depending upon his interests: Social Sciences; Languages, Literature, and Art; Biological and Physical Sciences.

Degree Requirements

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

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

Curricula

The curricula of the College of Arts and Sciences are built around the major fields of concentration. The curriculum leading to the degree of Bachelor of Fine Arts differs from that of the degree of Bachelor of Arts in requiring greater concentration in the major and in exempting candidates from the foreign language requirement. All students must meet the basic requirements of the first two years, and complete a major, with related courses, during the last two years. A major consists of 24 to 36 semester hours in some one field of concentration. Related courses (generally upper division) are courses in other departments which are associated with and contribute to the major. They are not counted in the total number of hours required for the major. Twelve semester hours is the maximum which any department may require in related courses. The major must be indicated by the beginning of the third year, and for art, chemistry, music, and the premedical program it should be indicated at the beginning of the first year.

Basic Requirements

**FIRST YEAR**

- English 100 or 101
- Foreign language (B.A. only)
- Health and Phys. Ed. 101, 102
- History 100
- MS 100 or AS 102
- Science
- Speech 100

**SECOND YEAR**

- English 150
- Foreign language (B.A. only)
- Government 150
- Health and Phys. Ed. 130
- History 110
- MS 150 or 151 or AS 152
- Speech (as required)

(The B.F.A. curriculum requires some changes of sequence in order to allow for more Art courses in the first two years.)
In addition, six of the following must be completed: Anthropology 150, Art 140, Drama 140, Economics 140 or 150, Mathematics 150 or 151, Music 110, Philosophy 100 or 150, Psychology 150, Religion 150 or 151, Sociology 151.

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

For students in the Social Sciences and in Languages, Literature, and Art who must take a year of science, the requirement may be satisfied by 6 to 8 credits from the following courses: Bacteriology 151; Botany 100; Chemistry 103; Entomology 170; Geography 150; Geology 150, 151, 152, 153; Physics 102; Psychology 150; Zoology 100 or 110; or Introduction to Science 120-121, which if elected, the whole year should be taken.

**Majors**

The following list indicates the departments in which students may major and the requirements for the major, viz., the total number of semester hours and the specific courses required by the department. A 2.0 (C average) grade-point ratio in the major is required for graduation.

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

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

**Bacteriology.** *Major requirement:* 24 semester hours. *Required courses:* Bacteriology 151, 250, 260, 262, 264.

**Botany.** *Major requirement:* 24 semester hours. *Required courses:* Botany 100, 201, 220, 253, 269, 279, 283, 297, or approved substitutes.

**Chemistry.** *Major requirement:* 36 semester hours. *Required courses:* Chemistry 103, 149, 150, 230, 231, 255. A reading knowledge of scientific German is required. Students desiring certification by the American Chemical Society must take 5 additional hours (including one hour of laboratory) from the following: 238, 249, 250, 251, 270, 299.


**Drama and Theatre.** *Major requirement:* 24 semester hours. *Required courses:* Drama 150-151; 12 hours from 210, 220-221, 230-231, 240, and 245;
6 hours from 250, 260, and 265. In addition, 6 hours in dramatic literature, 3 hours in phonetics, interpretation, radio, or playwriting, are required.

**Economics. Major requirement:** 33 semester hours. **Required courses:** Economics 150-151, 256, 264, 296. Six hours from the following courses in Business may be counted toward the major: 261, 263, 265, 266, 267, 270, 282, 287.

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

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

**French. Major requirement:** 20 semester hours, exclusive of French 100. **Required courses:** French 101, 201, 250, 280-281 or 282-283.

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

**German. Major requirement:** 20 semester hours, exclusive of German 100. **Required courses:** German 101, 200, 201.

**Government. Major requirement:** 27 semester hours. **Required courses:** Government 150, 289, and one course from each of the following groups: Comparative Government, International Relations, Politics, Public Administration.

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

**Japanese. Major requirement:** 26 semester hours. **Required courses:** Japanese 100, 101, 203, 260, 299.

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

**Music. Major requirement:** 36 semester hours. **Required courses:** Music 160-161, 170-171, 211, 260-261, 265, 268, and 6 hours in Applied Music, including 269. Piano technique sufficient to play ordinary accompaniments is recommended.

**Philosophy. Major requirement:** 24 semester hours. **Required courses:** Philosophy 150, 200, 210, 280.

**Physics. Major requirement:** 31 semester hours. **Required courses:** Physics 102, 255, 256, 262, 263, 270, 275, 276, 280, 281. English 210 and Engineering MD 101 are recommended.

**Psychology. Major requirement:** 26 semester hours. **Required courses:** Psychology 150, 210, 260; plus any two of Psychology 275, 283, 295. As related courses, Mathematics 149 (or the equivalent) and Zoology 100 or 110 or 191 are required, and further work in mathematics and science recommended.

**Religion. Major requirement:** 24 semester hours. **Required courses:** Religion 151, 200, 201, 250-251 or 282-283.
SOCIOLOGY. **Major requirement:** 24 semester hours. **Required courses:** Sociology 151, 282, and one each from the following two groups: 254, 268, 270, 271; 262, 269, 272, 273.

SPANISH. **Major requirement:** 20 semester hours, exclusive of Spanish 100. **Required courses:** Spanish 101, 256, 257, 258.

SPEECH. **Major requirement:** 27 semester hours. **Required courses:** Speech 100 or 150, 131, 204, 220, 221 (first semester), 250, 255, plus 3 hours in Drama. For students emphasizing speech correction, in addition to the specialized courses in speech correction and audiology, Psychology 185, 270, 292 or 295 and Zoology 110 or 191 are also required.

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

**Preprofessional and Graduate Preparation**

The following programs are recommended as offering desirable preparation in the various fields. They are suggested rather than required, as variations are often necessary in order to meet student needs or the stipulations of a particular professional or graduate school. Student programs should follow the recommendations of the appropriate national professional organizations, provide a good background in the humanities and social sciences, and meet the requirements of the College of Arts and Sciences.

There are no dental, law, medical, ministerial, or osteopathic schools in Hawaii.

**Fine Arts Program**

This program is designed to provide basic preparation for a career in any one of several fields of art. Requirements include approximately twice as many semester hours in art as for the Bachelor of Arts degree with a consequent lessening of the credits to be taken outside the department. A major may be obtained in Drawing and Painting, Applied Design, Ceramics, Advertising Art, History of Art, and Weaving.

**Pacific Islands Studies Program**

The University offers graduate work leading to the Master of Arts degree in Pacific Islands Studies. This program provides both a regional specialization for those who intend to continue work for the Doctorate in a particular discipline, and an area background for those contemplating employment in business, government, or mission work in the Pacific Islands—Polynesia (including Hawaii), Micronesia, and Melanesia.

The required undergraduate preparation is 18 semester hours of courses dealing with the Pacific Islands, to be chosen from the following: Anthropology 250, 251, 252, 253, 266, 277, 278; Economics 262, 291, 292; English 263;
Geography 260, 263, 265, 280, 281; Government 261, 270, 271; History 221, 273, 276, 277, 278, 279; Psychology 280, 283; Sociology 250, 256, 257, 269. A basic course in either Anthropology or Geography of the Pacific Islands is required.

Predental Program

AMERICAN DENTAL ASSOCIATION RECOMMENDATIONS

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

<table>
<thead>
<tr>
<th>Requirement</th>
<th>University of Hawaii Equivalent</th>
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<tbody>
<tr>
<td>Chemistry</td>
<td>Chemistry 103, 159</td>
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<tr>
<td>Physics</td>
<td>Physics 102</td>
</tr>
<tr>
<td>Biology or Zoology</td>
<td>Zoology 100, 151</td>
</tr>
<tr>
<td>English</td>
<td>English 101</td>
</tr>
</tbody>
</table>

Generally, at least 90 credit hours are required.

Prelegal Program

Most reputable law schools require a bachelor's degree for entrance. They do not specify major fields to be covered, but in general prefer a well-rounded background with a major in Economics, English, Government, History, Philosophy, Psychology, or Sociology. A mastery of elementary logic and mathematics, together with a good grasp of scientific principles, is considered desirable and work in elementary accounting is strongly advised; but increasingly it is being stated that the best prelegal training consists of a thorough grounding in the social sciences and humanities together with extensive practice in the arts of oral and written communication.

Chemistry 103 is suggested for the science requirement, and either French or German for the language. The work of the last two years, aside from the major, is largely elective, but the following courses are especially recommended: Business 150-151; Economics 256, 261; Government 282; History 211, 252; Psychology 250, 295; Speech 150.

Premedical Program

AMERICAN MEDICAL ASSOCIATION RECOMMENDATIONS

Preparatory school requirements include a minimum of 15 units of which at least 3 must be in English, 2 in some one foreign language, 2 in algebra, 1 in geometry, and 1 in history.

University requirements are a minimum of 60* credit hours as follows:

* A majority of medical schools now require 90 credit hours and give preference to applicants with a bachelor's degree.
UNIVERSITY OF HAWAII

EQUIVALENT

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<td>Zoology 100, 151, 261</td>
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</table>

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

Preministerial Program

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

A preministerial student should meet the basic requirements recommended by the American Association of Theological Schools and consult the catalogues of the graduate schools he is considering attending.

Public Administration Program

Students expecting to enter the field of public administration major in Government and follow the program in public administration. They must complete the work required of a major in Government (see p. 69) and all courses offered in public administration.

In order to insure an adequate background of preparation, the following courses are strongly recommended: Government 248, 252, 254, 259, 276; Economics 261, 265, 270, 283; English 210; and a course in statistical methods.

Enrollment in the public administration program is open to persons engaged in public service who are desirous of training in public administration, and who are able to satisfy University admission requirements.

Preosteopathic Program

The Osteopathic Bureau of Professional Education and Colleges recommends, and several osteopathic schools require, that preosteopathic students complete at least three years of college work. Such students are urged to emphasize general education rather than science specialization.

The minimum requirements for admission to an approved college of osteopathy are 60 semester hours (two years) from a college or university accredited by a regional or national accrediting agency. The specific subject and credit
requirements, and the University of Hawaii equivalents, are identical with those of the predental program.

**Presocial Work Program**

Students who plan to enter the School of Social Work (see p. 110) may major in any of the social sciences. They must have a minimum of 30 semester hours in social science, with 6 semester hours each from Economics, Government, Psychology, and Sociology. In addition to the introductory course, advanced courses may be chosen from the following: Economics 261, 281, 282, 283; Government 256, 282, 283; Psychology 185, 260, 264, 280, 290, 292, 295; Sociology 255, 256, 264, 267, 269, 280, 282. In addition, Social Work 200 must be taken in the junior or senior year.

A biological science should be elected to satisfy the lower division science requirement. A course in Statistics is recommended.

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

The College of Applied Science prepares students for work in Engineering, Medical Technology, Nursing, and Recreation Leadership. This preparation includes training in fundamental scientific principles, development of leadership and professional ethics, and the general education of the individual. These programs lead to the degree of Bachelor of Science. The first two years of an Architectural program are offered.

Admission

The number of students admitted in Engineering and Nursing is limited. Selection is made from applicants best qualified on the basis of admissions tests and high school records. Some of the programs of this College require special preparation in addition to the requirements for admission to the University as a whole (pp. 46-49). Engineering students who lack the required special preparation, or who are unable to carry heavy schedules, or who elect Advanced Military or Air Science usually require more than four years to meet degree requirements.

Degree Requirements

In order to be eligible for the Bachelor of Science degree from this College a student must:
(1) Complete the course requirements of a curriculum.
(2) Have an aggregate of at least 130 semester hours of credit.
(3) Have a 2.0 grade-point ratio for all registered credits. (See "Undergraduate Degree Requirements.")

Engineering Curricula
CIVIL ENGINEERING

The Civil Engineering curriculum is a four-year program preparing for the professional practice of civil engineering in hydraulic, sanitary, structural, and transportation work and for engineering work in construction and public service. This program leads to the degree of Bachelor of Science in Civil Engineering.

FIRST YEAR

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SECOND YEAR

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SUMMER SESSION
Civil Engineering 227—3 semester hours

THIRD YEAR

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FOURTH YEAR

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Total 18

GENERAL ENGINEERING

The General Engineering curriculum is a four-year program leading to the degree of Bachelor of Science in General Engineering. It is designed to provide broad training in the fundamental scientific principles upon which professional engineering is based.

FIRST YEAR

Same as the first year of Civil Engineering

SECOND YEAR

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THIRD YEAR

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Total 18

FOURTH YEAR

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Total 18
RECOMMENDED ELECTIVES

GROUP I: Air Science 202 or Military Science 200; Anthropology 150; Geography 150, 151; Government 155; History 100; Music 110; Philosophy 100, 150; Psychology 156; Sociology 151; Speech 150.

GROUP II: Air Science 252 or Military Science 250; Bacteriology 130, 151 (2 or 4 credits); Business 230; Economics 292; Civil Engineering 293, 295, 296, 297, 298, 299; Geology 150; Mathematics 280; Mechanical Engineering 254.

GROUP III: Air Science 252 or Military Science 250; Business 150-151, 210, 230; Civil Engineering 291, 292, 299; Mathematics 280, 252-253; Mechanical Engineering 286, 293; Physics 255, 280, 281.

Prearchitectural Program

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

FIRST YEAR

<table>
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<tr>
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SECOND YEAR

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</table>

Medical Technology Curriculum

The Medical Technology curriculum provides for three years of course work on the campus and a fourth year of practical experience in hospital laboratories. Beginning with the summer session preceding the fourth year and continuing
throughout the year, students register for Medical Technology 266, 267, and 268. Completion of this curriculum makes the student eligible for the Bachelor of Science degree and certification as a Medical Technologist.

### FIRST YEAR

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<thead>
<tr>
<th>FIRST SEMESTER</th>
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### THIRD YEAR

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### SUMMER SESSION

Medical Technology 266 — 4 semester hours

### FOURTH YEAR

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**School of Nursing**

**CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN NURSING**

This program combines academic and professional courses with practice and requires four academic years and one summer session. It is intended to develop
nurses capable of working with others in giving competent preventive and bedside nursing care in any branch of service; to provide a sound foundation in both general and professional education in preparation for supervision, teaching and administration; and to contribute to the development of a self-directing, socially conscious person able to make effective adjustments in personal and professional situations.

**FIRST YEAR**

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**SECOND YEAR**

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**SUMMER SESSION**

Nursing 210—6 semester hours

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**FOURTH YEAR**

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CURRICULUM FOR REGISTERED PROFESSIONAL NURSES LEADING TO
THE DEGREE OF BACHELOR OF SCIENCE IN NURSING

This program is designed to increase the ability of registered professional nurses in any field of nursing, to provide a sound foundation for preparation for supervision, teaching, and administration, and to prepare registered professional nurses for positions in public health nursing. It combines general education with professional courses so that registered professional nurses may obtain the degree of Bachelor of Science within a reasonable period of time.

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

FIRST TWO YEARS

A maximum of sixty (60) semester hours of credit in advanced standing may be allowed for professional work in an approved hospital school. Credit will be granted only under the following conditions:

1. Satisfactory instruction in clinical courses required in the four-year nursing curriculum of the University of Hawaii as determined by scores on qualifying examinations prepared and scored by the National League for Nursing.
2. Completion of one year of successful work at the University of Hawaii (minimum of 2.0 grade-point ratio).

THIRD YEAR

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<tr>
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FOURTH YEAR

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<td>Nursing 283</td>
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<td>Nursing 291</td>
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<td>Psychology 280 or Sociology 269</td>
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<td>Social Work 200</td>
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<td></td>
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<td>Electives</td>
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## SUMMER SESSION
Nursing 290—6 semester hours

### Recreation Leadership Curriculum

#### FIRST YEAR

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<th>Credits</th>
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#### SECOND YEAR

| Art 142                        | 2       | Art 143                    | 2       |
| English 155                    | 3       | Health & Phys. Ed. 103     | 1       |
| Health & Phys. Ed. 115         | 1       | Health & Phys. Ed. 120     | 2       |
| History 110                    | 3       | Health & Phys. Ed. 140     | 2       |
| MS 150 or AS 152               | 1       | MS 150 or AS 152            | 1       |
| Music 140                      | 2       | Psychology 186             | 2       |
| Psychology 156                 | 3       | Speech 150                 | 3       |
| Speech 102                     | 1       | Elective                   | 4       |
| **Total**                      | 16      | **Total**                  | 17      |

#### THIRD YEAR

| Health & Phys. Ed. 215 (for men) or 225 (for women) | 2       | Health & Phys. Ed. 217 (for men) or 227 (for women) | 2       |
| Sociology 250                   | 3       | Elective                   | 6       |
| Elective                        | 3       |                            |         |
| **Total**                       | 17      | **Total**                  | 17      |

#### FOURTH YEAR

| Education 252                  | 2       | Health & Phys. Ed. 241     | 2       |
| Health & Phys. Ed. 252         | 5       | Psychology 292             | 3       |
| Health & Phys. Ed. 263         | 2       | Elective                   | 4       |
| Elective                       | 3       |                            |         |
| **Total**                      | 16      | **Total**                  | 16      |
ELECTIVES

Eight credits of electives must be selected from Group I. Additional electives from Group II must be selected to complete curriculum requirements of 130 semester hours. Substitutions for suggested electives may be approved by the adviser.


GROUP II: Air Science 202, 252; Anthropology 250; Art 140; Chinese 100; Drama 140; Geography 150; Geology 150; Hawaiian 100; History 100, 201, 276; Japanese 100; Military Science 200, 250; Music 110; Philosophy 100; Psychology 250, 257, 258, 260; Religion 150; Speech 151; Science 120-121.
THE FUNCTION of Teachers College is to prepare teachers for the public schools of Hawaii and to afford those already in service an opportunity to improve themselves professionally. Standard preparation for teaching positions in the public schools of the Territory requires four years of undergraduate work and a graduate year. The four-year program leads to the Bachelor of Education degree, and the year of graduate work to the Five-Year Diploma. Both the degree and the diploma indicate the level—Preschool-Primary, Elementary, or Secondary—for which the curriculum is designed.

Admission

In addition to the general University admission requirements, applicants for admission to undergraduate curricula in Teachers College must meet certain standards of college aptitude, scholarship, health, personality, and oral English. Applicants for admission to the fifth year or any other advanced program must take the National Teacher Examinations or present scores previously earned in this examination. The National Teacher Examinations are included in Education 261, required of all seniors in Teachers College. Admission to the fifth year program leading to the Five-Year Diploma requires a grade of C or better in Practice Teaching, and professional preparation equivalent to that represented by the Bachelor of Education degree or the Bachelor of Science degree in Vocational Education.
Degree Requirements

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

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

Five-Year Diploma Requirements

To be eligible for the Five-Year Diploma a student must:

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

Professional Certificate Requirements

The standard certificate for public school teaching service in Hawaii is the professional certificate granted by the Department of Public Instruction. The general requirement for this certificate is five years of college work, including practice teaching and other professional course experiences. In addition, the candidate must have met the specific course and curriculum requirements for the grade of certificate sought (e.g., Preschool-Primary, Elementary, Secondary). Requirements for the professional certificate can be met as follows:

1. By fulfillment of requirements for the Teachers College Five-Year Diploma; or
2. By earning 30 semester hours of credit after receiving the Bachelor of Education degree or its equivalent. Six of these credits must be in Education courses designed primarily for graduate students.

Curricula

The curricula in Preschool-Primary, Elementary, and Secondary education, with minor exceptions, are identical for the first two years, where the curriculum is designed to provide for a broad general background.
During the third year students are introduced to the professional information and background necessary for public school service. Differentiation appropriate to the selected curriculum (Preschool-Primary, Elementary, or Secondary) begins at this point. Students preparing for secondary school teaching utilize the electives included in the curriculum outline in meeting requirements for teaching field concentrations. These requirements range from 18 to 36 credits, and are designed to meet Department of Public Instruction requirements for certification.

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

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

The curriculum in Dental Hygiene is sufficiently different to require separate listing.

PRESCHOOL-PRIMARY, ELEMENTARY, AND SECONDARY CURRICULA

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SECOND YEAR

|            | CREDITS | CREDITS | |
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| Art 142** | 2 | Art 143** | 2 |
| English 150 | 3 | English 150 | 3 |
| HPE 130 | 1 | Government 150 or History 110 | 3 |
| History 110 or Government 150 | 3 | MS 150 or 151 or AS 152 | 1 |
| MS 150 or 151 or AS 152 | 1 | Psychology 185 or 186 | 2 |
| Psychology 156 | 3 | Speech 107 | 1 |
| Speech 106 | 1 | Elective | 5 |
| Music 150* | 3 | |
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* Economics 140 may be substituted.
** Not required in the Secondary curriculum.
### PRESCHOOL-PRIMARY CURRICULUM

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#### FOURTH YEAR

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### ELEMENTARY CURRICULUM

#### THIRD YEAR

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#### FOURTH YEAR

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### SECONDARY CURRICULUM

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* As required to meet teaching field concentrations.
† For other teaching fields, appropriate methods courses will be substituted.
### Fourth Year

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### Preschool-Primary, Elementary, Secondary, and Dental Hygiene Curricula

### Fifth Year

| Education 340         | 3       | Education 354‡      | 14      |
| Education 390         | 2       | Education 395       | 2       |
| Psychology 351        | 3       |                     |         |
| Social Work 200**     | 3       |                     |         |
| Elective††            | 5       |                     |         |
| Total                 | 16      | Total               | 16      |

### Dental Hygiene Curriculum

#### First Year

| Chemistry 103         | 4       | Chemistry 103       | 4       |
| English 101           | 3       | English 101         | 3       |
| Health & Phys. Ed. 105| 1       | Health & Phys. Ed. 106| 1       |
| History 100           | 3       | History 100         | 3       |
| Home Economics 101    | 2       | Household Science 150| 3       |
| Speech 100            | 1       | Speech 105          | 1       |
| Elective              | 3       | Elective            | 2       |
| Total                 | 17      | Total               | 17      |

#### Second Year

| English 150           | 3       | Bacteriology 151    | 4       |
| Health & Phys. Ed. 107or 130| 1       | English 150         | 3       |
| History 110 or Government 150| 3       | Health & Phys. Ed. 130 or 107| 1       |
| Psychology 156        | 3       | Government 150 or History 110| 3       |
| Speech 106            | 1       | Psychology 185      | 3       |
| Zoology 100           | 4       | Speech 107          | 1       |
| Elective              | 2       | Elective            | 2       |
| Total                 | 17      | Total               | 17      |

#### Third Year

| Dental Hygiene 200    | 1       | Dental Hygiene 201  | 2       |
| Dental Hygiene 251    | 3       | Dental Hygiene 235  | 2       |
| Dental Hygiene 252    | 1       | Dental Hygiene 258  | 1       |
| Education 285         | 4       | Education 286       | 4       |

* As required to meet teaching field concentrations.
** Required in Preschool-Primary curriculum only.
†† Must include two credits in graduate courses in Education.
‡ Dental Hygiene 354 in Dental Hygiene curriculum.
THIRD YEAR (cont.)

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| CREDITS | | |
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FOURTH YEAR

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<td>Dental Hygiene 256</td>
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<td>Dental Hygiene 264</td>
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<td>Dental Hygiene 265</td>
</tr>
<tr>
<td>Education 261</td>
</tr>
<tr>
<td>Elective</td>
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Laboratory Schools

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

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

Vocational Home Economics Education

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

Certification in School Counseling

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

Library Science

Regulations of the Department of Public Instruction provide that "A teacher holding a Professional Elementary or Secondary Certificate may have stated on its face 'Requirements Met for Library' if he has had 12 semester hours in library courses." Individuals interested in this provision should confer with one of the instructors in Library Science, preferably before the beginning of the junior year.
COLLEGE OF AGRICULTURE

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

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

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

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

Admission

The requirements for admission to this College are, in general, the same as those for admission to the University as a whole (pp. 46–49). Students who are lacking some of this required preparation are unable to follow the regular programs and usually need more than four years to complete the degree requirements.

Degree Requirements

In order to be eligible for the Bachelor of Science degree from this College a student must:
(1) Complete the course requirements of a curriculum.
(2) Have an aggregate of at least 130 semester hours of credit.
(3) Have a 2.0 grade-point ratio for all registered credits. (See "Undergraduate Degree Requirements.")

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

**Curricula in Agriculture**

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

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

**GENERAL AGRICULTURE**

**FIRST YEAR**

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<thead>
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<td>Health &amp; Phys. Ed. 102</td>
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<tr>
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<td>MS 100 or AS 102</td>
<td>1</td>
</tr>
<tr>
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<tr>
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<td><strong>Total</strong></td>
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<td>History 110</td>
<td>3</td>
<td>Horticulture 162</td>
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<td>MS 150 or 151 or AS 152</td>
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<td>Speech (as required)</td>
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**THIRD YEAR**

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<td><strong>Total</strong></td>
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</table>
FOURTH YEAR

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

VOCATIONAL AGRICULTURE*

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* The curriculum in Vocational Agriculture has been temporarily suspended.
The electives of the fourth year must meet the requirements of the Territorial Department of Public Instruction. The Agricultural Teacher Trainer in the University acts as student adviser in this curriculum.

### TROPICAL CROP PRODUCTION

#### FIRST YEAR

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#### SECOND YEAR

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#### THIRD YEAR

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<td>English 210</td>
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#### SUMMER PRACTICE IN INDUSTRY—10 weeks

#### FOURTH YEAR

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<td>Soil Science 267</td>
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### AGRICULTURAL ECONOMICS

#### FIRST YEAR

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FIRST YEAR (cont.)

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SECOND YEAR

|                        |         |                                |         |
|                        |         |                                |         |
| Health & Phys. Ed. 130  | 1       | MS 150 or 151 or AS 152         | 1       |
| MS 150 or 151 or AS 152 | 1       | Economics 151                   | 3       |
| Botany 100             | 4       | Elective in Econ. and Bus.      | 3       |
| Economics 150          | 3       | Elective in Social Science      | 3       |
| Business 150           | 3       | Elective in Agriculture         | 7       |
| English 155            | 3       |                                  |         |
| Elective               | 3       |                                  |         |
| Total                  | 18      | Total                            | 17      |

THIRD YEAR

|                        |         |                                |         |
|                        |         |                                |         |
| Economics 256          | 3       | Economics 264                   | 3       |
| Economics 291          | 3       | Business 282                    | 3       |
| Elective in Agriculture| 4       | English 210                     | 3       |
| Elective in Ag. Economics| 3    | Elective in Ag. Economics       | 3       |
| Elective in Social Science| 3    | Elective                        | 6       |
| Total                  | 16      | Total                            | 18      |

FOURTH YEAR

|                        |         |                                |         |
|                        |         |                                |         |
| Agriculture 299        | 3       | Elective                        | 16      |
| Elective in Social Science| 3    |                                  |         |
| Elective in Econ. and Bus.| 6    |                                  |         |
| Elective in Ag. Economics| 3    |                                  |         |
| Elective               | 3       |                                  |         |
| Total                  | 18      | Total                            | 16      |

Electives are chosen with the approval of the adviser. They must include 9 credits in Social Science, other than economics; 9 credits in Economics and Business in addition to those specified and 9 credits in Agricultural Economics in addition to those specified.

TECHNICAL AGRICULTURE

FIRST YEAR

<p>| | | | |
|                        |         |                                |         |
|                        |         |                                |         |
| Botany 100 or Zoology 100 | 4       | Botany 100 or Zoology 100       | 4       |
| Chemistry 103          | 4       | Chemistry 103                   | 4       |
| English 100 or 101     | 3       | English 101                     | 3       |
| Health &amp; Phys. Ed. 101 | 1       | Health &amp; Phys. Ed. 102          | 1       |
| MS 100 or AS 102       | 1       | MS 100 or AS 102                 | 1       |
| Speech 100             | 1       | Speech (as required)            | 1       |
| Elective               | 3 or 4  | Elective                        | 3 or 4  |
| Total                  | 17 or 18| Total                            | 17 or 18|</p>
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<tr>
<td>Health &amp; Phys. Ed. 130</td>
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<td>English 155</td>
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<td><strong>FOURTH YEAR</strong></td>
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</tbody>
</table>

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

**ANIMAL SCIENCE. Requirements:** Animal Science 151, 253, 257, 260, 261; Bacteriology 151; Zoology 151—21 credits, and 16 credits selected from the following courses with the approval of the adviser: Agriculture 256; Animal Science 258, 279, 297, 298; Bacteriology 260, 262; Chemistry 150, 230, 232; Poultry Science 152, 259, 263, 264, 265; Zoology 170, 253, 260, 261, 262, 276, 291.

**ENTOMOLOGY. Requirements:** Bacteriology 151; Botany 263; Zoology 170, 254, 255, 273, 298—21 credits, and 15 credits selected from the following courses with approval of the adviser: Agriculture 299; Agricultural Engineering 281, 282, 291; Botany 105, 201, 253, 282, 283; Chemistry 150, 230; Geography 262; Geology 150, 151; Horticulture 162; Philosophy 280; Soil Science 267, 268; Vegetable Crops 164; Zoology 240, 253, 257, 260, 262, 276, 291.

**POULTRY SCIENCE. Requirements:** Animal Science 297; Bacteriology 151; Poultry Science 152, 263, 264, 265; Zoology 151, 170—27 credits, and 15 credits selected from the following with the approval of the adviser: Agriculture 256; Agricultural Engineering 281, 282; Animal Science 151, 257, 279; Chemistry 150, 230; Economics 140, 291; Genetics 262; Zoology 253, 261, 273.
SOIL SCIENCE. Requirements: Agriculture 299; Agricultural Engineering 291; Chemistry 150, 230; Soil Science 267, 268—18 credits, and 18 credits selected from the following courses with approval of the adviser: Agriculture 256; Agricultural Engineering 281, 282; Bacteriology 151, 250; Botany 161, 273, 274, 275, 276, 283; Chemistry 160, 232, 250, 255, 271; Geography 150, 250; Geology 150, 151; Horticulture 162; Mathematics 151, 152; Philosophy 280; Soil Science 269.

TROPICAL HORTICULTURE. Requirements: Bacteriology 151; Botany 263, 269, 283; Genetics 278; Horticulture 162—20 credits, and 16 credits from the following courses with approval of the adviser: Agricultural Engineering 281, 282, 291; Botany 161, 201, 253, 268, 273, 275, 281; Chemistry 150, 230; Genetics 262; Horticulture 163, 273, 274, 294; Soil Science 267, 268; Vegetable Crops 164, 209, 210; Zoology 170, 273, 276.

Curricula in Home Economics

The Home Economics program combines a broad range of academic and professional courses and is designed to promote satisfying personal, home and community life. It prepares students for homemaking and for professional careers. Four curricula are offered: Home Economics Education, Institutional Management, General Home Economics, and Foods and Nutrition Research.

FIRST YEAR

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<tr>
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<th>CREDITS</th>
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Total 15 Total 16

SECOND YEAR

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Total 17 Total 17

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

* Required only in Foods and Nutrition curriculum.
Four such special curricula are offered. The major requirements and the additional recommended electives for each are listed below.

During the second and third years, students in General and Home Economics Education should elect Bacteriology 140, Household Art 110, 111, and Zoology 110 or 191. Students in Institutional Management and Dietetics should elect Bacteriology 151, Chemistry 232, and Zoology 191.

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

### GENERAL HOME ECONOMICS

#### THIRD YEAR

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#### FOURTH YEAR

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### HOME ECONOMICS EDUCATION

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#### FOURTH YEAR

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### INSTITUTIONAL MANAGEMENT

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<td>Sociology 151</td>
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#### FOURTH YEAR

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**FOODS AND NUTRITION RESEARCH MAJORS** follow the second-year program including Chemistry 150, 159; Mathematics 151; Zoology 100. During the third and fourth years, the following are required: Bacteriology 151; Chemistry 230, 232; History 110 or 242; Home Economics 250, 291; Household Science 272, 277, 299.

### SUGGESTED ELECTIVES

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

**INSTITUTIONAL MANAGEMENT:** In addition to the above electives, Household Art 110, 111; Home Economics 254, 255, 256, 262.

**FOODS AND NUTRITION:** Chemistry 266, 270; English 210, 260-261, 263; German 100, 102; Home Economics 255, 262; Household Art 110, 111; Household Science 273; Physics 102; Sociology 151, 250; Zoology 191, 192, 276.

### Hawaii Agricultural Experiment Station

By an act of Congress in 1928, the University of Hawaii was empowered to set up a department to be designated as the Hawaii Agricultural Experiment Station and was entitled to receive the federal grants for agricultural research appropriated by Congress for such experiment stations in each of the states. By provisions made at the same time, the federal experiment station, established

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

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

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

The research of the Station has formed the basis for a rapid expansion of production of all food and feed crops, particularly through development and introduction of improved and adapted varieties of tomato, sweet potato, papaya, macadamia nuts, and other crops. Animal feeding trials with dairy cattle, poultry, and hogs have shown how local feeds can be used profitably in lieu of imported feeds if necessary. Investigations with yeast, molasses, ensilage, and urea indicate how imported feeds may be replaced by or supplemented with local products—and this with profit to the producer. Information concerning culture, control of disease and insects, and especially the use of mechanical equipment in planting,
cultivation, irrigation, and harvesting of the major food crops, is providing a
great stimulus to production on a scale never before attempted in the Territory.

Co-operative Extension Service in Agriculture 
and Home Economics

This program, conducted jointly by the College of Agriculture and the United
States Department of Agriculture, is devoted to the advancement of agriculture
in Hawaii and to the improvement of rural home life. Funds for the mainte-
nance of the Agricultural Extension Service are derived jointly from federal and
Territorial legislative appropriations.

Agricultural Extension Service. This Service maintains personal contacts
with the rural population through its field staff of county farm agents, home
demonstration agents, and their assistants, with the help of the specialists at the
Territorial headquarters at the University of Hawaii. The staff, 70 in number,
operates out of eleven offices located as follows:

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

Improved farm and home practices are taught by means of practical demon­
strations before University Extension clubs of men and women, commodity
groups, and 4-H clubs of boys and girls. This group instruction is supplemented
by farm and home visits and personal conferences. Each year a 4-H Ahaolelo is
held on the University campus; for 1957 the dates are August 16 to 19, inclusive.

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

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

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

The Extension Service, cooperating with the Agricultural Marketing Service
of the United States Department of Agriculture, collects and publishes crop
estimates and market statistics of value to farmers and businessmen. Assistance
in keeping proper records for tax accounting has come to be a much appreciated
phase of this project. Emphasis is placed upon grading and marketing of farm products.

Other important projects include demonstration of improved practices in soil conservation, vegetable production, fruit growing, swine raising, dairying, pasture improvement, poultry production, human nutrition, home management, home furnishing, and clothing.

Special emphasis is placed on assisting the families of farmers and plantation workers through the services of Extension agents, who devote most of their time to imparting information on such subjects as crop and livestock production, poultry raising, farm management, soil management, home food supply, nutritious meals, clothing, and home improvement.
The College of Business Administration aims to provide an understanding of the structure, functions, and objectives of American business enterprise and to train for active participation in the business and industrial activities in Hawaii. The four-year program leads to the degree of Bachelor of Business Administration.

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

Admission

Admission requirements are the same as those for admission to the University as a whole. (See pp. 46–49.)

Degree Requirements

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

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

Curricula

FIRST YEAR

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<td>Geography 151 or Business 100</td>
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<td>Government 150 or</td>
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SECOND YEAR

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Required upper division courses for each curriculum, for students who became juniors in September 1957, or thereafter, are given below. Those who attained junior standing prior to September 1957, may complete the requirements as given in the General Catalogue for 1956-57.

GENERAL BUSINESS

THIRD YEAR

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

Bus. 265 Corporation Finance
Bus. 276 Retail Merchandising
Econ. 265 Government and Business

* May be taken either semester.
### FOURTH YEAR

#### FIRST SEMESTER
- Bus. 280 Prin. of Salesmanship
- Econ. 261 Public Finance

#### SECOND SEMESTER
- Bus. 263 Personnel Management
- Bus. 287 Bus. Organ. and Mgmt.
- Econ. 258 Econ. Resources of the U.S.

### BANKING AND FINANCE

#### THIRD YEAR
- Bus. 250 Intermediate Accounting
- Bus. 282 Business Statistics
- Econ. 256 Money and Banking

- Bus. 255 Analysis of Fin. Statements
- Bus. 265 Corporation Finance
- Econ. 261 Public Finance
- Econ. 265 Government and Business

#### FOURTH YEAR
- Bus. 256 Income Tax Problems
- Bus. 278 Credit Management
- Econ. 270 Public Utilities

- Bus. 266 Investments and Invest. Bkng.
- Bus. 286 Negotiable Instruments
- Econ. 285 International Trade and Fin.

### PERSONNEL AND INDUSTRIAL RELATIONS

#### THIRD YEAR
- Bus. 282 Business Statistics
- Econ. 281 Labor Problems
- Econ. 283 Labor Legislation

- Bus. 230 Indus. Safety and Health
- Bus. 245 Time and Motion Study
- Bus. 263 Personnel Management
- Econ. 282 American Trade Unionism

#### FOURTH YEAR
- Bus. 261 Collective Bargaining
- Econ. 256 Money and Banking
- Econ. 265 Government and Business
- Econ. 294 Research in Indus. Rel.

- Bus. 268 Employment Interviewing
- Econ. 289 Arbitration of Grievances

### ACCOUNTING

#### THIRD YEAR
- Bus. 250 Intermediate Accounting
- Bus. 256 Income Tax Problems
- Bus. 282 Business Statistics
- Econ. 256 Money and Banking

- Bus. 251 Advanced Accounting
- Bus. 257 Merchandise Acctg. and Control
- Bus. 265 Corporation Finance
- Econ. 261 Public Finance

#### FOURTH YEAR
- Bus. 254 Cost Accounting
- Bus. 258 Auditing
- Bus. 287 Bus. Organ. and Mgmt.

- Bus. 249 Budgetary Acctg. and Control
- Bus. 255 Analysis of Fin. Statements
- Bus. 284 Accounting Systems
MERCHANDISING

THIRD YEAR*

FIRST SEMESTER

Bus. 250 Intermediate Accounting  
Bus. 270 Prin. of Marketing  
Econ. 256 Money and Banking  
Econ. 265 Government and Bus.

SECOND SEMESTER

Bus. 273 Prin. of Advertising  
Bus. 276 Retail Merchandising  
Bus. 282 Business Statistics

FOURTH YEAR**

Bus. 265 Corporation Finance  
Bus. 278 Credit Management  
Bus. 280 Prin. of Salesmanship

OFFICE MANAGEMENT

THIRD YEAR

Bus. 170 Tech. of Typewriting  
Bus. 250 Intermediate Accounting  
Bus. 259 Office Organ. and Mgmt.  
Econ. 281 Labor Problems

Bus. 170 Tech. of Typewriting  
Bus. 263 Personnel Management  
Bus. 282 Business Statistics

FOURTH YEAR

Bus. 177 Tech. of Shorthand  
Bus. 210 Elem. of Supervision  
Econ. 256 Money and Banking  

Bus. 241 Bus. and Sec. Machines  
Bus. 243 Punch Card Accounting  
Bus. 272 Adv. Secretarial Training  
Bus. 277 Secretarial Practice

* One of the following to be elected in the second semester: Psychology 250, 256; Sociology 151, 250.

** Any two of the following to be elected the second semester: Business 225, 240, 257, 279.
The College of General Studies is committed to the premise that age alone is no bar to learning. By providing the facilities for instruction, it is hoped that many will find it possible to broaden their cultural backgrounds, gain an insight into the demands of responsible citizenship and prepare themselves for competent participation in the business and professional affairs of the community. To these ends, the College extends the availability of University education to qualified people who cannot attend school on the campus in the daytime. It also is called upon to administer the academic affairs of those day students who are not yet candidates for a degree in another college of the University. Three regular programs are offered:

**Evening Credit Courses.** Concurrent with University sessions, a group of basic undergraduate requirements and advanced courses in business and a few other fields are offered on the campus, usually after 5 p.m., and in centers off the campus at military bases and other convenient locations. Admission to these courses is governed by general University requirements (see pp. 46–49), and credit received is the full equivalent of daytime credit in the same courses, including graduate credit when applicable.

**Evening Noncredit Courses.** Short courses covering selected college-level material in art, business, English, engineering, foreign languages, mathematics, general culture and other subjects are offered on the campus in the eve-
nings. Sessions begin in January, April, July and October of each year. Any person who has the equivalent of a high school education and can profit from these courses may enroll.

CORRESPONDENCE COURSES. Undergraduate credit courses are offered by correspondence for people who can satisfy University admission requirements but are unable to attend regular classes. Credits earned in correspondence may be counted toward a bachelor’s degree, but not more than 25 per cent of the total required for the degree may be in such courses. Correspondence courses do not give residence or graduate credit.

Other special professional courses and conferences are sponsored by the College of General Studies as needs for such activities arise in the community.

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

THE GRADUATE SCHOOL provides opportunities for further study, research, and professional training to students who have earned a Bachelor's degree from an accredited institution of higher learning. The graduate program is not, however, merely an extension of work at the undergraduate level. More rigorous academic standards are applied and a greater degree of independence in the pursuit of knowledge is required. Special emphasis is placed on the cultivation of scholarly attitudes and methods of research.

The University offers graduate work leading to:

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

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

(3) The professional certificate for teachers in the employ of the Department of Public Instruction of the Territory of Hawaii. (See p. 84.)

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

Students wishing to enroll for graduate work must make application to the Dean of the Graduate School. This application should be accompanied by an official transcript of the undergraduate record and of any graduate work completed at another institution.

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

Candidates for advanced degrees who fail to complete successfully two or more courses forming part of the program for an advanced degree are dropped from candidacy.

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

1. An adequate undergraduate background in the major and related fields in which the degree is to be taken.
2. A good undergraduate scholastic record, with a grade of B or better in undergraduate courses in the major field or with an average of at least B in all courses carried in the junior and senior years.

Students failing to meet one of these requirements may be permitted to enroll as an unclassified graduate student, and, if the record for a semester at the graduate level is adequate, the subsequent qualifying committee may recommend to the Dean of the Graduate School that the rule be waived.

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

Registration Limitations. Sixteen credit hours in a semester and seven in a six-week summer session are considered a normal course load and may be exceeded only by approval of the Dean. The number of credit hours which may be carried by student assistants is limited by the nature of their duties.

Examinations. Candidates for advanced degrees are required to take the regular examinations in courses for which they desire graduate credit, a comprehensive examination, a final oral examination in defense of the thesis, and, for the doctorate, examinations in the required languages. Adequate proficiency in the languages required for the doctorate must be certified by the appropriate language departments before a student will be admitted to the comprehensive examination.

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

Thesis. All candidates for advanced degrees, except the Master of Fine Arts, must submit a thesis on a topic selected from the major field. The thesis committee is appointed as soon as the candidate is ready to formulate his thesis problem. Copies of the completed thesis must be submitted to members of the committee at least two weeks prior to the date of the final examination. Two typewritten copies of the thesis, certified as acceptable to the thesis committee by its chairman, must be deposited in the Library to become the permanent possession of the University. A fee for the binding of the Library copies must be paid to the University Business Office.

Requirements for the Master’s Degree

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

Thirty semester hours of graduate study are required for the Master’s degree, 24 in courses and 6 for the thesis. (In unusual cases, upon certification by the thesis committee no later than the registration period of the session in which the degree is to be conferred, a maximum of 12 credits may be allowed for thesis research.) In Social Work the requirement is 42 semester hours of course work and 6 for the thesis, or 48 in all. (See below.)

At least 6 credits toward the Master’s degree must be earned in courses primarily for graduate students (300-399). The remaining credits may be elected from courses numbered 200-298, provided such courses are listed in the Graduate School Bulletin, but a grade A or B must be earned. The program of courses offered by the candidate should be in his major field of interest, but supplementary courses, when approved by the thesis committee, may be selected from one or two closely allied fields. A reading knowledge of a foreign language is required in certain fields.

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

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

Admission to the School of Social Work requires, in addition to completion of the undergraduate program (see p. 73), (1) a Bachelor's degree from a university or college of recognized standing and eligibility for admission to graduate standing at the University of Hawaii, and (2) evidence of personal qualifications necessary for success in social work.

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

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

Candidates for the Master of Social Work degree are required to complete 42 semester hours including 10 hours of supervised field work (750 clock hours) and a general research project or group research project, or a thesis.

Requirements for the Degree of Doctor of Philosophy

The degree of Doctor of Philosophy is offered only in those fields in which the University, by virtue of its special facilities of teaching staff, library, and research equipment, and its co-operative relations with other research institutions, can offer thorough advanced training.

Notice of intention to qualify for the doctorate should be given as early as possible during the graduate student's career.

The candidate is required to spend a minimum of six full semesters, or the equivalent, in graduate study, at least three of which must be in residence at the University of Hawaii. The six semesters, or three academic years, are interpreted as representing at least 48 semester hours of course work plus a dissertation for which 24 semester hours are allowed. The research for, and preparation of, the dissertation is expected to require a year of full-time application. Twenty-four semester hours toward the doctorate may be allowed for a Master's degree. Of the required 72 hours, 12 must be in a department other than the major, or in related courses in other departments.

In summary, the doctoral candidate must complete a program prescribed by the committee in charge of his candidacy, pass a comprehensive examination in his major and supporting fields, present certification of a reading knowledge of the two languages useful in his field of investigation, present a dissertation combining original research and scholarly analysis, and defend his thesis in a final examination.
ANNOUNCEMENT OF COURSES FOR 1957–58

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

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

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

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

Agriculture

Senior Professor G. D. Sherman; Professors B. Goto, Kinch, Peters, Poole, Rosenburg, Young; Associate Professors Britten, S. Goto, Hamilton, Kamemoto, McGuire, Philipp, Scott, Strohman, Wayman; Assistant Professors Gilbert, W. E. Holmes, Y. Kanehiro, Koshi, Lange, Moomaw, Otagaki, Ross; Instructors Iwanaga, H. Nakasone, T. Tanaka

Agriculture

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

230 INTRODUCTION TO AGRICULTURAL EXTENSION (3) II Goto
Objectives and organization of Extension work. Methods, selection, and training of voluntary leaders, and basic principles and procedure in program development and appraisal.

251 TROPICAL CROP PRODUCTION (3) I Moomaw
Survey of current agricultural practices in the production of sugar cane, pineapples, vegetables, fruits, and forage in the tropics. Two lectures; field trips to be arranged. Fee $2.00.
256 PRINCIPLES OF AGRONOMY (3) II
YOUNGE
Pasture and field crops, with special reference to crop ecology, cultural methods, and management in Hawaii. Two lectures and one laboratory period. Prerequisite: Botany 100; Chemistry 103; Zoology 100. Laboratory fee $1.00.

299 AGRICULTURE THESIS (Ar.) I, II
STAFF
Advanced individual work in field, laboratory, and library. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Agriculture.

300 DIRECTED RESEARCH (Ar.) I, II
STAFF
Directed research (1) Genetics—Britten; (2) Soil Science—Sherman; (3) Tropical Horticulture—Beaumont; (4) Poultry Science—Ross; (5) Animal Science—Wayman. Prerequisite: graduate standing; consent of instructor.

312 APPLIED AGRICULTURAL STATISTICS (3) II
POOLE
Field plot technique; analysis of laboratory and field data for evaluating factors in agricultural experiments. Two lectures and one laboratory period. Prerequisite: Zoology 276.

AGRICULTURAL ECONOMICS

239 FARM MANAGEMENT (3) II
PHILIPP
Application of farm management principles to the organization and management of the individual farm; the choice of farm enterprises; the business aspects of farming; records, taxes, credit. Two lectures and one laboratory period.

240 ADVANCED FARM MANAGEMENT (3) II
PHILIPP
Use of production economics and decision-making principles as they apply to individual farms. Techniques involved in the economic interpretation of biological and physical production data. Prerequisite: Agricultural Economics 239. (Alternate years; not offered 1957–58.)

241 MARKETING AGRICULTURAL PRODUCTS (3) I
SCOTT
Nature of the problems, type of marketing agencies, principal marketing functions and their combinations, marketing costs and margins, price quotations and speculation in farm products; government in its relation to marketing; consideration of proposals for improvement. Prerequisite: an introductory course in Economics or consent of instructor. Two lectures and one laboratory period.

292 AGRICULTURAL PRICES AND POLICY (3) I
SCOTT
A study of the factors affecting prices of agricultural products; evaluation of governmental policy relating to agricultural prices. Two lectures and one laboratory period. Prerequisite: one course in Economics. (Alternate years; not offered 1957–58.)

293 AGRICULTURAL COOPERATIVES (3) II
PETERS
History of the cooperative movement; appraisal of methods and operations; problems of management, membership relations and accounts. Prerequisite: consent of instructor. (Alternate years; not offered 1957–58.)

AGRICULTURAL ENGINEERING

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

282 AGRICULTURAL POWER (3) II
STROHMAN
Principles of operation, adjustment, selection and maintenance of internal combustion engines, farm tractors, trucks, and other power sources. Two lectures and one laboratory period.
Irrigation in its relation to crop production; development, distribution, and measurement of water; soil moisture and its effect on plant growth. Prerequisite: junior standing.

**ANIMAL SCIENCE**

151 **ANIMAL HUSBANDRY (3)**
Iwanaga
A general study of the important breeds of horses, cattle, sheep, and swine, and of their care and management. Lectures, assigned readings, and laboratory work. Laboratory fee $1.00.

253 **DAIRY HUSBANDRY (3)**
Koshi
The breeding, feeding, and management of dairy animals, with special reference to Hawaiian conditions. Two lectures and one laboratory period. Laboratory fee $1.00. (Alternate years; offered 1957-58.)

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

258 **ANIMAL NUTRITION (4)**
Otagaki
Nutrition of farm animals as related to protein, carbohydrates, fat, mineral and vitamin metabolism; antibiotics, hormones and other additives in feed utilization. Two lectures and two laboratory periods. (Alternate years; not offered 1957-58.)

260 **SWINE PRODUCTION (2)**
Iwanaga
Management of swine with special consideration to conditions in Hawaii. The breeds available, breeding practices and suitability of local feeds. (Alternate years; not offered 1957-58.)

261 **BEEF PRODUCTION (2)**
Koshi
The breeding, feeding and management of beef cattle with particular reference to conditions in Hawaii. (Alternate years; not offered 1957-58.)

279 **PHYSIOLOGY OF DOMESTIC ANIMALS (3)**
Wayman
The organ systems, their structure and functions. Emphasis upon the economically most important farm livestock. Two lectures and one laboratory period. Prerequisite: Animal Science 151; Poultry Science 152. (Alternate years; offered 1957-58.)

297 **ANIMAL DISEASES AND THEIR CONTROL (3)**
Cross
Introduction to disease problems of domestic animals; emphasis upon the nature of disease processes with methods of prevention, control, and eradication of infectious diseases. Two lectures and one laboratory period. Prerequisite: Animal Science 151; Poultry Science 152. Laboratory fee $3.00.

298 **SEMINAR IN ANNUAL NUTRITION (1)**
Wayman
Recent investigation in animal nutrition; oral reports by students on special topics after a review of literature. Prerequisite: Animal Science 257; sufficient training in chemistry; consent of instructor.

**GENETICS**

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

262 **ADVANCED GENETICS (3)**
Britten
Principles and theories of genetics; methods and results of modification of germinal materials, gene action, and a survey of recent advances in genetics. Prerequisite: Genetics 254. (Not offered 1957-58.)
278 PRINCIPLES OF PLANT BREEDING (3) I
POOLE
Selection, hybridization, and cytogenetics as applied to plant improvement. Two lectures and one laboratory period. Prerequisite: Genetics 254. (Alternate years; offered 1957–58.)

302 GENETICS SEMINAR (1) I, II
BRITTEN
Presentation of reports upon research or reviews of current literature on genetics and cytogenetics. May be repeated. Prerequisite: Genetics 254 or consent of instructor.

HORTICULTURE

162 TROPICAL POMOLOGY (3) II
LANGE
Origin, description, and cultural requirements of horticultural crops. Two lectures and one laboratory period. Prerequisite: Botany 100; Chemistry 103; Zoology 100. Laboratory fee $1.00.

163 PLANT PROPAGATION (3) I
NAKASONE
Principles and methods of propagating plants by seeds, cuttings, layers, division, grafting, and budding. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $3.00. (Not offered 1957–58.)

273 PRINCIPLES OF FLORICULTURE (3) I
KAMEMOTO
Introduction to the methods of propagation and management of the important flower and foliage plants of Hawaii. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $3.00.

274 COMMERCIAL FLOWER PRODUCTION (3) II
KAMEMOTO
A comprehensive study of flower and foliage plants, with particular attention to nursery practices, methods of culture, timing the crop, and marketing. Two lectures and one laboratory period. Prerequisite: Horticulture 273. Laboratory fee $2.50. (Alternate years; not offered 1957–58.)

275 CONTROL OF PLANT DISEASES (2) II
GOTO
An introduction to the control of plant diseases with emphasis on problems relating to Hawaiian crop plants. Two lectures and one laboratory period. Prerequisites: Botany 100, 259; Bacteriology 151; or consent of instructor.

294 ADVANCED TROPICAL POMOLOGY (3) I
HAMILTON
Principles of tropical fruit and nut production in relation to cultural practices and orchard management emphasizing crops commercially important in Hawaii. Two lectures and one laboratory period. Prerequisite: Horticulture 162, 163. (Alternate years; offered 1957–58.)

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

313 PHYTOPATHOLOGICAL LITERATURE (1) I
GOTO
Reports, reviews and guided reading of the literature on plant diseases and their causes. May be repeated. Prerequisite: advanced or graduate standing and consent of instructor.

POULTRY SCIENCE

152 POULTRY HUSBANDRY (3) I
TANAKA
An introduction to poultry husbandry. Two lectures and one laboratory period. Laboratory fee $2.00.

263 POULTRY BREEDING (3) II
ROSENBERG
Survey and application of breeding principles to the improvement of poultry. Development of practical breeding programs for flock replacement under Hawaiian conditions. Two lectures and one laboratory period. Prerequisite: Genetics 254; Poultry Science 152. (Alternate years; offered 1957–58.)
264 POULTRY NUTRITION (3) I
ROSS
Principles of poultry nutrition; composition of poultry feedstuffs and formulation of poultry rations with special emphasis on the use of local feeds. Two lectures and one laboratory period. Prerequisite: Poultry Science 152. (Alternate years; not offered 1957-58.)

265 INCUBATION AND BROODING (3) II
TANAKA
Principles and practices in incubation and brooding; chick embryology. Two lectures and one laboratory period. Prerequisite: Poultry Science 152. (Alternate years; not offered 1957-58.)

SOIL SCIENCE

250 SOILS (4) I
HOLMES
The basic principles of soil science. Origin, development, properties, and management of tropical soils, including the classification of Hawaiian soils. Three lectures and one laboratory period. Prerequisite: Chemistry 103. Laboratory fee $3.00.

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

268 SOIL DIAGNOSIS LABORATORY (2) II
KANEHIRO
Laboratory and field tests designed to determine the effects of deficiencies and toxicities of plant nutrients and the fertilizer requirements of soils. Prerequisite: Soil Science 250; credit or concurrent registration in Soil Science 267. Laboratory fee $2.00. (Alternate years; offered 1957-58.)

269 SOIL PHYSICS (3) II
HOLMES
Physical properties of soils; particle size distribution, soil structure, soil moisture relationships. Two lectures and one laboratory period. Prerequisite: Physics 102 or 104; Soil Science 250. (Alternate years; not offered 1957-58.)

301 ADVANCED SOIL TECHNOLOGY (3) I
SHERMAN
Soil-weathering and soil-forming processes on the basis of modern pedologic principles. Prerequisite: graduate standing; consent of instructor.

303 SOIL CLASSIFICATION (3) II
SHERMAN
A comprehensive study of the genesis of soils and the various systems of classification, with special reference to tropical soils. Lectures and field work.

308 SOIL SCIENCE SEMINAR (1) II
STAFF
Review of recent findings in soil science research in the fields of soil chemistry, physics, classification, fertility, bacteriology, and technology. Prerequisite: graduate standing.

VEGETABLE CROPS

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

209 ADVANCED VEGETABLE CROPS (4-4) Yr.
McGUIRE
Production of vegetable crops. First semester, environmental factors; second semester, improvement of major vegetable crops by breeding and selection. (The semesters are independent and either may be taken without the other.) Prerequisite: Botany 283; Soil Science 250; Vegetable Crops 164. (Alternate years; offered 1957-58.)

210 SYSTEMATIC VEGETABLE CROPS (4) II
McGUIRE
Types, varieties, climatic adaptation, market quality, disease and insect resistance. Two lectures and one laboratory period. Prerequisite: Botany 100; Vegetable Crops 164. Laboratory fee $5.00. (Alternate years; not offered 1957-58.)
271 SCHOOL AND HOME GARDENING (2) I, II
   Designed to develop ability to conduct home and school gardens; study of fertilizers, insect control, and plant propagation. For prospective elementary school teachers. (Not offered 1957-58.)

Air Science

Professor GREENE; Associate Professor HUNT; Assistant Professors DECAMP, DESILET, HUGHES, SMITH; Instructors CAGLE, ESCH, WOOD, WRIGHT

102 FIRST-YEAR AIR SCIENCE (1-1) Yr. HUGHES
   Introduction to aviation. Fundamentals of global geography. International tensions and security organizations. The military instrument of national security. Leadership training laboratory. Three hours per week. Special uniform and awards fee 75 cents each semester (not refundable).

152 SECOND-YEAR AIR SCIENCE (1-1) Yr. SMITH
   Elements of aerial warfare. Targets, weapons, aircraft, bases, and operations. A career in the Air Force. Leadership training laboratory. Three hours per week. Special uniform and awards fee 75 cents each semester (not refundable).

202 THIRD-YEAR AIR SCIENCE (3-3) Yr. DECAMP

252 FOURTH-YEAR AIR SCIENCE (3-3) Yr. HUNT

257 SUMMER CAMP (2) STAFF

Anthropology

Professors EMORY, LUOMALA, MASON; Associate Professor STEMPBL; Assistant Professors JAY, KNOWLTON

150 INTRODUCTION TO STUDY OF MAN (3) I, II STAFF
   An introduction to the changing cultures and physical characteristics of nonliterate peoples, as an aid to better understanding of current problems in human relations. This course or the equivalent, or consent of the instructor, is prerequisite to all other courses in the department.

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

251 THE POLYNESIANS AND THEIR CULTURE (3) II LUOMALA
   A study of indigenous peoples in Hawaii, Samoa, Tahiti, New Zealand, and other Polynesian islands. Their way of life and historical relationships to each other.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
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<tbody>
<tr>
<td>252</td>
<td>PEOPLE OF THE PACIFIC (3) I</td>
<td>LUOMALA</td>
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<tr>
<td></td>
<td>A survey of the peoples and cultures of the Pacific area—Polynesia, Micronesia, Melanesia, and Australia. (Not offered 1957–58.)</td>
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<td>253</td>
<td>MICRONESIA IN A MODERN WORLD (3) II</td>
<td>MASON</td>
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<td></td>
<td>A cultural survey of the Marianas (including Guam), Carolines, Marshalls, and Gilberts, with attention to geographical and historical factors as they relate to current problems in Micronesia. (Not offered 1957–58.)</td>
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<td>254</td>
<td>PEOPLES OF SOUTHERN ASIA (3) I</td>
<td>JAY</td>
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<tr>
<td></td>
<td>Ethnology and social organization of India, Southeast Asia, and Malaysia. Discussion of cultural diffusion and contact within the area.</td>
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<tr>
<td>255</td>
<td>PEOPLES OF NORTHERN ASIA (3) II</td>
<td>JAY</td>
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<tr>
<td></td>
<td>Ethnology and social organization of China, Japan, Siberia, and Southwest Asia. Discussion of cultural diffusion and contact within the area.</td>
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<td>256</td>
<td>THE AMERICAN INDIAN (3) I</td>
<td>MASON</td>
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<td></td>
<td>Indian tribes and cultural areas of North and South America, including the civilizations of Mexico, Central America, and Peru.</td>
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<td>257</td>
<td>PEOPLES OF AFRICA (3) I</td>
<td>JAY</td>
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<td></td>
<td>A survey of the peoples and cultures of Africa. Races, languages, material culture, magic and religion, social organization, and political institutions. Native kingdoms. The higher civilizations of North Africa. Archeology. (Not offered 1957–58.)</td>
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<tr>
<td>258</td>
<td>PRIMITIVE SOCIETY (3) II</td>
<td>JAY</td>
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<td>Study of diverse types of social organization with the aim of a better understanding of human society.</td>
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<td>259</td>
<td>CULTURE CONFLICT IN PACIFIC DEPENDENCIES (3) I</td>
<td>MASON</td>
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<td></td>
<td>Existing native cultural patterns in American, British, Dutch, and French dependencies; problems raised by native-European interaction; cultural factors bearing upon administrative policies and programs.</td>
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<td>260</td>
<td>PRIMITIVE RELIGION (3) II</td>
<td>LUOMALA</td>
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<td></td>
<td>Religious beliefs and practices in primitive society. Function of religion in society. Reading of monographs on religion of various tribes.</td>
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<td>261</td>
<td>PRIMITIVE ART (3) II</td>
<td>MASON</td>
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<td></td>
<td>Survey of art forms and techniques of nonliterate peoples of the world. Types of design, relation of art forms and culture.</td>
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<td>262</td>
<td>FOLKLORE (3) I</td>
<td>LUOMALA</td>
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<td>263</td>
<td>ARCHEOLOGY (3) II</td>
<td>EMORY</td>
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<td></td>
<td>Methods and techniques of archeology. Excavation of prehistoric sites, preservation of materials, and interpretation of archeological data, with illustrations from Oceanic studies. Practical field work in excavation and museum preparation. (Not offered 1957–58.)</td>
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<tr>
<td>264</td>
<td>ANTHROPOLOGICAL CLASSICS (3) II</td>
<td>LUOMALA</td>
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<td></td>
<td>Lectures, reading, and discussion of selected anthropological classics, both theoretical and descriptive, and their significance in the development of social science.</td>
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<td>265</td>
<td>ECONOMIC LIFE OF PRIMITIVE PEOPLES (3) I</td>
<td>MASON</td>
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<td></td>
<td>A study of the various types of economy among nonliterate peoples. Technology, means of production, distribution, consumption, and property. Integration of economies with cultural patterns. (Not offered 1957–58.)</td>
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<tr>
<td>266</td>
<td>PHYSICAL ANTHROPOLOGY (3) I</td>
<td>JAY</td>
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<tr>
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<td>Human evolution; the influence of heredity and environment upon man; fossil man; racial differences in modern man.</td>
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</tbody>
</table>
ANTHROPOLOGY

274 NATURE OF CULTURE (3) I  MASON
The concept of culture: patterns, configurations, themes; integration; culture processes, change, and growth.

275 INTRODUCTION TO LINGUISTICS (3) I  STEMPPEL
The origin and development of linguistic science. Training in phonetics with speakers of English and other languages as informants. Historical linguistics, with special attention to English. Methods of comparative linguistics and survey of the languages of the world.

276 LINGUISTIC ANALYSIS (3) II  ELBERT
Language as an aspect of culture. Ethnolinguistics and the use of linguistics by social scientists. Descriptive linguistics with emphasis on phonemics. Prerequisite: Anthropology 275 or consent of instructor. (Not offered 1957–58.)

277 STRUCTURAL LINGUISTICS (3) I  STAFF
Continuation of descriptive linguistics with training in morphological theory and analysis. Prerequisite: Anthropology 276 or consent of instructor.

278 MALAYO-POLYNESIAN LANGUAGES (3) II  STAFF
A brief description of the Malayo-Polynesian languages. Field techniques in transcribing one language of this family, with phonological and morphological analysis. Comparative Malayo-Polynesian studies. Prerequisite: Anthropology 277 or consent of instructor.

299 DIRECTED READING (Ar.) I, II  STAFF
Limited to senior majors with a 2.7 grade-point ratio or a 3.0 grade-point ratio in Anthropology.

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

309 SEMINAR IN CULTURE AND PERSONALITY (2) II  STAFF
Review of significant studies in the field of culture and personality. Prerequisite: consent of instructor. (Not offered 1957–58.)

310 SEMINAR IN OCEANIA (2) II  LUOMALA
Critical examination of source materials concerning the backgrounds and migrations of Oceanic peoples. Prerequisite: consent of instructor. May be repeated.

311 APPLIED ANTHROPOLOGY (2) I  MASON
Application of anthropological principles to present-day problems of human relations in underdeveloped areas influenced by Western civilization. Prerequisite: consent of instructor. (Not offered 1957–58.)

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

Art

Professors CHARLOT, ECKE, HORAN, NORRIS; Associate Professors COX, KINGREY, H. ROBINSON, TURNBULL; Assistant Professor KIMURA; Instructors MCVAY, STASACK

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

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

140 INTRODUCTION TO THE VISUAL ARTS (3) I, II  TURNBULL
A course designed to give insight into the nature of visual art and its relationship to contemporary life, including expression in various forms, such as painting, architecture, sculpture, photography, and industrial design. Lectures, demonstrations, and museum visits. Course fee $1.00.
142-143 ART FUNDAMENTALS (2-2) Yr. STAFF
Background material and studio practice to stimulate understanding of the arts. Lectures, museum visits, and studio work. Primarily for Teachers College, Home Economics, and Recreation majors. Studio fee $1.00 each semester.

144 SCULPTURE A (2), I, II ROBINSON
Introductory study of sculptural form. Basic techniques and problems in clay, employing both individual and specified subject matter. Lectures and studio work. Studio fee $10.00.

145 SCULPTURE B (2) II ROBINSON
Continuation of 144. Emphasis on the working out of individual solutions to problems of sculptural form. Lectures and studio work. Prerequisite: Art 144. Studio fee $10.00.

150-151 DESIGN (2-2) Yr. COX, NORRIS, KINGREY, STAFF
Introduction to design fundamentals involving the elements and principles of visual organization. Lectures and studio problems. This course or its equivalent in experience is prerequisite to all advanced study in art. Studio fee $1.00 each semester.

154-155 DRAWING (2-2) Yr. KIMURA, NORRIS, STASACK, STAFF
Basic principles of drawing in a variety of media. Lectures and studio work. Sections for Prearchitecture students. This course or its equivalent in experience is prerequisite to all advanced study in art. Studio fee $1.00 each semester.

156-158 LETTERING AND LAYOUT (2-2) Yr. KINGREY
Development of concepts of design in visual advertising, lettering for reproduction, typography and layout, preparation of creative design material employing graphic and photographic techniques for reproduction processes. Lectures and studio work. Studio fee $1.00.

160 CERAMICS (2) I, II HORAN, McVAY
Methods and principles of creating pottery by hand and on the potter's wheel. Lectures and studio work. Studio fee $10.00.

161 CERAMICS (2) I, II HORAN, McVAY
Continuation of 160. Emphasis on wheel throwing and experimentation with form and decorative techniques. Introductory study of glazes and operation of kilns. Lectures and studio work. Prerequisite: Art 160. Studio fee $10.00.

174 GRAPHIC COMMUNICATION (2) II KINGREY
Intensive and specialized experimental creative projects of graphic design in a variety of materials and varied spatial constructions, both two and three dimensional. Lectures and studio work. Prerequisite: Art 150-151, 154-155, and consent of instructor. Studio fee $1.00.

175 TEXTILE DESIGN (2) I, II ROBINSON
Execution of individual problems in design on fabrics, utilizing such media as the block print, stencil, and silk screen. Prerequisite: Art 150-151. Studio fee $7.50.

176 WEAVING A (2) I, II ROBINSON
Introduction to the creative processes of weaving. Warping and threading of simple hand looms, with some experience on the multiple harness loom. Lectures and studio work. Studio fee $7.50.

177 WEAVING B (2) II ROBINSON
Experimentation with various techniques, and some study of pattern drafting. Individual designing in relation to specific problems. Lectures and studio work. Prerequisite: Art 176. Studio fee $7.50.

180-181 PAINTING (2-2) Yr. STASACK
Problems of design and meaning in the creation of visual forms and images in painting. Prerequisite: Art 150-151 and 154-155, or consent of instructor. Lectures and studio work. Studio fee $6.00 second semester.
220 INDIAN AND FAR EASTERN ART (3) I
ECKE
The development of architecture, sculpture, and painting in India, China, and Japan, and related cultures from prehistoric times to the present. Lectures with slides. Visits to the Honolulu Academy of Arts. Course fee $2.00.

225 EARLY CHINESE ART (3) II
ECKE
Prehistoric and subsequent developments in pottery, jade, bronze, and other arts to the end of Han. Lectures with slides. Visits to the Honolulu Academy of Arts. Course fee $2.00.

229 CHINESE PAINTING (3) II
ECKE
The development of Chinese painting from the earliest times to the present. Significance of brush work, ink and color, and of cultural and religious background. Lectures with slides. Visits to the Honolulu Academy of Arts. Prerequisite: Art 220 or consent of instructor. Course fee $2.00.

231 APPLIED ARTS OF CHINA (3) I
ECKE
Ceramics, glyptic arts, metalwork, lacquer, textiles. Principles of architecture, furniture, interior design, landscaping. Lectures with slides. Demonstrations of techniques in ceramics and textiles. Visits to the Honolulu Academy of Arts. Course fee $2.00.

233 MUSEUM STUDIES IN FAR EASTERN ART (3) II
ECKE
A course arranged in co-operation with the Honolulu Academy of Arts offering detailed critical consideration of the Far Eastern collections of the Academy. Classes meet at the Academy to study the material at first hand, supplemented by lectures with slides. Limited to small group. Prerequisite: consent of instructor. Course fee $2.00.

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

252 HISTORY OF MODERN ART A (3) I
CHARLOT
Development of nineteenth-century Western art. Lectures with slides. Visits to the Honolulu Academy of Arts. Course fee $2.00.

253 HISTORY OF MODERN ART B (3) II
CHARLOT

256 ADVERTISING ART A (2) I
KINGREY
Development of professional ideas creatively interpreted for a single graphic series through integration of design and technical experience in graphics, typography, photography, and reproduction. Lectures and studio work. Prerequisite: Art 150-151, 154-155, 156.

257 ADVERTISING ART B (2) II
KINGREY
Continuation of Art 256. Design for basic media of visual communication: newspaper, magazine, direct mail. Lectures and studio work. Prerequisite: Art 256.

260 CERAMIC GLAZE CALCULATIONS (2) I, II
HORAN
Elementary use of molecular formulae for glaze experimentation along with practical laboratory tests of raw materials. Care and operation of equipment. Prerequisite: Art 160 or consent of instructor. Studio fee $10.00.

261 ADVANCED CERAMICS (2) I, II
HORAN
Ceramic design with respect to functional and production limitations. Continuation of exploratory work in field of student's choice. Prerequisite: Art 161 or consent of instructor. Studio fee $10.00.

264 WATER COLOR PAINTING A (2) I
COX
265 WATER COLOR PAINTING B (2) I
The imaginative expression of form and idea in water color. Studio and outdoor painting. Prerequisite: Art 264.

266 PRINTMAKING (2) II
Printmaking in one or more of the following media: lithography, linoleum cut, wood cut, or silk screen. Emphasis on individual experimentation. Prerequisite: Art 150-151, 154-155, 269, and consent of instructor. Studio fee $3.00.

268 LANDSCAPE PAINTING (2) II
Principles and methods of landscape painting. Outdoor and studio work. Prerequisite: Art 180-181 or consent of instructor.

269 FIGURE DRAWING A (2) I, II
Basic principles of drawing the human figure, including study of anatomy and articulation as a foundation of knowledge and skill. Prerequisite: Art 154-155. Studio fee $4.00.

270 FIGURE DRAWING B (2) II
Continuation of 269. Development of understanding in the drawing of the human figure to provide the foundation for its imaginative use. Prerequisite: Art 269. Studio fee $4.00.

272 ILLUSTRATION (2) II
Problems of illustration with emphasis on individual experimentation. Use of various media, stressing the limitations and possibilities of the reproduction processes. Prerequisite: Art 180-181, 257, 269. Studio fee $2.00.

273 DESIGN MATERIALS (2) II
Introduction to three-dimensional design. The manipulation of design materials such as wood, metal, wire, fabric, or their combinations in spatial structures. Prerequisite: Art 150-151, 154-155. Studio fee $5.00.

275 TEXTILE DESIGN (2) I, II
Research and study of design sources for originating ideas for fabrics. Printing and execution of individual or collaborative projects in suitable choice of printing media. Prerequisite: Art 175. Studio fee $10.00.

276 ADVANCED WEAVING (2) I, II
Emphasis on individually designed problems, employing color, construction, yarns, and fibers as the technical means. Lectures and studio work. Prerequisite: Art 176 or consent of instructor. Studio fee $10.00.

300 DIRECTED WORK (Ar.) I, II
Criticism and guidance in work of the advanced student's own choosing in the following fields: (1) Drawing and Painting; (2) Applied Design; (3) Ceramics; (4) Commercial Art; (5) History of Western Art; (6) History of Far Eastern Art; (7) Mural Painting; (8) Weaving. Studio fee $10.00 for (2), (3), (7), and (8). Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Art.

360 CERAMIC DESIGN AND RESEARCH (2) I, II
Individual problems in advanced ceramics. Prerequisite: consent of department chairman and instructor. Studio fee by arrangement.

376 DESIGN AND RESEARCH IN WEAVING (2) I, II
Research into the utilization of native Hawaiian materials for weaving, or emphasis upon design for specific contemporary uses. Prerequisite: consent of department chairman and instructor. Studio fee $10.00.
380 PAINTING (2) I, II
CHARLOT, NORRIS, TURNBULL
Individual problems in advanced painting. Prerequisite: consent of department chairman and instructor.

390 GENERAL SEMINAR (2) I, II
NORRIS, STAFF
Study of historical and critical thought in the field of the visual arts most closely related to the creative work of the individual student. To be taken concurrently with Art 360, 376, or 380. Prerequisite: consent of department chairman and instructor.

395 SEMINAR IN ORIENTAL ART (1) I, II
ECKE
Survey of the available literature and presentation of papers in fields of the student's choice. Prerequisite: consent of department chairman and instructor.

Asian and Pacific Languages

Professor UYEHARA; Associate Professor ELBERT; Assistant Professor CHONG; Instructor FUJIOKA; Lecturers KEALA, T. LEE

CHINESE

100 ELEMENTARY CHINESE (3-3) Yr. CHONG
Study of Chinese vocabularies for practical usage, with emphasis on conversation; grammar and sentence construction; reading of simple Chinese stories; laboratory drill. Laboratory fee $1.00.

101 INTERMEDIATE CHINESE (3-3) Yr. CHONG
Selected reading of Pai Hua essays; composition of stories.

200 THIRD-YEAR CHINESE (3-3) Yr. CHONG
Reading of newspapers and classics; composition and translation.

250-251 CHINESE LITERATURE IN ENGLISH (3-3) Yr. CHONG
Selections from classical and modern Chinese literature in English translation.

293-294 METHODS IN CHINESE STUDIES (3-3) Yr.
Study of the main fields of Chinese research, the special methods evolved, and the principal sources of bibliographical information. Prerequisite: junior standing. (Not offered 1957–58.)

299 DIRECTED READING (Ar.) I, II STAFF
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Chinese.

300 DIRECTED READING OR RESEARCH (Ar.) I, II STAFF
Prerequisite: graduate standing.

HAWAIIAN

100 ELEMENTARY HAWAIIAN (3-3) Yr. KEALA
Elements of the language; emphasis on conversation with some attention to Hawaiian songs; laboratory drill. Laboratory fee $1.00.

101 INTERMEDIATE HAWAIIAN (3-3) Yr. KEALA
Reading of Hawaiian texts.

200 HAWAIIAN TRANSLATION (3-3) Yr. ELBERT
Translation of Hawaiian legends, chants, songs, and historical documents. Also translation from English to Hawaiian. Prerequisite: Hawaiian 101 or consent of instructor. (Not offered 1957–58.)

210 HAWAIIAN TRADITIONAL POETRY (3-3) Yr. ELBERT
Translation of traditional poetry, including the Pele and Hiiaka cycle, and the Kumu Lipo creation chants. Linguistic problems. Prerequisite: Hawaiian 101 or consent of instructor. (Not offered 1957–58.)
JAPANESE

100 ELEMENTARY JAPANESE (3-3) Yr. STAFF
Conversation and grammar, with laboratory drill; study of katakana, hiragana and simple Chinese characters. Laboratory fee $1.00.

101 INTERMEDIATE JAPANESE (3-3) Yr. FUJIOKA
Translation and conversation; study of more Chinese characters.

200 THIRD-YEAR JAPANESE (3-3) Yr. UYEHARA
Exercises in Japanese-English and English-Japanese translation. Prerequisite: Japanese 101 or consent of instructor.

260 JAPANESE LITERATURE IN ENGLISH (2-2) Yr. UYEHARA
Historical analysis of Japanese thought through literature. Study of classics and contemporary works; drama; poetry; etc. No language background necessary. Students may enter the second semester.

299 DIRECTED READING (Ar.) I, II STAFF
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Japanese.

300 DIRECTED READING OR RESEARCH (Ar.) I, II STAFF
Prerequisite: graduate standing.

KOREAN

100 ELEMENTARY KOREAN (3·3) Yr. LEE
Conversation, elements of grammar, reading; laboratory drill. Laboratory fee $1.00.

101 INTERMEDIATE KOREAN (3·3) Yr. LEE
Conversation, reading, and writing. Some Chinese characters.

Bacteriology

Professors BUSHNELL, CHU; Assistant Professor MORRIS

130 MICROBES AND MAN (2) I, II CHU, BUSHNELL
Introduction to microbiology. The kinds of microorganisms and their activities as they affect people and their possessions. The functions of germs in health and disease and their relation to agriculture and industry.

145 MICROBIOLOGY FOR NURSES (3) II CHU
A basic course in the principles and techniques of general and medical microbiology, designed especially for students in nursing. May be taken by students in other curricula who do not intend to take other courses in the department. Two lectures and one laboratory period. Laboratory fee $6.00.

151 GENERAL BACTERIOLOGY (4) I, II MORRIS
The physiology, cultivation, and differentiation of bacteria, with emphasis upon fundamentals. Two lectures and two laboratory periods. Prerequisite: Botany 100 or Zoology 100; Chemistry 103. Desirable preparation: Chemistry 149 or 159. Laboratory fee $6.00. Certain qualified students may take the lectures only for 2 credits.

250 ECONOMIC MICROBIOLOGY (3-3) Yr. BUSHNELL
Economic applications of microbiology. The first semester deals with agricultural microbiology (soil, sewage, water, milk, and dairy products), the second semester with marine microbiology and industrial microbiology (foods, fermentations, biologicals) and diseases of plants and animals of economic significance in Hawaii. Two lectures and one laboratory period. Prerequisite: Bacteriology 151; Chemistry 149 or 159. Laboratory fee $3.00 each semester. (Alternate years; offered 1957–58.)
260 MEDICAL BACTERIOLOGY (3) I  
The role of microorganisms in the communicable diseases of man and animals, with emphasis upon modes of transmission and epidemiological aspects, and upon the function of the clinical bacteriologist in the diagnosis of these diseases. Prerequisite: Bacteriology 151; Chemistry 149 or 159.

262 LABORATORY IN MEDICAL BACTERIOLOGY (2) I  
A detailed study of the important bacteriological techniques concerned in the diagnosis of communicable diseases. Three laboratory periods. Prerequisite: credit or concurrent registration in Bacteriology 260. Laboratory fee $6.00.

264 IMMUNOLOGY (3) II  
Types of immunity, sera, vaccines, and antitoxins. Techniques of major diagnostic serological reactions. Two lectures and two laboratory periods. Prerequisite: Bacteriology 260. Laboratory fee $6.00.

299 MICROBIOLOGICAL PROBLEMS (Ar.) I, II  
Directed reading and laboratory work on problems in microbiology. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Bacteriology. Laboratory fee $6.00.

300 DIRECTED RESEARCH (Ar.) I, II  
Research on problems in microbiology. Prerequisite: graduate standing; consent of instructor. Laboratory fee $6.00.

312 SEMINAR (1) I, II  
Study and discussion of significant topics and problems in the field of Bacteriology. Required of graduate students. May be repeated.

320 MICROBIAL PHYSIOLOGY (3) II  
Study of the growth of microorganisms with emphasis on the mechanisms of bacterial oxidations and cellular synthesis. Laboratory stresses utilization of physical, chemical, and biochemical techniques as quantitative methods of measurement. Two lectures and two laboratory periods. Prerequisite: Bacteriology 151; Chemistry 232. Laboratory fee $6.00.

350 ADVANCED GENERAL MICROBIOLOGY (3) I  
Study of the theories of classification and techniques used in the cultivation, characterization and maintenance of microorganisms, with emphasis on the autotrophs, higher bacteria and ultramicroscopic forms. Two lectures and two laboratory periods. Prerequisite: Bacteriology 151. Laboratory fee $6.00.

Botany

Wilder Professor ST. JOHN; Professors COOL, DOTY; Associate Professors AUSTIN, SHOJI; Assistant Professors BERNATOWICZ, GIROLAMI, S. GOTO; Instructor J. B. SMITH

100 GENERAL BOTANY (4) I, II  
Basic principles of plant science, with emphasis upon structure in relation to function, function in relation to habitat, habitat and heredity in relation to evolution, attributes of plant life in relation to man. This course and Zoology 100 comprise an introduction to the biological sciences. Two lectures and two laboratory periods. Laboratory fee $5.00.

103 EVOLUTION (2) I  
The concepts of evolution as applied to selected groups, and the sequence of development from the simple algae to representative families of complex flowering plants.

105 ECONOMIC PLANTS OF HAWAII (2) II  
The cultivated and wild plants used in ancient and modern times by the Hawaiians and Polynesians. Nature of these economic plants and their use for food, drink, fabric, dye, medicine, and utensils.
110 PLANTS AND MAN (2) II  GIROLAMI
The influence of plants upon man and man upon plants. The uses, methods of preparation and parts used in cosmetics, textiles, medicines, paints, beverages, etc. (Alternate years; not offered 1957–58.)

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

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

181 PLANTS AND THE SEA (3) II  BERNATOWICZ
Marine algae, their ecology, and the taxonomy of local forms. Two lectures and one laboratory period. Laboratory fee $5.00.

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

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

253 PLANT ECOLOGY (4) I  DOTY
Plants in relation to environment, the climatic and geographic factors; plant sociology, the origin, development, structure, and succession of plant societies. Two lectures and two laboratory periods. Prerequisite: Botany 201. Laboratory fee $3.00. (Alternate years; not offered 1957–58.)

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

259 MYCOLOGY (3) II  DOTY
The structure, food relations, and classification of fungi. Collection and identification of the more common Hawaiian fungi. Two lectures and one laboratory period. Prerequisite: Botany 100 or consent of instructor. Laboratory fee $4.00.

262 STRUCTURE OF ECONOMIC PLANTS (3) II  GIROLAMI
A study of the anatomy of the important field and garden crop plants representative of Hawaiian agriculture. One lecture and two laboratory periods. Prerequisite: Botany 100 and 269 or consent of instructor. Laboratory fee $5.00. (Alternate years; offered 1957–58.)

263 PRINCIPLES OF PATHOLOGY (3) I  GOTO
Disease in plants with emphasis upon infection and development in relation to environment, pathological anatomy, systems of classification, epidemiology, and methods of appraisal and control. Two lectures and one laboratory period. Prerequisite: Botany 100. Botany 259 recommended.

266 MEDICAL MYCOLOGY (2) II
Diagnostic morphology and cultural characteristics of groups of fungi pathogenic to man. Two lecture-laboratory periods. Prerequisite: Bacteriology 262 or Botany 259. Laboratory fee $3.00. (Not offered 1957–58.)
268 PLANT MICROTECHNIQUE (3) II  GIROLAMI
Principles and methods of preparing plant materials for histological and cytological study; paraffin and smear techniques; preparation of illustrations for publication. One lecture and two laboratory periods. Prerequisite: Botany 100 and 269 or consent of instructor. Laboratory fee $8.00. (Alternate years; offered 1957–58.)

269 PLANT ANATOMY (3) I  GIROLAMI
Structure of vascular plants; origin and differentiation of tissues; relation of structure to function. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $5.00.

273 ADVANCED PHYSIOLOGY (3) I  COOIL
Intensive work on physical aspects of plant physiology; nature of protoplasm; water relations; mineral absorption and utilization. Prerequisite: Botany 283; Chemistry 149; Physics 102. (Alternate years; not offered 1957–58.)

274 TECHNIQUES IN PHYSIOLOGY (2) I  COOIL
Methods of studying nutrient element absorption and composition of plants, soil-plant-water relationships, osmotic relations. Two laboratory periods. Prerequisite: Botany 283; Chemistry 149; Physics 102; consent of instructor. Laboratory fee $5.00. (Alternate years; not offered 1957–58.)

275 ADVANCED PHYSIOLOGY-BIOCHEMISTRY (3) II  COOIL
Intensive study of chemical aspects of plant physiology; photosynthesis; nitrogen assimilation; fat metabolism, translocation, and storage; enzymes; respiration; hormones. Prerequisite: Botany 283; Chemistry 149; Physics 102. (Alternate years; not offered 1957–58.)

276 TECHNIQUES IN PHYSIOLOGY-BIOCHEMISTRY (2) II  COOIL
Methods of determining carbohydrates, nitrogen and phosphorus fractions, organic acids, auxins, and other substances of physiological significance in plant materials. Two laboratory periods. Prerequisite: Botany 274 and consent of instructor. Laboratory fee $5.00. (Alternate years; not offered 1957–58.)

279 CRYPTOGAMIC BOTANY (3) I  BERNATOWICZ
Comparative morphology and classification of the major groups of algae, fungi, bryophytes, and pteridophytes, and their biological relations. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $4.00. (Alternate years; not offered 1957–58.)

281 CYTOLOGY (3) I  SMITH
The structure and function of cell components. Two lectures and one laboratory period. Prerequisite: Botany 100. Laboratory fee $4.00.

283 ELEMENTARY PLANT PHYSIOLOGY (4) II  SHOJI
Introduction to plant physiology; osmosis, absorption of water, transpiration, mineral utilization, photosynthesis, storage, digestion, respiration, growth, photoperiodism. Two lectures and two laboratory periods. Prerequisite: Botany 100; Chemistry 103. Botany 269 and Chemistry 149 recommended. Laboratory fee $6.00.

291 BIOLOGICAL PRODUCTIVITY OF THE SEA (3) I  AUSTIN, DOTY
An analysis of the qualities and functions of the sea and their relationships to the organisms therein. Emphasis is placed upon the roles of the algae. Prerequisite: senior standing in botany or zoology or consent of instructor. Three lecture periods. (Alternate years; offered 1957–58.)

299 BOTANICAL PROBLEMS (Ar.) I, II  STAFF
Pursuit of any advanced botanical problem; reading and laboratory work. May be repeated. Laboratory fee $2.00. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Botany.

300 DIRECTED RESEARCH (Ar.) I, II  STAFF
Prerequisite: graduate standing; consent of instructor. Laboratory fee $2.00.
310 BOTANICAL SEMINAR (1) I, II  
Study and discussion of significant topics and problems in the field of Botany.  

312 ADVANCED BOTANICAL PROBLEMS (Ar.) I, II  
Investigation of any botanical problem; reading and laboratory work. May be repeated. 
Prerequisite: consent of instructor. Laboratory fee $2.00.  

330 MOLDS, YEASTS, AND ACTINOMYCETES (3) II  
The systematics and manipulation of selected forms, with emphasis on their physiology  
as applied to research or to medical and economic processes. Prerequisite: graduate standing  
or 12 credit hours in Botany or Bacteriology. One lecture and two laboratory periods.  
Laboratory fee $5.00. (Alternate years; not offered 1957-58.)  

331 EXPERIMENTAL MARINE BOTANY (3) II  
Current research areas and their related laboratory methods, with emphasis on the  
physiological aspects of marine phycology. One lecture and two laboratory periods. Pre·  
requisite: graduate standing or 12 credit hours in Botany. Laboratory fee $5.00. (Alternate  
years; offered 1957-58.)  

332 PHYCOLOGY (3-3) Yr.  
A four-semester cycle covering the morphological and systematic aspects of the algae.  
The different semesters emphasize: (a) Chlorophyta; (b) Phaeophyta and Myxophyta;  
(c) Rhodophyta; and (d) small groups. Prerequisite: consent of instructor.  

351 PHYSIOLOGY SEMINAR (2) II  
Study and discussion of significant topics and problems in the field of Physiology. May  
be repeated. Prerequisite: consent of instructor. (Offered 1957-58.)  

377 MORPHOLOGY SEMINAR (2) II  
A survey and discussion of the recent developments in the fields of morphology, anatomy,  
and cytology. Prerequisite: consent of instructor. (Alternate years; not offered 1957-58.)  

378 NOMENCLATURE SEMINAR (2) II  
A study of the laws of botanical nomenclature and their application by the case method,  
leading to a determination of the correct scientific names of plants. Prerequisite: Botany  
202. (Alternate years; offered 1957-58.)  

379 PHYTOPATHOLOGICAL LITERATURE (1) I, II  
Reviews and presentation of reports treating recent advances in diseases of plants and  
their control. May be repeated. Prerequisite: advanced or graduate standing and consent  
of instructor.  

380 CYTOGENETICS (3) II  
The correlation of genetic and cytological phenomena. Two lectures and one laboratory  
period. Prerequisite: Botany 281 and genetics or consent of instructor. Laboratory fee  
$4.00.  

Business  
Senior Professor ROBERTS; Professor LEONG; Associate Professors ADLER, FERGUSON, IGE,  
MARK; Assistant Professors CONGDON, KIRKPATRICK, PIERSOHN; Instructors ATKINSON,  
LAWRENCE, B. LEE, S. LEE; Lecturers GLOVER, LUKE  

100 BUSINESS CALCULATIONS (3) I, II  
Consideration of basic arithmetical processes and calculations such as simple and com·  
 pound interest, discounts and annuities. Open only to College of Business Administration  
students, and Teachers College students specializing in business subjects.
150 ELEMENTARY ACCOUNTING (3) I
B. LEE, S. LEE, PIERSON
Fundamental principles of accounting for sole proprietorships, including use of journals and ledgers and preparation of statements. Two lectures and one laboratory period. Prerequisite: sophomore standing in the department or consent of instructor.

151 ELEMENTARY ACCOUNTING (3) II
B. LEE, S. LEE, PIERSON
Continuation of Business 150, including the accounting problems of partnerships and corporations. Two lectures and one laboratory period. Prerequisite: Business 150.

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

170 TECHNIQUE OF TYPWRITING (2-2) Yr.
LAWRENCE
An intensive course in advanced typewriting. Prerequisite: sophomore standing in Business or a major in Business Education; consent of instructor. Laboratory fee $2.00.

177 TECHNIQUE OF SHORTHAND (2) I
LAWRENCE
Dictation and transcription; advanced shorthand and typewriting skills combined; continued development of a vocabulary. Prerequisite: sophomore standing in Business or a major in Business Education; consent of instructor. Laboratory fee $2.00.

210 ELEMENTS OF SUPERVISION (3) I
FERGUSON
An examination of some of the basic problems in industrial relations, directed toward the needs of supervisory personnel. Special attention to grievance machinery and the handling of grievances at the foreman and upper levels. Prerequisite: consent of instructor.

212 PROPERTY INSURANCE (3) I
PIERSON
Protection of personal and business property against damage by fire and related perils; consequential losses; and miscellaneous property lines such as boiler and machinery, and glass insurance. (Not offered 1957-58.)

217 MISCELLANEOUS CASUALTY INSURANCE (3) II
PIERSON
Study of coverages of property losses by casualty companies, including burglary, theft; glass, power plants, etc. Consideration of multiple-line underwriting. Review of Territorial insurance laws, and agency and company operations. (Not offered 1957-58.)

219 LIFE INSURANCE (3) II
PIERSON
Types of policies; program planning; premium and reserve computations; surrender values and settlement options. Consideration of life and annuity policies offered under standard, industrial, and wholesale insurance.

220 BUSINESS REPORTS AND CORRESPONDENCE (3) I
LAWRENCE
Study of and practice in writing various types of business letters and reports. Assignments based on current economic and business problems, with emphasis on analytical thinking as well as writing.

225 ADVERTISING COPY WRITING (3) II
CONGDON
A study of the principles underlying the preparation of effective copy; analysis of specimens from various current mediums; practice in creative copy writing; appraisal of methods of effective copy testing. (Alternate years; not offered 1957-58.)

230 INDUSTRIAL SAFETY AND HEALTH (2) II
CONGDON
Methods of reducing losses arising from industrial accidents and health hazards. Principles of accident prevention; reporting, analyzing, and prescribing remedies for accident experience; staff organization, safety devices, and safety programs.

232 REAL ESTATE FUNDAMENTALS (3) II
STAFF
Survey of the real estate field. Essentials that concern the consumer. The significance of realty as a commodity and the fundamentals essential to successful home ownership. Background for further training in real estate law, brokerage, management, appraising, and real estate finance.
150 ELEMENTARY ACCOUNTING (3) I  
B. LEE, S. LEE, PIERSON  
Fundamental principles of accounting for sole proprietorships, including use of journals and ledgers and preparation of statements. Two lectures and one laboratory period. Prerequisite: sophomore standing in the department or consent of instructor.

151 ELEMENTARY ACCOUNTING (3) II  
B. LEE, S. LEE, PIERSON  
Continuation of Business 150, including the accounting problems of partnerships and corporations. Two lectures and one laboratory period. Prerequisite: Business 150.

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

170 TECHNIQUE OF TYPEWRITING (2-2) Yr.  
LAWRENCE  
An intensive course in advanced typewriting. Prerequisite: sophomore standing in Business or a major in Business Education; consent of instructor. Laboratory fee $2.00.

177 TECHNIQUE OF SHORTHAND (2) I  
LAWRENCE  
Dictation and transcription; advanced shorthand and typewriting skills combined; continued development of a vocabulary. Prerequisite: sophomore standing in Business or a major in Business Education; consent of instructor. Laboratory fee $2.00.

210 ELEMENTS OF SUPERVISION (3) I  
FERGUSON  
An examination of some of the basic problems in industrial relations, directed toward the needs of supervisory personnel. Special attention to grievance machinery and the handling of grievances at the foreman and upper levels. Prerequisite: consent of instructor.

212 PROPERTY INSURANCE (3) I  
PIERSON  
Protection of personal and business property against damage by fire and related perils; consequential losses; and miscellaneous property lines such as boiler and machinery, and glass insurance. (Not offered 1957–58.)

217 MISCELLANEOUS CASUALTY INSURANCE (3) II  
PIERSON  
Study of coverages of property losses by casualty companies, including burglary, theft; glass, power plants, etc. Consideration of multiple-line underwriting. Review of Territorial insurance laws, and agency and company operations. (Not offered 1957–58.)

219 LIFE INSURANCE (3) II  
PIERSON  
Types of policies; program planning; premium and reserve computations; surrender values and settlement options. Consideration of life and annuity policies offered under standard, industrial, and wholesale insurance.

220 BUSINESS REPORTS AND CORRESPONDENCE (3) I  
LAWRENCE  
Study of and practice in writing various types of business letters and reports. Assignments based on current economic and business problems, with emphasis on analytical thinking as well as writing.

225 ADVERTISING COPY WRITING (3) II  
CONGDON  
A study of the principles underlying the preparation of effective copy; analysis of specimens from various current mediums; practice in creative copy writing; appraisal of methods of effective copy testing. (Alternate years; not offered 1957–58.)

230 INDUSTRIAL SAFETY AND HEALTH (2) II  
CONGDON  
Methods of reducing losses arising from industrial accidents and health hazards. Principles of accident prevention; reporting, analyzing, and prescribing remedies for accident experience; staff organization, safety devices, and safety programs.

232 REAL ESTATE FUNDAMENTALS (3) II  
STAFF  
Survey of the real estate field. Essentials that concern the consumer. The significance of realty as a commodity and the fundamentals essential to successful home ownership. Background for further training in real estate law, brokerage, management, appraising, and real estate finance.
233 PROPERTY VALUATION (3) II
STAFF
Fundamentals of property values. Property value problems: appraisal practice, building costs, depreciation and obsolescence, the mathematics of appraising, and the social, economic, and political influences affecting property values. Emphasis upon prevailing field techniques of property valuations and real estate appraising. Prerequisite: Business 232 or consent of instructor.

235 URBAN LAND UTILIZATION (3) II
Land and population; economics of land utilization; urbanization, and urban land; manufacturing as an urbanizing factor; labor as a factor; transportation and commerce in city location and urbanization. (Not offered 1957–58.)

240 PRINCIPLES OF INSURANCE (3) I
PIERSON
The uses of insurance in business, as protection against fire, theft, transportation risks, legal liability, and dishonesty and failure of others. Also forms of life and disability insurance.

241 BUSINESS AND SECRETARIAL MACHINES (2) II
LAWRENCE
Characteristics, function, and operation of machines available for performing clerical, arithmetic, accounting, and statistical work. Laboratory fee $2.00.

243 PUNCH CARD ACCOUNTING (2) II
FERGUSON
Use of punch card accounting machines in typical business operations such as inventory control, billing, payroll accounts receivable, etc. Practical experience on IBM punch card accounting equipment. Laboratory fee $2.00.

245 TIME AND MOTION STUDY (3) II
STAFF
The application of scientific management to industrial operations through analysis of time elements and study of motion economy. Includes job breakdown, time studies, work simplification, and standards of performance.

248 WAGE AND SALARY ADMINISTRATION (3) II
Compensation systems. Wage, salary and incentive plans. Wage surveys, job analysis and evaluation. (Not offered 1957–58.)

249 BUDGETARY ACCOUNTING AND CONTROL (3) II
STAFF

250 INTERMEDIATE ACCOUNTING (3) I
ADLER
Financial statements: form, content, and such related problems as depreciation, depletion, valuation of assets, and the capital structure of corporations. Two lectures and one laboratory period. Prerequisite: Business 151.

251 ADVANCED ACCOUNTING (3) II
S. LEE
Continuation of general accounting, including the more specialized phases, such as special reports, consolidated statements, accounting problems and procedures for installment sales, consignments, estates and trusts, receiverships, and branch agencies. Prerequisite: Business 250.

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

255 ANALYSIS OF FINANCIAL STATEMENTS (3) II
ADLER
Analysis of the balance sheet and profit and loss account from the standpoint of the data to be derived from them bearing on the financial standing of business units as investments and credit possibilities. Prerequisite: Business 151.
287 BUSINESS ORGANIZATION AND MANAGEMENT (3) I, II

Choosing goods to handle, time to enter business, location, size, and form of organization; selecting, handling, and promoting executives; choosing selling policies; promoting good public relations. Prerequisite: senior standing and Business 265 or consent of instructor.

296 GOVERNMENTAL ACCOUNTING (3) I

Essential principles and peculiarities of accounting as applied to municipalities and other governmental units: classification of accounts, budgetary procedure, fund accounting, assets, liabilities, cost accounting, and financial reporting. Prerequisite: Business 151. (Alternate years; not offered 1957-58.)

299 DIRECTED READING (Ar.) I, II

300 DIRECTED READING OR RESEARCH (2-2) Yr.

Prerequisite: consent of department chairman.

307 SEMINAR IN PROBLEMS OF BUSINESS (3) I, II

Prerequisite: consent of department chairman.

Chemistry

Senior Professor L. BILGER; Professors E. BILGER, NAUGHTON; Associate Professors PLUNKETT, SCHEUER, E. G. SMITH, WAUGH; Assistant Professors FRODYMA, IHRIG, ZEITLIN

103 GENERAL CHEMISTRY (4-4) Yr.

A comprehensive study of chemistry with emphasis upon fundamental laws, principles, and methods. Three lectures and one laboratory period. Laboratory fee $10.00 each semester. Prerequisite: a year each of high school algebra and plane geometry.

104 SURVEY OF CHEMISTRY (4-4) Yr.

A course comprising fundamental laws, principles, and methods of inorganic and organic chemistry. Three lectures and one laboratory period. Laboratory fee $10.00 each semester. Prerequisite: a year each of high school algebra and plane geometry.

105 GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS (5-5) Yr.

An advanced course in general chemistry. Lectures on fundamental theories and on the elements and their compounds. Laboratory covers general chemistry and qualitative analysis, and introduces quantitative techniques. Three lectures and two laboratory periods. Laboratory fee $12.00 each semester. Prerequisite: four units of any combination of high school mathematics and physical science.

149 ORGANIC CHEMISTRY (4-4) Yr.

The chemistry of the carbon compounds, their classification, structure, and nomenclature; electronic reactions; training in techniques of organic laboratory methods. Three lectures and one laboratory period. Prerequisite: Chemistry 103 or 105. Laboratory fee $12.00 each semester.

150 QUALITATIVE ANALYSIS (4) I

Systematic analysis covering the detection of common basic and acid ions by semimicro methods; theory of analytical procedures. Two lectures and two 3-hour laboratory periods. Prerequisite: Chemistry 103. Laboratory fee $11.00.

159 ELEMENTS OF ORGANIC CHEMISTRY (4) II

An intensive one-semester course covering the entire field of the chemistry of the compounds of carbon. Three lectures and one laboratory period. Laboratory fee $12.00. Prerequisite: Chemistry 103 or 105. This course satisfies the organic chemistry requirement of those curricula needing one semester only.
160 CHEMICAL CALCULATIONS (3) II

The solution of advanced problems based upon the fundamental laws and definitions of chemistry; computations and errors. Prerequisite: Chemistry 105 or 150; credit or concurrent registration in Mathematics 151. Mathematics 152 advised.

230 ELEMENTARY QUANTITATIVE ANALYSIS (4) II

A beginning course in gravimetric and volumetric analysis. Two lectures and two laboratory periods. Prerequisite: Chemistry 105 or 150; Mathematics 151. Laboratory fee $11.00.

231 INTERMEDIATE QUANTITATIVE ANALYSIS (4) I

Volumetric and gravimetric analysis of complex inorganic mixtures; elementary colorimetric and electrometric determinations. Two lectures and two laboratory periods. Prerequisite: Chemistry 230. Laboratory fee $11.00.

232 BIOCHEMISTRY (4) I

A study of the chemistry of biological systems; laboratory techniques of handling and studying biological materials. Three lectures and one laboratory period. Prerequisite: Chemistry 104, 149, or 159. Laboratory fee $9.00.

238 ADVANCED INORGANIC CHEMISTRY (3-3) Yr.

An advanced study of inorganic compounds, the less familiar elements, the periodic classification, nonaqueous solvents, character of metals, coordination compounds, oxidation-reduction, acid-base systems, the crystalline state. Prerequisite: Chemistry 149 and 231. One or two semesters may be taken for credit. (Alternate years; offered 1957-58.)

246 INTRODUCTION TO CHEMICAL ENGINEERING (3-3) Yr.

A theoretical and practical study of the unit operations and unit processes used in chemical industrial practice. Two lectures and one laboratory period. Prerequisite: Chemistry 103; Mathematics 154. Laboratory fee $8.00. (Alternate years; not offered 1957-58.)

249 ADVANCED ORGANIC CHEMISTRY (4) I

A study of organic syntheses illustrated by laboratory preparations requiring special techniques. Two lectures and two laboratory periods. Prerequisite: Chemistry 149 and 231. Laboratory fee $12.00.

250 QUALITATIVE ORGANIC ANALYSIS (4) II

A study of the detection and characterization of mono- and polyfunctional organic compounds, theory and practice. Two lectures and two laboratory periods. Prerequisite: Chemistry 149 and 231. Laboratory fee $10.00.

251 QUANTITATIVE ORGANIC ANALYSIS (3) II

The determination of organic compounds by semimicro and micro methods including elemental and functional group analyses. One lecture and two laboratory periods. Prerequisite: Chemistry 149 and 231. Laboratory fee $10.00. (Alternate years; not offered 1957-58.)

255 PHYSICAL CHEMISTRY (4-4) Yr.

An advanced course in theories and principles of chemistry; physico-chemical laboratory procedures. Three lectures and one laboratory period. Prerequisite: Chemistry 149, 230; Mathematics 154; Physics 102. Laboratory fee $8.00 each semester.

260 OCEANOGRAPHIC CHEMISTRY (3) II

A theoretical and descriptive study of the chemistry of the oceans, and practice in the standard analytical methods important to chemical oceanography. Two lectures and one laboratory period. Prerequisite: Chemistry 230 or consent of instructor. Laboratory fee $8.00. (Alternate years; not offered 1957-58.)

266 CLINICAL CHEMISTRY (4) II

Theory and practice of quantitative methods of analysis of biological materials for purposes of clinical diagnosis and prognosis; chemical changes in the pathological human organism. Two lectures and two laboratory periods. Prerequisite: Chemistry 230, 232. Laboratory fee $9.00.
270 CHEMISTRY OF METABOLIC PROCESSES (2) II
The fundamentals of enzyme reactions, biological oxidations, and energy transfers; the dynamic aspect of proteins, fats, and carbohydrates. Two lectures. Prerequisite: Chemistry 149, 231.

281 HISTORY OF CHEMISTRY (3) I
Evolution of the science of chemistry from the earliest times, through alchemy, to the present; emphasis upon achievements leading to new basic ideas; the personalities of the great chemists. Illustrated by slides, photographs, and models. Two lectures. Prerequisite: Chemistry 149, and 105 or 150.

290 RECENT DEVELOPMENTS IN CHEMISTRY (2)
Recent advances in different fields of chemistry. The subjects treated will be varied from year to year. May be repeated for credit with change in content. Prerequisite: senior or graduate standing in Chemistry or consent of instructor.

295 CHEMICAL LITERATURE (2) II
Systematic use of the journals, texts, handbooks, dictionaries, tables, abstracts, microfilms, and government literature of chemistry; special library problems. One lecture and one library period. Prerequisite: senior or graduate standing.

299 DIRECTED READING OR RESEARCH (Ar.) I, II
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Chemistry. Laboratory fee $5.00 per credit.

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

338 ATOMIC STRUCTURE (3-3) Yr.
A study of atomic and nuclear structure from the quantum-mechanical viewpoint. Emphasis upon atomic spectra, X-rays, wave mechanics, isotopes, nuclear reactions, and tracer chemistry. Either or both semesters may be taken for credit. Prerequisite: credit or concurrent registration in Chemistry 255; Mathematics 154; Physics 102. (Alternate years; not offered 1957-58.)

349 SPECIAL TOPICS IN ORGANIC CHEMISTRY (3-3) Yr.
A four-semester cycle covering such topics as stereochemistry, the relation of structure to reactivity, the formations and reactions of cyclic compounds, and the chemistry of natural products. May be taken one, two, three, or four semesters. Prerequisite for any semester: Chemistry 249.

350 SPECIAL TOPICS IN PHYSICAL CHEMISTRY (3-3) Yr.
A four-semester cycle covering (a) reaction kinetics, (b) chemical thermodynamics, (c) molecular structure, and (d) colloid chemistry. May be taken one, two, three, or four semesters. Prerequisite for any semester: Chemistry 255.

352 INSTRUMENTAL METHODS OF ANALYSIS (2-2) Yr.
A four-semester cycle covering the theory and applications of modern optical, electrical, and physical methods of analysis, including spectrophotometry, colorimetry, fluorimetry, X-ray, and electron diffraction, microscopy, polarimetry, polarography, magnetometry, and radiometry. One lecture and one laboratory period. May be taken one, two, three, or four semesters. Prerequisite: credit or concurrent registration in Chemistry 255. Laboratory fee $5.00.

355 THEORETICAL ORGANIC CHEMISTRY (3) II
Electronic and orbital theories of chemical bonding; bond types; resonance; physical techniques for investigating electronic structure; electronic formulas and reactions. Prerequisite: Chemistry 249; credit or concurrent registration in Chemistry 255; Physics 102.

360 SEMINAR (1-1) Yr.
Papers and discussions on recent advances in Chemistry. Prerequisite: senior or graduate standing.
Dental Hygiene

Instructor KOGA; Lecturers AKAMINE, BELLANDO, CONNER, DAWE, GLYNN, MAJOSKA, SAMPLE, B. SHERMAN

Dental Hygiene 251, 252, 256, 258, 260, 262, 264, and 265 may be elected by students in other colleges and curricula.

200 TOOTH MORPHOLOGY (1) I

Designed to provide the student with an opportunity to carve models of anterior and posterior teeth, showing general form, cusps, planes, and angles. Open only to Dental Hygiene majors.

201 DENTAL HYGIENE EDUCATION (2) II

Methods, materials, and visual aids used in teaching dental health; relationship of the dental hygienist to the practice of dental hygiene and dentistry, and the ethics and economics involved.

235 DENTAL PROPHYLACTIC TECHNIQUE (2) II

Laboratory instruction and practice on manikin heads in the technique of instrumentation and polishing. Training in the operative technical procedures required to remove accretions, deposits, and stains.

251 DENTAL ANATOMY (3) I

Gross anatomy of the teeth; bones of the skull; muscles of mastication, tongue, face, pharynx; glands of the oral cavity; 5th, 7th cranial nerves; blood vessels of the head and neck.

252 DENTAL PROPHYLAXIS (1) I

Prophylactic treatment of the mouth, with special attention to measures which can prevent or arrest dental caries and adjacent-tissue degeneration.

254 CLINICAL PRACTICE (5-5) Yr.

Supervised clinical prophylactic practice on patients, and classroom teaching.

256 DENTAL CARIES (2) II

The etiology, progress, and prevention of caries. Composition, location, and causes of accretions, deposits, and stains; their harmful results; preventive measures.

260 ORAL PATHOLOGY (1) I

Study of the fundamental processes of systemic disease with emphasis on oral diseases. Clinical and microscopic manifestations discussed and related to the practice of dental hygiene.

264 ORTHODONTICS (1) II

Basic principles, normal occlusion, malocclusion, case analysis for classification, etiology of malocclusion, growth of the cranium, facial bones, and tooth eruption.

265 DENTAL ROENTGENOGRAPHY (1) II

A lecture-laboratory course in the study, technique, and use of the roentgen ray in its application to dentistry.

354 DENTAL HYGIENE INTERNSHIP (14) I, II

Supervised intern practice—the teaching of dental health in conjunction with clinical and follow-up work in selected public schools; dental hygiene seminar.
Drama and Theatre

Professors Ernst, Heffner; Associate Professor Trapido; Assistant Professor Bentley

140 INTRODUCTION TO DRAMA AND THEATRE (3) I, II

Reading and discussion of representative plays from Miller's *Death of a Salesman* to Aeschylus' *Agamemnon*. Study of the plays as illustrative of changing forms in the theatre and dramatic literature, with emphasis upon the influence of these forms in our time.

150-151 DRAMATIC PRODUCTION (3-3) Yr.

An introduction to the basic theories and practices of the theatre. Emphasis upon acting, direction, staging, and lighting, with some attention to other departments of the theatre and to problems of school production. Co-ordinated with the activities of the University Theatre. Students may enter the second semester.

200 THEATRE PRACTICE (2) I, II

Supervised work in the arts and crafts of the theatre, in conjunction with productions. Staging, lighting, costumes, and properties, of which the student will usually emphasize one. Intended for the general student rather than Drama majors. May be repeated once. Prerequisite: consent of instructor.

210 CREATIVE DRAMATICS (3) I, II

An intensive study of dramatic activities for children and young people. Activities include story-telling, pantomime, creative drama, etc. Designed for teachers, group workers, recreation majors, and others dealing with children. Aim is assisting growth and development of young people, not preparing public performances. Lectures, demonstrations, and projects.

221-221 ACTING (3-3) Yr.

Analysis and interpretative reading of dramatic prose and poetry; related principles of stage production; reports; individual exercises and group rehearsals. Co-ordinated with the productions of the University Theatre. Students may enter the second semester.

230 DIRECTION (3)

Readings, reports, discussion of the theory and practice of stage direction.

240 STAGECRAFT AND THEATRE PLANNING (3)

The principles and practices of modern stagecraft: theories of stage production; planning of small theatres; stage arrangement; problems and practice in scene construction. Laboratory fee $5.00. (Alternate years; offered 1957-58.)

245 STAGE LIGHTING (3)

Modern and historic methods of lighting the stage; elementary electrical theory as used on stage; stage lighting equipment; problems in stage lighting and practice in the use of equipment. (Alternate years; not offered 1957-58.)

250 HISTORY OF THE THEATRE (3)

A survey of the development of the theatre from the earliest times to the present. Readings, discussion, lectures. (Alternate years; not offered 1957-58.)

260 MODERN THEORIES OF STAGE PRESENTATION (3)

Recent and current theories of production critically analyzed and reviewed, with emphasis upon Craig, Appia, Fuchs, Stanislavsky, and the French Symbolists. (Alternate years; offered 1957-58.)

265 AESTHETICS OF THE THEATRE (3)

Consideration of the aesthetic bases of the theatre. Readings, discussion, reports. (Alternate years; not offered 1957-58.)

299 DIRECTED WORK (Ar.) I, II

Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Drama and Theatre.
300 DIRECTED WORK (Ar.) I, II
Reading or research in theatre theory or history; reading and practice in particular areas of dramatic production. Prerequisite: graduate standing or the equivalent; consent of instructor.

320 SEMINAR IN DRAMA AND THEATRE (3) II
Study and discussion of significant topics and problems in the field of Drama. Prerequisite: consent of instructor. May be repeated.

350 SEMINAR IN ORIENTAL THEATRE (3) I
Special topics in the drama and theatre of the Orient. Reading, discussion, reports. Prerequisite: consent of instructor.

Economics
Senior Professor ROBERTS; Professors KAMINS, LEONG; Associate Professors FERGUSON, IGE, MARK, PENDLETON; Assistant Professors BELL, CONGDON, KIRKPATRICK

Economics 150–151 is prerequisite to all courses in Economics except 140, 270, 281, 282, 287, 289, 294.

140 INTRODUCTION TO ECONOMICS (3) I, II
A descriptive analysis of basic economic institutions and a study of the elementary principles underlying consumption, production, exchange, and distribution. Not open to majors in Economics or Business. Credit cannot be obtained in both this course and 150–151.

150-151 PRINCIPLES OF ECONOMICS (3-3) Yr.
Principles underlying consumption, production, exchange, and distribution of wealth; analysis of important current economic problems.

252 ECONOMIC PROBLEMS OF THE FAR EAST (3) II
Structure and development of economies of the Far East, especially China, India, Japan and southeast Asia. Resource development, industrialization, trade, finance and government planning in underdeveloped areas. Prerequisite: Economics 140 may be substituted for 150–151. (Alternate years; offered 1957–58.)

254 COMPARATIVE ECONOMIC SYSTEMS (3) I
Types of economic systems as represented by the United States, Great Britain, the Soviet Union, Spain, and Argentina. Analysis of assumptions underlying operations, and appraisal of their effectiveness in solving economic problems.

256 MONEY AND BANKING (3) I, II
Nature and history of money and of banking; characteristics of credit; monetary system of the United States; monetary standards; value of money; relation of money and credit to prices; banking system of the United States, including commercial banks, trust companies, savings banks, and related savings institutions.

258 ECONOMIC RESOURCES OF THE UNITED STATES (3) II
An analytical study of major economic resources in the United States and their historic development, with consideration given to related technological developments.

261 PUBLIC FINANCE (3) I, II

262 GOVERNMENT FINANCE IN HAWAII (3) I
Territorial and county income and expenditures; fiscal administration; Territorial tax system appraised, theories of taxation; economic effects. Prerequisite: Economics 261 or consent of instructor. (Alternate years; not offered 1957–58.)
264 INTERMEDIATE ECONOMIC THEORY (3) I  
Determination of prices, production and resource allocation under conditions of competition, monopoly, oligopoly, and monopolistic competition. Theories of consumer demand, producer cost and partial and general equilibrium.

265 GOVERNMENT AND BUSINESS (3) I, II  
Ways in which business and economic life are affected by government: government aids to business, regulation of business organization and combination, price control, and government ownership.

266 NATIONAL INCOME AND EMPLOYMENT (3) II  
Concepts and measurement of national income; Keynesian and Post-Keynesian theories of employment; influence of fiscal, monetary and other policies on income, employment and price levels. Prerequisite: Economics 256 or consent of instructor. (Alternate years; not offered 1957–58.)

270 PUBLIC UTILITIES (3) I  
The economic nature and history of public utilities, excluding railroads, followed by a critical discussion of their control by governments.

281 LABOR PROBLEMS (3) I  
A study of wages, hours, working conditions, employment, superannuation, substandard workers, and other important problems common to all labor. Special attention to an analysis of the fundamental factors affecting wage levels.

282 AMERICAN TRADE UNIONISM (3) II  
Growth and development of American Trade Unionism.

283 LABOR LEGISLATION (3) I  
Historic development of labor legislation; its adjudication and administration with emphasis on economic implications. Special attention to current political and legal issues directly related to labor legislation. Prerequisite: Economics 140 may be substituted for 150-151.

285 INTERNATIONAL TRADE AND FINANCE (3) II  
Theory of international trade, foreign exchange rates, balance of payments equilibrium, and commercial policy, with emphasis on recent events. Attention to practical aspects of importing and exporting. Prerequisite: Economics 256 or consent of instructor.

287 PUBLIC RELATIONS (3) II  
Basic principles of public relations as a function of modern business. Mediums and tools defined, and use studied.

289 ARBITRATION OF GRIEVANCES (3) II  
Purpose and functions of grievance machinery; types of machinery and arbitration clauses; functions, duties, and responsibilities of arbitrators. Use of cases to illustrate preparation of a case, presentation at the hearing, decision, and bases for review and methods of enforcement. Prerequisite: Economics 281.

291 AGRICULTURAL ECONOMICS (3) I  
A survey of the economic principles and problems of agriculture; special attention to such aspects as resources, tenure, size of enterprise, farm credit, marketing, farm labor, prices, taxation, and farm incomes. Prerequisite: Economics 140 may be substituted for 150-151.

292 LAND ECONOMICS (3) I  
Introduction to the economic principles and institutions that influence land utilization and ownership. Prerequisite: Economics 140 may be substituted for 150-151.

294 RESEARCH IN INDUSTRIAL RELATIONS (3) I  
An analytical survey of work done in the field of industrial relations since 1870 by leading writers and schools, combined with supervised group projects in current topics in the same field. Prerequisite: Economics 281 or consent of instructor.
296 HISTORY OF ECONOMIC THOUGHT (3) I KIRKPATRICK
A general survey of economic thought from Adam Smith to the present with special emphasis on the theory of value and distribution. Prerequisite: senior standing.

299 DIRECTED READING (Ar.) I, II STAFF
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Economics.

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

310 SEMINAR IN LABOR PROBLEMS (3) II
Prerequisite: consent of instructor.

315 SEMINAR IN ECONOMIC PROBLEMS (3) II MARK
Prerequisite: consent of department chairman.

Education

Professors BEYERS, CLOPTON, EVERLY, KELLER, PORTER; Associate Professors MEYER, TULL; Assistant Professors R. ALM, AMATO, AMIKA, BALSBAUGH, DEGENAIS, CRAWFORD, DOI, FITZSIMMONS, FLETCHER, GEISER, HAYES, IN, INN, JENKINS, MCINTOSH, NELSON, NIGHTINGALE, SUEOKA, TINKER, TRAUT; Instructors J. ALM, BENNETT, BRENEMAN, CAMPBELL, CROOKER, ERICKSON, GILLESPIE, H. JOHNSON, HIRATZKA, MUNDY, REDDIN, ST. DENIS

Enrollment in Education courses is restricted to students in Teachers College except by special permission of the chairman of the department.

100 ORIENTATION (1-1) Yr. BEYERS
Survey of students' problems of adjustment in the University; the bases of the choice of teaching as a profession and the proposed choice of a major and a teaching field. Laboratory fee $1.00 first semester.

201 OCCUPATIONAL ANALYSIS (1-1) Yr.
Techniques of course construction based on occupational analysis; analyzing an occupation; tools and equipment; selecting jobs as vehicles of instruction; related information and reference material. (Not offered 1957-58.)

202 CURRICULUM CONSTRUCTION, VOCATIONAL (1-1) Yr.
Continuation of 201; organization of instructional material based on occupational analyses; type jobs, operations, and related information for specific units of instruction; assignments; sequence of units to meet training needs. (Not offered 1957-58.)

203 TECHNIQUES OF VOCATIONAL INSTRUCTION (2) II
The techniques and methods of individual and group instruction in shop and related classes; principles of learning; skills of instruction; demonstrations and evaluation of various methods of instruction; methods of measuring achievement. (Not offered 1957-58.)

204 SHOP ORGANIZATION AND MANAGEMENT (2) II
Organization and control of shop instruction; handling supplies; maintaining equipment and tools; purchasing materials; keeping records; making inventories and meeting other problems of setting up and operating shop instruction courses. (Not offered 1957-58.)

205 INSTRUCTIONAL MATERIALS, INDUSTRIAL (2) I FLETCHER
The selection and effective use of instructional materials in trade and industrial classes; sources, values, limitations, and classification of instruction sheets and reference materials.

206 PRINCIPLES OF INDUSTRIAL EDUCATION (2) II FLETCHER
The development of vocational education; history and legislation affecting it; analysis of objectives of types of courses and programs; their place in the total program of education; the plan for vocational education in Hawaii.
210 AUDIO-VISUAL AIDS, INDUSTRIAL (1-1) Yr.
Types of instructional aids and methods of evaluating them; development, preparation, construction, and use of typical aids; methods of using instructional aids and the operation of audio-visual equipment by the teacher of industrial subjects. (Not offered 1957-58.)

211 CONFERENCE LEADER TRAINING (2) II
The techniques of leading group meetings in which problems are thoughtfully and freely discussed; pooling experiences and ideas for problem solving; developing teamwork on the supervisory level. (Not offered 1957-58.)

212 CURRICULUM ANALYSIS IN INDUSTRIAL ARTS (2) I
A survey of teachable content in the Industrial Arts field, technical skill and related information on the Industrial Arts level. (Not offered 1957-58.)

213 VOCATIONAL GUIDANCE, TRADE AND INDUSTRIAL (2) II
Principles and problems of guidance with special reference to vocational education; data relating to requirements and opportunities for employment in various trades. (Not offered 1957-58.)

214 SPECIAL PROBLEMS IN VOCATIONAL TEACHING (1-1) Yr.
Special problems in the instructional program resulting from changes in industry locally; shop organization; the development of new or different instructional material. May be repeated with the consent of the instructor and department chairman. (Not offered 1957-58.)

216 BOOKKEEPING AND OFFICE PRACTICE (2) II
Theories and methods of teaching bookkeeping, office practice, and other subjects in the secondary school commercial curriculum. Prerequisite: Business 150-151; credit or concurrent registration in Education 250. (Not offered 1957-58.)

217 VOCATIONAL EDUCATION AND COMMUNITY NEEDS (2) I
Community needs and resources in relation to the planning and conducting of vocational education; economic factors, government controls, organization of labor and management as influences on the need for and nature of vocational offerings. (Not offered 1957-58.)

229 SCIENCE, ELEMENTARY (2) I, II AMIOKA
Principles of science education in the elementary school; materials and procedures for developing concepts and understandings in grades 1 through 6. Prerequisite: credit or concurrent registration in Education 285-286.

230 CURRICULUM IN ELEMENTARY EDUCATION (10) I JENKINS, McINTOSH

236 BASIC SKILLS, PRESCHOOL-PRIMARY (2-2) Yr. BENNETT, ERICKSON, GILLESPIE
Materials and procedures for teaching language arts and arithmetic to children three to seven. First semester: children's literature, creative dramatics, and writing. Second semester: language arts, beginning reading, number concepts. Prerequisite: credit or concurrent registration in Education 283-284.

237 PRESCHOOL-PRIMARY MUSIC (2) I, II BALSBAUGH, HIRATZKA
Singing, simple work with instruments, rhythmic activities, dancing, dramatic play and listening experiences in the growth and development of children 2 to 7 years of age.

238 PRESCHOOL-PRIMARY ART (2) II JOHNSON
Materials and procedures in a variety of art media, and construction activities appropriate for children from 2 to 7 years of age. Course fee $2.00. Prerequisite: credit or concurrent registration in Education 283.
239 SCIENCE, PRESCHOOL-PRIMARY (2) I
The procedures and materials used in teaching natural, physical, and social sciences appropriate to young children. Prerequisite: credit or concurrent registration in Education 283–284.

240 SOCIAL STUDIES, ELEMENTARY (2) I, II
Scope and organization of the social studies for the elementary school; development of social knowledge and understanding in childhood experience. Prerequisite: credit or concurrent registration in Education 285–286.

241 MATHEMATICS, ELEMENTARY (2) I, II
The scope and organization of mathematics in the elementary school curriculum. Development of the subject matter of arithmetic in childhood experience. Prerequisite: credit or concurrent registration in Education 285–286.

242 HAWAIIAN NATURAL HISTORY (2-2) Yr.
Survey of the local physical and biological environment, with special reference to the needs of teachers in the schools of Hawaii. Students may enter the second semester.

243 LANGUAGE ARTS, ELEMENTARY (3) I, II
Developing concepts of the modern approach to the teaching of language arts—reading, oral and written expression. An exploration of materials designed for grades one through six. Prerequisite: credit or concurrent registration in Education 285–286.

244 LITERATURE, ELEMENTARY (2) I, II
Designed to help prospective teachers become acquainted with a wide range of children's books and to develop criteria for judging literature on the basis of children's needs and interests. Prerequisite: credit or concurrent registration in Education 285–286.

245 SCIENCE, SECONDARY (3) I, II
Purposes and procedures. The development of scientific attitude. Review of the major generalizations of the biological and physical sciences. Prerequisite: credit or concurrent registration in Education 250.

246 MATHEMATICS, SECONDARY (2) II
Purposes and procedures. The development of basic mathematical concepts. Prerequisite: credit or concurrent registration in Education 250.

247 SOCIAL STUDIES, SECONDARY (2) I, II
The scope and organization of social studies in the secondary school. The development of social knowledge and understanding. Prerequisite: credit or concurrent registration in Education 250.

248 TEACHING OF READING IN INTERMEDIATE AND HIGH SCHOOL (2) I
Review of the teaching of reading in the elementary school. Primary emphasis on the techniques and materials for teaching reading and improving reading skills in the intermediate and high school. (Alternates with Education 293; offered 1957–58.)

249 TEACHING OF TYPEWRITING AND SHORTHAND (2) I
Theory and methods of teaching typewriting and shorthand. Prerequisite: Business 170 and 177; credit or concurrent registration in Education 250.

250 SECONDARY EDUCATION (5) I, II
Basic course dealing with major problems of secondary education. Prerequisite: Psychology 186.

252 TEACHING PHYSICAL EDUCATION ACTIVITIES (2) I
Methods and materials in the conduct of the physical activities program. Techniques in leadership, including the selection of activities and program evaluation.

253 PRACTICE TEACHING IN HOME ECONOMICS (6) I, II
Observation, supervised teaching, and conferences. Prerequisite: senior standing; credit or concurrent registration in Home Economics 251.
254 PRACTICE TEACHING (14) I, II* STAFF
Teaching experience supervised by staff members of the University Preschool, Elementary, and High Schools. Prerequisite: Education 283–284, or 285–286, or 250; consent of Curriculum Director and Dean of Teachers College.

255 SEMINAR FOR PRACTICE TEACHERS (2) I, II STAFF
Study of problems arising from immediate experience as classroom teachers. To be taken concurrently with 254.

256 SEMINAR IN HOME ECONOMICS (2) I, II TULL
Study of problems arising from immediate experience as practice teachers in Home Economics. To be taken concurrently with 253.

257 LANGUAGE ARTS, SECONDARY (3) II J. ALM, AMATO
The teaching of speaking, reading, writing and listening in the intermediate and high school; special attention to the teaching of literature, grammar, usage and spelling. Prerequisite: credit or concurrent registration in Education 250.

258 ENGLISH IN THE ELEMENTARY SCHOOL (2) II

260 ENGLISH IN THE ELEMENTARY SCHOOL (2) II

261 TESTS AND MEASUREMENTS (3) I, II DOI
Theory and techniques of evaluation in education; practice in the use of testing devices. Laboratory fee $8.00, including $7.00 for the National Teacher Examination. Prerequisite: credit or concurrent registration in Education 250 or 280, or 283–284 or 285–286.

262 CREATIVE ART, ELEMENTARY (2) I, II DEGENAIS, FLETCHER
Individual and group projects to promote understanding of the creative use of art materials, tools, ideas, and their sources. Work in paint, clay, wood, etc. Studio fee $5.00. Prerequisite: Art 142–143; credit or concurrent registration in Education 285–286.

263 CREATIVE ART, SECONDARY (2) II FLETCHER
Similar to 262, but with emphasis on the problems of the secondary years. Studio fee $5.00. Prerequisite: Art 142–143; credit or concurrent registration in Education 250.

266 GUIDANCE MATERIALS AND RESOURCES (3) I DOI
Sources of information; professional organizations and personnel; the material aids to counseling; the research function of the counselor.

267 OCCUPATIONAL INFORMATION IN GUIDANCE (2) II DOI
Occupational research and survey techniques; trends; sources of materials; use of occupational information in vocational guidance and placements; correlation with other school subjects. (Alternate years; offered 1957–58.)

268 ELEMENTARY SCHOOL GUIDANCE (2) II
Principles, techniques, and organization of guidance services, both preventive and corrective, in the elementary school; applications in local schools. Prerequisite: Psychology 185; Education 286; credit or concurrent registration in Education 261; Psychology 292 or consent of instructor. (Alternate years; not offered 1957–58.)

269 PROBLEMS OF SCHOOL ADJUSTMENT (2) I DOI
Principles of behavior which affect human relationships in the school, with emphasis upon application to actual situations. Prerequisite: teaching experience. (Alternate years; offered 1957–58.)

276 SCHOOL MUSIC, SECONDARY (3-3) Yr. MUNDY
The objectives, materials and procedures of general, instrumental and choral music in the secondary school.

* Students registering for this course begin and complete work in accordance with the Laboratory School calendar.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>279</td>
<td>SPEECH AND DRAMATICS IN THE SECONDARY SCHOOL (3) I</td>
<td>BRENEMAN</td>
</tr>
<tr>
<td>282</td>
<td>LITERATURE FOR ADOLESCENTS (2) I</td>
<td>J. ALM</td>
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<tr>
<td>283-284</td>
<td>PRESCHOOL-PRIMARY EDUCATION (4-4) Yr.</td>
<td>NIGHTINGALE</td>
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<tr>
<td>285-286</td>
<td>ELEMENTARY EDUCATION (4-4) Yr.</td>
<td>STAFF</td>
</tr>
<tr>
<td>287</td>
<td>AUDIO-VISUAL EDUCATION (3) I, II</td>
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<tr>
<td>290</td>
<td>TEACHING SLOW LEARNERS (2) II</td>
<td>MCIINTOSH</td>
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<tr>
<td>291</td>
<td>TEACHING GIFTED CHILDREN (2) I</td>
<td>AMATO</td>
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<tr>
<td>293</td>
<td>TEACHING OF READING IN THE ELEMENTARY SCHOOL (2) I</td>
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<tr>
<td>294</td>
<td>REMEDIAL READING (2) II</td>
<td>FITZSIMMONS</td>
</tr>
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<td>299</td>
<td>DIRECTED READING (Ar.) I, II</td>
<td>STAFF</td>
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<tr>
<td>300</td>
<td>DIRECTED READING OR RESEARCH (Ar.) I, II</td>
<td>STAFF</td>
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<tr>
<td>322</td>
<td>EXTRA-CLASS ACTIVITIES IN SECONDARY SCHOOLS (2) II</td>
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<td>326</td>
<td>ADMINISTRATION OF THE SECONDARY SCHOOL (2) I</td>
<td>EVERLY</td>
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Techniques for teaching types of speech and play analysis and direction; production and management problems.

Literature for the secondary school level; methods for helping students appreciate the significance and meaning of literature; selection of materials suitable to varying levels of ability and interests. (Alternate years; offered 1957–58.)

Basic course in major problems in the education of children of ages two to seven; observation and work with children; education of children in the home, and methods of home-school co-operation. Prerequisite: Psychology 185; also, 283 is prerequisite to 284.

Basic course in major problems in the education of children of ages seven to twelve; observation and work with children. Prerequisite: Psychology 185; also, 285 is prerequisite to 286.

Theory, preparation, and use on all school levels of sensory aids to learning. Laboratory fee $3.00.

The social, psychological, and procedural problems involved in the teaching of slow learners in the normal classroom. Prerequisite: teaching experience.

Problems of motivating and evaluating learning experiences of gifted children in the normal classroom. Prerequisite: teaching experience.

Various techniques and materials for teaching reading and for improving reading skills in the elementary school. (Alternate years; not offered 1957–58.)

Techniques for motivating and helping children whose reading skills are below their capacity and needs.


Credit in Education 250 or 280, or 283–284, or 285–286, or the equivalent, is required for registration in any Education course numbered 300 or above.

Individual reading or research in the same fields as in 299. Prerequisite: graduate standing; consent of department chairman and instructor.

Planning and supervising student government, dramatics, athletics, school journalism, campaigns, contests, and other activities.

The major problems in the organization and administration of the modern intermediate and senior high schools; curriculum improvement, schedule making, pupil and staff personnel, school plant, business and finance, public relations. Prerequisite: Education 390. (Alternate years; not offered 1957–58.)
327 ADMINISTRATION OF THE ELEMENTARY SCHOOL (2) I

CLOPTON

The major problems of the modern elementary school principal; curriculum improve­ment, program making, reports to parents, pupil and staff personnel, school plant, business and finance, community relations, special problems of the small school. Prerequisite: Education 390.

328 SUPERVISION OF INSTRUCTION (2) II

Principles underlying supervision, methods of supervision, in-service training of teachers, teacher evaluation, teachers' meetings, development of group leadership, skill in human relations. Prerequisite: Education 390. (Alternate years; offered 1957–58.)

329 CURRICULUM CONSTRUCTION (3) I

Principles underlying curriculum construction at all levels, developing resource units, locating appropriate curriculum materials, methods of curriculum revision.

332 CLINICAL PROCEDURES IN READING (3) I

R. ALM

Diagnosis and improvement of individual reading problems in elementary and secondary schools with special attention to severely retarded readers. Prerequisite: Education 294 and consent of instructor.

340 PHILOSOPHY OF EDUCATION (3) I, II

CLOPTON

Philosophy and science in education; social, psychological, and ethical considerations essential to the development of a philosophy of education; implications of philosophical viewpoints for policy in education.

345 SEMINAR IN PHILOSOPHY OF EDUCATION (2) II

CLOPTON

Social and psychological theory involved in controversial educational issues. Pre­requisite: Education 340 or equivalent, and consent of instructor. May be repeated for credit by permission of instructor. (Alternate years; not offered 1957–58.)

350 HISTORY OF EDUCATION (2) I, II

Survey of the history of educational thought and practice as a basis for the study of modern school problems.

351 HIGHER EDUCATION IN THE UNITED STATES (3) I

KELLER

Significant developments and trends in contemporary higher education. Financing; adjustments to increasing enrollments; recruitment, preparation and in-service improvement of faculties; articulation of liberal and professional programs.

354 INTERNSHIP (14) I, II*

STAFF

Full-time teaching under special supervision in selected public schools. Restricted to fifth-year students.

356 GUIDANCE PRACTICUM (3) I, II

DOI

Supervised experience in guidance activities in the schools. Open only to Guidance majors.

362 ORGANIZATION AND ADMINISTRATION OF GUIDANCE (2) II

DOI

The organization and administration of guidance, as a part of student personnel services, so as to contribute most effectively to the school program, with special reference to the role of the administrator. Prerequisite: an introductory course in Guidance and consent of instructor. (Alternate years; offered 1957–58.)

363 SEMINAR IN EDUCATIONAL ADMINISTRATION (2) I

EVERLY

Organization for public education; taxation; equalization; internal problems of school administration; personnel; pupil classification; records and reports. Restricted to adminis­trators and prospective administrators. Prerequisite: Education 326 or 327, and consent of instructor. (Alternate years; offered 1957–58.)

* Students registering for this course the first semester begin work on the opening date of the public school calendar, September 3, 1957. Those registering for the second semester complete the course on the closing date of the public school calendar, June 6, 1958.
364 TESTS AND INVENTORIES IN GUIDANCE (2) II

Tests and inventories for measuring aptitudes, interests, attitudes, and modes of behavior; uses and limitations in counseling and guidance; administering, scoring, and interpreting scores. Prerequisite: credit or concurrent registration in Education 261 or Psychology 264, or consent of instructor. (Alternate years; offered 1957-58.)

365 SEMINAR IN SUPERVISION OF INSTRUCTION (2) II

The supervisory work of the principal; the place of supervision; organization for supervisory service; techniques. Restricted to administrators and prospective administrators. Prerequisite: Education 328 and consent of instructor. (Alternate years; offered 1957-58.)

380 RESEARCH AND THESIS WRITING (3) I

Research techniques and thesis development; designed to assist students in thesis preparation. Prerequisite: Education 340; Psychology 351; credit or concurrent registration in Psychology 260; consent of instructor.

381 EDUCATIONAL RESEARCH PROGRAMS (3) I

Factors involved in research programs; team and coordinated research projects; determination of research needs; financing research; foundations, grants, subventions; channels of publication. Enrollment limited to University Faculty, and others by invitation.

390 PUBLIC SCHOOL ORGANIZATION (2) I, II

The function of the teacher in school administration; state and territorial organization for administrative control of public education; rights and duties of teachers under Hawaiian school law and D.P.I. regulations; retirement system; teachers' organizations; financing public education.

395 SEMINAR FOR INTERN TEACHERS (2) I, II

Problems arising from the classroom experiences of intern teachers. Restricted to fifth-year students. To be taken concurrently with Education 354.

Engineering

Professors Daniel, Downs, Harloe, Tinniswood; Associate Professors Engman, Evans, Matsuda; Assistant Professors Avery, Chiu, Corba, Mitsuda; Instructor Serbousek; Lecturers Miyamasu, Young

CE 100 ENGINEERING ORIENTATION (1) I

Lectures to acquaint students with the nature of the engineering profession and the aims of engineering education. Slide rule instruction. Methods of solution of engineering problems.

CE 101 SURVEYING (4) I

Use of tape, level, and transit; horizontal and vertical control surveys; computations. Two recitations and two field or drafting periods. Prerequisite: Mathematics 150; credit or concurrent registration in MD 101. Laboratory fee $2.00.

CE 102 SURVEYING (4) II

Topographic mapping; triangulation; simple, compound, spiral, and vertical curves; earthwork computations; construction, hydrographic, and city surveys; route problems. Two recitations and two field or drafting periods. Prerequisite: Mathematics 151, 152; MD 101; CE 101. Laboratory fee $2.00.

CE 227 SURVEYING (3)

Principally field work; curves, earthwork, grades, reconnaissance, preliminary surveys, route location, and design. Prerequisite: CE 102. Laboratory fee $3.00. Offered in summers only.
CE 228 WATER SUPPLY (3) I  
Design, construction and maintenance of water works; water purification and control. Prerequisite: CE 255.

CE 229 SEWERAGE AND SEWAGE TREATMENT (3) II  
Design, construction, and maintenance of sewage works; sewage and industrial waste treatment. Prerequisite: CE 228, 255.

CE 231 SOIL MECHANICS (3) II  
Physical factors in earth pressure phenomena; soil stability; soil identification and properties in earthwork operations and foundations. Prerequisite: CE 253.

CE 251 STATICS (3) II  
Stresses in joint structures; effect of forces on bodies at rest. Prerequisite: one semester of Physics 104.

CE 252 DYNAMICS (3) I  
Work, energy, and power; Newton's laws; effect of forces on bodies in motion. Prerequisite: CE 251.

CE 253 STRENGTH OF MATERIALS (4) I  
Direct stress, shear, flexure, and torsion. Theory of beams and columns. Prerequisite: CE 251.

CE 255 FLUID MECHANICS (4) II  
Fluid statics, kinematics of fluid flow, momentum and energy equations, dimensional analysis, fluid flow in pipes, open channel flow and fluid measurements. Three lectures and one two-hour laboratory period. Prerequisite: CE 252.

CE 257 HIGHWAY ENGINEERING (3) I  
Design, construction, and maintenance of streets and highways; planning, financing, etc. Prerequisite: CE 227, 231.

CE 276 STRUCTURAL THEORY (3) II  
Reactions, shear and moment diagrams, bridge and roof trusses, graphical statics, moving loads and influence lines, three-hinged arch and space frameworks. Two discussion periods and one design period. Prerequisite: CE 253.

CE 277 STRUCTURAL DESIGN (3) II  
Design and detailing of buildings, plate girders, bridges, etc.; welded construction; timber structures. Two discussion periods and one design period. Prerequisite: CE 276, 278.

CE 278 INDETERMINATE STRUCTURES (3) I  
Stresses in indeterminate trusses, continuous structures, and rigid frames, using the classical methods of analysis followed by moment distribution, column analogy, etc. Prerequisite: CE 276.

CE 279 REINFORCED CONCRETE (3) I  
Theory and design of reinforced concrete beams, columns, combined stresses, footings, and retaining walls. Two discussion periods and one design period. Prerequisite: CE 253, 276.

CE 280 REINFORCED CONCRETE DESIGN (3) II  
Continuation of CE 279. Slabs, reinforced concrete bridges, rigid frames. Introduction to elementary concepts of plastic theory and prestressed concrete. Two discussion periods and one design period. Prerequisite: CE 278, 279.

CE 291 ENGINEERING ECONOMY (2) II  
The application of economic principles to engineering problems. Prerequisite: Economics 140; senior standing.

CE 292 CONTRACTS AND SPECIFICATIONS (2) II  
The business, legal, and ethical aspects of engineering; contracts and specifications with special reference to local requirements. Prerequisite: senior standing.
CE 293 PHOTOGRAMMETRY (3) I  STAFF
Basic principles; flight methods; photographic equipment; stereoscopy; field identification; field control; radial line and template methods of compilation, map projections; mosaics. Prerequisite: CE 227. Laboratory fee $2.00.

CE 295 HYDROLOGY (3) I  STAFF
Occurrence and movement of water by natural processes. Analysis of rainfall, runoff, evaporation, transpiration, and infiltration data. Prerequisite: CE 255.

CE 296 ADVANCED HYDRAULICS (3) I  STAFF
Nonuniform flow, theory of hydraulic jump, water hammer, backwater curves; pipe networks; hydraulic machinery. Prerequisite: CE 255. (Not offered 1957–58.)

CE 297 HYDRAULIC STRUCTURES (3) II  STAFF
Hydraulic and structural considerations in the design of dams, gates, canals, breakwaters, and piers. Prerequisite: CE 255, 278, 279.

CE 298 ADVANCED STRUCTURAL THEORY (3) II  MATSUDA
Further application of column analogy, moment distribution, and classical methods to the study of haunched beams, continuous girders, rigid frames, and arches; secondary, temperature, and wind stresses. Prerequisite: CE 278, 279.

CE 299 SPECIAL PROBLEMS (Ar.) I, II  STAFF
Individual investigation or studies of any phase of civil engineering selected by the student and approved by the instructor. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Engineering.

MD 101 ENGINEERING DRAWING (2) I  AVERY, CORBA
Engineering drawing procedures, projections, ASA standards and technical sketching, pencil and ink drawings for printing. Two 3-hour laboratory periods. Laboratory fee $1.00.

MD 152 DESCRIPTIVE GEOMETRY (2) II  AVERY, CORBA
Principles of descriptive geometry; basic point, line, and plane problems applied to engineering; intersections and development of surfaces; applications to engineering problems. Two 3-hour laboratory periods. Prerequisite: MD 101.

ME 202 MATERIALS OF ENGINEERING (2) I  EVANS, STAFF
Properties of cements, limes, plasters, and plain and reinforced concrete; methods of manufacture and standard tests for quality; testing cements, concretes, reinforced concrete, asphalt, and aggregates used in making concrete. One lecture and one laboratory period. Prerequisite: credit or concurrent registration in CE 253. Laboratory fee $5.00.

ME 203 MATERIALS OF ENGINEERING (2) II  EVANS, STAFF
Properties, tests, and specifications of iron, steel, other metals, and wood; tests of soils. Two lectures and one laboratory period. Prerequisite: credit or concurrent registration in CE 253. Laboratory fee $5.00.

ME 210 KINEMATICS (3) II  AVERY
A study of the motion of machine elements and the transmission of motion through mechanical devices. Prerequisite: MD 152; CE 252.

ME 254 ADVANCED MATERIALS TESTING (Ar.) II  EVANS
Materials testing of more advanced or difficult nature than in ME 202 or 203. Application of tests to investigations of physical characteristics of local engineering materials. Prerequisite: ME 202, 203. Laboratory fee $5.00.

ME 282 ELEMENTS OF HEAT POWER (3) II  DOWNS
Fundamental laws governing transformation of heat into work; steam machinery; use of steam tables; internal combustion engines; refrigeration. Prerequisite: Physics 104. Civil Engineering students may take ME 283, but cannot get credit for both 282 and 283.

ME 283 THERMODYNAMICS (3) I  DOWNS
A study of the fundamentals of thermodynamics and their application to the efficient production and utilization of power. Prerequisite: Chemistry 103; Physics 104; Mathematics 154.
ME 284 STEAM POWER (3) I

A study of the performance of steam generating and steam consuming equipment. The economics of the selection of industrial steam equipment. Prerequisite: Mechanical Engineering 283; concurrent registration in ME 285.

ME 285 HEAT POWER LABORATORY I (1) I

Experiments in the use of mechanical, electrical, and electronic test equipment in the testing of mechanical and thermodynamic machinery. Emphasis on steam and refrigeration tests. Prerequisite: concurrent registration in ME 284. Laboratory fee $5.00.

ME 286 INTERNAL COMBUSTION ENGINES (3) I

A study of the basic principles underlying the functioning of internal combustion engines. Emphasis upon fuels, combustion, heat transfer, lubrication. Prerequisite: ME 283.

ME 287 HEAT POWER LABORATORY II (1) II

Experiments in the use of mechanical, electrical, and electronic test equipment as applied to the testing of mechanical and thermodynamic machinery. Emphasis on internal combustion engine tests. Prerequisite: ME 285. Laboratory fee $5.00.

ME 293 AIR CONDITIONING AND REFRIGERATION (3) II

Refrigeration and air conditioning apparatus and their application to industrial and residential use. Prerequisite: ME 283.

AE 101 HISTORY OF ARCHITECTURE (3-3) Yr.

A general survey of the architecture of all periods; reference reading, illustrated lectures, recitations, and discussions.

AE 103 ARCHITECTURAL DESIGN (3-3) Yr.

The design of simple buildings in relationship to their environment, supplemented by library research, discussion, field trips, and sketch problems. Three drafting periods. Prerequisite: AE 101; Art 150-151.

AE 153 ARCHITECTURAL GRAPHICS (2) I

Simple projections as applied to plans, sections, and elevations; shades and shadows; perspective drawing; rendering techniques. Three 2-hour periods. For students in Architecture.

English

Senior Professors Stroven, Wilson; Professors Bouslog, Day, Green; Associate Professors Davenport, Doggett, Fujimura, George, Heiser, Korn, Lowers, Stempel; Assistant Professors D. Brown, Frierson, Huntsberry, Leib, Winters; Instructors Abrums, Castro, Derstine, Maney, V. Miller, Mitchell, Newton, Scott, Sinclair, Tieves, Topham

100 COMPOSITION (3) I

A five-hour course required of all foreign students who fail to attain a standard in the entrance examination qualifying them for admission to English 101. Identical in content with 101 except for additional time given to remedial work.

101 COMPOSITION (3-3) Yr.

Principles and practice of composition.

109 BUSINESS ENGLISH (3) II

Theory and practice in forms of business communication: letters, reports, analyses, special studies, and records. Open only to students in Business Administration. Prerequisite: English 101C or the equivalent.
120-121 NEWS WRITING (3-3) Yr. DAVENPORT
Introduction to journalism, with emphasis on reporting and with practice in news writing. One third of the time in the course must be spent in work on Ka Leo or other student publications. Prerequisite: English 101C or the equivalent.

150 INTRODUCTION TO ENGLISH LITERATURE (3-3) Yr. STAFF
English literature from the beginnings to the present; attention given to the interrelationships of English and American literature. Prerequisite to all advanced courses in American, English, and comparative literature.

155 ENGLISH AND AMERICAN LITERATURE (3) I, II STAFF
Important writers and works in English and American literature. Open only to students in Applied Science, Business Administration, and Agriculture.

202 EXPOSITORY WRITING (3) I, II STAFF
Practice in expository and descriptive writing, with emphasis upon the development of idea and style. Prerequisite: grade C or better in English 101C or the equivalent and consent of instructor.

203 NARRATIVE WRITING (3) I, II STAFF
Practice in the writing of narrative, including the short story, and analysis of the forms. Prerequisite: grade C or better in English 101C or the equivalent, and consent of instructor.

204 CURRENT ENGLISH (3) II FRIERSON
Present-day tendencies and usages in pronunciation and grammatical practice; word derivation; shifts in meaning; and American variants.

205 BACKGROUNDS OF ENGLISH LITERATURE (3) II GREEN
A study of the most important sources of English literary themes and allusions, including the King James Bible and Western European myth and legend.

208 INTRODUCTION TO POETRY (3) I WINTERS
Analysis of selected English and American poems of the past and present, emphasizing problems of communication and appreciation.

210 REPORT WRITING (3) I, II STAFF
Principles of technical exposition, with composition and analyses of reports, papers, and selected types of engineering and other professional writing. Supplemented by readings and discussions of selections from general literature. Prerequisite: English 101C or the equivalent.

216 PLAYWRITING (3) II WILSON
Study of one-act plays and practice in writing in the dramatic form, with a possibility of production by the University Theatre Group. Prerequisite: consent of instructor.

218 ADVANCED FICTION WRITING (3) I DAY
Principles of narrative craftsmanship put into practice in original stories, through study of fiction technique, characterization, plot, style, mood, and emotional effect. Study of successful examples of the modern short story and novel. Prerequisite: consent of instructor. (Alternate years; not offered 1957-58.)

222 ELEMENTS OF EDITING AND PUBLISHING (3) I DAVENPORT
Copyreading, headline writing, news and advertising display, use of illustrations, responsibilities of the editor. Theory and practice of publishing; mechanical aspects of printing processes, type faces, typographical display, type calculations, illustrations. (Alternate years; not offered 1957-58.)

240 HISTORY OF LITERARY CRITICISM (3) II STEMPPEL
Chief theories of literary criticism, with readings (in English) from Plato to the present. (Alternate years; offered 1957-58.)
260-261 AMERICAN LITERATURE (3-3) Yr.
First semester: from the beginnings to the Civil War. Second semester: from the Civil War to the early twentieth century.

262 AMERICAN LITERATURE AND CULTURAL HISTORY (3) II
Studies in the relations of American literature to American culture before 1900. Pre-requisite: English 260 or the equivalent.

263 LITERATURE OF THE PACIFIC (3) II
The literature of the Pacific islands and Australia: narratives of voyagers and travelers, translations of native folk literature, and short stories and novels by such writers as Melville, Stevenson, London, Beke, and Nordhoff and Hall.

270 CHAUCER (3) I
The life, times, and major works of Chaucer, with emphasis on The Canterbury Tales. (Alternate years; offered 1957-58.)

272 HISTORY OF THE ENGLISH LANGUAGE (3) I
The growth and development of the English language; its sources, forms, mutations, and standards of usage. (Alternate years; not offered 1957-58.)

273 SIXTEENTH-CENTURY ENGLISH LITERATURE (3) I
Poetry and prose of the Tudor period, exclusive of the drama. (Alternate years; not offered 1957-58.)

274 THE ENGLISH DRAMA TO 1642 (3) I
Origins of the English drama; the medieval drama and theatre; the rise of professional drama; the contemporaries and successors of Shakespeare; the closing of the theatres. (Alternate years; offered 1957-58.)

275 SEVENTEENTH-CENTURY ENGLISH LITERATURE (3) II
Poetry and prose of the seventeenth century, exclusive of the drama and Milton’s major works. (Alternate years; offered 1957-58.)

276-277 SHAKESPEARE (3-3) Yr.
First semester: Shakespeare’s histories and comedies. Second semester: Shakespeare’s tragedies.

278 ENGLISH DRAMA OF THE RESTORATION AND EIGHTEENTH CENTURY (3) I
The drama from 1660 to 1780: the chief dramatic types, and the major dramatists from Dryden to Sheridan. (Alternate years; not offered 1957-58.)

279 MILTON (3) II
Selected poetry and prose of John Milton. (Alternate years; not offered 1957-58.)

280 EIGHTEENTH-CENTURY ENGLISH LITERATURE (3) II
Poetry and prose from 1688 to 1780, exclusive of the drama and novel. (Alternate years; not offered 1957-58.)

282 THE ROMANTIC MOVEMENT IN ENGLAND (3) II
Poetry and prose from 1780 to 1832, exclusive of the novel. (Alternate years; offered 1957-58.)

284 VICTORIAN LITERATURE (3) II
Poetry and prose from 1832 to 1900, exclusive of the novel. (Alternate years; not offered 1957-58.)

285 THE ENGLISH NOVEL TO 1832 (3) I
Principal English novels and novelists from the beginnings to 1832. (Alternate years; offered 1957-58.)
286  THE ENGLISH NOVEL, 1832-1900 (3) II  KORN  
Principal English novels and novelists from 1832 to 1900. (Alternate years; offered 1957-58.)

287  MODERN DRAMATIC LITERATURE (3-3) Yr.  WILSON  
First semester: British and continental drama from Ibsen's immediate predecessors to the present. Second semester: American drama. (Alternate years; offered 1957-58.)

288  CONTEMPORARY BRITISH LITERATURE (3) I  HEISER  
Representative works of the leading British novelists and poets since 1900.

289  CONTEMPORARY AMERICAN LITERATURE (3) II  BOUSLOG  
Representative works of the leading American novelists and poets since 1900.

299  DIRECTED READING (Ar.) I, II  STAFF  
Individual reading in (1) Medieval English Literature—GREEN; (2) Sixteenth-Century English Literature—LOWERS; (3) Seventeenth-Century English Literature—KORN, LOWERS; (4) Eighteenth-Century English Literature—DOGGETT; (5) English Literature, Romantic Period—BOUSLOG; (6) English Literature, Victorian Period—FRIERSON, STEMPFL; (7) Contemporary English Literature—BOUSLOG, BROWN; (8) American Literature—DAY. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in English. Prerequisite: consent of instructor.

300  DIRECTED READING OR RESEARCH (Ar.) I, II  STAFF  
Individual reading or research in the same periods as in 299. Prerequisite: graduate standing and consent of instructor.

309  SEMINAR IN AMERICAN LITERATURE (2) I  STAFF  
An intensive study of problems concerning a single author in American literature. The particular author is shown in the time schedule of courses. Prerequisite: graduate standing or consent of instructor. (Alternate years; not offered 1957-58.)

310  SEMINAR IN AMERICAN LITERATURE (2) II  STAFF  
Special study of a problem, or a period in American literature. The particular topic is stated in the time schedule of courses. Prerequisite: graduate standing or consent of instructor.

311  SEMINAR IN ENGLISH LITERATURE (2) II  STAFF  
Special study of problems, authors, or periods in English literature. The particular topic is stated in the time schedule of courses. Prerequisite: graduate standing or consent of instructor.

312  SEMINAR IN TEACHING COMPOSITION (2) I  FUJIMURA  
Theory and observation of the teaching of composition at the college level. Prerequisite: graduate standing or consent of instructor.

313  SEMINAR IN RESEARCH METHODS (1) I  BOUSLOG  
Materials of English studies; problems of bibliography; fundamentals of thesis writing. Required of all candidates for the M.A. degree in English. Prerequisite: graduate standing.

314  SEMINAR IN COMPARATIVE LITERATURE (1) II  GREEN  
Introduction to comparative literature; relationship of English to other European literatures; a study of sources and influences. Prerequisite: graduate standing or consent of instructor.

340  SEMINAR IN HISTORY AND LITERATURE (2) II  BOUSLOG  
Problems in contemporary American culture, with emphasis on the history of ideas, utilizing history and literature. An interdepartmental course offered as History 340 the first semester, and English 340 the second semester. Prerequisite: History 340. (Alternate years; offered 1957-58.)
European Languages

Professor MUELLER; Associate Professor ASPINWALL; Assistant Professors JENSON, KNOWLTON, PAVLANTOS, WISWELL; Instructors BURKETT, ROTH, SINGER

FRENCH

100 ELEMENTARY FRENCH (3-3) Yr.
Reading, conversation with laboratory drill, introduction to grammar. Laboratory fee $1.00.

101 INTERMEDIATE FRENCH (3-3) Yr.
Reading, conversation with laboratory drill, and composition. Prerequisite: French 100 or the equivalent.

201 LITERATURE OF THE TWENTIETH CENTURY (3-3) Yr.
Novels, plays, poetry. Course conducted in French as far as feasible. Prerequisite: French 101 or the equivalent.

250 LITERATURE OF THE GOLDEN AGE (2) I
Emphasis on Molière, Racine, Corneille. Conducted in French. Prerequisite: French 201-202, 222-232, or the equivalent.

261 LITERATURE SINCE 1800 IN TRANSLATION (2) II
Rapid reading in translation, lectures, discussion, and reports. Not open to French majors. Prerequisite: English 150.

273 HISTORY OF THE FRENCH LANGUAGE (2) II
History of the French language, with emphasis on the literature of the Middle Ages and the Sixteenth Century. Conducted in French. Prerequisite: French 201 and Latin 100 or the equivalent. (Not offered 1957-58.)

280-281 THE EIGHTEENTH CENTURY (2-2) Yr.
French thought: Voltaire, Rousseau, Marivaux, Montesquieu, Diderot, Prevost, Beaumarchais. Conducted in French. Prerequisite: French 201 or the equivalent. (Alternates with 282-283.)

282-283 LITERATURE OF THE NINETEENTH CENTURY (2-2) Yr.
Novels, plays, and poetry representative of the schools of romanticism, realism, naturalism, and symbolism. Conducted in French. Prerequisite: French 201 or the equivalent. (Alternates with 280-280; not offered 1957-58.)

299 DIRECTED READING (Ar.) Yr.
Designed to round out a knowledge of French literature. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in French.

GERMAN

100 ELEMENTARY GERMAN (3-3) Yr.
Grammar development from reading material; analysis of German sentence structure; conversation and grammar; laboratory drill. Laboratory fee $1.00.

101 INTRODUCTION TO GERMAN LITERATURE (3-3) Yr.
Readings from modern and classical authors; grammar review; vocabulary building; composition and conversation; laboratory drill. Prerequisite: German 100 or two years of high school German.

102 SCIENTIFIC GERMAN (3-3) Yr.
Accurate reading of scientific German over a wide range; emphasis on sentence construction and vocabulary building. Prerequisite: German 100.
200 THE CLASSICAL PERIOD (3-3) Yr.  
Representative works of Lessing, Goethe, and Schiller, interpreted within the literary framework of their time. Conducted chiefly in German. Prerequisite: German 101 or the equivalent. (Alternate years; not offered 1957-58.)

201 THE MODERN PERIOD (3-3) Yr.  
Representative works of the schools of romanticism, poetic realism, naturalism, impressionism, expressionism, and the new objectivity. Conducted chiefly in German. Prerequisite: German 101 or equivalent. (Alternate years; offered 1957-58.)

202 ADVANCED SCIENTIFIC GERMAN (Ar.) Yr.  
Reading in student's field of scientific specialization. Required of German majors; reading to be done in field of literary history. May be repeated once. Prerequisite: two years of college German; consent of instructor.

299 DIRECTED READING (Ar.) Yr.  
Designed to round out student’s knowledge of German literature, or allow him to read intensively in the field of greatest interest. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in German.

GREEK

106 ELEMENTARY GREEK (3-3) Yr.  
Vocabulary and grammar with reading of simple Greek.

107 INTERMEDIATE GREEK (3-3) Yr.  
Review of grammar; reading from selected prose.

LATIN

100 ELEMENTARY LATIN (3-3) Yr.  
Vocabulary and grammar with reading of simple Latin.

101 INTERMEDIATE LATIN (3-3) Yr.  
Review of grammar; reading from selections from prose and poetry.

250-251 CLASSICAL CIVILIZATION (3-3) Yr.  
A survey of the major aspects of Greek and Roman civilization, with special attention to their influences on Western culture. First semester devoted to Greek civilization; the second, to Roman. Students may enter the second semester.

260-261 CLASSICAL LITERATURE (3-3) Yr.  
The major writers of Greece and Rome in English translation. First semester devoted to Greek literature; the second, to Roman. Students may enter the second semester. (Not offered 1957-58.)

299 DIRECTED READING (Ar.) I, II  
Limited to seniors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Latin.

RUSSIAN

100 ELEMENTARY RUSSIAN (3-3) Yr.  
Introductory course in Russian. Conversation, laboratory drill, reading, writing, and grammar. Laboratory fee $1.00.

101 INTERMEDIATE RUSSIAN (3-3) Yr.  
Review of grammar; conversation, laboratory drill, reading from modern and classical authors. Prerequisite: Russian 100 or the equivalent.

261 NINETEENTH-CENTURY RUSSIAN NOVEL (2) II  
A survey of the more important novelists in English translation, particularly Gogol, Goncharov, Turgenev, Dostoevsky, and Tolstoi.

299 DIRECTED READING (Ar.) Yr.  
Limited to seniors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Russian.
SPANISH

100 ELEMENTARY SPANISH (3-3) Yr. STAFF
Reading, conversation, laboratory drill, introduction to grammar. Laboratory fee $1.00.

101 INTERMEDIATE SPANISH (3-3) Yr. STAFF
Reading, conversation, laboratory drill, some grammar and composition. Prerequisite: Spanish 100 or the equivalent.

254 INTRODUCTION TO SPANISH-AMERICAN LITERATURE (2) I KNOWLTON
Readings and reports in Spanish-American colonial literature, with some attention to Spanish literature of the Philippines. Representative South American novels of the nineteenth and twentieth centuries. Prerequisite: Spanish 101 or the equivalent. (Alternates with 256; not offered 1957–58.)

255 MEXICAN LITERATURE (2) II KNOWLTON
The cultural history of Mexico and representative writers. Readings and reports, with emphasis on the novelists of the Mexican revolution of 1910. Conducted in Spanish. Prerequisite: Spanish 254 or equivalent. (Alternates with 257; not offered 1957–58.)

256 SPANISH LITERATURE TO 1700 (2) I KNOWLTON
Reading and interpretation of representative selections from Spanish literature of the Middle Ages and the Golden Age, with outlines of literary history. Special consideration of Don Quixote and the drama. Prerequisite: Spanish 101 or the equivalent. (Alternates with 254; offered 1957–58.)

257 SPANISH LITERATURE FROM 1700 (2) II ROTH
Reading and interpretation of representative selections from Spanish literature of the eighteenth, nineteenth, and twentieth centuries, with outlines of literary history and special consideration of the drama and novel since 1800. Not open to students who have credit in Spanish 252 or 253 as previously given. Prerequisite: Spanish 101 or the equivalent. (Alternates with 255; offered 1957–58.)

258 SPANISH CONVERSATION AND COMPOSITION (2) I ROTH
A course designed to develop skill and accuracy in composition and oral expression. Prerequisite: Spanish 101 or the equivalent. (Alternates with 260; not offered 1957–58.)

259 ADVANCED CONVERSATION AND COMPOSITION (2) II ROTH
Further training in composition and oral expression. Prerequisite: Spanish 258 or the equivalent. (Alternates with 260; not offered 1957–58.)

260 HISTORY OF THE SPANISH LANGUAGE (2) I KNOWLTON
Prerequisite: Spanish 101 or the equivalent, and one semester of college Latin or the equivalent. (Alternates with 258, 259; offered 1957–58.)

299 DIRECTED READING (Ar.) Yr. KNOWLTON, ROTH
Designed to round out the student's knowledge of Spanish. (1) Spanish Peninsular Literature; (2) Spanish-American Literature; (3) Hispanic Linguistics. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Spanish.

Geography

Professors BOWERS, MANCHESTER; Lecturer PILANIALA

Geography 150 or 151 or consent of instructor is prerequisite to all advanced courses.

150 ELEMENTS OF GEOGRAPHY (3) I, II BOWERS
Introduction to the principles of geography. Basic interrelations of human life and elements of the natural landscape. Course fee $1.00.

151 ECONOMIC GEOGRAPHY (3) I, II
Distribution of the principal commodities of world commerce. An analysis of the world's important agricultural, industrial, and commercial regions with their interconnecting trade routes. Course fee $1.00.
240 PHYSICAL GEOGRAPHY (3) II

Basic principles of the earth sciences selected to provide an understanding of man's physical environment on a global scale. Course fee $1.00.

250 CARTOGRAPHY (3) I

A study of the history of map making, the construction of projections, and the techniques of drafting various types of maps for use in geographic investigations. Laboratory fee $5.00.

251 FIELD METHODS (2) II

Instruction in field and laboratory techniques involved in mapping physical and cultural features of the landscape. Prerequisite: Geography 250 or consent of instructor. Laboratory fee $5.00.

252 GEOGRAPHY OF NORTH AMERICA (3) I BOWERS

Regional geography of the United States and Canada; geographic aspects of the historic and economic development of the continent and of contemporary problems. Course fee $1.00.

253 GEOGRAPHY OF ASIA (3) I

The physical regions of Asia and their human occupancy; interrelationships with other areas and the geographic background of current problems. Course fee $1.00.

254 GEOGRAPHY OF JAPAN (3) II MANCHESTER

The regional study of the geography of Japan. A detailed study of the people and resources of the land. Course fee $1.00. (Not offered 1957-58.)

255 GEOGRAPHY OF CHINA (3) II BOWERS

The peoples and environment of China studied on a regional basis, with emphasis on the occupancy and use of the land. Course fee $1.00.

256 GEOGRAPHY OF EUROPE (3) II BOWERS

The physical and human geography of Europe. Its geography as a background study for present problems. Course fee $1.00.

257 GEOGRAPHY OF THE PACIFIC ISLANDS (3) I BOWERS

Polynesia (except Hawaii), Melanesia, and Micronesia. Course fee $1.00.

258 WEATHER AND CLIMATE (3) I BOWERS

Study of the basic elements of meteorology and climatology. Two lectures and one laboratory period. Laboratory fee $1.00.

259 GEOGRAPHY OF ASIA (3) II MANCHESTER

A comparative study of the physical character and human use of the world's geographic regions, with discussion of teaching methods and materials. For prospective teachers. Course fee $1.00.

260 GEOGRAPHY OF HAWAII (3) II PHIANAIA

The regional, physical, and cultural geography of Hawaii. A detailed study of the people and the resources of the Islands. Course fee $1.00.

261 WORLD GEOGRAPHIC PATTERNS (3) I, II BOWERS

A comparative study of the physical character and human use of the world's geographic regions, with discussion of teaching methods and materials. For prospective teachers. Course fee $1.00.

262 WEATHER AND CLIMATE (3) I BOWERS

Study of the basic elements of meteorology and climatology. Two lectures and one laboratory period. Laboratory fee $1.00.

263 GEOGRAPHY OF THE PACIFIC ISLANDS (3) I BOWERS

Polynesia (except Hawaii), Melanesia, and Micronesia. Course fee $1.00.

264 GEOGRAPHY OF INDIA AND SOUTHEAST ASIA (3) I BOWERS

Description of the major geographic regions of India and Southeast Asia, with study of the geographic factors functional in the history, politics, and economics of the area. Course fee $1.00.

265 GEOGRAPHY OF AUSTRALIA (2) II BOWERS

The geography of Australia with emphasis on the relationship of its people to resources and land usage. Course fee $1.00. (Not offered 1957-58.)

271 POLITICAL GEOGRAPHY (3) II BOWERS

Geographic background of international politics and national power; emphasis on areas currently in the news. Course fee $1.00.
272 NAVIGATION (3) I
Principles of navigation; position fixing by terrestrial and celestial objects. Course fee $1.00.

280 MICRONESIA (3) I
Physical character of the islands of Micronesia and their occupation and use by man. Course fee $1.00.

281 GEOGRAPHY OF POLYNESIA (3) I
A study of the physical, economic, and political geography of the Polynesian islands. Course fee $1.00. (Not offered 1957-58.)

299 DIRECTED READING (Ar.) I, II
STAFF
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Geography.

300 DIRECTED RESEARCH (Ar.) I, II
STAFF
Prerequisite: consent of instructor.

308 SEMINAR IN GEOGRAPHY OF JAPAN (3) II
Prerequisite: consent of instructor.

309 HISTORY OF GEOGRAPHY (3) I
Development of geographic ideas from early Greece to the present through Rome, the Moslem world, medieval Europe, and China. Special emphasis on the modern German, French, British, and American schools.

310 SEMINAR IN GEOGRAPHY (3) II
Study and discussion of significant topics and problems in the field of Geography. Prerequisite: consent of instructor.

Geology and Geophysics

Associate Professor ABBOTT; Assistant Professor HOWARD

GEOLOGY

150 PHYSICAL GEOLOGY (3) I
ABBOTT
Origin of the earth; geologic work of oceans, glaciers, streams, wind; introduction to rocks and minerals; discussions of ground water, volcanoes, earthquakes, mountain building. Recommended that Geology 152 be taken concurrently.

151 HISTORICAL GEOLOGY (3) II
ABBOTT
Changes in the earth's surface during geologic time as recorded by fossil remains in the rocks. Development and destruction of ancient seas and continents. Recommended that Geology 153 be taken concurrently. Prerequisite: Geology 150.

152 LABORATORY GEOLOGY (1) I
ABBOTT
Identification of common minerals and rocks. Reading of topographic and geologic maps. Prerequisite: credit or concurrent registration in Geology 150. Laboratory fee $1.00.

153 LABORATORY GEOLOGY (1) II
ABBOTT
Identification of important fossil forms. Exercises in stratigraphy. Prerequisite: credit or concurrent registration in Geology 151. Laboratory fee $1.00.

210 MINERALOGY (3) II
ABBOTT
The study and identification of minerals: origin, physical and chemical characteristics, economic value, and geographic location. Introduction to elementary crystallography. Two lectures and one 2-hour laboratory. Prerequisite: Geology 150; Chemistry 103 or 104.

254 ECONOMIC GEOLOGY (3) I
ABBOTT
Distribution, nature, and origin of deposits of metallic and nonmetallic minerals. Prerequisite: Geology 150. (Alternate years; offered 1957-58.)
255  GEOLOGY OF GROUND WATER (2) II  
Origin, circulation, recovery, and quality of ground water, with emphasis on fresh water problems of the Hawaiian Islands. Prerequisite: Geology 150. (Not offered 1957–58.)

260  GEOMORPHOLOGY (3) I  
Study of landforms and their relation to geologic structure. Prerequisite: Geology 151, or permission of instructor. (Alternate years; not offered 1957–58.)

299  DIRECTED READING (Ar.) I, II  
Limited to seniors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Geology.

300  DIRECTED READING (Ar.) I, II  
Prerequisite: graduate standing and consent of instructor.

GEOPHYSICS

250  GENERAL OCEANOGRAPHY (3) I  
Introduction to geological, chemical and physical aspects of the oceans. Sedimentation, rare elements analysis, current systems, waves and tides. Prerequisite: Geology 150; Chemistry 103; Physics 102.

Government

Professors MELLER, SAUNDERS, SPELLACY; Assistant Professors KOSAKI, STAUFFER, TUTTLE, VAN DER VEUR

Government 150, or the equivalent, is prerequisite to all other courses in Government, except 155.

150  INTRODUCTION TO GOVERNMENT (3) I, II  
The role of government in modern society. Types and practices of government: American and European. The processes of political change and integration. The rights of and channels of participation by the citizen.

155  AMERICAN GOVERNMENT (3) I  
The development, organization, and functioning of American national, state, and local government. Not open to students who have taken 150.

238  ELEMENTS OF POLITICS AND GOVERNMENT (2) I  
An introduction to the terms and principles of political science. The meaning of law, liberty, constitutionalism, democracy, etc. The impact of other social sciences upon political science.

240  DEMOCRACY AND COMMUNISM (3) I  
Survey of the ideological development of the present rivals for man’s political allegiance.

248  STATE GOVERNMENT AND ADMINISTRATION (3) I  
State constitutions; historical evolution of state government; its structure with reference to judicial, legislative, and executive branches; limitations on state authority.

252  INTRODUCTION TO CONSTITUTIONAL LAW (3) I  
Examination of principal cases concerned with state relations, due process of law, interstate commerce, and related subjects.

253  CIVIL RIGHTS (3) II  
Study of the principal court decisions on freedom of speech, press, assembly, conscience, and other basic civil liberties.

254  MUNICIPAL GOVERNMENT AND ADMINISTRATION (3) II  
The city as a political subdivision and as a municipal corporation; powers and liabilities; forms of government; the metropolitan problem; and related matters.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>256</td>
<td>American Political Parties (3) II</td>
<td>Tuttle</td>
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<tr>
<td></td>
<td>The organization, methods, and functions of political parties, with special attention to the electoral and organizational aspects of party behavior.</td>
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<tr>
<td>257</td>
<td>Campaigns and Elections (2) I</td>
<td>Tuttle</td>
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<td></td>
<td>The management and conduct of primary and general elections, with special attention to the techniques employed by candidates for public office. Field investigations are a part of the course.</td>
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<td>258</td>
<td>Political Behavior (3) II</td>
<td>Kosaki</td>
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<td></td>
<td>Review and analysis of the methodology and findings of recent studies which focus attention upon “power,” “group,” “decision-making,” and “political participation” for an understanding of politics.</td>
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<td>259</td>
<td>Propaganda and Public Opinion (3) I</td>
<td>Tuttle</td>
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<td></td>
<td>Nature of public opinion; methods of influencing it; techniques for measuring political opinions and attitudes. The organization, characteristics, and political activities of pressure groups. Characteristics, methods, and results of propaganda.</td>
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<td>260</td>
<td>Introduction to International Relations (2) I</td>
<td>Van der Veur</td>
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<td></td>
<td>A study of the factors which condition the foreign policy of states: nationalism, imperialism, and power politics. Outstanding problems of world politics.</td>
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<td>261</td>
<td>United Nations (2) I</td>
<td>Stauffer</td>
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<td></td>
<td>A study of the problems involved in the development and structure of international organizations with special emphasis on the United Nations.</td>
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<tr>
<td>262</td>
<td>Government and Politics of China and Japan (3) I</td>
<td>Stauffer</td>
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<td></td>
<td>A historical analysis of the changing patterns of government in China and Japan, with emphasis on problems faced and the institutional, ideological, and political answers created through time.</td>
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<tr>
<td>263</td>
<td>International Relations of the Far East (3) I</td>
<td>Van der Veur</td>
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<td></td>
<td>The position of eastern Asia in the world and the problems of adjustment that face China, Japan, and other nations of this region.</td>
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<td>264</td>
<td>Problems in International Relations (3) II</td>
<td>Van der Veur</td>
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<td></td>
<td>Special topics in the field of international relations studying change in the nation-state system; emergent regionalism; military blocs; impact of neutralism; new dimensions of co-operation through international organizations, etc.</td>
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<tr>
<td>265</td>
<td>Comparative Politics: Political Parties (3) I</td>
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<td></td>
<td>Nature and morphology of political parties; party systems; relation to electoral systems.</td>
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<td>266</td>
<td>Comparative Politics: Institutions and Processes (3) II</td>
<td>Stauffer</td>
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<td></td>
<td>Classification of major structural types; levels, range and “universe” of decision-making; patterns in executive-legislative relations.</td>
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<td>267</td>
<td>Formulation and Administration of Foreign Policy (3) II</td>
<td>Van der Veur</td>
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<td></td>
<td>A study of the historical, institutional, political, and economic influences on the formation and execution of American foreign policy.</td>
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<tr>
<td>270</td>
<td>Government of Hawaii (3) I</td>
<td>Meller</td>
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<td></td>
<td>Territorial and local government, with consideration of the proposed state constitution of 1950; formative political factors in Hawaii.</td>
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<td>271</td>
<td>Comparative Colonial Government (3) II</td>
<td>Stauffer</td>
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<td>A comparative survey of various national solutions to certain basic problems arising from rule of subject peoples; clash of legal systems; indigenous political elites; lack of indigenous political structures; rise of nationalism.</td>
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<tr>
<td>273</td>
<td>Government and Politics of South and Southeast Asia (3) I</td>
<td>Van der Veur</td>
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<td></td>
<td>An analysis of relevant colonial patterns that have conditioned the new governmental structures created; party systems; administrative problems; government as an instrument of change.</td>
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</tbody>
</table>
274 INTERNATIONAL RELATIONS OF SOUTH AND SOUTHEAST ASIA (3) II van der VEUR
A study of the main changes brought to the nation-state system with the emergence from colonialism of these new nations. Intra-regional struggles; intra-regional economic co-operation; the Afro-Asian bloc; activities in the United Nations.

276 THE LEGISLATIVE PROCESS (3) II MELLER
A survey of the lawmaking process in the United States. The role of representative assemblies, of the executive and administrative branches, and of interest groups and the public.

281 PRINCIPLES OF MANAGEMENT (3) I MELLER
Basic principles of management and techniques of application; human relations in management.

282 INTRODUCTION TO PUBLIC ADMINISTRATION (3) I
Relationship of administration to policy-forming agencies and to the courts; the structure of administration; devices for integration; and related materials.

283 PERSONNEL ADMINISTRATION (3) II TUTTLE
The organization and administration of civil service systems; the recruitment, classification, discipline, and status of civil servants; related matters. Prerequisite: Government 282.

284 INTRODUCTION TO ADMINISTRATIVE LAW (3) II SPELLACY
Laws relating to public officers, their status, rights, and obligations; laws governing relations between the government and the public, e.g., rights to notice and hearing, due process.

287 PROBLEMS IN AMERICAN GOVERNMENT (3) II TUTTLE
Special topics in the field of American government and politics. Varied from year to year. Intended to provide training in research methods. Prerequisite: consent of instructor.

288 PROBLEMS IN PUBLIC ADMINISTRATION (3) II MELLER
Introduction to materials and research methods used in the public service. Individual and group research projects. Enrollment restricted to students of the Public Administration Program who are within two semesters of graduation.

289 POLITICAL THEORY: MAJOR CONCEPTS (3) I KOSAKI
Analysis of some of the major concepts of political theory; their statement by the major political philosophers.

290 POLITICAL THEORY: PROBLEMS (3) II KOSAKI
An intensive analysis of one or two problems in political theory. Prerequisite: Government 289 or consent of instructor.

298 FIELD OF POLITICAL SCIENCE (2) II SAUNDERS
The postulates and methods of political science and its several fields, with some attention to the interrelations of the social sciences.

299 DIRECTED READING OR RESEARCH (Ar.) I, II STAFF
Individual problems in the field of government. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Government.

300 DIRECTED READING AND RESEARCH (Ar.) I, II STAFF
Individual problems in the field of government. Prerequisite: consent of instructor.

302 SEMINAR IN INTERNATIONAL RELATIONS (3) II van der VEUR
Prerequisite: consent of instructor.

303 SEMINAR IN FAR EASTERN POLITICS (3) II STAUFFER
Prerequisite: consent of instructor.

305 SEMINAR IN POLITICS (3) I TUTTLE
Prerequisite: consent of instructor.
HEALTH AND PHYSICAL EDUCATION

307 SEMINAR IN POLITICAL THEORY (3) II
Prerequisite: consent of instructor.

309 SEMINAR IN SOUTH AND SOUTHEAST ASIA (3) I
Prerequisite: consent of instructor.

310 SEMINAR IN PUBLIC ADMINISTRATION (3) I
Prerequisite: consent of instructor.

Health and Physical Education

Associate Professors BUCKLIN, SAAKE; Assistant Professors CHUI, GAY, GUSTUSON, SAKAMOTO, VASCONCELOS; Instructors ASATO, BEAMER, GIBSON, RATHBURN; Assistant FURUKAWA

101 INDIVIDUAL AND TEAM SPORTS (1) I, II
STAFF
Swimming and/or tennis. Freshmen. Two class periods. Activities and locker fee $3.00.

102 INDIVIDUAL AND TEAM SPORTS (1) I, II
STAFF
Golf and social dancing. Freshmen. Two class periods. Activities and locker fee $3.00.

103 INDIVIDUAL AND TEAM SPORTS (1) II
STAFF
Basketball and volleyball. Sophomores. Two class periods. Activities and locker fee $3.00.

109 RESTRICTED ACTIVITIES (1) I, II
STAFF
For students who are physically handicapped and unable to take the regular courses. Admittance only upon recommendation of University physician. Two class periods. Activities and locker fee $3.00.

111 INTERMEDIATE SWIMMING (1) II
SAKAMOTO
For students who have met the basic requirements in swimming and desire to develop additional skills in swimming and diving. Activities and locker fee $3.00.

113 ADVANCED TENNIS (1) II
SAAKE
For those interested in developing advanced skills and strategy in tennis. Two class periods. Activities and locker fee $3.00. (Not offered 1957-58.)

114 DEVELOPMENTAL ACTIVITIES (1-1) Yr.
GUSTUSON
For those interested in body development and physical fitness. Exercises with and without apparatus will be selected to meet personal needs, and the various forms and systems of exercise will be surveyed. Two class periods. Activities and locker fee $3.00. (Not offered 1957-58.)

115 TUMBLING (1) I
ASATO
Exercises on mats suitable for use with child and adult groups. Activities and locker fee $3.00.

116 HEAVY APPARATUS (1) II
GUSTUSON
Heavy apparatus, including trampoline, for the development of balance, strength, and skills. Two class periods. Activities and locker fee $3.00. (Not offered 1957-58.)

120 MUSIC AND RHYTHMS IN PHYSICAL EDUCATION (2) II
GAY
Designed to acquaint teachers and activity leaders with the use of music in the activity program. Includes a brief survey of the various rhythmic patterns and their application. Three class periods. Activities and locker fee $3.00.

123 FOLK AND NATIONAL DANCES (1) I
GAY
This course presents selected dances of various national groups now in popular use. Square dances will be included. Two class periods.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
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<tbody>
<tr>
<td>124</td>
<td>DANCES OF HAWAII (1) I</td>
<td>GAY</td>
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<tr>
<td></td>
<td>An introduction to the hula. The background and</td>
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<td></td>
<td>fundamentals of the dance will be presented, and</td>
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<td>selected dances will be given. Two class periods.</td>
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<tr>
<td>130</td>
<td>PERSONAL HYGIENE (1) I, II</td>
<td>STAFF</td>
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<tr>
<td></td>
<td>Scientific health information as a basis for</td>
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<td></td>
<td>hygienic living. Personal health problems. One</td>
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<td>lecture and one personal conference.</td>
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<tr>
<td>132</td>
<td>PERSONAL HEALTH (2) I</td>
<td>RATHBURN</td>
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<tr>
<td></td>
<td>Basic information on the proper care of the body</td>
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<td>and the development of desirable health habits</td>
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<td>and attitudes. Intended primarily for students</td>
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<td></td>
<td>specializing in physical education and</td>
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<td>recreation.</td>
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<tr>
<td>140</td>
<td>NATURE AND FUNCTION OF PLAY (2) II</td>
<td>SAAKE</td>
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<tr>
<td></td>
<td>The place of play in community and school life</td>
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<td>and its application to the various age groups.</td>
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<td>170</td>
<td>INTRODUCTION TO PHYSICAL EDUCATION (2) II</td>
<td>CHUI</td>
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<tr>
<td></td>
<td>Designed for prospective teachers and leaders in</td>
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<td></td>
<td>physical education and recreation; the objectives,</td>
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<td>needs, procedures, and outcomes in physical</td>
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<td>education activities.</td>
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<tr>
<td>215</td>
<td>ATHLETIC COACHING, FOOTBALL AND BASKETBALL (2) I</td>
<td>STAFF</td>
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<tr>
<td></td>
<td>The fundamentals, position play, team play, and</td>
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<td>strategy in football and basketball. Nine weeks</td>
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<td></td>
<td>to each sport. Three class periods.</td>
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<tr>
<td>217</td>
<td>ATHLETIC COACHING, BASEBALL AND TRACK (2) II</td>
<td>STAFF</td>
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<tr>
<td></td>
<td>The fundamentals, team play, and strategy in</td>
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<td>baseball; basic skills, analysis of form, and</td>
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<td>conditioning in track. Nine weeks to each sport.</td>
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<td>Three class periods.</td>
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<td>219</td>
<td>COACHING OF SWIMMING (2) II</td>
<td>SAKAMOTO</td>
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<tr>
<td></td>
<td>Designed for those interested in the development</td>
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<td>of swimming teams in schools and other agencies.</td>
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<td></td>
<td>Content and method will be emphasized.</td>
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<td>(Not offered 1957-58.)</td>
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<tr>
<td>221</td>
<td>PHYSICAL EDUCATION, ELEMENTARY (2) I, II</td>
<td>BEAMER</td>
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<tr>
<td></td>
<td>Content and method for programs on the</td>
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<tr>
<td></td>
<td>elementary school level. Adaptations to meet</td>
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<td>situations with like age groups outside of</td>
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<td>school will also be discussed. Three class</td>
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<td></td>
<td>periods. Activities and locker fee $3.00.</td>
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<tr>
<td>222</td>
<td>PHYSICAL EDUCATION, SECONDARY (2) II</td>
<td>BEAMER</td>
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<tr>
<td></td>
<td>Activities and methods in programs for the</td>
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<td>junior and senior high school levels. Three</td>
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<td>class periods. Activities and locker fee $3.00.</td>
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<tr>
<td>225</td>
<td>THE TEACHING OF INDIVIDUAL SPORTS (2) I</td>
<td>GAY</td>
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<tr>
<td></td>
<td>Organization and teaching techniques for such</td>
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<td>athletic activities for girls as tennis,</td>
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<td>archery, badminton, golf, etc., on the secondary</td>
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<td>level. Three class periods.</td>
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<td>227</td>
<td>THE TEACHING OF TEAM SPORTS (2) II</td>
<td>GAY</td>
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<tr>
<td></td>
<td>Techniques of teaching fundamentals and strategy</td>
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<td>of team games for girls and women. Three</td>
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<td></td>
<td>class periods.</td>
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<tr>
<td>230</td>
<td>SCHOOL HEALTH PROBLEMS (2) I, II</td>
<td>BUCKLIN, RATHBURN</td>
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<tr>
<td></td>
<td>Health needs of the school child and principles,</td>
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<td>methods, and materials applicable to the school</td>
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<td>health program.</td>
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<td>231</td>
<td>HEALTH TEACHING IN SCHOOLS (2) I</td>
<td>BUCKLIN</td>
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<tr>
<td></td>
<td>Deals with the methods used in teaching for</td>
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<td>health in elementary and secondary schools.</td>
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<td>(Not offered 1957-58.)</td>
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<tr>
<td>234</td>
<td>SAFETY PROCEDURES IN PHYSICAL EDUCATION (2) I</td>
<td>SAAKE</td>
</tr>
<tr>
<td></td>
<td>Prevention and emergency treatment of injuries,</td>
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<td>with special emphasis upon school, playground,</td>
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<td>and athletic situations. Practical work in first</td>
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<td>aid included. Red Cross Certificate may be</td>
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<td>earned.</td>
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<td>235</td>
<td>THE HEALTH CURRICULUM (2) I</td>
<td>RATHBURN</td>
</tr>
<tr>
<td></td>
<td>Procedures for the development and construction</td>
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<td>of a health education program, including</td>
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<td>criteria for selection and evaluation of content.</td>
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</table>


236 EVALUATION IN HEALTH EDUCATION (2) II BUCKLIN
Study of the processes involved in appraising the effectiveness of the health education program. Practice in the use and development of various evaluation instruments.

237 PRINCIPLES OF HEALTH EDUCATION (2) I BUCKLIN
The historical development and present status of the health education program. Emphasis upon current trends and basic principles involved.

239 HEALTH OF THE SCHOOL CHILD (2) BUCKLIN
Deals with various problems in child health and the role of the school in meeting them. Summer session only.

241 SOCIAL RECREATION (2) II GIBSON
Activities and leadership techniques for parties, socials, etc.

246 OFFICIATING IN ATHLETICS (2-2) Yr. CHUI
The techniques used by officials in the various sports. Practice in officiating is included.

247 FESTIVALS AND PAGEANTS (2) II GAY
The development of mass productions of a dramatic nature suitable for school and community recreation organizations.

248 HOBBIES IN RECREATION (2) I GIBSON
The development of procedures and skills in various hobbies for Recreation majors. Others by permission of instructor only. Three class periods.

249 CAMP LEADERSHIP (2) II GIBSON
Program development and procedures used in the modern camping movement. Relationships with educational and other agencies.

250 RECREATION LEADERSHIP (2-2) Yr. SAAKE, STAFF
Students are assigned to recreational agencies for orientation. One hour per week is devoted to discussion of individual and group problems.

252 FIELD WORK IN RECREATION (5-5) Yr. SAAKE, STAFF
Students are assigned to recreational agencies for work experience. One hour each week is devoted to discussion of problems. Prerequisite: consent of instructor. For Recreation majors only.

263 INTRAMURAL ATHLETICS (2) I ASATO
Organization, program, and procedures used in conducting the sports program for students outside of regular class hours.

276 CURRENT TRENDS IN HEALTH (2-2) Yr. BUCKLIN
An analysis of the health situation and functions of various health agencies in Hawaii dealing with specific diseases and problems. Primarily for teachers and school administrators. (Not offered 1957-58.)

280 ANATOMY IN PHYSICAL EDUCATION (3) I CHUI
The purpose of this course is to develop an understanding of muscle action during activity. Designed primarily for leaders in physical education and recreation but open to others.

285 PHYSIOLOGY IN PHYSICAL EDUCATION (3) II SAAKE
The basic essentials in physiology and physiology of activity necessary in teaching desirable health practices; selection of activities to meet individual and group needs. Designed primarily for leaders in physical education and recreation but open to others.

299 DIRECTED READING (Ar.) I, II SAAKE
Individual problems in the fields of health education, physical education, or recreation. Limited to seniors in the Recreation Leadership Curriculum with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Health and Physical Education courses.

330 SEMINAR IN HEALTH EDUCATION (2) II BUCKLIN
Study and discussion of selected problems in health education as determined by individual and group interests and needs.
History

Professors Hunter, Marder, Murphy, Sakamaki, J. White; Associate Professors D. Johnson, Stalker; Assistant Professors Burke, Shinoda

100 WORLD CIVILIZATION (3-3) Yr. STAFF
A survey of the more significant political, social, economic, and intellectual factors in the development of civilization from the ancient Orient and classical Greece and Rome to the present day, with emphasis on the Western civilizations. Prerequisite for advanced courses in history.

110 INTRODUCTION TO AMERICAN HISTORY (3) I, II STAFF
The religious, cultural, and social backgrounds of the American people. Prerequisite for advanced courses in American history.

201 HISTORY OF THE FAR EAST (3-3) Yr. Sakamaki
Survey of the political, social, and economic history of the Far East as a unit.

208 EXPANSION OF EUROPEAN CIVILIZATION (3) I Shinoda
Survey of cultural changes and developments in Europe, the Western Hemisphere, and Asia resulting from European expansion.

209 HISTORY OF ENGLAND TO 1688 (3) I Murphy
Major trends in the development of English civilization from the origins to the Glorious Revolution.

210 HISTORY OF ENGLAND FROM 1688 (3) II Murphy
Major trends in modern English history with emphasis on the origins of twentieth-century developments.

211 CONSTITUTIONAL HISTORY OF ENGLAND (3) I Hunter
A study of Anglo-Saxon institutions, Norman innovations; the legal, administrative, and parliamentary development under the Angevins; the limitation of royal power; and the rise of the cabinet system. (Alternate years; offered 1957–58.)

213 HISTORY OF MODERN RUSSIA (3) I Marder
A survey of all aspects of Russian history and civilization from the beginning to the Bolshevik Revolution. (Alternate years; offered 1957–58.)

214 HISTORY OF SOVIET RUSSIA (3) II Marder
A political, economic, social, and cultural study of Russia since the Bolshevik Revolution. History 213 is desirable, though not required, preparation. (Alternate years; not offered 1957–58.)

221 BRITISH EMPIRE AND COMMONWEALTH FROM 1815 (3) II Murphy
The Empire; transformation of colonies and dependencies into member nations of the Commonwealth; present problems and relationships. (Alternate years; offered 1957–58.)

225 HISTORY OF CHINA (3-3) Yr. White
General survey of Chinese history; development of institutions; impact of Western culture upon Chinese civilization.

226 HISTORY OF JAPAN (3-3) Yr. Shinoda
Historical survey of Japanese culture, government, economics, and institutions.

227 SOUTHEAST ASIA (3) I White
General survey of Burma, Siam, Indo-China, Malaya, Indonesia, and the Philippine Republic; history of these states; relations with European nations and the United States.

229 AMERICAN-CHINESE RELATIONS (3) II White
Diplomatic, economic, and cultural relations of the United States and China, with emphasis on American Far Eastern policy.

230 INDIA, PAKISTAN, AND CEYLON (3) I Shinoda
General historical survey of South Asia from earliest times to the present.
231 THE MODERN AND CONTEMPORARY MIDDLE EAST (3) II STALKER
The Ottoman and Persian empires and successor states; Turkey, Iraq, Syria, Lebanon, Israel, Jordan, Saudi Arabia, Egypt. Some consideration of the Maghreb states: Libya, Tunisia, Algeria, Morocco.

240-241 HISTORY OF THE UNITED STATES TO 1876 (3-3) Yr. JOHNSON
Expansion of Europe into the Western Hemisphere; establishment of American Independence; the Federal Union to the close of the Reconstruction Period.

242-243 HISTORY OF THE UNITED STATES SINCE 1877 (3-3) Yr. STALKER
A detailed political, economic, and social survey of the history of the American people, 1877 to the present.

244-245 DIPLOMATIC HISTORY OF THE UNITED STATES (3-3) Yr. JOHNSON
History of American foreign policy, with emphasis upon recent developments.

246 AMERICAN THOUGHT AND CULTURE (3) I HUNTER
An advanced course in American social customs, institutions, and intellectual pursuits. (Alternate years; not offered 1957–58.)

248 AMERICAN ECONOMIC HISTORY (3) I STALKER
Emphasis on the role of techniques, agricultural developments, the entrepreneur and the rise of the labor movement. Economics 150–151 is recommended as desirable preparation.

249 REPRESENTATIVE AMERICANS (3) II
A series of biographical sketches of leading characters in American history from the Revolution to the present.

250 EARLY CIVILIZATION IN THE FAR EAST (3) I SHINODA
Study of the origins of the peoples and cultures in Eastern Asia.

251 HISTORY OF THOUGHT IN JAPAN (3) II SHINODA
Major schools of thought and important thinkers, social reformers, economists, statesmen, and educators of Japan.

252 CONSTITUTIONAL HISTORY OF THE UNITED STATES (3) II BURKE
The genesis, drafting, ratification, and development of the federal Constitution.

253-254 HISTORY OF HISPANIC AMERICA (3-3) Yr. JOHNSON
The political, economic, and social development of the Hispanic-American Republics from colonial times to the present; emphasis on the ABC powers and international relations of the Western Hemisphere. (Alternate years; offered 1957–58.)

255 THE UNITED STATES AND HISPANIC AMERICA (3) II JOHNSON
Development of political and economic problems and policies in inter-American relations. (Not offered 1957–58.)

257 EUROPE IN THE NINETEENTH CENTURY (3) I MARDER
A topical group discussion approach to the major political, social, economic, and intellectual trends in the evolution of Europe from Napoleon to the end of World War I. (Alternate years; not offered 1957–58.)

258 EUROPE SINCE VERSAILLES (3) II MARDER
A continuation of 257. Problems of contemporary Europe and their historical background. History 257 is highly desirable, though not required, preparation. (Alternate years; not offered 1957–58.)

259 THE WEST IN AMERICAN HISTORY (3) I BURKE
Western expansion forces in the development of the economic, cultural, and political trends of the nation.

260 AMERICAN SOCIAL REFORM MOVEMENTS SINCE 1865 (3) II BURKE
A detailed survey of America’s quest for social justice.
166 GENERAL CATALOGUE, 1957–58

261 THE SOUTH IN AMERICAN HISTORY (3) I
Professor C. MILLBR
The economy and society of the ante-bellum South, with emphasis upon slavery; the South during the Civil War and Reconstruction; recent economic and social trends with particular attention to race relations.

273 THE UNITED STATES IN THE PACIFIC (3) I
Associate Professors BOATMAN, GRUELL, V. JONBS, TULL, UMBBL;
Growth of economic and political interests and policies in the Pacific area. (Alternate years; not offered 1957–58.)

276 HISTORY OF THE HAWAIIAN ISLANDS (3) II
Assistant Professors Dou1Y, MURAl; Instructors BARTOW, DBSMOND, HBNDERSON, SATO
A general course with some detail. Emphasis on the period of the monarchy.

277 PACIFIC EXPLORATION AND DISCOVERY TO 1799 (3) I
Professor JOHNSON
Europe in the Pacific; first contacts through Cook's voyages. Emphasis on island areas. (Alternate years; not offered 1957–58.)

278 PACIFIC ISLANDS FROM 1779 (3) I
Professor MURPHY
Expansion of European commerce, missionary activity, settlement; effects on native peoples in Australasia, Melanesia, Micronesia, Polynesia. (Alternate years; offered 1957–58.)

279 AUSTRALIA AND NEW ZEALAND (3) II
Professor MURPHY
Major historical developments from colonization to independent nationhood; present problems and policies. (Alternate years; not offered 1957–58.)

285 RUSSIA IN ASIA (3-3) Jr.
The growth and expansion of the Russian Empire and the Soviet Union into the Near East, Middle East, and Far East; relationships with its Asiatic neighbors in those areas.

299 DIRECTED READING (Ar.) I, II
Assistant Professors BURKE, STALKER; (2) Pacific History—MURPHY; (3) Japanese History—SHINODA; (4) European History—MARDER; (5) English History—MURPHY; (6) Hispanic-American History—JOHNSON; (7) Chinese History—WHITE; (8) Hawaiian History—HUNTER. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in History.

300 DIRECTED RESEARCH (Ar.) I, II
Staff
Individual research in the same fields as in 299.

310 SEMINAR IN HISTORICAL METHOD (3) I
Professor HUNTER
Training in the evaluation of sources and the preparation of theses.

311 SEMINAR IN AMERICAN DIPLOMATIC HISTORY (3) II
Professor JOHNSON

313 SEMINAR IN HISTORIOGRAPHY (3) II
Professor HUNTER
The history of history and historians.

315 SEMINAR IN JAPANESE HISTORY (3) II
Professor SHINODA
Study of the main fields of Japanese historical research; the principal sources of bibliographical information; selected problems in modern Japanese history.

340 SEMINAR IN HISTORY AND LITERATURE (2) I
Professor STALKER
Problems in contemporary American culture, with emphasis on the history of ideas, utilizing history and literature. An interdepartmental course offered as History 340 the first semester and English 340 the second semester. Prerequisite: consent of instructor. (Alternate years; offered 1957–58.)

Home Economics

Professor C. MILLER; Associate Professors BOATMAN, GRUELLE, V. JONES, TULL, UMBEL; Assistant Professors DOUTY, MURAI; Instructors BARTOW, DESMOND, HENDERSON, SATO

The following courses have no prerequisites, except for year level, and are open to students in any college or curriculum: Home Economics 100, 101, 250, 255, 262; Household Art 150, 152; and Household Science 152, 156.
GENERAL (HE)

HE 100 ORIENTATION IN HOME ECONOMICS (2) I  
Factors contributing to success in college and development of habits for effective living. Assistance in self-evaluation and relationships involving other persons. Home economics in education; an introduction to the curriculum; vocational study and planning.

HE 101 HOME NURSING (2) I, II  
Factors contributing to success in college and development of habits for effective living. Assistance in self-evaluation and relationships involving other persons. Home economics in education; an introduction to the curriculum; vocational study and planning.

HE 201 CONSUMER EDUCATION (2) I  
General purchasing problems of the consumer. Consideration of the marketing system, securing information on goods and their quality, buying habits and consumer protection. Prerequisite: Economics 140 or 150.

HE 250 HOUSEHOLD MANAGEMENT (3) I  
Contribution of homemaker and family members to better home living; management of time, energy, and money; selection and care of furnishings. Two lectures and one laboratory period. Prerequisite: junior standing.

HE 251 HOME ECONOMICS EDUCATION (3) II  
Curriculum content, teaching procedures, and current educational philosophies and practices as they apply to home economics education at the elementary, secondary, and adult levels. Prerequisite: Psychology 150 or 156; junior standing.

HE 252 CHILD CARE AND TRAINING (3) II  
Importance of the preschool years in the development of the individual; a constructive program for the normal child in the home. Planned especially for Home Economics students. Two lectures and one laboratory period. Prerequisite: credit or concurrent registration in Psychology 150 or 156.

HE 254 FAMILY HOUSING (2) I  
Interpretation and evaluation of housing from the standpoint of needs, convenience, economy, aesthetic qualities, safety, health, and other values influencing the family. Two laboratory periods. Prerequisite: Art 142–143 or 150–151, or consent of instructor. Limited to 20 students. Laboratory fee $2.00.

HE 255 HOUSEHOLD EQUIPMENT (2) II  
Selection, care, repair, use and limitations of gas and electrical appliances; emphasis on demonstration techniques for use and care of equipment. One lecture and one laboratory period. Prerequisite: junior standing.

HE 256 HOME FURNISHINGS (2) II  
Development of discrimination in the selection and arrangement of furnishings and accessories in relation to individual and family living. Practical applications for the consumer and homemaker. Two laboratory periods. Prerequisite: Home Economics 254. Limited to 20 students. Laboratory fee $2.00.

HE 262 EDUCATION FOR FAMILY LIFE (3) I, II  
The individual's contribution to successful family living. Courtship, engagement, and relationships within the family. Emphasis upon analysis of personal problems. Open to both men and women. Prerequisite: junior standing.

HE 291 HOME-MANAGEMENT LABORATORY (4) I, II  
Living with a group of four to six students in a supervised residence for six weeks; practical application of training in home economics, meal preparation, time and money management, human relationships. Students share subsistence cost. Prerequisite: Home Economics 250, Household Science 272, and senior standing.
HE 299 DIRECTED READING OR RESEARCH (Ar.) I, II

STAFF
(1) Agricultural Extension; (4) Home Economics Education; (5) Home Management; (8) Child Development; (9) Consumer Problems. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in General Home Economics courses.

HE 300 DIRECTED READING OR RESEARCH (Ar.) I, II

STAFF
(1) Agricultural Extension; (2) Clothing and Textiles; (3) Foods and Nutrition; (4) Home Economics Education; (5) Home Management; (6) Institutional Management. Prerequisite: consent of department chairman and instructor concerned.

HE 360 SPECIAL PROBLEMS IN HOME ECONOMICS (2) I, II

TULL
Development of teaching and illustrative material. Class and individual problems selected according to the needs of the fifth-year students in the Home Economics Education Program.

HOUSEHOLD ART (HA)

HA 110 CLOTHING AND TEXTILES (3) I

UMBEL, DOUTY
Principles of pattern selection and clothing construction. Study and use of commercial patterns; principles of fitting; fundamentals of textiles; use and care of sewing equipment. One lecture and two laboratory periods. Prerequisite: Household Art 150. Laboratory fee $2.00.

HA 111 FAMILY CLOTHING PROBLEMS (3) II

UMBEL, DOUTY
Planning, care, and conservation of family clothing. Speed methods in clothing construction. Consideration of children's clothing. Selection of sewing machines. Continuation of textile study. One lecture and two laboratory periods. Prerequisite: Household Art 110, 150. Laboratory fee $2.00.

HA 150 CLOTHING SELECTION (3) I, II

DOUTY
Analysis of physical characteristics and application of principles of color, design, grooming, wardrobe planning, and selection of appropriate dress. Open to the general student. Two lectures and one laboratory period. Laboratory fee $3.00.

HA 152 HISTORIC COSTUME (2) II

UMBEL
A survey of historic costume, showing how fashion has reflected the life of the people. Historic costume as inspiration for modern dress.

HA 214 CLOTHING DESIGN AND CONSTRUCTION (2-2) Yr.

DOUTY
Blocking of patterns from foundation pattern and draping on individualized dress forms. Emphasis on fitting techniques and selection of designs for individual students. Two laboratory periods. Prerequisite: Household Art 110, 111, 150, or consent of instructor. Laboratory fee $4.00 each semester.

HA 255 ADVANCED CLOTHING (3) II

DOUTY
Consideration of fabrics, designs, and techniques in advanced problems of clothing construction; study and use of commercial patterns. Two laboratory periods. Prerequisite: Household Art 111, or consent of instructor. Laboratory fee $2.00.

HA 299 PROBLEMS IN CLOTHING AND TEXTILES (Ar.) I, II

STAFF
Independent investigation of a problem selected from the following areas: (1) clothing selection or construction; (2) textiles; (3) historic costume or design; (4) consumer problems; (5) related art. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Household Art courses.

HOUSEHOLD SCIENCE (HS)

HS 102 ADVANCED FOOD PREPARATION (3-3) Yr.

GRUELLE, HENDERSON
Economics of food selection; experimental food preparation; meal planning and serving. One lecture and two laboratory periods. Prerequisite: Household Science 150; Chemistry 103 or 104. Laboratory fee $8.00 each semester. Sections limited to 16 students each.
HS 150 ELEMENTARY FOOD PREPARATION (3) I, II  
BARTOW

Fundamental processes of food preparation; practical application in meal planning to provide good nutrition and promote good food habits. For Home Economics majors only. One lecture and two laboratory periods. Laboratory fee $8.00. Sections limited to 16 students.

HS 152 FOOD PREPARATION (3) I, II  
BARTOW, HENDERSON

Fundamental problems in the preparation of food for adequate meals; practical experience in meal planning, preparation, and table service. Not open to students majoring in Home Economics. Two 3-hour laboratory periods weekly. Prerequisite: junior standing. Laboratory fee $8.00. Sections limited to 16 students.

HS 156 SURVEY OF NUTRITION (2) I, II  
MURAI

A study of the factors involved in the selection of a diet to promote good health, with emphasis on foods used in Hawaii. For general students, both men and women. Not open to students majoring in Home Economics.

HS 157 DIET THERAPY (3) II  
MURAI

Intended to give nursing students a knowledge of the necessary modifications of normal nutrition to meet the special dietary needs in abnormal conditions. Two lectures and one laboratory period. Prerequisite: Household Science 156. Laboratory fee $5.00.

HS 250 DIET AND DISEASE (3) II  
MURAI

Diet therapy under abnormal conditions. Two lectures and one laboratory period. Prerequisite: credit or concurrent registration in Household Science 277. Laboratory fee $5.00.

HS 260 QUANTITY COOKERY (3) I

Food problems of institutions; preparation and serving of food in large quantities, menu planning, and food costs. One lecture and two laboratory periods. Prerequisite: Household Science 102.

HS 261 INSTITUTIONAL MANAGEMENT (3) I

Organization and administration of food departments of institutions such as college cafeterias, college residence halls, and hospitals. Prerequisite: Household Science 260.

HS 263 INSTITUTIONAL BUYING (3) II

Selection and purchase of foods and equipment for an institution. Prerequisite: credit or concurrent registration in Household Science 260.

HS 264 PROBLEMS IN HOSPITAL MANAGEMENT (4) I, II  
BOATMAN

Field practice for senior and graduate student dietitians in an approved institution. Prerequisite: Household Science 250, 260, 277; consent of instructor.

HS 265 INSTITUTIONAL ACCOUNTS (3) II

Principles of accounting applied to management of school cafeterias, tearooms, residence halls, and other food-service units. One lecture and two laboratory periods. Prerequisite: Household Science 260.

HS 266 RESIDENCE HALL MANAGEMENT (Ar.) I, II  
BOATMAN

Planning and directing preparation of meals in a university women's residence hall; directing of housekeeping in a residence hall. Prerequisite: Household Science 260, 261, 263, 265, 277.

HS 270 NUTRITION FOR PUBLIC HEALTH NURSES (3) I  
GRUELLE, MURAI

The dietary needs of individuals and families; emphasis on nutritive values of local foods and racial diets. Two lectures and one laboratory period. Laboratory fee $5.00.

HS 272 ELEMENTARY NUTRITION (4) I  
MURAI

Basic principles of nutrition as related to the understanding of individual food needs. Planning of adequate diets with foods available in Hawaii. Two lectures and two laboratory periods. Prerequisite: Household Science 102 or consent of instructor. Laboratory fee $5.00.
HS 273 FOOD HABITS IN HAWAII (3) II  Gruelle
The planning and preparation of meals for various racial groups at different income levels; emphasis on adequate diets at minimum cost. One lecture and two laboratory periods. Prerequisite: Household Science 272. Laboratory fee $8.00.

HS 277 ADVANCED NUTRITION (3) II  Miller
Energy, protein, and mineral metabolism; chemical and physical properties and nutritional significance of the vitamins. Dental health. Simple animal feeding experiments. Two lectures and one laboratory period. Prerequisite: Household Science 272; Chemistry 232. Laboratory fee $5.00.

HS 299 DIRECTED READING OR RESEARCH (Ar.) I, II  Staff
(1) Consumer Problems; (2) Dietary Problems; (3) Experimental Cookery; (4) Food Investigation; (5) Home Management Problems; (6) Nutrition. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Household Science courses.

HS 300 DIRECTED RESEARCH IN NUTRITION (Ar.) I, II  Miller
Problems according to preparation of each student. (1) Nutritional Investigations; (2) Animal and Human Feeding Experiments. Prerequisite: Household Science 277 and consent of instructor. Laboratory fee $3.00 per credit hour each semester.

HS 301 DIETARY STUDIES (Ar.) I, II  Staff
Individual, group, family, and/or institutional studies of food habits and the nutritive value of diets. Prerequisite: Household Science 277 and consent of instructor. Open to qualified seniors.

HS 305 LABORATORY METHODS IN NUTRITION (3) I, II  Miller
Growth experiments with laboratory animals; vitamin determinations by chemical, biological, and microbiological methods; food analyses; basal metabolism; balance experiments with animals or humans. Prerequisite: Household Science 277; Chemistry 230, 232. Laboratory fee $10.00.

HS 351 SEMINAR IN NUTRITION (1) II  Miller
Study and discussion of significant topics and problems in the field of Nutrition. May be repeated. Prerequisite: consent of instructor.

Interdepartmental Courses

120-121 INTRODUCTION TO SCIENCE (4-4) Yr.  Doty, Staff
Nature and objectives of science; development of man’s understanding of nature; the relationships of science and society. Not open to students who have received credit for either Survey 100 or Survey 150-151. 120 is a prerequisite for 121. Laboratory fee $2.50 each semester.

175 PROBLEMS IN WORLD CIVILIZATION (2) I  Marder
An interdepartmental study of selected problems in world history through group discussion. Enrollment limited to 20 sophomores. Prerequisite: a full year of History 100 and the consent of the instructor.

320 PACIFIC ISLANDS RESEARCH SEMINAR (2-2) Yr.  Staff
Interdepartmental seminar dealing with scientific hypotheses about social and cultural change in the Pacific islands area. May be repeated. Prerequisite: consent of instructor.

340 SEMINAR IN HISTORY AND LITERATURE (2-2) Yr.  Bouslog, Stalker
See English 340 and History 340.

Library Science

Students may enroll in Library Science courses only after consultation with instructors concerned.
260 LIBRARY PARTICIPATION (1-1) Yr. CRAWFORD, GEISER
An orientation to library routine conducted as a means of determining the student's aptitude for school library work. Laboratory periods arranged in Teachers College libraries. For students expecting to specialize in Library Science concurrent registration in Education 244 and Library Science 262 is desirable. Students may enter second semester.

262 ADMINISTRATION OF SCHOOL LIBRARIES (3) I CRAWFORD
Methods of organizing various types of library materials and keeping essential records. Objectives and contributions of the school library to the educational program.

268 CATALOGUING AND CLASSIFICATION (3) II CRAWFORD
Introduction to the principles of dictionary cataloguing, classifying according to the Dewey Decimal Classification system, assigning subject headings, and filing. Emphasis upon cataloguing and classifying children's books. Prerequisite: typing ability. (Alternate years; not offered 1957-58.)

269 ADVANCED CATALOGUING (2) II CRAWFORD
Practice in more detailed cataloguing problems for students planning to work in secondary school libraries, or for in-service students with some previous training or experience. Prerequisite: Library Science 268; typing ability. (Alternate years; offered 1957–58.)

284 BOOK SELECTION AND READING GUIDANCE (3) II GEISER
Principles and criteria of book selection; evaluation and selection of books in relation to reading interests of children and needs of the school curriculum. Ways of promoting the use of books for both informational and recreational reading. Prerequisite: Education 244 or equivalent.

286 PROMOTING LIBRARY USE (2) II CRAWFORD
Methods of developing skills and interest in the use of books and libraries by means of library instruction, the use of puppets, dramatization, book talks, storytelling, displays and exhibits, club groups, and other publicity techniques. (Alternates with 290; not offered 1957-58.)

290 SCHOOL LIBRARY PROBLEMS (2) II CRAWFORD
Emphasis upon problems of the teacher-librarian in relation to selection, organization, and circulation of books, pamphlets, pictures, periodicals, and recordings. Prerequisite: Library Science 262 or equivalent experience. (Alternates with 286; offered 1957–58.)

354 LIBRARY INTERNSHIP (14) I, II CRAWFORD, GEISER
Full-time service in laboratory or public school libraries under special supervision. Restricted to fifth-year students. Prerequisite: Library Science 260, 262, 268, 284; Education 244, 254, 282.

Mathematics

Senior Professor HOLMES; Professor GREGORY; Associate Professor TOWNES; Assistant Professors CLARK, COMBA, DAVIS, YAMAUCHI; Instructors CORE, MEYER, SIU, G. WHITE

120 INTRODUCTION TO MATHEMATICS (3) I COMBA
To acquaint the non-specialist with the position of mathematics in modern culture.

149 INTERMEDIATE ALGEBRA (3) I, II STAFF

150 PLANE TRIGONOMETRY (3) I, II STAFF
Prerequisite: two years of high school algebra or Mathematics 149; one year of plane geometry. No credit if taken after 152.

151 COLLEGE ALGEBRA (3) I, II STAFF
Prerequisite: two years of high school algebra or Mathematics 149; one year of plane geometry.

152 PLANE ANALYTICAL GEOMETRY (3) I, II STAFF
Prerequisite: Mathematics 150; credit or concurrent registration in Mathematics 151.
In order to meet the technical requirements for the Registry of Medical Technologists of the American Society of Clinical Pathologists, this sequence of courses continues for twelve calendar months commencing with the official date of opening of summer sessions.

#### Medical Technology

**266 MEDICAL TECHNOLOGY (4)**

Student technician training in a co-operating laboratory under the supervision of a qualified director. Prerequisite: Bacteriology 262, 264. Offered only in summer sessions.
MILITARY SCIENCE

267-268 MEDICAL TECHNOLOGY (12-12) Yr.

Student technician training in a co-operating laboratory under the supervision of a qualified director. Prerequisite: Medical Technology 266.

Military Science

Professor Hines; Assistant Professors Burack, Eagers, Jr., Lindow, Sproul; Instructors Allen, Caeser, Ewers, Martin, Nick, Shade

100 FIRST-YEAR MILITARY SCIENCE (1-1) Yr.

American military history, organization of the Army and ROTC, individual weapons and marksmanship, school of the soldier and exercise of command. Three hours per week. Special uniform and awards fee 75 cents each semester (not refundable).

150 SECOND-YEAR MILITARY SCIENCE (3-3) Yr.

Crew-served weapons and gunnery, map and aerial photograph reading, school of the soldier and exercise of command. Three hours per week. Special uniform and awards fee 75 cents each semester (not refundable).

200 THIRD-YEAR MILITARY SCIENCE (3-3) Yr.

Small-unit tactics and communications; organization, function, and mission to the arms and services; military teaching methods, leadership, school of the soldier, and exercise of command. Five hours a week. Open to selected students. Prerequisite: Military Science 150 or equivalent. Special uniform and awards fee 75 cents each semester (not refundable).

250 FOURTH-YEAR MILITARY SCIENCE (3-3) Yr.

Logistics, operations, military administration and personnel management, service orientation, school of the soldier and exercise of command. Five hours a week. Open to selected students. Prerequisite: Military Science 200. Special uniform and awards fee 75 cents each semester (not refundable).

255 SUMMER CAMP (2)

A camp training period to supplement the instruction previously received by students in MS 100, 150, and 200. Applicatory training in military subjects to include weapons firing, field combat problems, physical training, and other general military subjects which are necessary to qualify the student for appointment in the Army Reserve or the Regular Army. Camp attendance is required between Military Science 200 and 250 unless deferment is authorized.

Music

Professor Rian; Associate Professors Vine, B. Smith; Assistant Professors Kahananui, Stubbs, Vaught; Instructor Mundy; Lecturers Kerr, Lum

106 GROUP VOICE INSTRUCTION (1) I, II

Basic principles of voice production and elementary music skills in classes of twenty. No additional fee.

110 MUSIC APPRECIATION (3) I, II

An introduction to music from the listener's point of view, with emphasis on orchestral literature from the classical through the modern period. Emphasis on listening to recorded music. Course fee $2.00.

111 MUSIC APPRECIATION (3) I

A study of music from the listener's point of view with emphasis on opera, ensemble music, and modern trends. Prerequisite: Music 110. Course fee $2.00.
140 RECREATIONAL MUSIC (2) I  RIAN
Intended for recreation majors but open to others. Stress on skills necessary for leaders of recreational activities: methods, materials, and organization of recreational activities for home, school, church, and community.

150 ELEMENTARY MUSICIANSHIP (3) I, II  STAFF
The elements of musicianship covering terminology, notation, sight singing, and rhythmic and melodic dictation. A basic course for all prospective teachers. May be required of music majors who lack experience and training.

159 INSTRUMENTAL MUSIC (2-2) Yr.  STAFF
Intended for students preparing to teach instrumental music. Designed to give a basic knowledge of the instruments of the band and orchestra. First semester, brass; second semester, woodwinds. Strings, both semesters.

160-161 THEORY (4-4) Yr.  SMITH
A course designed to give understanding of the basic rhythmic, melodic, harmonic, and formal elements of eighteenth- and nineteenth-century music, and drill in their performance, recognition, and notation.

170-171 HISTORY AND LITERATURE OF MUSIC (3-3) Yr.  VAUGHT
A complete study of the development of music from the beginning of history up to the present time. Nationalities, schools, and composers in detail. Course fee $2.00. (Alternate years; not offered 1957-58.)

209 UNIVERSITY ORATORIO CHORUS (1) I, II  VINE
Three hours a week. May be repeated. No auditions.

210 UNIVERSITY CONCERT CHOIR (1.1) Yr.  RIAN
Three hours a week. May be repeated with consent of instructor.

211 ENSEMBLE MUSIC (1) I, II  STAFF
Vocal (A) opera workshop, (B) University singers, string, woodwind, brass, and keyboard instrumental ensembles. May be repeated. Prerequisite: consent of instructor.

230 MUSIC OF THE FAR EAST (3) II  SMITH
Introduction to the folk and traditional music of Asia. Designed to promote understanding of this music through the use of recordings, demonstrations, pictures, etc. Prerequisite: one or more of the following, Music 110, 140, 150, 160, 170, Applied Music, or consent of instructor. Course fee $3.00.

251-252 MUSIC, ELEMENTARY CURRICULUM (2-2) Yr.  KAHANANUI
Organization and direction of music in childhood experience. A survey of materials and procedures. Prerequisite: Music 150.

253 MUSIC-ELEMENTARY CURRICULUM (2) I  STAFF
A combination of 251-252 for the Auxiliary Teacher Training Program only.

260-261 ADVANCED THEORY (3-3) Yr.
A continuation of Music 160-161. Bach chorale style emphasized the first semester. Survey of contemporary techniques of composition second semester. Prerequisite: Music 160-161. (Alternate years; not offered 1957-58.)

265 COUNTERPOINT (2) I  SMITH
A survey of the contrapuntal elements of music and their use in composition from the fourteenth century to the present. Prerequisite: Music 160-161. (Alternate years; offered 1957-58.)

266 UNIVERSITY CONCERT BAND (1) I, II
Three hours a week. May be repeated.

268 COMPOSITION (2) II  SMITH
An introductory course in composition, including the study of selected masterpieces and creative writing in the smaller forms. Admission only upon recommendation of the department. Prerequisite: Music 160-161, 260-261. (Alternate years; offered 1957-58.)
APPLIED MUSIC

270-271 CONDUCTING (2-2) Yr. RIAN

Designed to prepare conductors for school, community, and church music. Training and organizing choral and instrumental groups, ensemble singing and playing, conducting technique, and choral and instrumental literature. Prerequisite: Music 160–161, 170–171, 210, 266, or consent of instructor.

280-281 ORCHESTRATION (2-2) Yr. VAUGHT

A course in arranging and composing for band, orchestra, and chamber groups. Prerequisite: Music 159, 160–161, or consent of instructor.

287 PIANO METHODS (2) I SMITH

Methods and materials for class and private instruction in piano. Prerequisite: Music 161 or consent of instructor. (Alternate years; offered 1957–58.)

289 PIANO LITERATURE (2) I

Survey of the styles and forms of music for the piano and its forerunners. Prerequisite: Music 169 (piano) or consent of instructor. (Alternates with 287; not offered 1957–58.)

APPLIED MUSIC

Instruction is given in piano, organ, voice, and orchestral instruments in individual half-hour lessons either once or twice a week. Lessons are not made up unless the instructor is notified a reasonable time in advance of the absence. Lessons occurring on holidays are not made up.

Registration for lessons and choice of teachers must be approved by the department chairman.

One public appearance in both the junior and senior levels is required of all students majoring in music. This requirement is satisfied by successful participation in University student recitals.

Assignment to Applied Music courses is based on tests and auditions given by the department during the Freshman Orientation Period. In order to receive credit in Applied Music courses 149 and above, the following minimum requirements must be met:

Satisfactory work in Music 160–161, or the equivalent.

Piano—Play any major or minor scale in octaves, at a moderate tempo; Bach Two-Part Invention or a dance from one of the suites; a sonata by Haydn or Mozart; a modern composition as difficult as the sonata.

Voice—Sing on pitch, with correct phrasing and musical intelligence, standard songs in good English. Demonstrate ability to read a simple song at sight and have a knowledge of the rudiments of music. Have a promising voice. (Some knowledge of piano is strongly recommended.)

Violin—Play major and minor scales, arpeggios, simple Kreutzer études, a sonata by Handel, Haydn, Mozart, or Schubert; a more modern work displaying special technique peculiar to the violin.

Organ—Same as piano.

Orchestral instruments other than violin—Entrance requirements may be had by writing the Music Department.
FEES PER SEMESTER

One class lesson each week ........................................... $20.00
One lesson each week (half hour) ................................. $55.00
Two lessons each week (half hour each) ......................... $90.00

101-102 CLASS INSTRUCTION (I-1) Yr. .............................. STAFF
Class instruction at the beginning level in piano and voice, orchestra and band instruments.

103-104 CLASS INSTRUCTION (I-1) Yr. .............................. STAFF
Class instruction at the intermediate level in piano and voice, orchestra and band instruments.

105 INDIVIDUAL INSTRUCTION (Ar.) Yr. ............................. STAFF
Piano, organ, voice, or orchestral instruments. For nonmusic majors, or music majors who intend it as a secondary medium of performance. May be repeated.

149 INDIVIDUAL INSTRUCTION (Ar.) Yr. ............................. STAFF
Piano, organ, voice, or orchestral instruments at the freshman level. For prospective music majors. Prerequisite: Music 105 or consent of instructor.

169 INDIVIDUAL INSTRUCTION (Ar.) Yr. ............................. STAFF
Piano, organ, voice, or orchestral instruments at the sophomore level. For prospective music majors. Prerequisite: Music 149 or consent of instructor.

249 INDIVIDUAL INSTRUCTION (Ar.) Yr. ............................. STAFF
Piano, voice, organ, or orchestral instruments at the junior level. Recital (249-B*) required. For music majors. Prerequisite: Music 169 or consent of instructor.

269 INDIVIDUAL INSTRUCTION (Ar.) Yr. ............................. STAFF
Piano, voice, organ, or orchestral instruments at the senior level. Recital (269-8**) required for graduation. For music majors. Prerequisite: Music 249 or consent of instructor.

349 INDIVIDUAL INSTRUCTION (Ar.) Yr. ............................. STAFF
Piano, voice, organ, or orchestral instruments at the graduate level. For music majors. Prerequisite: Music 269 or consent of instructor.

Nursing

Professor V. Jones; Assistant Professors Adam, Canfield, Frojen, E. R. Smith, Wolfe; Instructors Cranch, Ozaki, Schmidt, Wakayama; Lecturers Berk, Camara, Haertig, Hirschy, Tamashiro

Registration in Nursing courses is restricted to students in the School of Nursing except by special permission.

100-101 INTRODUCTION TO NURSING (2-2) Yr. .......................... Wolfe
Orientation to professional nursing. Function of the nurse in the community, with emphasis on professional obligations and ethical responsibilities. Designed to develop beginning skill in the fundamentals of comprehensive nursing care; introductory practice in hospital care for the aged and convalescent.

110-111 MEDICAL AND SURGICAL NURSING (8-8) Yr. .......................... Smith, Schmidt
Designed to develop understanding of the causes, symptoms, treatment, prevention and rehabilitation related to medical and surgical conditions. Pharmacological and dietary aspects integrated. Experience in operating room nursing. Opportunity to plan and execute comprehensive nursing care. Prerequisite: Nursing 100-101; Bacteriology 145; Chemistry 104; Household Science 156; Zoology 191.

* Refers to the A and S junior recital and TC senior recital.
** Refers to the A and S senior recital.
NURSING

115 PHARMACOLOGY (3) I

The study of drugs and solutions. Fundamentals of metrology and terminology associated with drug therapy, and the expected action, uses, characteristics, therapeutic effects, toxic effects, and their treatment. Methods of administration. Prerequisite: credit or concurrent registration in Nursing 110-111.

200 PSYCHIATRIC NURSING (7) I, II

Causes, manifestations, treatment and prevention of mental illness; factors conducive to promotion of mental health; interrelationships of mental and physical aspects in all types of illness. Supervised practice in nursing care and participation in clinical conferences. Field trips to institutions concerned with mental health.

210 TUBERCULOSIS NURSING (6)

The study of tuberculosis as a communicable disease and methods of prevention, early detection, treatment, patient education, nursing care, and rehabilitation. Practice in comprehensive care of patients, including out-patient and home follow-up. Prerequisite: Nursing 110-111.

220-230 MATERNAL AND CHILD HEALTH NURSING (8-8) I, II

Study and supervised practice in the care and guidance of mothers throughout the maternity cycle and of newborn infants, including prematures; growth and development from infancy through adolescence including care of the needs of the sick in relation to those of the well child. Practice in family-centered care, group teaching, home visits and use of community resources. (Sequence may be reversed.)

231 HUMAN RELATIONS IN NURSING (2) I

Social and psychological aspects of health and illness; skills and attitudes effective in relation to helping patients and families to recognize and deal with health and social problems.

240 PUBLIC HEALTH NURSING (7) I, II

Instruction and guided experience in public health nursing in a rural health center. Home visiting for nursing care and health instruction, clinic management and school health programs. Group teaching, conferences with parents and teachers; use of community agencies.

245 SENIOR NURSING (10) I, II

Application of principles underlying organization and functioning of nursing teams in planning, evaluating and giving patient-centered care. Investigation of problems such as managerial responsibilities, trends and demands in nursing today in light of their historical background.

255 COMPREHENSIVE NURSING CARE (4-3) Yr.

Designed to provide for participation in planning, practice, study and evaluation of comprehensive nursing care, and the solution of nursing problems through the use of scientific principles.

280 PUBLIC HEALTH NURSING (4) I, II

Development, principles, functions, methods and relationships of public health nursing; emphasis on social, preventive and teaching aspects of service to the family and community. Field observation and participation. (For graduate nurses only.)

281 HEALTH TEACHING IN NURSING (2) II

Basic principles underlying teaching and learning; selection and organization of materials and methods for groups and individuals.

282 PUBLIC HEALTH NURSING IN MATERNAL AND CHILD HEALTH (3) I, II

Needs and facilities for care of mothers through the maternity cycle, and of children from birth through school age, including exceptional children. Public health nursing functions and activities in maternal and child health services. (For graduate nurses only.)

283 PUBLIC HEALTH (3) I

Principles of public health and preventive medicine, and their application in protecting and promoting the health and welfare of the citizen through organized community effort. Field trips.
290 FIELD PROGRAM IN PUBLIC HEALTH NURSING (6) I, II TAMASHIRO
Guided field practice in the application of principles of public health nursing in a
generalized service of an official public health agency. (For graduate nurses only.)

291 INTERVIEWING IN PUBLIC HEALTH NURSING (3) I, II CANFIELD
Principles and methods of interviewing as demonstrated through use of case material
from public health nursing records; selected to illustrate skills effective in the helping
process and in use of community resources related to health and social welfare.

293 DYNAMICS OF DEVELOPMENT (3) II HAERTIG
The various aspects and successive stages of emotional and social development of the
child. Normal sequences of parent-child relations are considered first, followed by a study
of the abnormal arrestments and disturbances which the public health nurse can detect and
help correct.

299 DIRECTED READING (Ar.) I, II STAFF
Individual reading in (1) Public Health Nursing, (2) Nursing Service, (3) Nursing
Education. Limited to seniors in the Nursing curriculum with a 2.7 grade-point ratio, or
a 3.0 grade-point ratio in Nursing courses.

Oceanography

The University does not offer a degree program in this area, but the courses listed
below are available. Course descriptions are given under the respective departments.

BOTANY 291 BIOLOGICAL PRODUCTIVITY OF THE SEA (3) II AUSTIN, DOTY
CHEMISTRY 260 OCEANOGRAPHIC CHEMISTRY (3) II ZEITLIN
GEOPHYSICS 250 GENERAL OCEANOGRAPHY (3) II HOWARD
ZOOLOGY 200 SCIENCE OF THE SEA (3) I HIATT
ZOOLOGY 290 OCEANOGRAPHY (3) II BANNER

Philosophy

Senior Professor MOORE; Professor FEIGL; Associate Professors MCCARTHY, NAGLEY

100 INTRODUCTION TO PHILOSOPHY (3) I, II STAFF
The problems, methods, and fields of philosophy.

110 BUSINESS ETHICS (3) I, II MOORE
A consideration of basic ethical concepts as applied to business enterprise and the pro­
fessions.

150 HISTORY OF PHILOSOPHY (3) I MOORE
Western philosophy from the era of great Greek thinkers to the Renaissance. Prerequi­
site: sophomore standing.

151 MODERN PHILOSOPHY (3) II MOORE
Western philosophy from the Renaissance to the present day. Desirable preparation:
Philosophy 150.

200 ETHICS (3) II NAGLEY
Relevance of the major theories of the good life to the process of decision making.

210 CONTEMPORARY PHILOSOPHY (3) II NAGLEY
A survey of recent developments in Western philosophy. Special attention to Logical
Empiricism. Prerequisite: one of the following, Philosophy 100, 150, 151.
240 PHILOSOPHY IN LITERATURE (3) II  
   Literary expression of philosophical ideas. Consideration of such writers as Beauvoir,  
   Bernanos, Camus, Hemingway, Kafka, Rilke, Sartre, and T. S. Eliot.

253 PROBLEMS OF PHILOSOPHY (3) II  
   Persistent specific problems of philosophy, primarily those concerning nature, man,  
   God, etc.

262 PHILOSOPHY OF ART (3) I  
   A systematic study of the nature and function of art from the points of view of  
   creation, appreciation, and criticism. Particular attention to the arts of painting, sculpture,  
   music, and poetry.

265 PHILOSOPHY, EAST AND WEST (2) II  
   An introductory survey of the basic systems and methods of Eastern and Western  
   philosophy, with special attention to similarities and contrasts.

268 AMERICAN PHILOSOPHY (3) I  
   Major trends in the development of American philosophy. An analysis of philosophical  
   ideas in relation to their socio-political background and influence. (Not offered 1957–58.)

270 INTRODUCTION TO INDIAN PHILOSOPHY (2) I  
   Fundamental philosophical systems and movements in India, including the Vedas,  
   Upanishads, and Six Systems of Hinduism and the unorthodox philosophies, Charvaka,  
   Jainism, and Buddhism. (Not offered 1957–58.)

271 INTRODUCTION TO CHINESE PHILOSOPHY (2) II  
   A historical survey of the important philosophical schools and tendencies in China,  
   ancient and modern. (Not offered 1957–58.)

275 PHILOSOPHY OF RELIGION (3) II  
   A survey of the major types of Western religious philosophy: Thomism, Mysticism,  
   Reformationism, Deism, Agnosticism, Moral Idealism, Romanticism, Humanism, Liberal  
   Theism, and Existentialism. (Not offered 1957–58.)

276 PHILOSOPHICAL INTERPRETATIONS OF HISTORY (3) II  
   The analyses and prescriptions of Augustine, Hegel, Marx-Engels, Burckhardt, Nietzsche,  
   Spengler, Sorokin and Toynbee for their respective ages of crisis.

277 KIERKEGAARD AND EXISTENTIAL PHILOSOPHY (3) II  
   An analysis of the writings of Kierkegaard, and a survey of his influence upon philo­  
   sophical and theological existentialism. (Not offered 1957–58.)

280 ELEMENTARY LOGIC (3) I, II  
   An introduction to deductive and inductive logic. Problems of clear thinking in science,  
   law, argumentation, and ordinary discourse. Special attention to the techniques of propa­  
   ganda analysis.

284 PHILOSOPHY OF SCIENCE (3) II  
   A systematic study of the methods, procedures, presuppositions and implications of the  
   modern sciences.

285 PHILOSOPHICAL FOUNDATIONS OF SCIENCE (3) I  
   Philosophical foundations and implications of modern physical science. Particular reference to Copernicus, Galileo, Newton, and Einstein. (Not offered 1957–58.)

286 PHILOSOPHY IN CONTEMPORARY SCIENCE (3) I  
   The philosophical implications of recent trends in physical science. Particular attention  
   to the development of operationalism. (Not offered 1957–58.)

287 SCIENTIFIC METHOD (3) II  
   A systematic study of the methods and procedures of reliable knowledge in the formal,  
   natural, and social sciences. (Not offered 1957–58.)
288 SYMBOLIC LOGIC (3) II

A survey of the methods and forms of modern logic, with attention to the nature of the deductive system and the relationship between logic and mathematics. Prerequisite: Philosophy 280 or 12 credits in mathematics. (Not offered 1957–58.)

299 DIRECTED READING (Ar.) I, II

Reading, consultations, and written or oral reports in the following fields: (1) Metaphysics, (2) Methodology, (3) Ethics, (4) Indian Philosophy, (5) Chinese Philosophy, (6) Buddhist Philosophy, (7) East-West Philosophy. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Philosophy.

300 READING AND RESEARCH (Ar.) I, II

Reading and research in the same fields as in 299. Prerequisite: graduate standing; consent of instructor.

310 SEMINAR IN PROBLEMS OF PHILOSOPHY (3) II

Aims, methods and fields of Philosophy. Prerequisite: graduate standing.

320 SEMINAR IN THE METHODOLOGY OF THE SCIENCES (2) II

A comparative study of the methodological problems of the modern physical and social sciences. Prerequisite: graduate standing in Philosophy, or in one of the sciences, or consent of instructor.

Physics

Professors I. MIYAKE, WATANABE; Assistant Professor STEIGER

102 COLLEGE PHYSICS (4-4) Yr.

Three lectures and one laboratory period. Prerequisite: Mathematics 150 and credit or concurrent registration in Mathematics 151. Laboratory fee $6.00 each semester.

104 ENGINEERING PHYSICS (5-5) Yr.

Three lectures, one laboratory period, and one problem working period. Prerequisite: Mathematics 153; credit or concurrent registration in Mathematics 154. Laboratory fee $6.00 each semester.

151 FUNDAMENTALS OF COMMUNICATION (3) I

A general electricity course covering both DC and AC theory and applications, with emphasis on communication circuits. Two lectures and one laboratory period. Prerequisite: Mathematics 150. Laboratory fee $6.00.

153 PRINCIPLES OF RADIO (3) II

Fundamentals of radio theory and design, and construction of radio receiving and amplifying equipment. Two lectures and one laboratory period. Prerequisite: Physics 151. Laboratory fee $6.00.

202 ELECTRICAL ENGINEERING (3-2) Yr.

Electric power circuits and machinery, and the application of thermionic devices in power equipment. Two lectures and one laboratory period. Prerequisite: senior standing in Engineering. Desirable preparation: Physics 275. Laboratory fee $6.00 each semester.

253 ELECTRICAL MEASUREMENTS (3) II

The study and application of the methods of measurement of the fundamental electric and magnetic quantities. One lecture and two laboratory periods. Prerequisite: Physics 102 or 104; Mathematics 154. Laboratory fee $6.00.

255 LIGHT (3) II

Principles of geometric and physical optics. Prerequisite: Physics 102 or 104; Mathematics 154. (Alternate years; offered 1957–58.)

256 OPTICS LABORATORY (1) II

Experiments in geometric and physical optics. One laboratory period. Prerequisite: credit or concurrent registration in Physics 255. Laboratory fee $6.00. (Alternate years; offered 1957–58.)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>258</td>
<td>ELECTRONICS (3) II</td>
<td>MIYAKE</td>
<td>The theory and applications of electronic phenomena and electronic devices. Prerequisite: Physics 275.</td>
</tr>
<tr>
<td>262</td>
<td>SOUND (3) I</td>
<td>MIYAKE</td>
<td>Theory of sound and its applications. Prerequisite: Physics 102 or 104; Mathematics 154. (Alternate years; offered 1957–58.)</td>
</tr>
<tr>
<td>263</td>
<td>THEORETICAL MECHANICS (3) I</td>
<td></td>
<td>Principles of statics and dynamics. Prerequisite: Physics 102; Mathematics 154. (Alternate years; offered 1957–58.)</td>
</tr>
<tr>
<td>270</td>
<td>HEAT (3) II</td>
<td>MIYAKE</td>
<td>A study of radiation, kinetic theory of gases, heat measurements, and the laws of thermodynamics. Prerequisite: Physics 102; Mathematics 154. (Alternate years; not offered 1957–58.)</td>
</tr>
<tr>
<td>275</td>
<td>ELECTRICITY AND MAGNETISM (3) I</td>
<td>STAFF</td>
<td>Electric and magnetic phenomena. Prerequisite: Physics 102 or 104; Mathematics 154.</td>
</tr>
<tr>
<td>276</td>
<td>ELECTRICITY AND MAGNETISM LABORATORY (1) I</td>
<td>STAFF</td>
<td>Methods of electric and magnetic measurements. One laboratory period. Prerequisite: credit or concurrent registration in Physics 275. Laboratory fee $6.00.</td>
</tr>
<tr>
<td>279</td>
<td>CIRCUIT ANALYSIS (3) II</td>
<td>STAFF</td>
<td>Network theorems, filters, polyphase circuits, and method of symmetrical components.</td>
</tr>
<tr>
<td>280</td>
<td>A SURVEY OF MODERN PHYSICS (3) I</td>
<td>WATANABE</td>
<td>An introductory treatment of some phenomena depending on the quantization of energy and the atomicity of matter. Prerequisite: Physics 102 or 104; Mathematics 154.</td>
</tr>
<tr>
<td>281</td>
<td>ATOMIC AND NUCLEAR PHYSICS (3) II</td>
<td>WATANABE</td>
<td>A study of the structure of the atom and its nucleus, radioactivity, and the energy relationships involved. Prerequisite: Physics 280.</td>
</tr>
<tr>
<td>299</td>
<td>INDIVIDUAL WORK IN ADVANCED PHYSICS (Ar.) I, II</td>
<td>STAFF</td>
<td>Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Physics.</td>
</tr>
<tr>
<td>300</td>
<td>DIRECTED READING OR RESEARCH (Ar.) I, II</td>
<td>STAFF</td>
<td>Prerequisite: graduate standing in Physics; consent of instructor.</td>
</tr>
<tr>
<td>301</td>
<td>THEORETICAL PHYSICS-ANALYTICAL DYNAMICS (3) I</td>
<td>STEIGER</td>
<td>The dynamics of rigid bodies and fluids. Theory of vibrations. Lagrangian and Hamiltonian methods. Prerequisite: Physics 263; Mathematics 253 or 255. (Alternate years; offered 1957–58.)</td>
</tr>
<tr>
<td>302</td>
<td>THEORETICAL PHYSICS-ELECTRODYNAMICS (3) II</td>
<td>STEIGER</td>
<td>Maxwell's field equation and applications. Prerequisite: Physics 255, 275; Mathematics 253 or 255. (Alternate years; not offered 1957–58.)</td>
</tr>
<tr>
<td>303</td>
<td>INTRODUCTION TO QUANTUM MECHANICS (3) I</td>
<td>WATANABE</td>
<td>Formulation of quantum mechanics. Solutions of Schroedinger's equation. Perturbation theory, approximation methods and applications. Prerequisite: Physics 280; Mathematics 155, or consent of instructor.</td>
</tr>
<tr>
<td>304</td>
<td>ATOMIC AND MOLECULAR SPECTRA (3) II</td>
<td>WATANABE</td>
<td>A study of atomic and molecular structure by quantum mechanical interpretation of line, band, and continuous spectra. Prerequisite: Physics 303.</td>
</tr>
<tr>
<td>350</td>
<td>SEMINAR (1-1) Yr.</td>
<td>STAFF</td>
<td>Discussions and papers on physical theory and recent developments in physics. Prerequisite: graduate standing or consent of department chairman.</td>
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</table>
Psychology

Senior Professors Livesay, B. White; Professors Bitner, Herrick, Klineberg, Vinacke, Weaver; Associate Professors Arkoff, Crowell, Digman; Assistant Professor Dole; Instructor Kalish

Psychology 150 (or the equivalent) is prerequisite to all other courses in Psychology, with the exception of 100, 140, and 156. Qualified seniors may enroll in certain courses numbered 300 and above with consent of instructor.

100 Psychology of Effective Study (3) I, II Kalish
The application of psychological principles to effective study. Problems in self-management and college adjustment. Open to freshmen and sophomores only.

140 Psychology of Adjustment (3) I, II Arkoff
Understanding and improving personal adjustment to everyday life. Motivation, frustration, conflict, anxiety, adjustment mechanisms. Adjustment in family, culture, school, vocation, sex, marriage, and later maturity. Not recommended for those planning to take further work in psychology.

150 General Psychology (4) I, II Staff
A survey of the facts and principles fundamental to human behavior. Individual differences, personality, motivation, emotion, sensing, perceiving, learning, and thinking. Three lectures and one laboratory period. Laboratory fee $1.00. Not open to those who have had 156.

156 Introduction to Psychology (3) I Staff
Similar to 150 but without laboratory. Not open to Arts and Sciences students, or those who have had 150.

185 Psychology of Infancy and Childhood (2) I, II Herrick, Kalish
Principles basic to the normal development of the infant and child; emphasis upon physical, emotional, intellectual, and social development.

186 Psychology of Adolescence and Maturity (2) I, II Bitner, Herrick
Developmental characteristics during preadolescent, adolescent, and adult years; emphasis upon physical, emotional, intellectual, and social factors and changes.

210 Advanced General Psychology (4) I Vinacke
Principles and methods basic to psychology, with orientation provided by systematic experimental literature. Emphasis upon sensation and perception, learning and remembering, thinking, and motivation and emotion. Two lectures and one laboratory period.

250 Applied Psychology (3) I Livesay
Application of psychological principles to problems of personal efficiency and to the fields of commerce, highway traffic, law, and medicine.

254 Principles of Guidance (3) I Bitner
Psychological bases; methods and scope of educational, vocational, and personal guidance. Prerequisite: Psychology 260, 264.

256 Industrial and Business Psychology (3-3) Yr. Weaver
Psychological principles in job analysis, rating methods, selection and classification of workers, fatigue and efficiency, human engineering, safety, training, motivation of workers, and social factors in industry.

260 Statistical Techniques (3) I, II Weaver
Use of statistical techniques in psychological problems: measures of central tendency and variability; graphic methods; correlation; reliability of measures; tests of significance. Prerequisite: two years of high school algebra or Mathematics 149 or the equivalent.
264 PSYCHOLOGICAL MEASUREMENTS (3) II WEAVER

Principles in the construction, validation, and administration of psychological tests; interpretation and application of scores; familiarization with various types of group tests. Prerequisite: Psychology 260.

267 EXPERIMENTAL PSYCHOLOGY (3) I, II DIGMAN

Training in laboratory techniques. Experiments in cutaneous and kinesthetic sensation, reaction time, vision, audition, and motor and verbal learning processes. Prerequisite: Psychology 260 or the equivalent. Laboratory fee $2.00. (Not offered 1957-58.)

270 PHYSIOLOGICAL PSYCHOLOGY (3) II

Study of the physiological processes as related to an understanding of such activities as vision, hearing, learning, emotion, remembering, and thinking. Prerequisite: Zoology 100 or 110 or 191 or the equivalent.

271 SENSATION AND PERCEPTION (2)

A systematic survey of the special senses and their function from psychophysics through modern views of the relation between perceptual behavior and motivation.

272 PSYCHOLOGY OF LEARNING (3) I

A study of the major conditions influencing learning and forgetting; the role of motivation, rewards, and practice; theoretical interpretations of the learning process.

274 PSYCHOLOGY OF THINKING (2) II VINACKE

The psychological factors and methods involved in thinking. Concept formation, problem solving, creative imagination, autistic thinking, attitudes, and opinions. (Alternate years; not offered 1957-58.)

275 HISTORY OF PSYCHOLOGY (3) II

The historical background of modern psychology. Origins and development of contemporary points of view. The relationship of this development to other areas of importance in the history of Western thought.

280 SOCIAL PSYCHOLOGY (2) II KLINEBERG

The psychology of human relations; psychological factors that determine the behavior of an individual in his social relationships.

281 SOCIAL PSYCHOLOGY LABORATORY (1) II VINACKE

Introduction to psychological methods used in studying human relations; techniques pertinent to group work and their evaluation. Demonstrations, exercises and experiments. Prerequisite: credit or concurrent registration in Psychology 280.

283 PSYCHOLOGY OF PERSONALITY (3) I VINACKE

The development of personality; components of personality; critical evaluation of research on various aspects of personality. Two lectures and one laboratory period.

284 PSYCHOLOGY OF MOTIVATION (2) II VINACKE

Principles and research in human motives and their regulation; relevant animal studies. Instinct, drive, motives, emotion and attitudes; their biological bases, modification and organization during development. (Alternate years; not offered 1957-58.)

286 POLITICAL PSYCHOLOGY (2) I VINACKE

A study of political behavior of individuals and groups; the voter, the politician, political parties; psychological problems which arise in the conduct of government. (Alternate years; not offered 1957-58.)

292 MENTAL HYGIENE (3) I, II ARKOFF

Basic needs, frustrations, conflicts and fears. Ways of adjustment. Prevention of maladjustment. Applications to problems of school and home. Intended primarily for Teachers College seniors.
293 PSYCHOLOGY OF EXCEPTIONAL CHILDREN (3) I  CROWELL
Psychological evaluation of physical, emotional and intellectual deviations and their effects upon the growth and development of children. Prerequisite: Psychology 185, 186.

295 ABNORMAL PSYCHOLOGY (3) I, II  KALISH
The nature and causes of psychoneuroses and psychoses; abnormalities of intelligence; incipient abnormal traits manifested in everyday life; psychotherapy.

299 DIRECTED READING (Ar.) I, II  STAFF
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Psychology.

300 DIRECTED READING OR RESEARCH (Ar.) I, II  STAFF
Prerequisite: Graduate standing and consent of instructor.

320 SEMINAR IN METHODS OF RESEARCH (2) I  VINACKE
The fundamentals of research and thesis preparation. Application to specific problems. Prerequisite: consent of instructor.

321 GENERAL SEMINAR (2) II  KLINEBERG
Study and discussion of significant topics and problems in the field of Psychology. May be repeated.

322 SEMINAR IN PROBLEMS OF PSYCHOLOGY (2) I, II  STAFF
Individual seminars devoted to problems and research in (a) developmental psychology, (b) psychodynamics of behavior, (c) industrial psychology, and (d) psychological measurement. May be repeated. Prerequisite: consent of instructor.

351 ADVANCED EDUCATIONAL PSYCHOLOGY (3) I, II  WHITE
Application of experimental evidence in psychology to major educational problems; the bearing of recent psychological theories upon education.

356 PROBLEMS IN CLINICAL PSYCHOLOGY (3) II
Clinical case studies; histories; selection of tests; interpretation; recommendations and follow-up. Participation in staff conferences. Prerequisite: consent of instructor.

357 PRINCIPLES OF COUNSELING (3) II  BITNER
Counseling as a technique in individual guidance. Needs; objectives; psychological bases of counseling; procedure; available services. Prerequisite: Psychology 254.

360 ADVANCED STATISTICAL TECHNIQUES (3) I  WEAVER
Statistical treatment and interpretation of psychological data: sampling procedures, elementary probability theory, test of significance of statistical hypotheses, analysis of variance, correlational techniques, factor analysis. Open to qualified seniors with consent of instructor.

362 INDIVIDUAL INTELLIGENCE TEST TECHNIQUES (3) I, II  ARKOFF, HERRICK
Practice in the administration and interpretation of individual tests such as the Stanford-Binet, Wechsler Adult Intelligence Scale, etc. May be repeated. Prerequisite: consent of instructor. Laboratory fee $5.00.

363 PRACTICUM IN COUNSELING AND TESTING (Ar.) II  DOLE
Guided experience in the administration and scoring of educational and psychological tests, and in the educational and vocational counseling of high school and college students. Prerequisite: Psychology 254 and 357 or consent of instructor.

364 PROJECTIVE TECHNIQUES (3) II  ARKOFF, CROWELL
Theory and application of projective techniques, with emphasis on the Rorschach and Thematic Apperception Tests. (Not offered 1957–58.)

367 EXPERIMENTAL METHODOLOGY (3) II
Research procedures associated with experimental psychology. Design of experiments. Laboratory experience in research relevant to student's interest.
380 ADVANCED SOCIAL PSYCHOLOGY (3) II
VINACKE
Primarily a research course with emphasis upon methods and objective verification of hypotheses; interpersonal relations, group structure and process, social conflict, propaganda, etc.; special research projects. Open to qualified seniors with consent of instructor.

382 CONTEMPORARY THEORY (3) I
An examination of current theoretical systems. Special attention to meaning and uses of theory, theory construction and basic concepts.

390 CLINICAL PSYCHOLOGY (3) I
HERRICK
Methods and scope of clinical psychology, available individual tests and other instruments used in measuring intelligence and personality factors; the use and meaning of scores in child and adult cases; applications to psychological diagnosis. Prerequisite: Psychology 260 and 264.

Religion
Assistant Professor AOKI

150 INTRODUCTION TO THE STUDY OF RELIGION (3) I
AOKI
An introduction to the methods and nature of religion, followed by a survey of living religions.

151 RELIGION AND THE MEANING OF EXISTENCE (3) II
AOKI
The basic ideas and issues of contemporary religious thought as related to the meaning of existence: among the issues discussed are such basic concepts as God, faith, estrangement and reconciliation.

200 OLD TESTAMENT SURVEY (3) I
AOKI
A study of the developing beliefs and practices of the Hebrew religion as set forth in the Old Testament. Emphasis on the meaning of its faith for the modern world.

201 NEW TESTAMENT SURVEY (3) II
AOKI
The origin and development of the early Christian message as set forth in the New Testament, with special attention to Jesus and Paul.

209 THE LIFE AND TEACHINGS OF JESUS (3) II
AOKI
A critical study of the life and teachings of Jesus drawn from the four gospels. An interpretation of the meaning of Jesus Christ for Christian faith.

210 THE PROPHETS AND SAGES OF THE OLD TESTAMENT (3) I
AOKI
The prophetic and wisdom literature of the Old Testament, with emphasis on the particular contributions to biblical thought by Amos, Hosea, Isaiah, Jeremiah, Ezekiel, Deutero-Isaiah and the Book of Job.

221 GREAT PERSONALITIES IN CHRISTIANITY (3) II
AOKI
An examination of the lives and thought of some outstanding representatives. A biographical approach to the role of religion in life and the development of Christian faith.

240 WESTERN RELIGIOUS THOUGHT TO 1492 (3) I
AOKI
Ideas of major religious thinkers and movements in the history of the Western world to 1492; concluding with an evaluation of Roman Catholicism. (Alternate years; not offered 1957–58.)

241 WESTERN RELIGIOUS THOUGHT FROM 1500 (3) II
AOKI
The period of the Protestant Reformation to the present, with an evaluation of the Protestant movement. (Alternate years; not offered 1957–58.)

251 THE INDIVIDUAL AND HIS RELIGION (3) II
AOKI
A description and analysis of the course of religious development in the mature personality. This course provides common ground for the understanding and collaboration of psychology and religion.
282-283 THE HISTORY OF LIVING RELIGIONS (3-3) Yr. AOKI
First semester: basic beliefs and practices of Hinduism, Confucianism, Taoism, Buddhism, Shintoism and Mohammedanism. Recent developments will be given attention. Second semester: Judaism, Roman Catholicism and Protestantism—their history, beliefs, institutions and contributions. Either semester may be elected independently. (Alternate years; not offered 1957-58.)

286 CHRISTIAN ETHICS (3) I AOKI
A study of historical types of Christian ethics and their relation to philosophical ethics. Emphasis upon contemporary problems in the light of Christian ethical perspective.

Social Work

Professor HANDLEY; Associate Professors JAMBOR, MERRITT, WALSH, ZALOHA; Lecturers KIMMICH, TAKASAKI

200 THE FIELD OF SOCIAL WORK (3) I, II JAMBOR, MERRITT
A nonprofessional orientation course intended to acquaint the student with the philosophy, scope, and aims of social work. Prerequisite: junior standing.

275 INTRODUCTION TO SOCIAL GROUP WORK (3) II ZALOHA
Introduction to the philosophy and aims underlying social group work. Understanding of media, tools, and skills utilized. Relation of activities to various age groups and the role of the leader.

305 SOCIAL CASEWORK (2) I WALSH
An introduction to the basic principles and processes of social casework.

306 SOCIAL CASEWORK (2) II WALSH
A continuation of 305, with special emphasis upon social diagnosis and skill in the treatment of casework problems. To be taken concurrently with 360-361. Prerequisite: Social Work 305.

308 SOCIAL GROUP WORK (2) I ZALOHA
An introduction to the basic principles and processes of group work.

309 SOCIAL GROUP WORK (2) II ZALOHA
A continuation of 308, with emphasis upon understanding the individual in groups, and skill in the use of the helping process. To be taken concurrently with 360-361. Prerequisite: Social Work 308.

310-311 HUMAN GROWTH AND DEVELOPMENT (3-3) Yr. WALSH
This course is designed to provide a synthesized understanding of physical, mental, and emotional growth, with due regard to social and cultural influences on individual development.

312 GROUP WORK PROGRAM ACTIVITIES (1-1) Yr. ZALOHA
The program as a tool in meeting individual and group needs. The process of program development; basic program activities; differentials in age and types of groups. To be taken concurrently with 360-361.

315 COMMUNITY ORGANIZATION (2) II JAMBOR
An introduction to the basic principles and processes of community organization in social work.

324 HISTORY OF SOCIAL WORK (2) II HANDLEY
Survey of the major trends in the development of social work thought and action in England and America as a basis for modern social work practice. Open to seniors. Prerequisite: Social Work 200.
325 CHILD WELFARE (2) I  
Survey of the development of specialized services for children in both public and private fields, including the consideration of current practice. Illustrative material from the various fields of child welfare service. Open to seniors. Prerequisite: Social Work 200.

326 TREATMENT OF JUVENILE DELINQUENCY (2) II  
Social work practice in relation to problems of juvenile delinquency.

350 PUBLIC WELFARE (2) I  
The development of public welfare in the United States with emphasis upon public federal and state assistance, and social insurance programs. Open to seniors who have had Social Work 200.

352 SOCIAL STATISTICS AND RESEARCH (2) II  
Problems and procedures in social research that are part of social work administration and planning. Application of elementary statistical techniques to the particular problems of describing the social needs and social services of the community.

353 LEGAL ASPECTS OF SOCIAL WORK (2) I  
The principles of law with which the social worker should be familiar. Problems in judicial administration and substantive law that affect individuals in relation to social problems.

356 SOCIAL WELFARE—ITS ORGANIZATION AND ADMINISTRATION (2) I  
Principles and problems of public and private social agencies with respect to structure, management, and financing. Emphasis upon the effect of setting in relation to specialized practice.

360-361 SUPERVISED FIELD WORK (3-3) Yr.  
University field work units are maintained in public and private welfare agencies. The minimum time requirement in field work is 15 hours a week. To be taken concurrently with a social work method course (casework, group work, or community organization). Limited to full-time students.

362-363 ADVANCED SUPERVISED FIELD WORK (4-4) Yr.  
Field work placement in a social agency selected with reference to aptitudes, choice, or needs of the student. To be taken concurrently with an advanced course in social work method (casework, group work, or community organization). Limited to full-time students.

365 ADVANCED SOCIAL CASEWORK (2) I  
Case discussion of generic casework concepts as they apply in work with emotionally disturbed individuals; evaluation of treatment processes and factors which affect the caseworker's function. To be taken concurrently with 362.

366 SEMINAR IN SOCIAL CASEWORK (2) II  
The analysis and evaluation of case material contributed from the student's experience and from selected records.

367 CASEWORK WITH CHILDREN (2) I  
Casework concepts in the care of children. Emphasis on methods of diagnosis and treatment for emotionally disturbed children and children who indicate serious behavior problems. Prerequisite: 365; consent of instructor.

370 ADVANCED SOCIAL GROUP WORK (2) I  
Analysis of the use of volunteers in group work; their recruitment, selection, placement, training, and supervision. To be taken concurrently with 362.

371 SEMINAR IN SOCIAL GROUP WORK (2) I  
Analysis and evaluation of case material contributed from the student's experience and from selected records.
375 ADVANCED SOCIAL PSYCHIATRY (2) I
KIMMICH
Dynamics of behavior in the neuroses and in functional and organic psychoses, with emphasis on current treatment processes.

381 SEMINAR IN SOCIAL WELFARE POLICY (2) II
HANDLEY
Basic problems and policies in the major fields of social welfare: family and child welfare, corrections, health, income maintenance, social insurance, and international social welfare.

383 ADMINISTRATIVE METHODS IN SOCIAL WORK (2) I
JAMBAR
Administration of social work agencies with emphasis upon the relationship between structure and function. Problems of internal administration such as personnel management, program direction, research and planning, budget control, and public relations.

385 METHODS OF SUPERVISION IN SOCIAL CASEWORK (2) II
The supervisory process in social work as it relates to the field of social casework. Open to agency workers who are potential or actual supervisors. Prerequisite: consent of instructor.

386 METHODS OF SUPERVISION IN SOCIAL GROUP WORK (2) II
ZALOHA
The principles, methods, and problems of supervision in social agencies as they relate to the field of social group work. Open to agency workers who are potential or actual supervisors. Prerequisite: consent of instructor.

390 CULTURAL FACTORS IN SOCIAL WORK PRACTICE (2) II
HANDLEY
The significance of psychocultural factors in the development of personality and behavior. Use of records which illustrate cultural diversity and conflicts as they relate to social work practice. Prerequisite: Social Work 310, 311.

399 SEMINAR IN RESEARCH (2) I
HANDLEY, STAFF
Principles of objective fact-finding, primary and secondary sources of social data, sampling, organization of material, relationship to an advisory committee or expert technical consultant, and preparation of a report or thesis.

Sociology

Senior Professor LIND; Professors GLICK, HORMANN, WILLIAMS; Associate Professors CHENG, YAMAMURA; Assistant Professor J. MIYAKE; Instructors BARTOS, YAMAMOTO

Sociology 151 or the equivalent is prerequisite to all advanced courses in Sociology.

100 ORIENTATION FOR FOREIGN STUDENTS (1) I
MIYAKE
Introduction to the American community and the American university. Lectures, field trips, exercises, reports, conferences. Required of all foreign students during the first semester of residence at the University.

151 INTRODUCTION TO THE STUDY OF SOCIETY (3) I, II
STAFF
An orientation course. The basic social relationships, the corresponding social structures, and the processes affecting social change.

250 COMMUNITY FORCES IN HAWAII (3) I, II
LIND, HORMANN, YAMAMOTO
The basic factors and forces operating in contemporary society, with special attention to Hawaii. An orientation course designed for students planning careers in teaching, vocational home economics, recreation, public health, medicine, and other professions. Not open to students majoring in Sociology except by consent of instructor.

251 FOLK AND PEASANT SOCIETY (3) II
HORMANN
Folk-peasant society in contrast to urban-industrial society; the world-wide transition of one into the other; special reference to Chinese and Japanese peasant society.
252 SOCIOLOGY OF RELIGION (3) I  
HORMANN

The structure, function, and dynamics of organized religion in society; the transition from folk religion to institutional world religion in a secular society; religious movements, sects, denominations, churches; the church in the local community.

253 RURAL SOCIOLOGY (3) I  
YAMAMURA


254 THE URBAN COMMUNITY (3) II  
YAMAMOTO

Sociological principles applied to the modern city. Structure, growth, social and personal life organization in an urban setting, with special reference to Honolulu.

255 SOCIAL DISORGANIZATION (3) I  
HORMANN

The factors in society which condition the disorganization of communities, institutions, groups, and personalities. An integrated approach to such social problems as conflict, delinquency, dependency, and degeneracy. Desirable preparation for courses in juvenile delinquency and criminology.

256 RACE AND CULTURE CONTACTS IN HAWAII (3) I  
LIND

The dominant conceptions of race and race relations in Hawaii, and an analysis of the principal factors affecting them. Problems of culture contacts in a commercial and plantation frontier.

257 RACE RELATIONS IN THE PACIFIC (3) I  
GLICK

A survey of typical situations of race and culture contacts in the Pacific area.

258 RACE RELATIONS (3) II  
GLICK

The sociological significance of race and race relations; typical situations and processes; conflict and accommodations; caste; race prejudice; miscegenation; effects of race relations upon personality.

259 PEOPLES AND INSTITUTIONS OF JAPAN (3) II  
YAMAMOTO

Social change in the institutional patterns and attitudes of different social classes in Japan, with special attention to the accelerated change since World War II.

261 SOCIOLOGY OF THE SMALL GROUP (3) II  
BARTOS

The formation and organization of groups which involve face-to-face relations between persons. Social processes affecting esprit de corps and leadership. Analysis of principal theories, research findings, and practical applications.

262 SOCIAL CONTROL (3) I  
LIND

A survey of the devices for subjecting the individual and the group to broader social definitions. The role of tradition, ceremonial, and dogma in the socialization and discipline of the individual.

263 PUBLIC OPINION AND THE COMMUNITY (3) I  
BARTOS

Analysis of the nature and functions of public opinion in the contemporary world. Formation and polling of public opinion. Problems of interviewing and sampling.

264 JUVENILE DELINQUENCY (3) II  
YAMAMURA

The nature, extent, and causes of juvenile delinquency. The study of the delinquent as a person. Methods of control.

265 CRIMINOLOGY (3) II  
CHENG


266 SOCIAL INSTITUTIONS (3) II  
WILLIAMS

Culture as a conceptual tool. Origin, structure, functions, and growth of institutions. Interrelations and integration.
267 THE FAMILY (3) I, II  
Culturally distinctive family types as background for analysis and interpretation of American family life in its societal contexts.  
CHENG, YAMAMURA

268 HUMAN MIGRATION (3) I  
CHENG

269 PERSONALITY AND CULTURE (3) I, II  
The origin and development of personality as the subjective aspect of culture; the function of communication; human nature and the mores; personal life organization.  
YAMAMOTO

270 POPULATION AND SOCIETY (3) II  
Society analyzed in terms of the quantitative and qualitative aspects of population. Sociological aspects of birth and death rates, natural increase, and mobility.  
YAMAMURA

271 HUMAN ECOLOGY (3) I  
Basic concepts, principles, and techniques of human ecology. Factors affecting distribution and movement of population, utilities, and social institutions.  
YAMAMURA

272 COLLECTIVE BEHAVIOR (3) I  
Elementary and spontaneous forms of group behavior; social unrest; the crowd and the public; mass behavior and mass movements; the operation of publics in democratic societies.  
GLICK

273 SOCIAL MOVEMENTS (3) II  
GLICK

274 SOCIAL CHANGE (3) II  
Structural-functional organization. Impact of technology on institutions, value orientation, power structures, system of role and stratification. Strains and repercussions as inherent parts of social change.  
CHENG

275 AMERICAN SOCIETY IN TRANSITION (3) II  
The major trends in American society, particularly as reflected in the war and postwar periods.  
BARTOS

276 DEVELOPMENT OF SOCIAL THOUGHT (3) I  
The history of sociology and anthropology as phases in the total development of social forces and action. Historical and contemporary trends against a background of social forces.  
BARTOS

277 PEOPLE AND INSTITUTIONS OF CHINA (3) II  
Analysis of social philosophies and their influence on basic institutions and traits of the people. Impacts of Western culture and Communism.  
CHENG

280 SOCIAL STATISTICS (3) I, II  
An introduction to statistical methods and resources as applied to social research data.  
YAMAMURA

282 METHODS OF SOCIAL RESEARCH (3) I, II  
The values and limitations of the common methods of social research for various types of studies. Laboratory and field work. Prerequisite: 9 credits in Sociology or consent of instructor.  
GLICK

285 INDUSTRIAL SOCIOLOGY (3) II  
HORMANN

299 DIRECTED READING (Ar.) I, II  
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Sociology.  
STAFF

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

310 SEMINAR IN SOCIOLOGICAL THEORY (3) I
Survey and critique of contemporary emphases and trends in sociological theory; history of sociological theory. Prerequisite: consent of instructor.

321 SEMINAR IN METHODS OF RESEARCH (3) II
The fundamentals of research and thesis preparation. Applications to specific problems. Prerequisite: consent of instructor.

351 GRADUATE SEMINAR (3) I
(1) Human Ecology and Demography; (2) Social Organization; (3) Social Disorganization; (4) The Group and the Persons; (5) Collective Behavior and Social Change. [351(3) Social Disorganization offered in 1957-58.] Prerequisite: consent of instructor.

359 SEMINAR IN RACE RELATIONS (3) II
Major theoretical developments and research problems in the field of race relations. Prerequisite: consent of instructor.

Speech

Professors Ansberry, Smith; Associate Professors Carr, Hoshor; Assistant Professors Bentley, Kentzler, Lefforge, Newcomer, Wong; Instructors Bilsborrow, Brenehan, Cheng, Gordon, Hervey, Larson, Lewis, Linn, Schmutz, Steed

100 FUNDAMENTALS OF SPEECH (1) I, II
Speech as communication for social interaction. Information concerning speech production with emphasis on organization of ideas; training for mastery of speech standards. Conferences required. Course fee $1.00.

101 SOUNDS AND RHYTHMS OF SPOKEN ENGLISH (1) I, II
Intensive training in the sounds and rhythms of General American speech with emphasis on the effective communication of ideas. Use of the International Phonetic Alphabet. Conferences required. Course fee $2.00.

102 DEVELOPMENT OF ORAL SKILL (1) I, II
Effective use of speech sounds and rhythms in practical speaking situations. Idiom and grammar. Concentration on individual problems, using modern laboratory equipment. Conferences required. Course fee $2.00.

105 SOUNDS OF ENGLISH FOR PROSPECTIVE TEACHERS (1) I, II
The basic principles of sounds and rhythms of General American speech. Techniques for the correction of pronunciation and the improvement of rhythm. Use of the International Phonetic Alphabet. Conferences required. Prerequisite: Speech 100. Course fee $1.00.

106 PRONUNCIATION AND GRAMMAR FOR PROSPECTIVE TEACHERS (1-1) Yr.
Continued work on sounds and rhythms with emphasis on acceptable pronunciation and facility in the use of idioms and grammar. Conferences required. The second semester may be taken upon recommendation of instructor. Prerequisite: Speech 100, 105. Course fee $1.00 each semester.

107 LANGUAGE SKILLS FOR PROSPECTIVE TEACHERS (1) I, II
A practice course to give further experience in speaking. Concentration on individual problems of poise, voice, vocabulary and organization. Conferences required. Prerequisite: Speech 100, 105. Course fee $1.00.

131 READING ALOUD (3) I, II
A study of the relationships between silent and oral reading with intensive practice in getting and giving the meaning from the printed page. Prerequisite: Speech 100.

150 PUBLIC SPEAKING (3) I, II
Basic principles of speech composition and delivery; preparation and delivery of speeches with attention to principles studied; special attention to individual problems.
152 BUSINESS AND PROFESSIONAL SPEECH (3) I, II
STAFF
Designed to meet speaking situations in the business and professional world: interviews, conferences, committee work, oral reports, parliamentary procedure. Prerequisite: Speech 100. (No one may earn credit in both Speech 150 and 152.)

155 PRINCIPLES AND TYPES OF DISCUSSION (2) II
STAFF
Principles of private and public discussion. Practice in systematic discussion of current social, political, and personal problems, using such forms as cooperative investigation, round table, panel, symposium, case and incident methods, and parliamentary procedure. Prerequisite: Speech 100.

204 VOICE TRAINING FOR SPEECH (2) I, II
KENTZLER
A study of the physical and physiological bases of voice production, with emphasis on the vocal problems of nasality, inaudibility, and monotony. Prerequisite: Speech 100 and permission of the instructor, or recommendation of the department.

220 PHONETICS (3) I, II
CARR
Analysis of English pronunciation with attention to Hawaii’s linguistic background. Phonetics as applied to articulation, standards of pronunciation, speech correction, dialect study, and the teaching of speech.

221 FUNDAMENTALS OF SPEECH CORRECTION (3-3) Yr.
ANSBERRY
First semester: survey of the field; observation of diagnosis and therapy. Second semester: principles and methods of therapy used in treatment of functional and organic speech disorders; observation and clinical practice required.

222 SPEECH PATHOLOGY (3) I
ANSBERRY
Study of diagnostic and therapeutic procedures involved in speech rehabilitation.

223 PRACTICUM IN SPEECH CORRECTION (3) II
ANSBERRY
Clinical experience in the use of rehabilitation techniques with a variety of defects and disorders at various age levels.

224 FUNDAMENTALS OF AUDIOLOGY (3) I
ANSBERRY
The nature of hearing and its effects on speech. Problems of the deaf and hard-of-hearing with emphasis on educational techniques. Training in the use of audiometric equipment.

228 SEMANTICS (3) II
SMITH
The role of language in understanding. A study of verbal meaning and implication, and of the role of assumption in interrelationships. Practice in the use of language for clarity, accuracy, and proper evaluation.

230 ORAL READING FOR PROSPECTIVE TEACHERS (1) I, II
STAFF
The oral interpretation of literature; getting and giving the meaning of the printed word. Conferences required. Prerequisite: Speech 100, 105. Course fee $1.00.

232 ADVANCED INTERPRETATIVE READING (3) I, II
SMITH
Intensive practice in interpretative reading based on textual analysis of literary forms and careful study of principles of effective reading. Prerequisite: Speech 100; English 150 or equivalent.

250 GROUP LEADERSHIP AND DISCUSSION (3) I, II
HOSHOR
Principles and techniques of effective group leadership with special consideration of the semantic and psychological barriers to communication in group situations. Analysis and discussion of social problems.

251 PUBLIC DISCUSSION AND DEBATE (1) I, II
STAFF
Training in debate and discussion techniques including analysis of social, political, and economic problems. Public discussion and debate before campus and community groups required. May be repeated for a total of six credits.
255 ADVANCED PUBLIC ADDRESS (3) I  LEFFORGE
Speech composition and delivery; analysis of speech models from American Public Address; types of deliberative and ceremonial speeches by students. Prerequisite: Speech 150 or consent of instructor.

265 SPEECH FOR THE CLASSROOM TEACHER (3) I, II  STAFF
Speech pedagogy; principles and methods for the classroom teacher. Integration of speech improvement with all activities in the curriculum, emphasizing speech problems of Hawaii. Prerequisite: Speech 100, 105.

270 INTRODUCTION TO BROADCASTING (3) I  STEED
Critical analysis of radio and television as communications media and as industries. Comparison of American and foreign broadcasting with particular attention to the British system.

271 RADIO PRODUCTION (3) II  STEED
Production of radio programs and analysis of techniques required. Beginning announcing and practice in the use of equipment, including basic control operation. Study for Third Class FCC Operator’s License optional. Prerequisite: Speech 270 or consent of instructor.

295 PERSUASION: A STUDY IN RHETORIC (3) I  HOSHOR
The factors involved in influencing the attitudes, beliefs, and actions of audiences; analysis of oral propaganda. Classical and contemporary theories and examples are examined.

298 SPECIAL PROBLEMS (Ar.) I, II  STAFF

299 DIRECTED READING (Ar.) I, II  STAFF
Individual reading in the same fields as in 298. Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Speech.

300 RESEARCH (Ar.) I, II  STAFF
Individual research in the same fields as in 298 and 299. A total of 4 credits may be earned. Prerequisite: undergraduate major in Speech or the equivalent; consent of adviser or recommendation of department chairman.

310 SEMINAR IN RESEARCH METHODS (3) I, II  HOSHOR
Research methods, analysis and reporting of data, bibliography; examination and analysis of contemporary research in the field.

320 SEMINAR IN SPEECH CORRECTION (3) II  ANSBERRY
Extensive reading and research problems in the etiology and therapy of speech deviations.

330 SEMINAR IN INTERPRETATION (3) I, II  SMITH
Review of current literature in interpretation; preparation of reports and presentation of lecture recitals. Prerequisite: consent of instructor.

340 SEMINAR IN PHONETICS AND VOICE SCIENCE (3) I  CARR
Reading and research problems in advanced phonetics and voice science. Prerequisite: consent of instructor.

350 SEMINAR IN RHETORIC AND PUBLIC ADDRESS (3) II  LEFFORGE
Review of studies in rhetoric and public address; preparation of reports. Prerequisite: consent of instructor.

360 GENERAL SEMINAR (2) I, II  STAFF
Study and discussion of significant topics and problems in Speech. May be repeated.
Zoology and Entomology

Senior Professors Bess, Hiatt; Professors Banner, Blackburn, Carter, Chu, Gosline, Hardy, Matthews, Tester, Tuthill, van Weel; Associate Professors Boroughs, Hsiao, M. Sherman; Assistant Professors Namba, Townsley

100 GENERAL ZOOLOGY (4) I, II
Banner, Matthews, Staff
Zoological principles; studies of structure, development, relationships, and distribution of animals. This course and Botany 100 comprise an introduction to the biological sciences. Two lectures, one conference hour, and two laboratory periods. Laboratory fee $6.00.

110 PRINCIPLES OF HUMAN BIOLOGY (3) I
Matthews
Biological principles relating to man: man's place in nature, the structure and function of the organ systems, human diseases, how and what we inherit, human evolution and eugenics, and the biological aspects of human behavior. Lectures and demonstrations. Not open to students who have had Zoology 100.

151 COMPARATIVE ANATOMY OF THE VERTEBRATES (4) II
Hsiao, Staff
Study of the structure and relationship of the vertebrate groups and dissection of typical vertebrates. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Laboratory fee $9.00.

170 GENERAL ENTOMOLOGY (4) I, II
Hardy, Tuthill
Structure, habits, biology, and classification of insects. Emphasis on insects characteristic of Hawaii. Studies of insects in the field, and laboratory studies with living insects. Two lectures and two laboratory periods. Prerequisite: Zoology 100 or Botany 100; both recommended. Laboratory fee $3.00.

191 ELEMENTARY HUMAN ANATOMY AND PHYSIOLOGY (3) I, II
Hsiao
A general survey of the gross anatomy and physiology of the human body. Two lectures and one lecture-demonstration period. Laboratory fee $3.00. Not open to students who have had Zoology 291.

200 SCIENCE OF THE SEA (3) I
Hiatt
A nontechnical account of the seas; their origin, water movements, and life, with special attention to oceanographic exploration, fertility, and the world's great fisheries. Frequent field trips to the coral reef and oceanographic laboratories on Oahu and on oceanographic vessels offshore. Prerequisite: one year of science courses.

240 INTRODUCTION TO ECOLOGY (2) I
Hiatt
Animals in relation to their biotic and physical environment; animal communities in the sea, on the shore, and on the land. Prerequisite: Zoology 100.

245 ZOOGEOGRAPHY (2) I
Gosline
Marine and terrestrial animal distributions and the physiographic, climatic, and historic factors affecting them. Prerequisite: Zoology 100. Desirable preparation: Zoology 240; Geology 151. (Alternate years; not offered 1957-58.)

253 PARASITOLOGY (3) II
Chu
The general field of parasitology with reference to the parasites and parasitic diseases affecting man and domestic animals; emphasis on classification, comparative morphology, life history, and control. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Laboratory fee $5.00.

254 INSECT MORPHOLOGY (3) I
Namba
Comparative and gross morphology of insects, with attention to structures emphasized in systematic and economic entomology. Homologies of structures in the various groups of insects; anatomy; development in representative groups. Two lecture-laboratory periods. Prerequisite: Zoology 170. Laboratory fee $1.00.

255 SYSTEMATIC ENTOMOLOGY (3) II
Tuthill
Classification of insects; orders and families. Use of taxonomic tools. Two lecture-laboratory periods. Prerequisite: Zoology 254. Laboratory fee $2.00.
256 MEDICAL AND VETERINARY ENTOMOLOGY (3) I HARDY
A study of insects and other arthropods in relation to the spread and causation of human and animal diseases; emphasis on the Pacific, the Orient, and the United States. Two lectures and two laboratory periods. Prerequisite: Zoology 170. Laboratory fee $6.00. (Alternate years; offered 1957–58.)

257 SCALE INSECTS (3) I HARDY
The scale insects of Hawaii with emphasis on taxonomy, field and laboratory techniques, economic importance, and control. Two lecture-laboratory periods. Prerequisite: Zoology 170. Desirable preparation: Botany 102. Laboratory fee $5.00. (Alternate years; not offered 1957–58.)

260 HISTOLOGY (3) II HSIAO
Studies of tissues, principles of histology, and microscopic anatomy of a limited number of vertebrate animals. Two lectures and two laboratory periods. Prerequisite: Zoology 151. Laboratory fee $6.00.

261 VERTEBRATE EMBRYOLOGY (3) I HSIAO
Principles of embryology illustrated by a detailed study of the development of the frog, chick, and pig. Two lectures and two laboratory periods. Prerequisite: Zoology 151. Laboratory fee $8.00.

262 MICROTECHNIQUE (3) I, II MATTHEWS
The fixing, staining, and mounting of tissues and entire animals and organs. Two lecture-laboratory periods. Prerequisite: Zoology 100. Laboratory fee $15.00.

273 ECONOMIC ENTOMOLOGY (3) II SHERMAN
A general consideration of insect pests; chemical, biological, and cultural control. Laboratory exercises on Hawaiian insects of economic importance. Field trips and reports. Two lectures and two laboratory periods. Prerequisite: Zoology 170. Laboratory fee $3.00.

275 GENERAL ICHTHYOLOGY (3-3) Yr. GOSLINE
First semester: anatomy, physiology, life history, ecology, and distribution of fishes. Second semester: the classification of fishes with particular reference to Hawaiian species. Laboratory fee $8.00.

276 BIOMETRY (3) I BLACKBURN
Elementary statistical methods and their application to biological data. Two lecture-laboratory periods. Prerequisite: Mathematics 151. Desirable preparation: Mathematics 152.

277 BIOMETRICAL ANALYSIS (3) II BLACKBURN

280 COMPARATIVE ANATOMY OF INVERTEBRATES (3) I BANNER
Comparative anatomy, development, and phylogeny of the invertebrate animals. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Laboratory fee $6.00.

281 TAXONOMY OF MARINE INVERTEBRATES (3) II TOWNSLEY
Identification and classification of reef and shore fauna. Students select a particular group for concentrated study of taxonomic methods. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Desirable preparation: Zoology 280. Laboratory fee $6.00. (Alternate years; offered 1957–58.)

282 MARINE ECOLOGY (3) II TOWNSLEY
Natural history, behavior, and relation of invertebrates and fishes to their complete environment, with emphasis on marine communities found in Hawaii. Two lectures and two laboratory periods. Prerequisite: Zoology 100. Desirable preparation: Zoology 281. Laboratory fee $6.00. (Alternate years; not offered 1957–58.)
284  COMPARATIVE INVERTEBRATE PHYSIOLOGY (3) II  
van WEEL  
Comparative studies on digestion, respiration, circulation, excretion, ciliary and muscular movement, receptors, coordination by nervous action and hormones, and reproduction, with emphasis on marine invertebrates. Two lecture-laboratory periods. Prerequisite: Zoology 291; Physics 102. Laboratory fee $8.00.

285  ANIMAL EVOLUTION (2) II  
GOSLINE  
The processes of evolution, particularly the interaction between population genetics and natural selection in animals. Prerequisite: Zoology 100. Desirable preparation: Genetics 254.

286  HISTORY OF ZOOLOGY (2) I  
BANNER  
The development of zoological science as a specialized field of human knowledge. Prerequisite: Zoology 100.

287  METHODS OF FISHERY INVESTIGATION (3) II  
BLACKBURN  
Appropriate methods of investigation applied to problems in fishery biology, with emphasis upon those problems concerning pelagic and shore fisheries of the central Pacific area. Prerequisite: Zoology 275 or equivalent and 276. Desirable preparation: Zoology 277.

290  OCEANOGRAPHY (3) II  
BANNER  
Theory and techniques of physical, chemical, and biological oceanography, with emphasis upon the pelagic life of the oceans and its relation to the physical and biological environment. Two lectures and two laboratory periods. Prerequisite: Zoology 280; Chemistry 103. Desirable preparation: Zoology 240. Laboratory fee $10.00.

291  GENERAL PHYSIOLOGY (3) I  
van WEEL  
Physical and chemical properties of protoplasm and functions of the systems of organs of the animal body, with emphasis on the fundamental principles of physiology. Two lectures and two laboratory periods. Prerequisite: Zoology 100; Chemistry 149. Desirable preparation: Chemistry 230; Physics 102. Laboratory fee $10.00.

298  GENERAL ZOOLOGY SEMINAR (1) II  
STAFF  
Presentation of reports upon research, or reviews of zoological literature. Prerequisite: senior standing. Required of students majoring in zoology or entomology.

299  DIRECTED READING OR RESEARCH (Ar.) I, II  
STAFF  
Limited to senior majors with a 2.7 grade-point ratio, or a 3.0 grade-point ratio in Zoology.

300  DIRECTED RESEARCH (Ar.) I, II  
STAFF  
Directed research in the fields of ichthyology, fisheries biology, marine zoology, oceanography, ecology, anatomy, histology, cytology, physiology, entomology, genetics, and parasitology. Prerequisite: graduate standing and consent of instructor.

311  ENTOMOLOGY SEMINAR (1) I  
STAFF  
The literature of entomology with emphasis upon current literature and recent advances. Reviews and reports on research. Prerequisite: advanced standing in entomology or consent of instructor. May be repeated. Required of graduate students majoring in entomology.

312  SEMINAR IN MARINE ZOOLOGY (1) I  
STAFF  
Presentation of reports upon research or reviews of literature pertaining to marine zoology. Prerequisite: graduate standing. May be repeated. Graduate students majoring in marine zoology are required to take this course, 313, or 314.

313  SEMINAR IN FISHERIES BIOLOGY (1) II  
BLACKBURN  
Presentation of reports on investigations and literature pertaining to fisheries biology, with stress on problems relating to pelagic fisheries of the Pacific. Prerequisite: graduate standing.
314 SEMINAR IN ADVANCED MARINE AND FISHERIES BIOLOGY (1) II TESTER

Presentation of reports on investigations and literature on pelagic fishery problems, and their relation to oceanography and ecology of the sea. Open only to advanced students in marine and fisheries biology.

315 ZOOLOGICAL LITERATURE (1) I HIATT

A survey of zoological literature with stress upon bibliographic tools. Prerequisite: graduate standing. Required of all candidates for advanced degrees in zoology or entomology.

316 PREPARATION OF SCIENTIFIC MANUSCRIPTS (1) II TUTHILL

Consideration of styles and methods of preparing scientific manuscripts for publication; proofreading and editing. Prerequisite: graduate standing. Required of all candidates for advanced degrees in zoology or entomology.

350 ADVANCED SYSTEMATIC ENTOMOLOGY (3) II TUTHILL

Problems in systematic entomology. Classification of special groups. Nomenclatorial problems; the international code. Two lecture-laboratory periods. Prerequisite: Zoology 255 or consent of instructor. Laboratory fee $1.00. (Alternate years; offered 1957-58.)

352 INSECT ECOLOGY (3) I BESS

Insects as living units in an environment of physical and biotic factors. Habitats, populations, autecology, and synecology. Two lectures and one laboratory period. Prerequisite: Zoology 255 or the equivalent, or advanced standing in entomology. (Alternate years; offered 1957-58.)

353 BIOLOGICAL CONTROL OF PESTS (3) I BESS

Fundamental concepts of biological control. Problems involved in the introduction of beneficial enemies of insect and weed pests, and a critical study of major biological control projects throughout the world. Two lectures and one laboratory period. Prerequisite: Zoology 255 or the equivalent. (Alternate years; not offered 1957-58.)

354 INSECT TOXICOLOGY (4) II SHERMAN

Principles and problems involved in the chemical control of insect pests. Studies in insect toxicology and insect physiology from the standpoint of how they affect the use of insecticides in the control of insect pests. Two lectures and two laboratory periods. Prerequisite: Chemistry 149; Zoology 273 or the equivalent. (Alternate years; offered 1957-58.)

355 INSECT-TRANSMITTED DISEASES OF PLANTS (3) II CARTER

Lectures and laboratory studies in the problems of insect transmission of plant diseases. Prerequisite: graduate standing.

370 PRINCIPLES OF SYSTEMATIC ZOOLOGY (3) I GOSLINE

Taxonomic categories and the processes of evolution involved in their development; presentation of taxonomic data; rules of zoological nomenclature. Prerequisite: graduate standing or consent of instructor. (Alternate years; offered 1957-58.)

387 POPULATION DYNAMICS (3) I BLACKBURN

Laws of increase and decrease in populations with special reference to fish; theory of fisheries management; methods of estimating vital statistics of fish populations. Prerequisite: Zoology 287 or the equivalent. (Alternate years; offered 1957-58.)

388 FISHERIES MANAGEMENT (3) I BLACKBURN

Survey of outstanding programs of fisheries investigation: problems, methods of attack, and results; prediction of fluctuation in abundance and control of fishing effort to produce maximum sustained yield. Prerequisite: Zoology 287 or the equivalent. Desirable preparation: Zoology 387. (Alternate years; not offered 1957-58.)

391 ADVANCED GENERAL PHYSIOLOGY (3) II van WEEL

Some of the major problems in general physiology and the methods available for their study. Two lecture-laboratory periods. Prerequisite: Zoology 291. Laboratory fee $8.00. (Alternate years; not offered 1957-58.)
392 PHYSIOLOGICAL ECOLOGY (2) II
von Weel

The physiological aspects of adaptation to the physical and biotic features in the environment. Feeding, digestion, respiration, osmo-regulation, sense organs, behavior, and other factors in relation to the environment; special attention to marine species. Two lecture-laboratory periods. Prerequisite: Zoology 281, 291. Desirable preparation: Zoology 240. Laboratory fee $8.00. (Alternate years; offered 1957-58.)

395 ISOTOPIC TRACERS IN BIOLOGY (2) I
BOROUGH

A survey of atomic structure, stable and radioactive isotopes, equipment, and the application of isotopes to the problems of physiology, metabolism, genetics, and other biological fields. Two lectures and one laboratory period. Prerequisite: consent of the instructor. Laboratory fee $3.00.
HILO BRANCH

Associate Professor INOUYE (Director); Assistant Professors EASLEY, FORBES, MOSELEY, TATSUOKA; Instructors BONK, CARROLL, LAVY, MARCUS, MELTZER, MINN, NAKAMURA, RITTER, YARBERRY; Lecturer SAIGO

COURSES:† Anthropology 150; Art 140, 142–143, 150, 151, 154, 155; Business 100, 150–151, 160–161; Chemistry 103; Economics 150–151‡; Education 100; English 101, 109, 120–121, 150‡; Geography 151; Government 150‡; Health and Physical Education 101, 102, 130; History 100, 110; Japanese 100, 101; Mathematics 149, 150, 151, 152, 153; Music 110, 111, 150, 209, 210; Philosophy 100; Psychology 100, 150‡, 185, 186; Science 120–121; Sociology 151; Spanish 100, 101; Speech 100, 101, 102, 105, 106, 107, 150, 151, 251; Zoology 100.

SCHOLARSHIPS. American Association of University Women, Hilo Chapter, $170; Beta Sigma Phi, Eta Chapter, $70; Buddhist Friendship Society of Hilo (2), $170 each; Hilo High School Class of 1943, $150; Hilo Women’s Club (1), $300; Hui Hanalike (2), $200 each; Maharlikan Club of Hawaii, $100; Territory of Hawaii, $190; University of Hawaii Alumni Association, Hilo Chapter, $100; University of Hawaii, ASUHBB Scholarship, $95; University of Hawaii, AWHSB Scholarship, $170; Chester Wentworth Science Scholarship, $100; Zonta Club of Hilo, tuition, fees, and books.

LOAN FUNDS. Hawaiian Civic Club; Waiakea Social Settlement Fund; Buddhist Friendship Society Fund.

* Degrees listed under Instruction. (See p. 8.)
† Course descriptions given under the corresponding departments.
‡ Courses accepted for comparable required courses on the Manoa Campus.
## SUMMARY OF ENROLLMENT FOR 1956-57

<table>
<thead>
<tr>
<th>Graduate School</th>
<th>1ST SEMESTER</th>
<th>2ND SEMESTER</th>
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</thead>
<tbody>
<tr>
<td>Advanced Degree Candidates</td>
<td>98</td>
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<tr>
<td>Five-Year Diploma Candidates</td>
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<tr>
<td>Unclassified (not candidates for degrees)</td>
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<tr>
<td>Professional Teaching Certificate (not candidates for degrees)</td>
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<td>College of Arts and Sciences</td>
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<tr>
<td>Seniors</td>
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<td>Juniors</td>
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<td>Sophomores</td>
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<td>Freshmen</td>
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<td>College of Applied Sciences</td>
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<td>Seniors</td>
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<td>Seniors</td>
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<td>Auxiliary Teacher Training Program (not candidates for degrees)</td>
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<td>Juniors</td>
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<td>College of Business Administration</td>
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<tr>
<td>TOTAL DEGREE AND DIPLOMA CANDIDATES</td>
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<td>College of General Studies*</td>
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<td>Undergraduates in day credit courses</td>
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<td>Duplications</td>
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<td>GRAND TOTAL IN CREDIT COURSES</td>
<td><strong>6,676</strong></td>
<td><strong>6,508</strong></td>
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* The College of General Studies also enrolled 1,657 the first semester and 2,351 the second semester in noncredit courses.
## INDEX

- **Academic year**, 3, 40
- **Accreditation of the University**, 40
- **Administrative Officers**, University, 7
- **Admission requirements**, 46–49
- **Affiliate Graduate Faculty**, 37
- **Agricultural Engineering Institute**, 43, 99
- **Agricultural Experiment Station**, 30–32, 98
- **Agricultural Extension Service**, 32–36, 100
- **Agriculture, College of**, 40, 90–101
- **Agriculture, courses in**, 112–117
- **Air Science**, courses in, 117
- **Andrews, Arthur L., Theatre**, 43
- **Anthropology**, courses in, 117–119
- **Applied Science, College of**, 74–82
- **Applied Music**, courses in, 175, 176
- **Aquarium**, 41
- **Architecture (See Prearchitecture)**
- **Army, Department of the**, 56, 60, 61
- **Art, courses in**, 119–123
- **Arts and Sciences, College of**, 66–73
- **Asian and Pacific Languages**, courses in, 123, 124
- **Associated Students of the University of Hawaii**, 63
- **Atherton, Charles H., House**, 44, 64
- **Athletics and recreation**, 56, 57
- **Attendance at classes**, 53
- **Auditors in classes**, 46, 49, 50
- **Auditors, registration of**, 49
- **Awards (See Prizes and awards)**

- **Bacteriology**, courses in, 124, 125
- **Biological Laboratory (See Marine Biological Laboratory)**
- **Bishop Museum, Bernice Pauahi**, 42
- **Board of Athletic Control**, 57
- **Board of Regents**, 6
- **Bookstore, University**, 43
- **Botany, courses in**, 125–128
- **Buildings (See Campus and buildings)**
- **Business, courses in**, 128–133
- **Business Administration, College of**, 40, 102–105

- **Cafeteria, University**, 44, 64
- **Calendar, University**, 3
- **Campus and buildings**, 43, 44

- **Certificates (See Degrees, diplomas, and certificates)**
- **Changes in study programs**, 49–51
- **Chemistry, courses in**, 133–135
- **Chinese, courses in**, 123
- **Coat of arms, University**, 40
- **College aptitude test**, 46
- **College of Agriculture**, 40, 90–101
- **College of Applied Science**, 40, 74–82
- **College of Arts and Sciences**, 40, 66–73
- **College of Business Administration**, 40, 102–105
- **Colors, University**, 40
- **Control of the University**, 40
- **Co-operating institutions**, 42, 43
- **Course examinations**, 54
- **Courses, announcement of**, 112–199
- **Credits**, 51, 52
- **Credit by examination**, 54
- **Curricula:**
  - **College of Agriculture**, 90–101
  - **College of Applied Science**, 74–82
  - **College of Arts and Sciences**, 66–73
  - **College of Business Administration**, 102–105
  - **College of General Studies**, 106, 107
  - **Graduate School**, 108–111
  - **Teachers College**, 83–89

- **Degree requirements:**
  - advanced, 109–111
  - undergraduate, 53, 54

- **Degrees, diplomas, and certificates:**
  - bachelor of arts, 67
  - bachelor of business administration, 102
  - bachelor of education, 84
  - bachelor of fine arts, 67
  - bachelor of science, 74, 83, 90
  - doctor of philosophy, 111
  - five-year diploma, 83, 84
  - master's degree, 110, 111
  - teacher's professional certificate, 84

- **Dental Hygiene curriculum**, 87, 88
- **Dental Hygiene, courses in**, 136
- **Description of the University**, 39
- **Dispensary**, 56
- **Dormitories (See Living accommodations)**

201
Economics, courses in, 138–140
Education, courses in, 140–146
(See also Teachers College)
Elementary curriculum, 84–87
Employment (See Expenses)
Engineering, courses in, 146–149
Engineering curricula, 75–77
English, courses in, 149–152
Enrollment, 200
Entomology
(See Zoology and Entomology)
Entomology, U. S. Bureau of, 43
European Languages, courses in, 153–155
Examinations, course, 54
Expenses, student, 64
(See also Tuition and fees)
Experiment Station, 30–32, 98–100
Extension Service in Agriculture and Home Economics, 32–36, 100, 101

Faculty and staff, 7–38
Fees (See Tuition and fees)
Fellowships and scholarships, 57–59
Five-year diploma, 45, 46
Frear Hall (See Living accommodations)
French, courses in, 153
Freshman orientation period, 48
Fruit Fly Laboratory, 43

General Studies, College of, 106, 107
Geography, courses in, 155–157
Geology and Geophysics, courses in, 157, 158
German, courses in, 153, 154
Government, courses in, 158–161
Grades, 51–53
Graduate School, 49, 108–111
Graduate students, 45, 49, 108–111
Graduation requirements, 53, 54
Greek, courses in, 154

Hale Laulima, 44
Hawaii Agricultural Experiment Station, 30–32, 98–100
Hawaii School of Religion, 43
Hawaii Sociological Research Laboratory, 41
Hawaiian, courses in, 123
Hawaiian Sugar Planters' Association, 42, 43
Health and Physical Education, courses in, 161–163
Health requirements, 56, 57

Hearing
(See Speech and Hearing Clinic)
Herbaria, 44
Hilo courses, 199
History, courses in, 164–166
History of the University, 39, 40
Home Economics, courses in, 166–170
Home Economics curricula, 96–98
Honolulu Academy of Arts, 42
Honolulu Stadium, 44
Honors at graduation, 61, 62
(See also Prizes and awards)
Household Art, courses in, 168
Household Science, courses in, 168–170
Human Relations Area Files, 41

Industrial Relations Center, 41, 42
Instructional staff (See Faculty)
Interdepartmental courses, 170

Japanese, courses in, 124
Korean, courses in, 124

Laboratory Schools (See Teachers College Laboratory Schools)
Latin, courses in, 154
Law (See Prelegal program)
Legislative Reference Bureau, 36, 37, 41
Library, University, 43
Library fines, 53
Library Science, courses in, 170, 171
Linguistics, 119
Literature (See English, courses in)
Living accommodations, 64, 65
Loan funds, 62

Majors in College of Arts and Sciences, 68–70
Marine Biological Laboratory, 44
Mathematics, courses in, 171, 172
Medical Technology curriculum, 77, 78
Medical Technology, courses in, 172, 173
Medicine (See Premedicine)
Military Science, courses in, 173
Military training, 56
Music, courses in, 173–176

Noncredit courses
(See College of General Studies)
Nursing, courses in, 176–178
Nursing, School of, 78–81
Oceanography, courses in, 178
Office of Student Personnel, 36
Office of Student Residences, 64
Officers of the University, 7
Organization and support of the University, 40, 41
Orientation period
(See Freshman orientation period)
Outdoor Theatre
(See Andrews, Arthur L., Theatre)
Pacific and Asian Affairs Council, 42
Pacific Languages
(See Asian and Pacific Languages)
Philosophy, courses in, 178–180
Physical education
(See Health and Physical Education)
Physics, courses in, 180, 181
Pineapple Research Institute of Hawaii, 42
Prearchitectural program, 77
Predental program, 71
Prelegal program, 71
Premedical program, 71, 72
Preministerial program, 72
Preosteopathic program, 72, 73
Preschool-primary curriculum, 85–87
Presocial Work program, 73
Prizes and awards, 59–61
Psychology, courses in, 182–185
Public Administration program, 72
Reading Clinic, 41
Recreation Leadership curriculum, 81, 82
Regents, Board of, 6, 40
Registration, 49–51
Regular students, 46
Related services, 41, 42
Religion, courses in, 185, 186
Religion, Hawaii School of, 43
Requirements, admission, 46–49
Requirements for continued registration, 52, 53
Reserve Officers’ Training Corps
(See Military Science and Air Science)
Residence accommodations
(See Living accommodations)
Residence requirements, 54
Russian, courses in, 154
Scholarships and Fellowships, 57–59
Scholastic standards, 52, 53
School of Nursing, 78–81
School of Religion, 43
School of Social Work, 110, 111
Seal of the University, 40
Secondary curriculum, 85–87
Senate, University, 41
Social Work, courses in, 186–188
(See also School of Social Work)
Sociology, courses in, 188–191
Spanish, courses in, 155
Speech, courses in, 191–193
Speech and Hearing Clinic, 41
Sports, 56, 57
Student activities, 63
Student discipline, 53
Student housing
(See Living accommodations)
Student Personnel, Office of, 36, 64
Students, classification of, 45, 46
Summer session, 62
Symbol of the University, 40
Teachers College, 40, 83–89
Teachers College laboratory schools, 88
Teacher’s professional certificate, 84
Technical agriculture, 94–96
Theatre (See Drama and Theatre)
Theatre Group, 63
Traffic violations, 53
Transfer by students between colleges of the University, 50, 51
Transfer to or from other institutions, 51, 52
Tropical crop production, 93
Tuition and fees, 54, 55
Unclassified students, 45
Undergraduate students, 45
Unit, definition of, 46, 47
United States Fish and Wildlife Service, 43
University calendar, 3
Veterans:
admission of, 47
tuition and fees, 54, 55
Vocational agriculture, 92, 93
Vocational home economics education, 88
Volcano Research Laboratory, 41
Withdrawal by students, 49–51
Women’s residence hall
(See Living accommodations)
Zoology and Entomology, courses in, 194–198