Bulletin of the

University of Kentucky

CATALOG NUMBER

For 1929-30

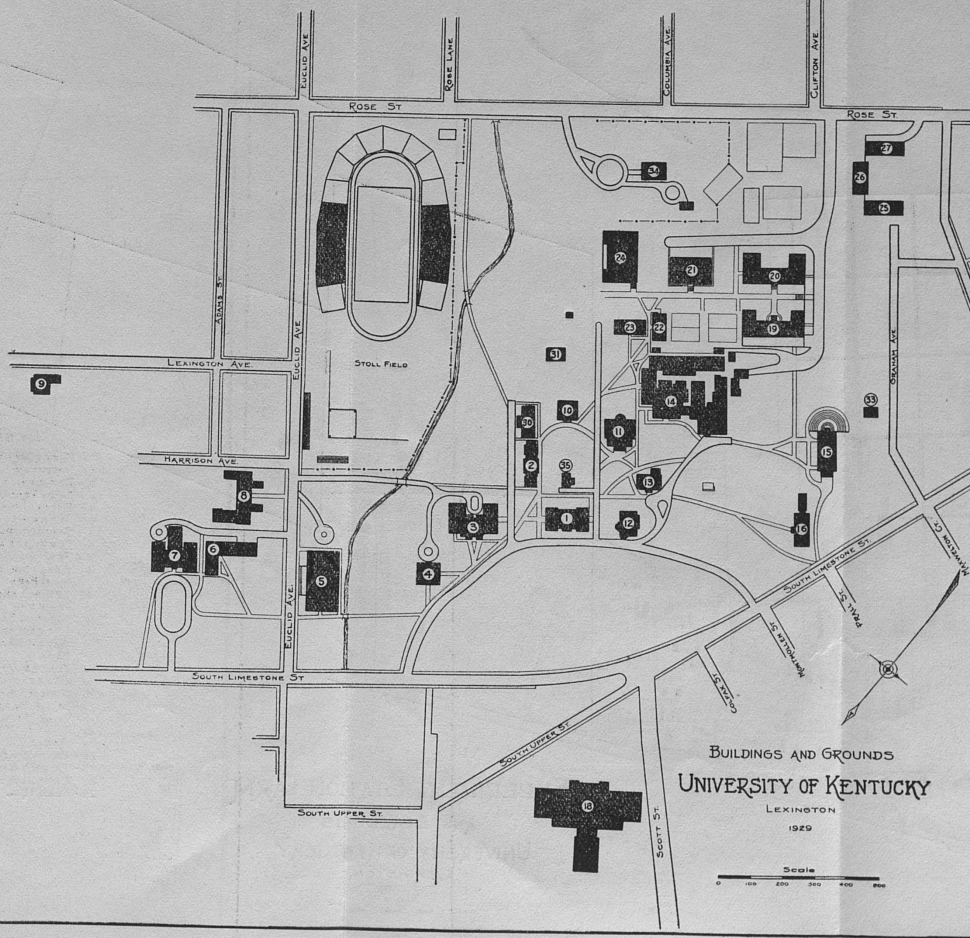
Announcements

1930-31

VOL. 22 SEPTEMBER No. 10

Published by the University of Kentucky, Lexington. Entered as Second Class Matter at the Post Office, Lexington, Ky., under the Act of July 16, 1894.

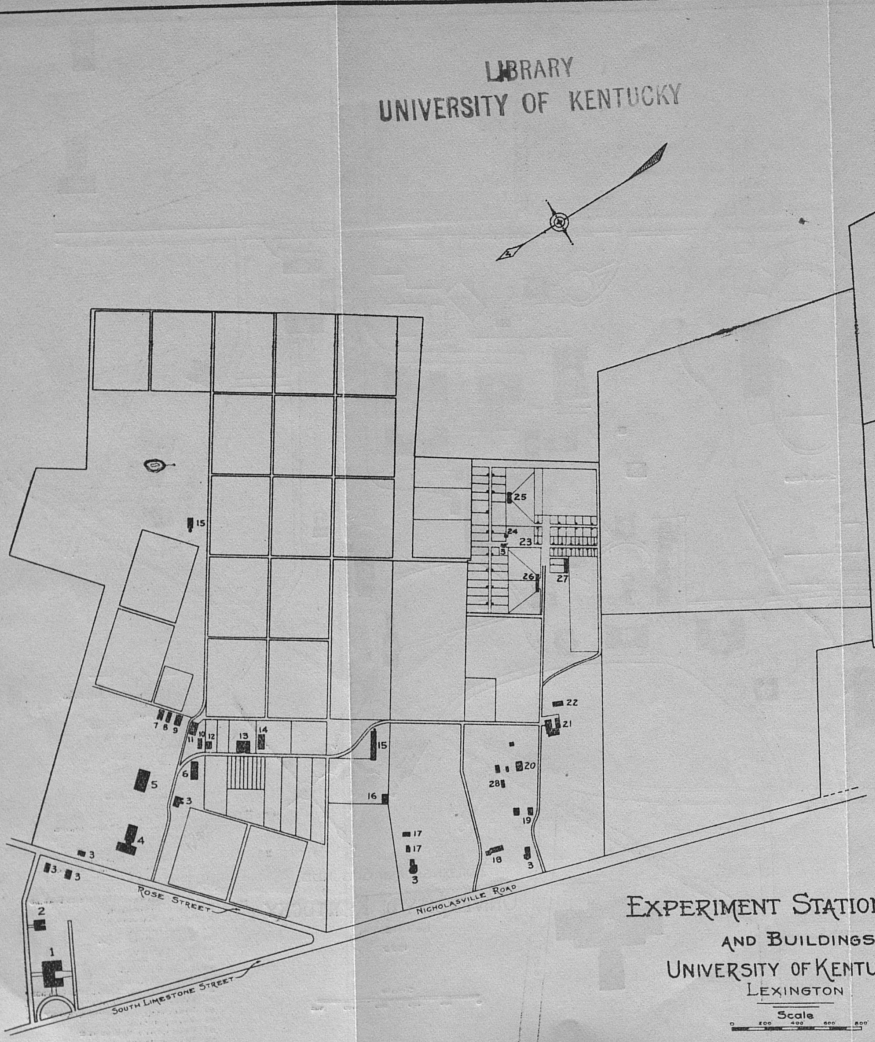
Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized June 30, 1920.



— Key —

1 Administration Building
2 White Hall
3 Alumni Hall
4 Education Building
5 Men's Gymnasium
6 Boyd Hall
7 Paterson Hall
8 Art Building
9 Smith Hall
10 Old Library
11 Science Building
12 Law Building
13 Neville Hall
14 Mechanical Hall and Shops
15 Memorial Hall
16 Agricultural Building
17 Experiment Station
18 Teachers Training Building
19 McVey Hall
20 Kastle Hall
21 Civil Engineering and Physics Building
22 Mining Laboratory
23 Mining Building
24 New Library
25 Breckinridge Hall
26 Kinkead Hall
27 Bradley Hall
28 Dairy Building
29 Stock Pavilion
30 Department of Buildings and Grounds
31 Paterson Residence
32 Insectary and Conservatory
33 Animal House
34 President's Residence
35 Heating Plant

LIBRARY
UNIVERSITY OF KENTUCKY



EXPERIMENT STATION FARM
AND BUILDINGS
UNIVERSITY OF KENTUCKY
LEXINGTON

Scale

LEGEND

1 - EXPERIMENT STATION
2 - INSECTARY
3 - RESIDENCE
4 - DAIRY PRODUCTS BUILDING
5 - STOCK JUDGING PAVILION
6 - VETERINARY HOSPITAL
7 - SEED STORAGE HOUSE
8 - FERTILIZER HOUSE
9 - TRACTOR BARN
10 - ABATTOIR
11 - MULE BARN
12 - SERUM LABORATORY
13 - PIGGERY
14 - TOBACCO BARN
15 - STEER FEEDING BARN
16 - SHEEP BARN
17 - BARN
18 - CONSERVATORY
19 - GENERAL UTILITY BARN
20 - TOBACCO BARN
21 - DAIRY BARN
22 - FEED STORAGE HOUSE
23 - POULTRY PLANT
24 - GARAGE
25 - LAYING HOUSE
26 - SERVICE HOUSE
27 - BROODER HOUSE
28 - FEED MILL

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CATALOG NUMBER

OF THE

UNIVERSITY OF KENTUCKY

1929-30

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UNIVERSITY
OF KENTUCKY
LIBRARY

Kentucky University.

LEXINGTON, KENTUCKY

91720

FRESHMAN WEEK

(SEPTEMBER 11 TO 16, 1930)

Freshmen entering the University for the first time are required to report to the Memorial Hall Thursday, Sept. 11, at 9:00 A. M. Those appearing at any later time will be subject to the penalty for late registration.

During the week the freshmen will hear lectures on important University customs and regulations, will meet members of the faculty, and will become acquainted with the University campus and buildings. They will also take a number of tests for the purpose of enabling the University to advise them relative to their work. In short, the purpose of the week is to prepare each student, as far as possible, for the work that is expected of him and to start him right at the beginning of his University life.

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CALENDAR 1930-31

1930

August 16 — Last date for application for ex-service privileges for the first semester.

ENTRANCE EXAMINATIONS AND FRESHMAN REGISTRATION

Sept. 11, 12, 13 — Thursday, Friday, Saturday.

FIRST SEMESTER

September 15, 16 — Monday, Tuesday. Registration for first semester, including registration for Evening Courses.

September 15, 16 — Payment of first quarter's board in residence halls for women.

September 15, 16 — Payment of first semester's rent in men's dormitories.

September 16 — Tuesday, meeting of Board of Trustees.

September 17 — Wednesday, class work begins.

September 20 — Saturday morning, registration for evening courses.

September 20 — Last date for making changes in registration or in the schedule without payment of fees.

September 26 — Last date for registration for first semester without special permission from the heads of the departments concerned.

September 29 — Monday, last date on which a student may enter an organized class.

September 29 — Monday, last date in which a subject may be dropped without a grade by permission of the dean.

October 16 — Thursday, last date on which a student may withdraw and receive refund on matriculation fees.

November 17 — Monday, payment of second quarter's board in the residence halls for women.

November 27 — Thursday, Thanksgiving holiday.

December 9 — Tuesday, meeting of Board of Trustees.

December 20 — Saturday noon, Christmas holiday begins.

1931

January 3 — Saturday, last date for application for ex-service privileges.

January 5 — Monday, 8:00 a. m., Christmas holiday ends.

January 23-31 — Mid-year examinations.

January 29 — Registration for second semester by students who were registered for the first semester.

January 30 — Friday, first semester convocation.

February 2	Monday, registration of new students for second semester.
February 2	Monday, payment of third quarter's board in residence halls for women.
February 2	Monday, payment of second semester's rent in dormitories for men.
February 3	Tuesday, instruction resumed.
February 7	Saturday, last date for making changes in registration or in the schedule without payment of fees.
February 12	Thursday, last date for registration for second semester without special permission from heads of departments concerned.
February 16	Monday, last day on which a student may register in an organized class.
February 16	Monday, last date on which a subject may be dropped by permission of the dean without a grade of E.
March 4	Wednesday, last date on which a student may withdraw and receive refund on matriculation fees.
April 1	Wednesday, payment of fourth quarter's board in residence halls for women.
April 2-7	Thursday, 8:00 a. m. to Tuesday, 8:00 a. m., Easter holidays.
April 7	Tuesday, meeting of Board of Trustees.
May 1	Friday, May Day.
May 16	Last date for making application for ex-service privileges for first term of the summer session.
May 25	Last date for examinations for candidates for degrees.
May 26	Last date for reporting grades for candidates for degrees.
May 29-June 4	Friday to Thursday, final examinations.
May 31	Sunday, baccalaureate sermon.
June 4	Thursday, Meeting of Board of Trustees.
June 5	Commencement.
June 8	Monday, Junior Club Week.
June 15	Monday, registration for first summer term.

Part I

OFFICERS OF ADMINISTRATION AND INSTRUCTION

BOARD OF TRUSTEES

1. EX-OFFICIO MEMBERS
   - Flem D. Sampson, Governor
   - W. C. Bell, Superintendent of Public Instruction
   - Newton Bright, Commissioner of Agriculture

2. FROM THE STATE BOARD OF AGRICULTURE
   - James Rash, Henderson, 1936
   - Dr. W. W. Wash, Lawrenceburg, 1934
   - J. M. Finch, Maysville, 1932

3. MEMBERS AT LARGE
   - Richard C. Stoll, Lexington, 1936
   - Robert G. Gordon, Louisville, 1936
   - Joe B. Andrews, Newport, 1934
   - James C. Utterback, Paducah, 1934
   - James W. Turner, Paintsville, 1932
   - H. M. Froman, Lexington and Ghent, 1932

4. ALUMNI MEMBERS
   - Louis Hillenmeyer, Lexington, 1936
   - James Park, Lexington, 1934
   - E. B. Webb, Lexington, 1932

UNIVERSITY OF KENTUCKY LIBRARY

OFFICERS OF THE BOARD
- Flem D. Sampson, Chairman
- Richard C. Stoll, Vice Chairman
- Wellington Patrick, Secretary
- John Skain, Treasurer

EXECUTIVE COMMITTEE
- Richard C. Stoll, Chairman
- Robert G. Gordon
- Joe B. Andrews
- H. M. Froman
- James Park

EXECUTIVE OFFICERS

OFFICE OF THE PRESIDENT

FRANK LEROND MCVEY, B. A., Ph. D., LL. D., President of the University
JANE J. NICHOLS, Secretary
ELOISE GALLOWAY, Stenographer

OFFICE OF THE BUSINESS AGENT

DAVID HOWARD PEAK, A. M., Business Agent
LINN HEMINGWAY MCCAIN, Accountant
MINNIE PHERIGO, Order Clerk
MABEL IRENE LEWIS, Assistant Accountant
RUTH EARNEST, Voucher Clerk
ANNE GORMLEY, Ledger Clerk
MARGARET LEWIS, Cashier
VIRGINIA BAXTER ERNEST, Clerk

OFFICE OF THE REGISTRAR

EZRA L GILLIS, A. B., Registrar and Secretary of the Senate
MAPLE MOORES, Secretary and Officer of Admissions
HELEN HAYDEN STANLEY, B. S., Recorder
DOROTHY LINVILLE, A. B., Assistant Officer of Admissions
DOLOTHY RUTH JOHNSON, A. B., Assistant Recorder
BESSIE O. CLEVELAND, Transcript Clerk
RUTH LEE, Stenographer
QUEENIE MORROW GRABLE, M. A., Assistant Secretary
JESSIE WILSON, A. B., Recording Clerk
*MARGARET WILSON, A. B., Recording Clerk

DEAN OF MEN

COLUMBUS RUDOLPH MELCHER, A. M.
PAULINE ADAMS YOUNG, A. B., Secretary

DEAN OF WOMEN

SARAH GIBSON BLANDING, A. M.
SARAH BENNETT HOLMES, A. B., Assistant Dean
LAURA GILL HOFFMAN, Secretary

LIBRARIES

MARGARET ISADORE KING, A. B., B. S., University Librarian
ALMA HILL JAMISON, A. B., Head Cataloger
BESSIE MARY BOUGHTON, A. B., Assistant in Cataloging University Library

*Resigned June 30, 1930.

Ellen V. Butler, A. B., Cataloger
Grace Lee Snodgrass, Librarian, Experiment Station
Clara Warland White, Librarian, College of Law
Daisy Taylor Croft, A. B., Assistant in Library
Artie Lee Taylor, Assistant
Margaret Helmsing Tuttle, A. B., Assistant
Elizabeth Chapman, A. B., B. S., Reference Librarian
Emma Jane Stevens, B. S., Order Clerk and Secretary University Library
Mary Elizabeth Hanson, A. B., B. S., Assistant in Library

UNIVERSITY Y. M. C. A.
Bart Nixon Peak, A. B.

UNIVERSITY Y. W. C. A.
Margaret Lewis, A. B., Secretary

RESIDENCE HALLS
Eda M. Giles, Director of Residence Halls for Women
Dora K. Berkley, Director of Patterson Hall
Mrs. D. A. Sherrill, Director of Smith Hall
Mrs. J. M. Brown, Housekeeper

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M. J. Crutcher, B. M. E., Superintendent
Thos. D. Boyd, Assistant
Laura Shade, Secretary
Claude Dickerson, Steam-Fitter and Plumbing Foreman
Carvel Hensley, Painter Foreman
G. C. Jones, Carpenter Foreman
Julius Rominger, Gardener
L. D. Kitchen, Electrician
Lon D. Moore, Custodian Men's Gymnasium

SECRETARIAL AND CLERICAL STAFF
Marie Dickerson, Department of Vocational Teachers Training
Willena Duncan, Office of Dean of College of Arts and Sciences
Edith Love, Department of Chemistry
Nancy B. Bentley, Department of Mining
Katherine Hughes Lyon, Secretary to Director of Athletics
Daisy Jordan, College of Education
Mary N. Eubank, Department of Civil Engineering
Corinne C. Moore, Administrative Offices, College of Engineering
Beatrice R. Skidmore, Administrative Offices, College of Engineering

MARY DUNNE, A. B., Department of Military Science
DOROTHY ROMINGER, Dept. of Physics; Student Loan Fund

STENOGRAPHIC BUREAU

MARY JOHNSTON, Head Stenographer
MABEL THACKER ALLEN, Stenographer
MILDRED MORRIS, A. B., Stenographer
COLUMBIA SMITH, Mimeograph Operator

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*LILY ELNORA KOHL, M. S., Director
†FLORA DEAL, B. S.
**L. MAYE HOOVER, M. S.

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BESS DUDLEY MAYES, Assistant Postmaster

CAMPUS BOOK STORE

CARRIE BEAN, Manager
ELOISE GRAY WEBB, Assistant Manager
MARY ELIZABETH ARMSTRONG, Head Clerk
NANNIE AUGUSTA PACE, Clerk

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OLIVER H. PINNEY, M. D., Associate Director
WILBUR A. HEINZ, A. B., Instructor
ELIZABETH DESHA, Registered Nurse
JANE SHACKELFORD, Technician
KATHERINE W. OWENS, Secretary
F. C. THOMAS, M. D., Physician
E. C. YATES, M. D., Physician

ALUMNI ASSOCIATION

JAMES SHROPSHIRE, B. S., Secretary

PUBLICITY BUREAU

ELMER G. SULZER, A. B., Director
HELEN KING, A. B., Assistant

---

*Resigned Feb. 1, 1930.
†Feb. 1, 1930, to Sept. 1, 1930.
**Beginning Sept. 1, 1930.

THE COLLEGES

THE COLLEGE OF ARTS AND SCIENCES

PAUL PRENTICE BOYD, M. A., Ph. D., Dean
IDIE LEE TURNER, B. S., Secretary

THE COLLEGE OF AGRICULTURE

THOMAS POE COOPER, B. S. in Agr., Dean and Director
GEORGE ROBERTS, B. Ped., M. S., Assistant Dean
LEVI JACKSON HORLACHER, M. S. in Agr., Assistant to the Dean
ELIZABETH SLOAN, A. B., Secretary
The College
Experiment Station
Agricultural Extension

THE COLLEGE OF ENGINEERING

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WILLIAM EDWIN FREEMAN, A. B., E. E., Assistant Dean
ETHEL JELLEY, Secretary

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ALVIN E. EVANS, M. A., Ph. D., Dean
LOIS W. MOORE, Secretary

THE COLLEGE OF EDUCATION

WILLIAM SEPTIMUS TAYLOR, A. M., Ph. D., Dean
DORIS BRANAMAN, A. B., Secretary

THE COLLEGE OF COMMERCE

EDWARD WIEST, A. M., Ph. D., Dean
JANE EARLE MIDDELTON, A. B., Secretary

THE GRADUATE SCHOOL

WILLIAM DELBERT FUNKHOUSER, M. A., Ph. D., Dean
MARY FRANCES KRIEGEL, A. B., Secretary

THE SUMMER SESSION

WILLIAM SEPTIMUS TAYLOR, A. M., Ph. D., Director

THE UNIVERSITY EXTENSION

WELLINGTON PATRICK, A. M., Ph. D., Director
LOUIS CLIFTON, A. B., Assistant University Extension

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*Resigned Feb. 1, 1930.
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Instructor in Mathematics

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Registrar and Secretary of the Senate

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Professor of Animal Husbandry, Head of Department of Animal Husbandry, Chairman of Animal Industry Group

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Captain, Infantry, (DOL), U. S. Army, Assistant Professor of Military Science

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Assistant Professor of Psychology

†GRASSL, ANTON FRANK, M. A. 425 Transylvania
Instructor in German

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Professor of Journalism, Head of the Department

GRIFFIN, GERALD, A. B. 152 Walnut
Instructor in Journalism

HAHN, THOMAS MARSHALL, M. S. 716 Tremont Ave.
Assistant Professor of Physics

HALL, ELLERY LEWIS, M. A. 432 Park Ave.
Instructor in History

HAMMONDS, CARSIE, B. S., in Agri., M. A. 649 S. Limestone
Professor of Agricultural Education

---

*Transferred by U. S. Government, June, 1930.
†Resigned June, 1930.

HANSEN, WILLIAM HOWARD, LL. B. 408 Ridgeway Road
Instructor in Physical Education

HARRIS, WILLIAM JEFFERSON, B. S., in Agri. 127 University Ave.
Assistant Professor of Animal Industry

HAUN, ROBERT D., B. A., C. P. A. 225 Waller Ave.
Assistant Professor of Accounting

HAWKINS, ROBERT DAWSON, M. E. 816 Tremont Ave.
Professor of Hydraulic Engineering

HEALY, DANIEL JOSEPH, M. D., C. M. 209 University Ave.
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HEINZ, WILBUR AUGUST, A. B. 163 Graham Ave.
Instructor in Hygiene

HILL, HENRY HARRINGTON, PH. D. 443 Davidson Court
Professor of Education

HOLMES, HENRY BERT, M. A. Versailles Pike
Assistant Professor of Romance Languages

HOLMES, SARAH BENNETT, A. B. 400 Aylesford Place
Assistant Dean of Women

HORINE, JOHN SHERMAN, M. E. 252 E. Maxwell
Assistant Professor of Drawing

HORLACHER, LEVI JACKSON, M. S., in Agri. 639 Maxwelton Court
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KEMPER, DURBIN COLLINS, B. S. 1737 S. Limestone
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KING, MARGARET ISADORA, A. B. 225 S. Limestone
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*LAMPERT, CARL ALBERT, B. M., 348 Aylesford Place
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LANDS, A. M., M. A. 323 South Ashland
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LATIMER, CLAIBORNE G., B. S., PH. D. 143 State St.
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LAWRENCE, A. J., A. B. in Ed. 258 East High
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LESTOURGEON, P. E., Lieutenant, U. S. Army 1056 Fontain Road
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†LONG, MINNIE BOURNE, R. N. 200 Forest Park Road
Registered Nurse in the Hygiene Department

LOWRY, JEAN, A. B. 258 Market St.
Instructor in Art

---

*On leave of absence, second semester, 1929-30.
†Resigned June 30, 1930.

LUNDE, ROBERT GERHARD, A. B., M. A. 123 Washington Ave.
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MCINTYRE, ROBSON DUNCAN, B. S. in Commerce, M. S. 327 S. Upper St.
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MCLAUGHLIN, MARGUERITE, A. B. 226 E. Maxwell St.
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MANN, FRANK 616 Columbia Ave.
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MERIWEATHER, H. M., C. E. 107 Owsley Ave.
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†MILLER, ARTHUR MCQUISTON, M. A. 609 Maxwelton Court
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---

*Resigned June 30, 1930.
†Died October 28, 1929.

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MITCHELL, JOHN RICHARD, A. B. 327 S. Upper St.
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MITCHELL, JOHN STAPP, M. A. 129 Arcadia Park
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MOCK, CLIFTON O'NEAL, B. S. in M. E. 185 Richmond Ave.
Instructor in Mechanical Drawing

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Professor of Law

MURRAY, FRANK, A. B., LL. B., S. J. D.,
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NEWMAN, WILLIAM ARNOLD, C. E. 219 Rand Ave.
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NICHOLLS, WILLIAM DURRETT, B. S., Ph. D. 126 University Ave.
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†NOE, JAMES THOMAS COTTON, A. M., Litt. D. 231 E. Maxwell
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NOLLAU, LOUIS EDWARD, M. E. 135 University Ave.
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NUTTER, JOHN WILLIAM 257 S. Limestone
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Professor of Heat Engineering

OLNEY, ALBERT JACKSON, B. S., M. of Hort., S. M. 718 Rose St.
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PALMER, JOE H., A. B., M. A. Georgetown, Kentucky
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PARKER, ETHEL LEE, M. A. 336 Linden Walk
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PATRICK, WELLINGTON, A. B., A. M., PH. D. 149 Washington Ave.
Director of University Extension, Professor of Education

PEAK, DAVID HOWARD, LL. B., A. M. 336 Linden Walk
Business Agent

PECK, ANNA BROWNING, A. M. 660 S. Limestone
Instructor in Education, Critic Teacher, Social Sciences

---

†On leave of absence, first semester, 1930-31.

PENCE, MERRY LEWIS, M. S. Maxwelton Court
Professor of Physics, Emeritus

PENCE, SALLIE ELIZABETH, M. A. 635 Maxwelton Court
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PETER, ALFRED MEREDITH, M. S., D. Sc. Route 7, Lexington, Ky.
Professor of Soil Technology, Emeritus

PINNEY, OLIVER H., M. D. 217 Desha Road
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Research Assistant in Heating and Ventilation

PORTMANN, VICTOR R., B. J. 7 Richmond Ave.
Assistant Professor of Journalism

POTTER, MERVIN ELWOOD, B. S. 323 S. Broadway
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PRIBBLE, BIRKETT LEE, A. B. 7 Richmond Ave.
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PRICE, H. BRUCE, Ph. D. 158 Bonnie Brae
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RANNELLS, EDWARD WARDER, B. A. 1207 Richmond Road
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*REES, ELIJAH LAYTHAM, C. E., A. M. 200 University Ave.
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Professor of Agronomy, Head of the Department, Assistant Dean of the College of Agriculture

*ROBERTS, WILLIAM LEWIS, A. B., A. M., J. D. 1135 Richmond Road
Professor of Law

---

*On leave of absence 1920-30-1930-31.
†Resigned June 30, 1930.

ROBINSON, LEWIS CASS, M. S. 424 Woodland Ave.
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‡ROBINSON, SID, M. S. 312 Rose Lane
Assistant Professor of Physical Education, Head of the Department

ROSS, CLAY CAMPBELL, A. B., Ph. D. 31 Arcadia Place
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*RUSSELL, JOHN DALE, M. A. 124 Rosemont Gardens
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SAUNIER, STEPHEN THADDEUS 608 Columbia Ave.
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SCHEIBLA, HARRY D., Capt. Inf., (DOL)
Assistant Professor of Military Science

SCHERAGO, MORRIS, B. S., D. V. M. 234 McDowell Road
Professor of Bacteriology, Head of the Department

SCHICK, BLAINE WIMER, A. B., M. A. 323 Merino
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†SCHMID, HERBERT WILLIAM, A. B., LL. B., Capt. Inf., DOL, 161 Ransom
Assistant Professor of Military Science and Tactics

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SHACKELFORD, JANE GOSS 124 Waller Ave.
Technician in the Department of Hygiene and Public Health

SHANNON, IRWIN V., M. A. 114 Basset Court
Assistant Professor of Sociology

SHANNON, ROBERT SYLVESTER, M. A. Preston Arms Apts.
Instructor in English

SHERWOOD, T. C., B. S., M. S.
Instructor in Zoology

SHIVELY, BERNIE, B. S. 258 East High
Instructor in Physical Education, Coach in Varsity Track, Assistant Coach in Football

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‡SHULL, CHARLES WILLIAM, M. A., Ph. D. 421 Rose Street
Instructor in Political Science

SINGER, DAVID NORTON 443 S. Ashland
Instructor in Automotive Engineering

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*On leave of absence 1929-30.
‡Resigned June 30, 1930.
†Transferred by U. S. Government June, 1930.

SMITH, CLEO DAWSON, M. A. — 400 Ridgeway Road
Instructor in English

SOUTH, DUDLEY EUGENE, M. A. — 428 Kentucky Ave.
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STEWART, OLUS JESSE, A. B., M. S., Ph. D. — 138 University Ave.
Assistant Professor of Chemistry

STOUT, FLORENCE OFFUTT — 129 Preston Ave.
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STURGEON, NEWTON R. — 361 Lincoln Ave.
Instructor in Foundry

SULZER, ELMER GRIFFITH, A. B., — 422 Aylesford Pl.
Instructor in Music (part-time), Director of Publicity Bureau

SUTHERLAND, WILLIAM ROBERT, A. B. — 163 Graham Ave.
Assistant Professor of English

TANSIL, BLANCHE ALLEN, M. A. — 272 E. Maxwell St.
Assistant Professor of Home Economics

TAYLOR, WILLIAM SEPTIMUS, B. S., Ph. D. — 112 Cherokee Park
Dean of the College of Education, Professor of Education

TERRELL, DANIEL VOIERS, C. E. — 227 Catalpa Road
Professor of Civil Engineering, Head of the Department

TERRELL, GLANVILLE, A. B., Ph. D. — Louisa, Va.
Professor of Philosophy, Emeritus

THOMAS, FRANK CARLTON, A. B., M. D. — 211 S. Hanover
Part-time Physician, University Dispensary

THURMAN, GORDON OWEN — 396 Linden Walk
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TODD, JARVIS, M. A. — 1135 Richmond Road
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*TROXELL, JOHN P., A. B.
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TUCKER, THOMAS C. — 1705 S. Limestone
Instructor in Wood Shop

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Professor of History, Head of the Department

TUTTLE, FRANKLIN ELLIOTT, M. A., Ph. D. — 125 E. Maxwell St.
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*Resigned February 1, 1930.

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*VANDENBOSCH, AMRY, Ph. D. 408 Kentucky Ave.
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WEBB, LOUISE GRAY 656 East High
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WEBB, WILLIAM SNYDER, M. S. Cherokee Park
Professor of Physics, Head of the Department, Professor of Archaeology, Head of Department of Anthopology and Archaeology

WEST, MARY LUCILE, M. A. 235 Stone Ave.
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Dean of College of Commerce, Professor of Economics

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WILSON, LENORE, B. S. 342 Aylesford Pl.
Instructor in Music, Acting Head Department of Music, Second Semester 1929-30

WOODS, RALPH H., M. A. 147 Washington Ave.
Associate Professor of Agricultural Education

YATES, LAWRENCE, M. A. 175 Kentucky Ave.
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ZEMBOLD, ALFRED CHARLES, M. A. 456 W. Fourth
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ZIMMERMAN, ALEC JULIUS, M. S. 423 Park Ave.
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*On leave 1929-30.

STAFF OF COLLEGE OF AGRICULTURE AND EXPERIMENT STATION

FRANK LEROND MCVEY, Ph. D., LL. D.
President of the University

THOMAS POE COOPER, B. S. in Agr.
Dean and Director

ALLEN, HARRY, M. A.
Chemist, Experiment Station

AMBURGEY, L. V., B. S.
Microscopist, Experiment Station

ANDERSON, WALTER S., M. A.
Professor of Genetics, in Charge of Horse Husbandry, Experiment Station

AVERITT, SAXE DABNEY, M. S.
Chemist, Experiment Station

BARBER, HAROLD J.
Head Herdsman, Experiment Station

BARKLEY, MARIE, B. S. in Home Economics
Instructor in Home Economics

BARKMAN, JOHN ORVILLE, B. S.
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BESH, TED, B. S.
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BORMAN, EARL K., B. S.
Bacteriologist, Experiment Station

BOYDEN, RUTH E.
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BRADLEY, CLIFTON J., M. S.
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BROOKS, WESLEY, B. S. in Agr.
Field Agent in Cream Grading

BROWN, LINWOOD ARNOLD, Pharm. D., Ph. C.
Head, Department of Public Service Laboratories, Experiment Station

BRYANT, THOMPSON RIPLEY, B. S. in Agr.
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BUCKNER, GARRETT DAVIS, Ph. D.
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BURNAM, ANITA, B. S. in Home Economics
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*BURRAGE, CLARENCE HILL, B. S. F.
Forester, Robinson Experiment Sub-Station

CALDWELL, LOWREY M., B. S. in Agr.
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CALFEE, ROBERT, B. S.
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CARD, DANA G., B. S.
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CATON, STANLEY, B. S. in Agr.
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CULBERTSON, RAYMOND E., B. S.
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CUNOV, HARVEY T., B. Sc.
Assistant Bacteriologist, Experiment Station

CURTIS, HENRY ERNEST, M. S.
Head, Department of Fertilizer Control, Experiment Station

†DEAL, FLORA, B. S.
Instructor in Institutional Economics

DEEN, ENCIL, B. S. in Agr.
Inspector, Feeds and Creameries, Experiment Station

DIDLAKE, MARY LEGRANDE, M. S.
Assistant Entomologist and Botanist, Experiment Station

DIMOCK, WILLIAM WALLACE, B. S. in Agr., D. V. M.
Professor of Veterinary Science, Head, Department of Animal Pathology

DOBBINS, LUCILLE, B. S.
Seed Analyst, Experiment Station

EDWARDS, PHILIP, Ph. D.
Bacteriologist, Experiment Station

ELLIOTT, NORRIS RAYMOND, B. S. in Hort.
Assistant State Agent in Charge of Specialists, Extension Divison

ELY, FORDYCE, M. S.
Professor of Dairy Husbandry, in Charge of Dairying, Experiment Station

EMMERT, EMERY M., M. S. in Hort.
Instructor in Horticulture and Assistant in Horticulture, Experiment Station

ERICKSON, STATIE, A. B.
Professor of Home Economics, Head Department of Home Economics

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*Resigned April 10, 1930.
†From Feb. 1, 1930, to Sept. 1, 1930.

ESKEW, WILLIAM C., B. S.
Field Agent in Cream Grading, Experiment Station

FARRINGTON, OLIN M., B. S.
Assistant in Marketing, Experiment Station

FARWELL, GENEVIEVE
Technician in Animal Pathology, Experiment Station

FELTNER, JAMES M.
Field Agent, Junior Club Work, Extension Division

FERGUS, ERNEST N., M. S.
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FINN, WILLIAM G., M. S.
Assistant Professor of Agricultural Economics

FISH, ERNEST E., M. S.
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FITSCHEN, FRED
Instructor, Feeds and Fertilizers, Experiment Station

FOSTER, JAMES D., M. S. in Agr.
Inspector in Charge Creamery License Section, Experiment Station

*FOSTER, MAY, M. S. in H. E.
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FREEMAN, JOE F., M. S. in Agr.
Assistant Agronomist, Experiment Station

GALLOWAY, Z. L., B. S. in Agr.
Assistant in Farm Organization and Management Studies, Experiment Station

GARDNER, JOHN S., M. A.
Field Agent in Horticulture, Extension Division

GARMAN, HARRISON, D. Sc.
Professor of Entomology, Emeritus

GARSIDE, M. S., B. S.
Field Agent in Junior Club Work, Extension Division

GAULT, LELAH VAUGHN, B. S.
Assistant Chemist, Experiment Station

GOOD, EDWIN STANTON, M. S.
Professor of Animal Husbandry, Chairman of Animal Husbandry Group

GRADDY, ELIZABETH, B. S. in Home Economics
Field Agent in Junior Club Work, Extension Division

GRADDY, IVAN C., B. S. in Agr.
Assistant State Agent, Extension Division

*Resigned Nov. 30, 1929.

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HAMILTON, W. BROOKS, B. S. A., M. Sc.
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HARMS, AMANDA HELEN, B. S.
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HARRIS, CHARLES E., B. S. in Agr.
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HARRIS, WILLIAM JEFFERSON, B. S. in Agr.
Assistant Professor of Animal Husbandry, Assistant in Animal Husbandry, Experiment Station

HEALY, DANIEL JOSEPH, M. D., C. M.
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HORLACHER, LEVI JACKSON, M. S. in Agr.
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HOWARD, N. J., B. S. in Agr.
Inspector Creamery License Section, Experiment Station

HUMPHREY, JAMES E., B. S. in Agr.
Field Agent in Poultry, Extension Division

HULL, F. E., D. V. M.
Assistant Veterinarian, Experiment Station

IMLAY, FLORENCE, B. A., M. A.
Field Agent Home Economics, Extension Division

INSKO, W. M., Jr., M. S. in Agr.
Assistant in Animal Nutrition, Experiment Station

JEWETT, HOWARD HERMAN, M. A.
Research Assistant Entomologist and Botanist, Experiment Station

**JOHNSON, E. C., B. S.
Assistant in Markets, Experiment Station

JOHNSON, EDWARD M., M. S. in Agr.
Assistant Plant Pathologist, Experiment Station

JONES, ROGER W., JR.
Superintendent, Robinson Experiment Sub-Station

JONES, SADOCIE CONNELLEE, M. S. in Agr.
Field Agent in Soils, Extension Division

KARRAKER, PERRY ELMER, M. A.
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KELLEY, JAMES BYRON, B. S. in M. E., B. S. in Agr.
Professor of Agricultural Engineering

**Resigned Sept. 9, 1929.

KENNEY, RALPH, B. S. A.
Field Agent in Agronomy, Extension Division

KILPATRICK, E. J., B. S. in Agr.
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KINNEY, EDMUND J., B. S. in Agr.
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*KOHL, LILLY E., M. S.
Assistant Professor of Institutional Management, Department of Home Economics

LACY, EDITH, M. A.
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LEWIS, C. A., B. S. in Journalism
Assistant Editor, Extension Division

LIKELY, WINIFIELD, M. S.
Assistant in Chemistry, Experiment Station

LINK, HAROLD F., B. S. in Agr., M. S.
Assistant State Agent, Extension Division

LOGAN, LULIE, A. B.
Assistant State Home Demonstration Agent, Extension Division

LOWRY, SAMUEL J., B. S. in Agr.
Superintendent, Western Kentucky Experiment Sub-Station

MCHARGUE, JAMES SPENCER, Ph. D.
Chemist, Acting Head Department of Chemistry, Experiment Station

MCKENNEY, GARNETT J., B. S., in Agr.
Field Agent in Junior Club Work, Extension Division

MAGILL, W. W., B. S.
Field Agent in Horticulture, Extension Division

MAHAN, CHARLES ALFRED, M. S.
State Agent of County Agents, Extension Division

MARTIN, JAMES H., Ph. G.
Assistant Chemist, Experiment Station

MARTIN, JOSEPH HOLMES, M. S. in Agr., Ph. D.
Professor of Poultry Husbandry, in Charge of Poultry Work, Experiment Station

MATHEWS, ROBERT
Inspector, Feeds and Fertilizers, Experiment Station

MAUPIN, B. S.
Field Agent in Poultry Improvement, Experiment Station

MEADER, A. LLOYD, B. A.
Assistant Chemist, Experiment Station

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*Resigned Jan. 31, 1930.

MILLER, RICHARD C., M. S.
Field Agent in Animal Husbandry, Extension Division

MONROE, ZELMA, B. A., B. S.
Assistant State Home Demonstration Agent, Extension Division

*NAGEOTTE, JOE, B. S. in Agr.
Field Agent in Dairying, Extension Division

NANCE, GORDON, B. S.
Field Agent in Marketing, Extension Division

NICHOLLS, WILLIAM DURRETT, Ph. D.
Professor of Farm Management, Head of the Department of Farm Economics

NUTTER, JOHN WILLIAM
Superintendent of Dairy Farm, Experiment Station

OLNEY, ALBERT J., B. S. M. of Hort., S. M.
Professor of Horticulture, Head of the Department of Horticulture

OYLER, MERTON, M. S. in Agr.
Assistant in Rural Life Studies, College of Agriculture, Experiment Station

PETER, ALFRED MEREDITH, D. Sc.
Professor of Soil Technology Emeritus Experiment Station

PHILLIPS, C. D., M. S. in Agr.
Assistant in Marketing, Experiment Station

POLK, T. P., D. V. S.
Field Agent in Veterinary Science, Extension Division

PRICE, H. BRUCE
Professor Agricultural Economics, Head Department Markets and Rural Finance

PRICE, WALTER A., M. S.
Professor of Entomology, Head Department of Entomology and Botany

PROCTOR, ROY E., B. S. in Agr.
Field Agent in Farm Management, Extension Division

RHOADS, WAYLAND, M. S. in Agr.
Field Agent in Animal Husbandry, Extension Division

ROBERTS, GEORGE, B. Ped., M. S.
Assistant Dean, College of Agriculture, Professor of Agronomy, Head of the Department of Agronomy

ROUSE, W. LEONARD, M. S. in Agr.
Assistant in Farm Management, Experiment Station

ROY, WALLACE R., B. S.
Chemist, Experiment Station

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*Resigned

SELLARDS, HENRY GRADY, B. S. in Agr.
Field Agent in Animal Husbandry, Extension Division

SHEDD, OLIVER MARCH, M. S.
Chemist, Experiment Station

SIMPSON, EUGENE E., A. M., M. E.
Nursery Inspector, Experiment Station

*SMYTH, J. R., B. S. A.
Field Agent in Poultry, Extnsion Division

SPEARS, HOWELL DAVIS, M. S.
Chemist, Experiment Station

STORY, ISABELLE M., M. A.
Field Agent in Home Economics, Extension Division

TANSIL, BLANCHE A., M. A.
Assistant Professor of Home Economics

TAYLOR, JESSIE TERRY
Seed Analyst, Experiment Station

TERRELL, WILLIS GRANVILLE
Inspector, Feeds and Fertilizers, Experiment Station

TURNER, JOB DARBIN, B. Ped., LL. B.
Head, Department of Feed Control, Experiment Station

VALLEAU, WILLIAM DORNEY, Ph. D.
Professor of Plant Pathology, Pathologist, Experiment Station

VAUGHN, ERLE C., A. B.
Field Agent in Tobacco, Extension Division

WADE, GERTRUDE, A. M.
Assistant Professor of Home Economics

WALTMAN, C. S., B. S.
Instructor in Horticulture

**WARD, HARRY A., M. S. A.
Field Agent in Farm Management, Extension Division

WELCH, EARL G., B. S. in Agr.
Field Agent in Agricultural Engineering, Extension Division

WELDON, MYRTLE, A. M.
State Home Demonstration Agent, Extension Division

WHITEHOUSE, JAMES W., M. S. in Agr.
State Leader, Junior Club Work, Extension Division

WILFORD, EDWARD JAMES, M. S. in Agr.
Associate Professor of Animal Husbandry, in Charge of Meats Laboratory, Assistant in Animal Husbandry, Experiment Station

WILSON, W. C.
Assistant State Agent, Extension Division

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*Resigned Aug. 31, 1929.
**Resigned July 31, 1929.

CLERICAL STAFF

BAKER, DORA
Clerk, Extension Division

BANKS, DOROTHY
Clerk, Extension Division

BASCOM, MRS. KATHERINE
Clerk, Experiment Station

BRONSTON, MARY
Clerk, Experiment Station

CASWALL, JESSIE FRAZER
Clerk, Experiment Station

CASWALL, ETHEL V. T.
Clerk, Experiment Station

*COLLINS, LUCILE GRACE
Clerk, Experiment Station

COMBS, SOPHIA
Clerk, Teaching Division

FRIED, KATHERINE
Clerk, Extension Division

GINOCCHIO, OLEVA L.
Secretary to the Dean and Director

GRAVES, LUCILLE
Clerk, Experiment Station

**GUDGEL, EMMA J., A. B.
Clerk, Office of the Dean

GUYN, ELIZABETH
Clerk, Extension Division

GUYN, MARY LOU
Clerk, Teaching Division

HOWARD, PAULINE
Clerk, Experiment Station

LATHAM, ALICE
Clerk, Extension Division

LAWRENCE, NELLIE
Clerk, Experiment Station

MCCLURE, MARGARET E., A. B.
Clerk, Experiment Station

MCCULLOUGH, ANNE
Clerk, Experiment Station

MEEKS, MARIETTA GERARD
Clerk, Extension Division

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*Resigned Feb. 24, 1930.
**Resigned April 26, 1930.

MERRITT, FANNY
Clerk, Experiment Station

MOORES, HAZEL
Clerk, Extension Division

MORRIS, MARGARET
Clerk, Experiment Station

PHARIS, LOULA
Clerk, Experiment Station

POTTS, MARY D.
Clerk, Experiment Station

ROBINSON, ROXIE H.
Clerk, Experiment Station

ROSER, BETTY
Clerk, Experiment Station

RYAN, MARGARET C.
Clerk, Extension Division

SALLEE, ANITA
Clerk, Extension Division

SHANKLAND, VIOLETTE
Clerk, Extension Division

SINGLETON, VIRGINIA
Clerk, Extension Division

SLAUGHTER, SUSAN KIDD
Secretary to the Director of Extension

SLOAN, ELIZABETH, A. B.
Clerk, Office of the Dean

SNODGRASS, GRACE LEE
Librarian, Experiment Station

WALLIS, ANNA, A. B.
Clerk, Experiment Station

WYATT, ELIZABETH
Clerk, Experiment Station

THE UNIVERSITY SENATE

The Senate consists of the President, the Deans of the various colleges, the Registrar, the Director of the Experiment station, the Director of Extension, the Dean of Men, the Dean of Women, Professors, Associate Professors, Assistant Professors, the Business Agent, and the Librarian.

THE UNIVERSITY COUNCIL

The Council consists of the President (Chairman), the Deans of the colleges, the Dean of the Graduate School, the Dean of Men, the

Dean of Women, the Registrar (secretary ex-officio), the Director of the Experiment Station, the Director of Extension, together with two members elected annually by the Senate. The members are: The President of the University; Deans Boyd, Cooper, Anderson, Evans, Taylor, Wiest, Funkhouser, Blanding, Melcher; Professors G. Roberts, Webb, Gillis. The Registrar is ex-officio secretary.

THE ASSEMBLY

The University Assembly consists of all officers of instruction of the rank of instructor and above, the Directors of Divisions and Stations, those engaged in state service work under the direction of the President, the Registrar, the Librarian, the Business Agent, and such other administrative officers as shall be designated by the President or Senate or Trustees. It meets near the beginning of each semester, at the call of the President or at any time upon the written request of ten members. The Assembly may formulate its attitude upon any matter affecting the institution and may make recommendations to the Senate, or the Board of Trustees, or the President, or the Council.

BOARD OF CONTROL—RESIDENCE HALLS FOR WOMEN

Dean Sarah Blanding (Chairman), Mrs. Chas. J. Smith, Mrs. P. P. Boyd.

The President is ex-officio member of all committees.

COMMITTEES OF THE SENATE

1929-30

1. ACCREDITED RELATIONS
   P. P. Boyd (Chairman), Ezra L Gillis, W. D. Funkhouser, Edward Wiest, W. S. Taylor, Alvin E. Evans.
2. ATHLETICS
   W. D. Funkhouser (Chairman), S. A. Boles, Enoch Grehan, E. A. Bureau.
3. AUDITING COMMITTEE FOR STUDENT ENTERPRISES
   H. H. Downing (Chairman), H. E. Curtis, Edward Wiest, D. H. Peak.
4. BULLETINS
   L. L. Dantzler (Chairman), Ezra L Gillis, George Roberts, W. E. Freeman.
5. CHAPEL EXERCISES
   C. R. Melcher (Chairman), J. Morton Davis, C. A. Lampert, W. R. Sutherland.

6. Commencement Exercises
M. E. Ligon (Chairman), W. L. Roberts, Ezra L Gillis, Brinkley Barnett, Sarah G. Blanding, Paul L. Boynton, Eda M. Giles, Major Meredith, Flora Le Sturgeon, R. D. McIntyre.

7. Courses of Study
Ezra L Gillis (Chairman), Jesse Adams, C. S. Crouse, E. S. Good, A. E. Evans, W. S. Webb, R. N. Maxson.

8. Discipline Committee for Men
H. H. Downing (Chairman), T. T. Jones, E. A. Bureau, L. J. Horlacher.

9. Discipline Committee for Women
Sarah G. Blanding (Chairman), Eda M. Giles, Statie Erickson.

10. Library
L. L. Dantzler (Chairman), J. T. C. Noe, Edward Tuthill, A. C. Zembrod, C. S. Crouse, George K. Brady, John Kuiper.

11. Music
W. E. Freeman (Chairman), C. A. Lampert, Edward Wiest, Wellington Patrick, Elmer G. Sulzer, Frank C. Fowler.

12. Oratory and Debate
W. R. Sutherland (Chairman), J. T. C. Noe, A. Vandenbosch, W. L. Roberts, Forrest R. Black.

13. Publication of Monographs
Edward Wiest (Chairman), E. F. Farquhar, W. D. Funkhouser, George Roberts, W. S. Webb, A. C. McFarlan.

14. Rules
P. P. Boyd (Chairman), Ezra L Gillis, W. E. Freeman, C. R. Melcher, Edward Wiest, W. S. Taylor, Sarah G. Blanding, L. J. Horlacher, Frank H. Randall.

15. Scholarship and Attendance
T. T. Jones (Chairman), L. J. Horlacher, P. P. Boyd, Alvin E. Evans, W. E. Freeman, Ezra L Gillis, C. R. Melcher, W. S. Taylor, Edward Wiest, Sarah G. Blanding.

16. Social Hygiene
J. S. Chambers (Chairman), P. P. Boyd, Thos. P. Cooper, W. S. Anderson, W. E. Freeman, J. C. Jones, Edward Wiest, C. R. Melcher, Sarah G. Blanding, Eda M. Giles.

17. Student Loan Fund
W. S. Webb (Chairman), Sarah G. Blanding, P. E. Karraker, T. T. Jones, E. A. Bureau, W. L. Roberts, W. W. Jennings.

18. Student Social Affairs
C. R. Melcher (Chairman), G. C. Bassett, A. J. Olney, Sarah G. Blanding, Eda M. Giles, Owen R. Meredith.

19. STUDENT WELFARE
J. S. Chambers (Chairman), C. R. Melcher, J. R. Johnson, Florence O. Stout, S. A. Boles, Sarah G. Blanding, Eda M. Giles, P. P. Boyd, Marguerite McLaughlin, Bart Peak, O. H. Pinney.

20. STUDY OF ABILITY AND TRAINING
J. B. Miner (Chairman), F. E. Tuttle, Edward Wiest, Ezra L Gillis, C. C. Ross.

21. GRADUATE STUDIES AND DEGREES
W. D. Funkhouser (Chairman), P. P. Boyd, Edward Wiest, W. S. Taylor, Ezra L Gillis, George Roberts.

Part II

GENERAL INFORMATION

HISTORY AND LOCATION OF THE UNIVERSITY OF KENTUCKY

The University of Kentucky has had an interesting history. It began as a part of the Kentucky University under a cooperative plan authorized by the Legislature in 1865. The purpose of this plan, directed by the genius of John G. Bowman, was to unite sectarian and public education under one organization. This experiment was tried for a number of years. The federal funds authorized under the Morrill Act were used to develop agriculture and mechanical arts in Kentucky University. In 1878 when the people of Kentucky decided to establish an educational institution of higher learning of their own, the College of Agriculture and Mechanical Arts was erected on land given to the State by the city of Lexington and the county of Fayette. Thirty years later the Legislature gave a new title to the institution; it was called the State University of Kentucky. At the same time the Legislature granted additional funds for the State University. In 1918 the name was again changed to the University of Kentucky and additional maintenance was arranged by legislative act.

This institution now has 3,000 college students in attendance, a teaching staff of 603, a campus of 94 acres with forty buildings, and Experiment Station Farm of 600 acres, a forest reserve and sub-experiment station at Quicksand of 15,000 acres and a sub-experiment station at Princeton of 600 acres.

Lexington, the location of the University, is reached by busses, by interurban trolley lines and by railroads; from the north by the Southern and L. and N. railroads; from the east and west by the L. & N. and C. & O., and from the south by the Southern and the L. & N. railroads.

The University of Kentucky is situated in Lexington, and yet thru its extension services the boundaries of its campus are in reality the boundaries of the state. The 3,000 students in resident attendance are about one-half the number who are registered in all classes offered by the University, including the summer sessions and the extension classes.

Thru the county agents in 92 counties and the home demonstration agents in 35 counties, the investigations of the Kentucky experiment and sub-experiment stations, the resources of the College of Agriculture are made available to the farmers and home-makers of Kentucky.

The various institutes, conferences, and short courses under the conduct of the University, touch the lives of many of Kentucky's citi-

zens. Extension classes in strategic centers are held during the year. The University Extension Department furnishes to the women's clubs and other organizations of the State suggestions for programs and speakers. In fact, the University of Kentucky is at all times concerned with the life of the State, and is ready to be of service, whenever possible, in helping to solve the problems of Kentucky.

BUILDINGS

The University has for two years been engaged in a building program in order to meet the increased demands made upon it. During the past academic year two buildings were completed; others are now being erected. The Memorial Building, made possible by popular subscription by the people of the state as a memorial of Kentucky's dead, is now completed and was used during Commencement exercises of this year. It is a handsome Colonial structure of brick and steel, surmounted by a spire one hundred and thirty five feet in height. In the rotunda are tablets bearing the names of Kentuckians who fell during the world war. The seating capacity is 1060. In the rear of the building is an open air amphitheater that will seat 1560.

McVey Hall, a large and completely appointed recitation building, was occupied in February. It houses departments of the College of Arts and Sciences, the book store and post office. On the third floor are the University commons and faculty club rooms.

Work is now going forward on two large buildings, one to provide for the growing College of Education, the other for the University library. The one will face the Administration Building upon a tract deeded to the University by the city of Lexington. It will cost approximately $300,000 and is made possible by an appropriation from the Legislature and the General Education Board. The new library building will meet the urgent need of taking care of the rapidly growing library. It will face the quadrangle formed by McVey Hall, the Chemistry and the Physics buildings. It will contain stacks for 1,000,000 volumes, and will contain seminar rooms and facilities for graduate students.

Two additional resident halls for men located on Rose street are now completed. They will provide living quarters for 270 students.

The new Dairy building fronting Rose street on the Experiment Station farm will be ready for use when the University opens in the Fall.

Below are the buildings of the University. They may be located by reference to the map facing page 1 of the catalog.

Administration Building
Law Building
Kastle Hall
Mechanical Hall
Woodshop and Machine Shop
Science Hall
Gymnasium and Armory
Education Building
Old Library
Superintendent's Residence
President's Residence
Norwood Hall
Mining Laboratory
Agricultural Hall
Civil Engineering and Physics Building
*New Library
McVey Hall
College of Education Building
Memorial Building
Observatory
White Hall
Neville Hall
Gymnasium for Women
Men's Gymnasium
Ex-President Patterson's Home
Patterson Hall
Smith Hall
Boyd Hall
Scovell Hall
Insectary and Conservatory
Animal House
Dormitories for Men
Art Center and Guignol Theater
Dairy Building
Judging Pavilion

*In course of construction.

ADMISSION TO UNIVERSITY

Graduates of high schools accredited by the Association of Kentucky Colleges are admitted to the University on certificate, provided they have fifteen credits of high school work acceptable to the University. In these fifteen credits five basic units are required; three in English, one in algebra and one in plane geometry. The other ten units may be selected from groups of foreign languages, history and civics, education, mathematics and sciences; from vocational subjects four units may be offered. If a student expects to enter the College of Engineering he is recommended to offer one unit in physics, one and one-half units in algebra and one-half unit in solid geometry. All applications for admission must be made to the Registrar of the University of Kentucky. Students who come from high schools not on the accredited list of the State Department of Public Instruction may enter if they successfully pass examination in four or more subjects.

On Thursday before the opening of the regular University session all applicants for admission to the freshman class meet at the University for the purpose of taking preliminary tests and of learning about the University, its opportunities and the relation of the student to it. Also during these several days which have been designated as "Freshman Week" it is possible for the newcomers to become acquainted quickly and easily with their fellow classmen. The freshman

class is divided into sections of thirty each and each section is placed matriculation fee at the opening of the University sessions. The staff consists of the director, Dr. J. S. Chambers, and two assisting physicians, Doctors F. C. Thomas and L. Yates. In addition there are two registered nurses and a technician. The dispensary has x-ray machines and other laboratory equipment that would be a credit to any first class clinic. The medical staff of the University, without charge, call on students who are ill in their rooms.

ADMISSION TO THE FRESHMAN CLASS

An applicant for admission to the freshman class of any of the Colleges of the University except Law must offer credit for fifteen units of high school or other secondary school work, so chosen as to include the five basic units prescribed by all the colleges. Only students who hold certificates of graduation from an accredited high school will be admitted without examination. No student will be admitted with less than fifteen units.

ADMISSION TO THE COLLEGE OF LAW

An applicant for admission to the College of Law must offer sixty semester credits exclusive of gymnasium and military science in colleges other than Law, six of which must be in English.

ADMISSION TO ADVANCED STANDING

Candidates who can present equivalents of any part of the college work may secure advanced standing and thereby reduce the number of hours required for graduation. They may secure this advanced standing by one of two methods:

a—By examination on each subject for which credit is desired.

b—By transfer from a college or university. An official statement must be submitted to the Registrar certifying in detail the work for which credit is desired.

All persons who wish to enter the University for the first semester's work, except those whose entrance credits have been accepted by the Registrar, must take these examinations. Thy will present themselves at the office of the Registrar at 8:00 a. m. Thursday, September 11. They will then receive directions concerning the places at which their examinations will be held. For the hours of the examinations, see schedule.

OUTLINE OF ENTRANCE REQUIREMENTS

The figures indicate the maximum and minimum number of units that may be offered in each subject.

1. BASIC UNITS—Required by all colleges.

English 3 units. Algebra 1 unit. Plane Geometry 1 unit.

2. ELECTIVE—In addition to the units required under 1, a sufficient number of units to make a total of fifteen must be offered from Groups A and B, except that not more than four units may be offered from Group B.

Group A

English	
*Foreign Languages	
French	1 —3
German	1 —3
Greek	1 —3
Latin	1 —4
Spanish	1 —3
History and Civics	
History	1 —4
Civics	½—1
Political Economy	½
Education (including Psychology)	½—1
Teaching	1

Mathematics	
Advanced Arithmetic	½—1
Advanced Algebra	1
Solid Geometry	½
Trigonometry	½
Sciences	
Biology	½—1
Botany	½—1
Chemistry	½—1
General Science	½—1
Geology	½—1
Physics	½—1
Physical Geography	½—1
Physiology and Hygiene	½—1½
Sociology	½
Zoology	½—1

*Not less than one unit in foreign language will be accepted.

Group B

(Only four units may be offered in this group.)

**Agriculture	½—4	**Home Economics	½—4
Bookkeeping	½—1	Music	½—1
Commercial Law	½	Shop Work	½—2
Commercial Geography	½	Shorthand	½—1
Drawing—Freehand	½—2	Surveying	½
Drawing—Mechanical	½—2	Salesmanship	½

**Not more than one unit may be offered for any one subject in agriculture and home economics.

The minimum amount of credit allowed in any subject will be one-half unit.

NOTE—It is strongly recommended that a student desiring to enter the College of Engineering offer for entrance one unit in Physics, one and one-half units in Algebra, and one-half unit in Solid Geometry. If this is not done, he will be required to carry additional courses in college on these subjects to make up the deficiency, which may delay his graduation.

LIVING CONDITIONS AT THE UNIVERSITY

The University maintains three residence halls for women and three for men. These buildings are modern, well furnished, thoroughly heated and satisfactorily lighted. The atmosphere is home-like and pleasant. Each of the women's residence halls is under the supervision of a resident house mother, and in addition there is a director of dormitories who has charge of the plant, dining room and the general conduct of the business of the dormitories. Any parent who sends his daughter to the University may be assured that she will be given excellent care, physically, mentally and spirtually. The charge for board and room in the women's residence halls is $280 for the college year.

The dormitories for men are modern and fire proof, and are under the supervision of a resident director. The charge for a room in the men's residence halls is $88 a year. The University does not maintain dining halls in the men's dormitories. On the third floor of the new recitation building, McVey Hall, is located the University Cafeteria where excellent and inexpensive meals are served. This cafeteria is so conveniently located that men students may easily procure their meals there.

A deposit of $5.00 is required for the reservation of a room in any of the residence halls. Application for such reservation for women students should be made to the Dean of women and for men, to the Dean of Men.

Many of the householders living around the University rent rooms to students at reasonable rates. The fraternities have their own houses and provide room and board for their members at moderate cost. Board may be had at private houses for from $4.50 to $7.00 a week.

CARE OF THE STUDENT

There are two administrative officers at the University of Kentucky to assist students with their problems, to aid them in their adjustment to College life, and to supervise them in matters of discipline. These officers are the Dean of Men and the Dean of Women. The Dean of Men is Professor C. R. Melcher and the Dean of Women, Miss Sarah G. Blanding. The University endeavors to guard from

excesses of all kinds the students who come to it, yet in order that the students may obtain the greatest self-development, the University wishes at the same time to give them a reasonable amount of freedom.

The University feels a special obligation to look after the health of the students; it has, therefore, establihsed a dispensary under the direction of able medical men. This dispensary which occupies the lower floor of Neville Hall is open to students every week day of the college year. No fee is charged except a small amount included in the matriculation fee at the opening of the University sessions. The staff consists of the director, Dr. J. S. hambers, and two assisting physicians, Doctors O. H. Pinney and T. D. Rhodes. In addition there are two registered nurses and a technician. The dispensary has x-ray machines and other laboratory equipment that would be a credit to any first class clinic. The medical staff of the University, without charge, call on students who are ill in their rooms.

FEES AND EXPENSES

Incidental fee for all colleges. Residents of Kentucky in all colleges except Law pay an incidental fee of $30.00 per semester. Students in the College of Law pay $35.00. Non-residents pay $10.00 additional fee per semester. Non-resident part time students pay $4.00 per credit hour for undergraduate and $5.00 per credit hour for graduate work. A student is entitled to register as a resident of Kentucky, who, at the time of his registration, has satisfied the legal requirements of one year's residence in the State, or whose parents are legal residents, as defined by the Kentucky Statutes. No student entering as a non-resident can change his residence status during his college course.

Special and part time students.—Undergraduate work, except Law, $3.00 per credit hour. Law students and Graduate students, $4.00 per credit hour.

Graduation fee.—Candidates for the bachelor's degree will be charged a graduation fee of $10.00. This will include the rental of cap and gown, diploma fee and senior dues. Candidates for the Master's degree will be charged a fee of $15.00, which will include the above and in addition the candidate will be presented with the Master's hood.

SPECIAL FEES FOR CANDIDATES FOR THE DEGREE B. S. IN MUSIC

$25.00 per semester for each student for course in Applied Music.

$7.00 per semester for each student for courses in Organization and Training of Music Groups.

$7.50 per semester for each student for rental one hour daily of University practice room.

FEES FOR SPECIAL PRIVILEGES

Late Registration. Students entering the University after the regular registration period will be charged an additional fee of $1.00 per day not to exceed $5.00.

Late Classification. Students who fail to arrange classification within the scheduled time will be charged a fee of $1.00.

Changes in Registration. After five days following the regular registration period, a fee of $2.00 will be charged for transfer from one college to another.

Changes in Classification. After the second Monday of the semester a fee of $1.00 will be charged for a change in schedule.

Special Examination. A fee of $2.00 will be charged for a special examination in a single course. For entrance examinations taken after the regular period, a fee of $5.00 will be charged.

Room Reservation Deposit. A deposit of $5.00 is required for reservation of a room in the residence halls. This may be refunded when the room is vacated.

Rooms and Board. Room and board in the residence halls for women is $280 a year, payable quarterly in advance.

Laboratory Deposit. Each student taking laboratory work is required to make a deposit of $2.50 to cover breakage. The residue of this amount will be refunded at the end of the year.

Deposit for Uniform. Each student taking Basic Course, Military Science, is required to make a deposit of $10.00 to protect the University from loss or damages, other than wear and tear, to the uniform issued to the student. The deposit will be returned at the end of the year when the uniform is turned in.

Refunds

During the thirty days after the beginning of each semester, and ten days after the opening of the summer session, refunds up to 80 per cent. of all fees may be made. After these periods no refunds will be made.

Marking System

Results of work will be recorded in the Registrar's office as follows:

A. Exceptionally high quality, valued at 3 points for each credit.

B. Good, valued at 2 points for each credit.

C. Fair, valued at 1 point for each credit.

D. Unsatisfactory, indicates a deficiency and gives no points but gives credit for graduation if with such credits the student's standing is 1 or more.

E. Failure, value at 0 credits and 0 points.
I. Incomplete.
X. Absent from examinations.

The *standing* of a student is defined as the ratio of his total number of points to his total number of credits. For example, a student who makes an average mark of C thruout his course of 120 semester hours, would have 120 points and 120 credits, and a standing of *one.* An average mark of B would give the student 240 points and 120 credits and a standing of *two.* When a semester's work is to be considered, "standing" is understood to be the ratio of the number of points gained to the number of credits scheduled.

Definition of a Credit

A credit represents one hour of recitation or lecture, or two hours of laboratory a week for one semester. Drawing, shopwork, physical education and other courses requiring no outside work are reckoned at three hours for one credit.

Residence Requirements for Graduation

Two semesters of work at the University of Kentucky will satisfy the residence requirements for the bachelor's or the master's degree. Three summer terms are considered equivalent to one semester. For the bachelor's degree thirty semester credits must be completed in the senior year (the work to be done in the college from which the student is to be graduated). For the master's degree at least twenty-four credits must be completed in addition to the thesis.

Degrees

The following degrees will be conferred upon undergraduates who have completed the work as prescribed in the various colleges:

Bachelor of Arts (A. B.)
Bachelor of Arts in Journalism (A. B. in Jour.)
Bachelor of Science in Commerce (B. S. in Com.)
Bachelor of Science (B. S.)
Bachelor of Science in Industrial Chemistry (B. S. in Ind. Chem.)
Bachelor of Arts in Education (A. B. in Educ.)
Bachelor of Science in Agriculture (B. S. in Agr.)
Bachelor of Science in Home Economics (B. S. in H. E.)
Bachelor of Science in Music
Bachelor of Laws (LL. B.)
Bachelor of Science in Civil Engineering (B. S. in C. E.)
Bachelor of Science in Mechanical Engineering (B. S. in M. E.)

Bachelor of Science in Mining Engineering (B. S. in E. M.)
Bachelor of Science in Metallurgical Engineering (B. S. in Met. E.)

The following advanced degrees are conferred in the Graduate School:

Master of Arts (A. M.)
Master of Science (M. S.)
Master of Science in Agriculture (M. S. in Agr.)
Civil Engineer (C. E.)
Mechanical Engineer (M. E.)
Electrical Engineer (E. E.)
Mining Engineer (E. M.)
Doctor of Philosophy (Ph. D.)

For further information concerning advanced degrees, see statement of the Graduate School.

SCHOLARSHIPS AND PRIZES

Algernon Sidney Sullivan Medallions
Graduate Fellowships and Scholarships
Rhodes Scholarship
University Cup
United Daughters of the Confederacy Scholarship
Oratorical Prizes
Debate Prizes
Journalism Prizes
Kernel Prizes
Interscholastic Tournament Prizes
Vaughn Prize
Women's Self-Government Association Prize
Phoenix Hotel Cup
Lafayette Hotel Cup
The Lafferty Medal
C. S. Brent Memorial Prize
Lexington Herald Cup
Lexington Leader Cup
E. B. Ellis Prize
Alpha Zeta Medal
Bennett Prize
Department of Art Prize
Chi Delta Phi Prizes
Cale Young Rice Prizes
Association Prize
Skain Prize
Sigma Delta Chi Key
Kentucky Kernel Cup
Howard Payne Ingels Prize
Reserve Officers' Association of Central Kentucky Prize
Block and Bridle Cups
College of Law Prizes
Robert L. Porter Prizes
International Relations Prize
Rotary Citizenship Trophy
Chi Omega Prize
Alpha Zeta Medal.
Crum Prizes
Patterson Literary Society Prize
Patterson Literary Society Scholarship.
Colonel Freeman Cup and Streamer

Jonas Weil Scholarship Prize
Mortar Board Prize
Phi Upsilon Omicron Medal
Delta Sigma Pi Key
Scabbard and Blade Cup
"Letters" Prizes
Young Men's Christian Association Keys
James B. Haggin Memorial Prize

For awards of these scholarships and prizes, see page 220.

LOAN FUNDS

General Loan Fund
Alumni Loan Fund
Lexington Kiwanis Loan Fund
Southern Railway Loan Fund

MEMORIAL FUNDS

Mabel Sawyer McVey Memorial Fund
Morgan O. Hughes Memorial Fund
Mollie McCoy Vogt Memorial Fund
Jessie Cecil Todd Memorial Fund
George Clark Rogers Memorial Fund.

ORGANIZATIONS

Young Men's Christian Association
Young Women's Christian Association
The Women's Student Government Association
The Woman's League
Union Literary Society
Patterson Literary Society
Philosophian Literary Society
Horace Mann Literary Society
Henry Clay Law Society
Phi Beta Kappa
Mechanical and Electrical Engineering Society
Norwood Mining Society
Tau Beta Pi
Alpha Zeta
Delta Sigma Pi
Athletics
Musical Clubs
The Strollers
White Mathematics Club
History Club
English Club
Biology Club
Cercle Francais
Ateneo Castellano

RELIGIOUS LIFE AT THE UNIVERSITY

The University, because it is distinctly interested in the religious life of students, encourages them to maintain their memberships in the churches of their choice and to attend religious worship regularly. On the campus the Young Men's Christian Association and the Young Women's Christian Association are active organizations, each with a paid secretary. Through the year great preachers are brought to the University to speak to students. Through these resident secretaries

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and visiting preachers the opportunity is given the students to consult with sympathetic and able persons. The Newman Society co-operates in looking after the spiritual life of its members.

Since the University and its staff are interested in the best all-round development of the student, every encouragement is given them to maintain high moral and spiritual standards. The vitality of religious life on the campus of the University of Kentucky is evidenced by the Pitkin Club, organized four years ago at the University and named for Horace Tracey Pitkin, a missionary to China who lost his life during the Boxer Rebellion. It is an organization of students, originally limited to twenty-five. For the last two years the limit has been raised to seventy-five, and at present there is a waiting list of about thirty who want to become members.

ADDITIONAL CULTURAL OPPORTUNITIES

During the academic year well known speakers and authorities in their special fields come to the University to make addresses and to hold conferences with students. Once a month there is held a general university convocation at which students and faculty hear able speakers. Each college holds an assembly either weekly or bi-weekly, at which time matters of college interest are discussed. The various departments bring special lectures to the University. The Art Department introduces not only to its students, but also to the whole University, exhibitions of great paintings, of etchings, of drawings. The Music Department sponsors a philharmonic orchestra, a university band, a women's band, men's glee club and women's glee club, all of whom give concerts and furnish music for convocations. Moreover, this department brings in concert to the University musicians of note and cooperates with the musicians of central Kentucky in producing each year at least one oratorio.

Pan Politikon, a student organization to promote knowledge of countries other than our own, in 1927-28, studied thru the various departments and activities of the University the social, political, cultural life of Russia, Italy, and China. In 1928-29 Germany was studied. Departmental clubs add effectively to the cultural life of the University.

A list of some of the speakers who have recently been at the University of Kentucky includes, among others, the following: **Dr. Frank** Phillips, Bureau of Education, Washington; Dean M. E. Haggerty, University of Minnesota; ex-Senator A. O. Stanley; Honorable William J. Cooper, United States Commissioner of Education; Professor S. A. Courtis, University of Michigan; Professor Boyd H. Bode, Ohio State

University; Reverend Dr. Campbell Morgan, London, England; Mr. Frederick Alfred Wallis, former United States Commissioner of Immigration; Mr. Frederick J. Libby, executive secretary National Council for Prevention of War; Dr. E. Vernon Hill, Chicago; President Raymond A. Kent, University of Louisville; Mr. George H. Hailey, Cincinnati; Honorable J. W. Cammack, Attorney General of Kentucky; Mr. Victor F. Calverton, editor *The Modern Quarterly;* Professor F. K. Richtmyer, Cornell University; President H. L. Donovan, Eastern Kentucky Teachers College; Colonel Charles H. Morrow; Mr. S. H. Ratcliffe, England; Professor Reginald D. Trotter, Queen's University, Canada; Professor A. Lande, University of Tubingen, Germany; Bishop H. P. Almon Abbott; Mr. J. Irvine Lyle, New York City; Dr. William C. Bower, University of Chicago; Eleanor Mercein (Mrs. Kelly), author and traveler; Professor W. E. Dodd, University of Chicago; Professor Paul Douglas, University of Chicago; Mr. Henry Goddard Leach, editor *The Forum.*

PUBLICATIONS

The students of the University of Kentucky, thru the Department of Journalism, publish a weekly newspaper, the "Kernel." This paper is ably edited and stands in the first group of college papers in the country. The students also issue a year book known as "The Kentuckian." This book contains a list of organizations, pictures of the junior and senior classes and the usual things that are found in college year books. Both of these publications have had a long history. More recently the department of English in cooperation with the Department of Journalism has established a literary publication under the title of "Letters." The College of Law publishes the "Law School Journal" and the College of Education publishes the "High School Quarterly." All of these publications are either directed by students or have students associated with their direction. The University publishes in addition a series of bulletins appearing each month and also a series of monographs on various scientific subjects. Some of the most extensive publications issued by the University are those under the direction of the Agricultural College in the Experiment Station and Division of Agricultural Extension.

STUDENT ACTIVITIES

Many opportunities are given to the student to take part in various activities outside of his college studies. He or she may engage in newspaper work in connection with the student paper, "The Kentucky Kernel." If he is interested in dramatics he has the opportunity

of taking part in plays presented in a real theatre under the Department of Dramatics. Thru cooperating with the Men's Student Council or the Women's Self Government Association, the student, in maintaining the integrity and honor of the campus and of the student body, will be training himself or herself for future leadership. The member of the Hi Y Club or of the Girl Reserves finds a welcome in the University Y. M. C. A. or Y. W. C. A. The student can enter into the management of various enterprises, participate in debating and in oratorical contests, take part in athletics to his heart's content, become a member of the Orchestra, Band, Glee Club, and go to social affairs sponsored by the University and by the various organizations. At the University is the opportunity for him to exercise his many interests, not only in hard work with his studies but in activities which bring him in contact with his fellow students.

Prizes awarded by various organizations are announced on page 220.

Part III
COLLEGES AND SCHOOLS

COLLEGE OF ARTS AND SCIENCES

PAUL PRENTICE BOYD, M. A., PH. D., Dean

INTRODUCTORY STATEMENT

ORGANIZATION

The College of Arts and Sciences embraces twenty-four departments: Anatomy and Physiology, Ancient Languages and Literatures, Anthropology and Archeology, Art, Bacteriology, Botany, Chemistry, English Language and Literature, Geology, German Language and Literature, History, Hygiene and Public Health, Journalism, Mathematics and Astronomy, Military Science, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, Romance Languages and Literatures, Sociology, Zoology. These twenty-four departments have been grouped into five divisions: Language and Literature, Social Sciences, Physical Sciences, Biological Sciences, and Fine Arts. The chairman of these divisions form an Advisory Committee for the Dean.

ADMISSION

Requirements for admission to the College of Arts and Sciences, as a freshman, or with advanced standing, or as a special student, are the same as for other colleges of the University. See page 44. For a statement of fees see page 47.

COURSES

The college offers courses designed to meet the needs of various classes of students. They may be listed under the following heads:

1. General cultural courses with majors and minors, leading to the degrees of A. B. and B. S.

2. Professional courses in industrial chemistry, leading to the degree of B. S. in Industrial Chemistry; and in Journalism, leading to the degree of A. B. in Journalism; and in music, leading to the degree of B. S. in Music.

3. Professional courses in which the general requirement for the A. B. and B. S. degrees are fulfilled.

4. Pre-professional courses meeting the requirements for admission to professional schools.

5. Combined courses, by means of which students may save a year or more in gaining both the A. B. or B. S. and a degree in Agriculture, Engineering, Law, Education, Commerce or Medicine.

DEGREES

The college offers courses leading to the following degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Arts in Journalism, Bachelor of Science in Industrial Chemistry, Bachelor of Science in Music. In all cases the student is responsible for the meeting of the requirements for graduation.

THE DEGREE OF BACHELOR OF ARTS

For the degree of Bachelor of Arts the student is required to gain a total of 127 credits and 127 points;* that is, a standing of 1, subject to the following conditions:

LOWER DIVISION

Freshman and Sophomore Years

GENERAL REQUIREMENTS

Matriculation Lectures, first semester, freshman year, .3 credits.
English, 6 to 12 credits (12 credits if only 3 units of entrance are presented).
General Hygiene, freshman year, 1.3 credits.
Physical Education, freshman and sophomore years, 2.8 credits.
Military Science (men), freshman and sophomore years, 5.6 credits.

GROUP REQUIREMENTS

Foreign Languages, 6 to 18 credits.
6 credits in one language, if 3 or more units of entrance are presented; 12 credits, if only 2 units of entrance; 18 credits if only 1 or no unit of entrance.
Social Sciences, 6 to 12 credits.
12 credits, including 6 credits in history, if no entrance unit in history is presented.
Mathematics, Philosophy, Psychology, 6 to 10 credits in one department.
Physical Sciences, 6 to 10 credits in one department.
(Astronomy, Chemistry, Geology, Physics.)
Biological Sciences, 6 to 8 credits in one department.
(Bacteriology, Botany, Physiology, Zoology.)

UPPER DIVISION

Junior and Senior Years

MAJOR

20 credits in a department, exclusive of elementary courses. Sub-

*Unless otherwise specified a credit represents one hour of recitation or two hours of laboratory a week for one semester. Drawing, Shopwork, Physical Education, and other courses requiring no outside preparation are reckoned at three hours for one credit. For explanation of the point system see **page 49.**

ject to the approval of the Dean and the head of the major department, the major may be broadened to include related courses in other departments.

MINORS

20 credits in one minor, or 10 in each of two. Courses must be approved by the head of the major department, and cannot include those open to freshmen. In the Arts-Education course, where Education is used for major, the student must take 20 credits in one minor.

ELECTIVES

Subject to approval of dean and head of major department.

A. B. OR B. S. WITH DEPARTMENT HONORS

The degree of A. B. or B. S. with Honors in the student's major subject will be conferred upon the student who in addition to having completed the requirements for the degree, shall have (1) attained high standing in his major subject; (2) passed with distinction a thoro, comprehensive examination in his major subject; (3) been recommended for the said degree by the faculty of the department in which his major work was done.

INDEPENDENT WORK COURSES

A junior or senior, if his particular excellence in the department warrants it, may with the approval of his major professor and dean, register for an independent work course in his major or minor subject. Such a course is characterized by special assignments for study, weekly or bi-weekly conferences, reports and semester papers of some sustained effort. Credit for such courses may be granted to an amount of not more than 12 credits. At the end of the semester a written report of the work in such a course, or a paper representing part of the work must be read before the staff of the department. A copy of this semester paper must be filed in the office of the dean.

Independent work courses are defined by their larger scope, wider content, advanced point of view and by a more rigorous demand of reading, writing and thinking.

CREDIT FOR BEGINNING FOREIGN LANGUAGES

A passing grade in the first semester's work of a beginning modern foreign language will not entitle the student to credit for that course until he has gained a passing grade in the second semester's work.

Students who present foreign languages for entrance are classified in college languages according to the amount of such entrance work.

For example, a student who presents one unit of entrace in a foreign language is not allowed to carry for credit the beginning semester's work.

Electives in Other Colleges

The student is permitted to elect and count toward graduation courses in the other colleges of the University not to exceed thirty semester credits. Credits in the other colleges gained during the junior and senior years may be counted on major and minor requirements. However, election of Law Courses by Arts and Sciences students is limited by the following senate regulations:

Students having the major part of their work in law must in all cases register in the College of Law.

Seniors registered in this college, and by reason thereof carrying at least one-half of their work therein, may take as many as eight hours of law during a semester, selected from the following courses: Contracts, Torts, Agency, Crimes, Property I and II, Constitutional Law, Taxation, Municipal Corporations, Public Utilities and such other law courses as the Dean of the College of Law may approve.

Students registered in this college who are not seniors, may take work in the College of Law, only on securing the consent of the Dean of the College of Law.

Students taking the combined six-year Arts-Law course should, before taking up law subjects, complete the first three years of Arts and Sciences work, including all subjects required for the degree in this College. For these requirements see page 178.

Maximum and Minimum Credits Allowed

The student is required to carry, each semester, work amounting to at least 12 credits. He may carry, without special permission, 16 credits exclusive of physical education and basic course in military science.

To be eligible to carry extra work the student must have a standing* of at least *two* for the preceding semester. Freshmen will not be allowed to carry extra work during the first semester.

Residence Requirements

To obtain the bachelor's degree in this college, the student must have registered in the college during his senior year and have gained at least 30 credits in the college. Three summer terms of residence are considered equivalent to one semester. At least 10 credits of the major must be gained in this college.

Credits by Extension

Students may apply toward the bachelor's degree a maximum of sixty credits by extension. However, not more than twelve credits may be gained during one calendar year, unless the student has been

* "Standing" here means the ratio of the total number of points gained to the total number of credits scheduled for the semester.

devoting full time to study. For students in residence, the rules governing extra work apply.

Students are limited to twelve credits of extension during the senior year. Not more than six of the last twelve credits required for graduation may be taken by extension. Not more than half of the credits required for the major may be gained by extension.

THE DEGREE OF BACHELOR OF SCIENCE

The degree of Bachelor of Science will, if preferred, be granted under the same conditions as govern the degree of Bachelor of Arts, provided that the student has gained at least 60 credits in the sciences.

THE DEGREE OF A. B. IN JOURNALISM

The course leading to the degree of A. B. in Journalism is a prescribed course having as its aim a liberal education and the training of men and women for successful careers in the journalistic profession. For a detailed statement of the course see the Department of Journalism, page 98.

THE DEGREE OF B. S. IN INDUSTRIAL CHEMISTRY

The degree of B. S. in Industrial Chemistry is awarded upon completion of a four years' prescribed course which is set out in detail under the Department of Chemistry, page 82. It aims to provide a solid foundation for continued work in chemistry, and enables the student to engage at once in technical work with excellent prospects for success.

THE DEGREE OF B. S. IN MUSIC

The degree of B. S. in Music is awarded upon completion of a required course of study designed to prepare leaders in community musical enterprises, and supervisors of musical work in the schools. For information concerning this course, see page 112.

COMBINED COURSES IN ARTS AND LAW, OR ARTS AND MEDICINE, OR ARTS AND DENTISTRY

A student may combine his courses in Arts and Sciences and Law or Medicine or Dentistry, gaining the A. B. or B. S. degree after three years in this college and one or more years in the professional school.

1. He must gain at least 97 credits in Arts and Sciences subjects, with a standing of 1 or more, before transferring to the professional school.

2. He must have met the specified requirements of the College of Arts and Sciences excepting hygiene (in arts-medicine) and the 20

credits in the major subject before transferring to the professional school.

3. He must have been registered in the College of Arts and Sciences for at least one full year, immediately preceding the completion of his Arts and Sciences requirements, and must have gained at least 30 credits in Arts and Sciences subjects in this college.

4. He must spend at least one year in a College of Law approved by the Association of American Law Schools, or in a "Class A" medical school, or in a "Class A" college of dentistry as rated by the Dental Educational Council of America.

5. He must in his law or medicine work secure sufficient semester credits to bring his total in the Arts and the professional work up to 127 credits, and must secure a standing of at least 1, or its equivalent, in the professional work. Professional courses dupilcating Arts and Sciences courses or duplicating courses elected in other colleges of the University by the student while registered in the College of Arts and Sciences, will not be counted in the total. In the Combined Arts-Dentistry course, the arts degree will not be conferred until after the completion of the dentistry course.

PRE-MEDICAL COURSES

A *Two Years' Course* preparing for the study of medicine is offered which complies with the requirements of the American Medical Association and the Association of American Medical Colleges for entrance to all Class A medical schools except those requiring a degree for entrance. *The Four Years' Course* meets the requirements for entrance to all medical schools, gives opportunity for advanced standing, and lays a scientific foundation upon which a substantial superstructure may be erected.

For an outline of the two years' pre-medical course and of the three years' course meeting the requirements for the combined course in Arts and Medicine, see under the Department of Anatomy and Physiology, page 65.

PRE-LEGAL COURSES

Two years of "college" work will be required for admission to the College of Law, most of which preliminary work will be done in the College of Arts and Sciences. Students expecting to enter the College of Law later are advised to consult the dean of that college.

THE PREPARATION OF TEACHERS

Students of the College of Arts and Sciences may by electing courses in the College of Education qualify for Teachers' Certificates

from the State Department of Education. For specific information concerning courses consult the statement of the College of Education on page 183.

PREPARATION FOR SOCIAL SERVICE

The new emphasis on social problems and social welfare is opening fields for persons specially trained in the principles and methods of social study and social service. Some of the forms of social work for which there is an increasing call today are as follows: Work of charity organization societies and associated charities; work in social settlements; leadership in boy scout work and similar work for girls; directing work in community centers and in playgrounds; work in penal and correctional institutions; work in homes in institutions for the defective and dependent; probation and other court work; child welfare work; medical social work; educational social work; directing and conducing research work in federal, state and local departments or bureaus concerned with economic and social conditions; welfare work in industrial and mercantile establishments; work of civic organizations; Red Cross service; work in the Y. M. C. A. and Y. W. C. A., etc.

Students who desire special preparations in these lines are advised to follow the suggestions on page 129 of the catalog.

PREPARATION FOR WORK IN GEOLOGY

The demand for the professional geologist comes from the need of geological guidance in the exploitation of the nation's mineral wealth. Its relation to mining and to oil and gas exploration is such that geological services are considered indespensable by companies engaged in developing our mineral resources. Opportunities are also open with state and federal geological surveys, in museum work, and in college teaching. The Department of Geology is prepared to equip men and women for such work. See page 90.

PREPARATION COURSES FOR NURSES

The college affords preliminary work for nurses. This covers anatomy and physiology, bacteriology, chemistry, hygiene and sanitation, psychology. Nutrition and cooking is offered in the College of Agriculture. Students who complete this work gain credit for it in civil hospitals to which they are admitted. No general statement can be made as to this, however. The student should take the question up with the hospital schools under consideration. For further information consult the Head of the Department of Hygiene and Public Health.

LIBRARY SCIENCE

The college affords, thru the Department of English, opportunity for professional training in library work. Instruction is given in cataloging, classification, reference work, book binding and mending, children's literature, school libraries, etc. These courses should fit students for subordinate positions in larger libraries and furnish an excellent preparation for a more complete course later on.

TRAINING FOR ART TEACHERS

The Department of Art offers a four years' course leading to the A. B. degree. Beside technical work a number of educational courses are required, and opportunity is given for practice teaching in the University High School. See page 71.

THE RESERVE OFFICERS' TRAINING CORPS

The Department of Military Science conducts a four years' course, the first two years of which are required of all male freshmen and sophomores who are citizens of the United States, of over fourteen years of age, and who conform to the physical requirements as prescribed by the War Department for units of the Reserve Officers' Training Corps.

The elective advanced course of two years, including one summer camp, is offered to students who have successfully completed the basic course, and who have been recommended by the President of the University, and the Head of the Department of Military Science for further training. Recommendations for this course will be limited to those students who have manifested special interest and demonstrated ability during the basic course, and who desire to pursue the course to completion with a view to qualifying for a commission in the Officers' Reserve Corps of the army.

For detailed information concerning the work in military science see page 106.

DEPARTMENTS OF INSTRUCTION†

AGRICULTURE

A student in the College of Arts and Science may elect toward the A. B. or B. S. degree a total of 30 credits from other colleges of the University. For information about courses in Agriculture see page 133

ANATOMY AND PHYSIOLOGY

Emeritus Professor Pryor, Associate Professor Allen, Assistant Professor Lands.

Pre-Medical Course. A two years' course is offered which complies with the requirements of the American Medical Association and the Association of American Medical Colleges for entrance to all Class A medical schools, except those requiring three years or a degree for entrance. The four years' course meets the requirements for entrance to all medical schools.

Pre-Dental Course. Students who wish to take up the study of dentistry are advised to follow the two years' Pre-Medical Course. This course more than meets the Pre-Dental requirements which have been specified by the Dental Educational Council of America. With the two years' course, entrance may be gained to all Class A dental schools with the exception of a very few which require three years of preparatory work.

Preparatory Course for Nurses. Students who desire may find courses that will prepare for hospital training in nursing. Such students should elect anatomy and physiology, hygiene and sanitation, bacteriology, chemistry, nutrition and cookery, and psychology.

Requirements for a Major. Prerequisites: Anatomy and Physiology, 1a, 1b, or 2a, 2b; Chemistry, 1a, 1b; Zoology, 1a, 1b; Physics, one year. Required: Anatomy and Physiology, 105a, 105b, 116a, 116b. Electives: Anatomy and Physiology 103a, 103b, 104a, 104b, 106a, 106b, 107a, 107b, 108a, 108b; Zoology 101a, 101b, 106; Bacteriology 102; Chemistry 127a, 127b, 131a, 131b; Hygiene and Public Health 115.

1a. General Physiology. *Lectures, Demonstrations and recitations. Three hours a week. First semester.* Associate Professor Allen and Assistant Professor Lands.

1b. General Physiology. Continuation of 1a. *Three hours a week. Second semester.* Associate Professor Allen and Assistant Professor Lands.

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†Courses numbered from 1 to 100 are open to undergraduates only; those from 101 to 200 are open to both undergraduates and graduates; those from 201 on are open only to graduates. Courses covering a whole year are marked with a for the first half of the work, with b for the second half.

2a. PHYSIOLOGY. Not given in 1929-1930. Arts and Sciences. *Lectures and recitation, one hour a week; laboratory, four hours a week. First semester.* Associate Professor Allen and Assistant Professor Lands.

2b. PHYSIOLOGY. Not given in 1929-1930. Arts and Sciences. *Lectures and recitation, one hour a week; laboratory, four hours a week. Second semester.* Associate Professor Allen and Assistant Professor Lands.

3. PHYSIOLOGY. Required of Home Economics students; open to others. *Lectures, recitations two hours a week, laboratory four hours a week. First semester.* Associate Professor Allen.

Courses open only to Upper Division and Graduate Students

108a. ADVANCED PHYSIOLOGY. Prerequisites: A. & P. 1a and 1b or 2a and 2b; Chem. 1a and 1b. *Recitations and lectures three hours, laboratory four hours a week. First semester.* Associate Professor Allen and Assistant Professor.

108b. ADVANCED PHYSIOLOGY. Prerequisite: A. & P. 102a. *Recitations and lectures three hours, laboratory four hours a week. Second semester.* Associate Professor Allen and Assistant Professor Lands.

103a. INDEPENDENT WORK IN ANATOMY. Not given in 1929-1930. Prerequisites: A. & P. 1a and 1b or 2a and 2b. *Three credits. First semester.* Assistant Professor Lands.

103b. INDEPENDENT WORK IN ANATOMY. Not given in 1929-1930. Prerequisites: A. & P. 1a and 1b or 2a and 2b. *Three credits. Second semester.* Assistant Professor Lands.

104a. INDEPENDENT WORK IN PHYSIOLOGY. Prerequisites: A. & P. 1a and 1b, or 2a and 2b; Chem. 1a and 1b. *Three credits. First semester.* Associate Professor Allen.

104b. INDEPENDENT WORK IN PHYSIOLOGY. Prerequisites: A. & P. 1a and 1b or 2a and 2b, Chem. 1a and 1b. *Three credits. Second semester.* Associate Professor Allen.

105a. HUMAN OSTEOLOGY. *Recitations one hour, laboratory four hours a week. First semester.* Associate Professor Allen.

105b. HUMAN OSTEOLOGY. *Recitations one hour, laboratory four* hours a week. Second semester. Associate Professor Allen.

106a. ENDOCRINOLOGY. Prerequisites: A. & P. 1a and 1b or 2a and 2b; Zool. 7b; Chem. 1a and 1b. *Three credits. First semester.* Associate Professor Allen.

106b. ENDOCRINOLOGY. Prerequisites: A. & P. 1a and 1b or 2a and 2b; Zool. 7b; Chem. 1a and 1b. *Three credits. Second semester.* Associate Professor Allen.

107a. ADVANCED ANATOMY. Prerequisites: A. & P. 1a and 1b or 2a and 2b. *Recitation one hour, laboratory four hours a week. First semester.* Assistant Professor Lands.

107b. ADVANCED ANATOMY. Prerequisites: A. & P. 1a and 1b or 2a and 2b. *Recitation one hour, laboratory four hours a week. Second semester.* Assistant Professor Lands.

116a. SEMINAR IN ANATOMY AND PHYSIOLOGY. Prerequisites: A. & P. 1a and 1b or 2a and 2b or the equivalent. Open only to seniors and graduate students. One two-hour discussion period a week. *One credit. First semester.* Associate Professor Allen, Assistant Professor Lands.

116b. SEMINAR IN ANATOMY AND PHYSIOLOGY. Prerequisites: A. & P. 1a and 1b or 2a and 2b or the equivalent. Open only to seniors and graduate students. One two-hour discussion period a week. *One credit. Second semester.* Associate Professor Allen, Assistant Professor Lands.

Courses Open Only to Graduate Students

201a. RESEARCH IN PHYSIOLOGY. Not given in 1929-1930. Prerequisites: A. & P. 1a and 1b or 2a and 2b or the equivalent; Chem. 127a and 127b or the equivalent. Physical Chemistry desirable. *Five credits. First semester.* Associate Professor Allen and Assistant Professor Lands.

201b. RESEARCH IN PHYSIOLOGY. Not given in 1929-1930. Prerequisites: A. & P. 1a and 1b or 2a and 2b or the equivalent; Chem. 127a and 127b or the equivalent. Physical Chemistry desirable. *Five credits. Second semester.* Associate Professor Allen and Assistant Professor Lands.

OUTLINE OF TWO YEARS' AND THREE YEARS' COURSE PREPARATORY TO THE STUDY OF MEDICINE

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Matric. Lec.	Required of all		1	.3
English 1a	English Composition	3		3.
Chemistry 1a	General Inorganic Chemistry	3	4	5.
Zoology 1a	General Zoology	2	4	4.
German 1a or	Elementary German	3		3.
Rom. Lang. 1a	Elementary French	3		3.
Mil. Science 1a	First Year Basic Course, Infantry	1	2	1.3
Phy. Edu. 1a	Gymnasium or Field Athletics		2	.7

Second Semester

English 1b	English Composition	3		3.
Chemistry 1b	General Inorganic Chemistry	3	4	5.
Zoology 1b	General Zoology	2	4	4.
German 1b or	Elementary German	3		3.
Rom. Lang. 1b	Elementary French	3		3.
†Mathematics 3	Plane Trigonometry	3		3.
Mil. Science 1b	First Year Basic Course, Infantry	1	2	1.3
Phy. Edu. 1b	Gymnasium or Field Athletics		2	.7

†Prerequisite to Physics 3a.

Two years of Foreign Language in college are required, or the equivalent in high school.

SOPHOMORE YEAR
First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 4	Qualitative Analysis	1	6	4.
Physics 1a or	General Physics	4	2	5.
Physics 3a and	General College Physics	4		4.
Physics 5	Meas. in Mech.	1	4	3.
German 2b or	Intermediate German	3		3.
Rom. Lang. 2b	French Reading	3		3.
Bacteriology 52 or	General Bacteriology	2	4	4.
Zoology 5	Medical Entomology	2	2	3.
Mil. Science 6a	Second Year Basic Course, Infantry	1	2	1.5
Phy. Edu. 2a	Gymnasium or Field Athletics		2	.7

Second Semester

†Chemistry 8	Quantitative Analysis	1	8	5.
Physics 1b or	General Physics	4	2	5.
Physics 3b and	General College Physics	4		4.
Physics 6	Meas. in Ag. and Elec.	1	4	3.
German 2 b or	Intermediate German	3		3.
Rom. Lang. 2b	French Reading	3		3.
Zoology 7b	Comparative Anatomy	2	4	4.
Mil. Science 6b	Second Year Basic Course, Infantry	1	2	1.5
Phy. Edu. 2b	Gymnasium or Field Athletics		2	.7

†For 2-year pre-med. substitute Chem. 7, Organic Chem.

JUNIOR YEAR†
First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Anat. & Physiol. 105a	Human Osteology	1	4	3.
Zoology 106	Histology	1	4	3.
Chem. 127a	Organic Chemistry	3	4	5.
Psychology 2b	General Psychology	2	2	3.
Social Science	Elective	3		3.

†For the full schedule of the junior year the student must obtain permission to carry extra work.

Second Semester

Anat. & Physiol. 105b	Human Osteology	1	4	3.
Zoology 105	Embryology	2	4	4.
Chem. 127b	Organic Chemistry	3	4	5.
Psychology 2b	General Psychology	2	2	3.
Social Science	Elective	3		3.

The three years' course is a combined Arts and Sciences and Medical Course. This course in combination with work done in a Class A medical school, leads to the A. B. degree.

ANCIENT LANGUAGES AND LITERATURES

Professor Jones, Mr. Duval

REQUIREMENTS FOR A MAJOR. Prerequisites: First, two years of college Latin. Electives: Ancient Languages, advanced courses in Ancient Languages; all courses in Greek.

LATIN

*1. BEGINNING LATIN. *Three hours a week. First semester.*

*2. CAESAR AND SELECTIONS. *Three hours a week. Second semester.*

*3. CICERO AND SELECTIONS. *Three hours a week. First semester.*

*4. VIRGIL. *Three hours a week. Second semester.*

*5. LIVY (BOOK I AND SELECTIONS). *Three hours a week. First semester.*

*6. HORACE (ODES AND SELECTED SATIRES). *Three hours a week. Second semester.*

Courses Open Only to Upper Division and Graduate Students

7. TACITUS (GERMANIA, AGRICOLA, DIALOGUES). Prerequisites, Latin 5 or 6. *Three hours a week. First semester.*

8. TERRENCE (PHORMO); PLINY'S LETTERS (SELECTIONS.) Prerequisites, Latin 5 or 6. *Three hours a week. Second semester.*

109a. LATIN LITERATURE (SELECTIONS). Prerequisites Latin 7 or 8. *Three hours a week. First semester.*

109b. LATIN LITERATURE. Prerequisites, Latin 7 or 8. *Three hours a week. Second semester.*

110a. LATIN LITERATURE. Prerequisites, Latin 7 or 8. *Three hours a week. First semester.*

110b. LATIN LITERATURE. Prerequisites, Latin 7 or 8. *Three hours a week. Second semester.*

*Courses open to freshmen.

114a. LATIN COMPOSITION. Given 1929-30. Prerequisite, the equivalent of Latin 4. *One hour a week. First semester.*

114b. LATIN COMPOSITION. Continuation of 114a. Given 1929-30. *One hour a week. Second semester.*

115a. LATIN COMPOSITION. Offered 1930-31. *One hour a week. First semester.*

115b. LATIN COMPOSITION. Offered 1930-31. *One hour a week. Second semester.*

120. SURVEY OF GREEK CIVILIZATION. *Three hours a week. First semester.*

121. SURVEY OF ROMAN CIVILIZATION. *Three hours a week. Second semester.*

150a. TEACHERS' COURSE IN LATIN; BASED ON FIRST YEAR WORK. A hasty review of Bennett's Beginners' Book, and the reading of Selections from the last three books of Caesar. Discussion of the principles of teaching Latin, stressing the connection between Latin and English, the merits of the different texts, etc. Given in summer school. *Two credits.* Professor Jones.

150b. TEACHERS' COURSE IN LATIN; BASED ON FIRST YEAR WORK. WORK. This course will follow closely the recommendation of the Classical League Investigating Committee. A considerable amount of easy Latin will be read, taken from several authors. Discussion of Latin exhibits and other means of arousing interest in the work. Given in summer school. *Two credits.*

Two Hundred Courses Open to Graduate Students Only

201a. PASTORAL POETRY. Not given 1929-30. *Three hours a week. First semester.*

201b. ELEGIAC POETRY. Not given 1929-30. Continuation of 201a. *Three hours a week. Second semester.*

GREEK

51. ELEMENTARY GREEK. *Three hours a week. First semester.*

Courses Open Only to Upper Division and Graduate Students

122a. GREEK LITERATURE IN ENGLISH TRANSLATION. *Three hours a week. First semester.*

122b. GREEK LITERATURE IN ENGLISH TRANSLATION. *Three hours a week. Second semester.*

152a. SELECTED READINGS. *Three hours a week. Second semester.*

152b. ANABASIS. *Three hours a week. First semester.*

153. HOMER. The Iliad, Books 1-6. *Three hours a week. Second semester.*

154. PLATO. Not given 1929-30. *Three hours a week. First semester.*

155. HERODOTUS. Books 6-7. Not given 1929-30. *Three hours a week. Second semester.*

ANTHROPOLOGY AND ARCHAEOLOGY

Professor Webb, Professor Funkhouser

Courses Open Only to Upper Division and Graduate Students

101. PRINCIPLES OF ANTHROPOLOGY. *Lectures three hours a week. Two credits. First semester.* Professor Funkhouser.

102. KENTUCKY ARCHAEOLOGY. *Lectures three hours a week. Two credits. Second semester.* Professor Webb.

ART

Professor Rannells, Assistant Professor Fisk, Miss Callihan, Miss Lowry

REQUIREMENTS FOR A MAJOR. Prerequisites: 61a, 61b or 43a, 43b, 45a, 45b; 63a, 63b; and 62a, 62b. (*Old numbers, 1928-9: 71a, 71b, 72a 72b.*) Required: 65a, or 55a, 55b; 64a, 35, 36, 37, 38. (*Old numbers, 1928-9: 73a, 73b, 74a, 74b and 31, 32, 33.*) Electives: Advanced courses in Art.

DRAWING AND PAINTING

*61a. DRAWING. The study of line and form in pencil and charcoal mediums. *Six studio hours and weekly problems. Three credits. First semester. Repeated second semester.* Professor Rannells.

*61b. DRAWING. Continuation of 61a. *Three credits. Second semester.* Professor Rannells.

63a. INTERMEDIATE DRAWING. (*Corresponds to 3a, 1928-9*). Prerequisite 61b or 45b. Problems in analysis and construction of form. Value drawing in monochrome. *Nine studio hours a week. Three credits. First semester.* Professor Rannells, Assistant Professor Fisk.

63b. INTERMEDIATE DRAWING. Continuation of 63a. *Three credits. Second semester.* Professor Rannells, Assistant Professor Fisk.

65a. PAINTING. (*Corresponds to 73a, 1928-9*). Prerequisites, 63b or 51b and 62b. Still life and outdoor painting in oil and water color mediums. *Composition problems and fifteen studio hours a week. Five credits. First semester.* Assistant Professor Fisk.

65b. PAINTING. Continuation of 65a. *Five credits. Second semester.* Assistant Professor Fisk.

67a. ADVANCED PAINTING. (*Corresponds to 75a, 1928-9*). Prerequisite, 65b. Still life, landscape, costumed model. *Composition problems and fifteen studio hours a week. Five credits. First semester.* Assistant Professor Fisk.

67b. ADVANCED PAINTING. Continuation of 67a. *Five credits. Second semester.* Assistant Professor Fisk.

43a. DRAWING. (*Corresponds to 13a, 1928-9*). The study of line and form in pencil and charcoal as in 61a. *Four studio hours and weekly problems. Two credits. First semester. Repeated second semester.* Professor Rannells.

*43b. DRAWING. Continuation of 43a. *Two credits. Second semester.* Professor Rannells.

45a. DRAWING. (*Corresponds to 15a, 1928-9*). Prerequisites, 43b or 61a. Observation and creative drawing as in 61b. *Four studio hours and weekly problems. Two credits. First semester.* Professor Rannells.

45b. DRAWING. Continuation of 45a. (Note: 43a, 43b are equivalent to 61a; 45a, 45b are equivalent to 61b.) *Two credits. Second semester.* Professor Rannells.

51a. DRAWING. (*Corresponds to 71a, 1928-9*). For sophomores beginning in Art. The study of line and form as in 61a, 61b. *Fifteen studio hours a week. Five credits. First semester.* Assistant Professor Fisk.

51b. DRAWING. Continuation of 51a. The analysis and construction of form as in 63a, 63b. (Note: 51a, 51b are equivalent to 61a, 61b, 63a, 63b, and lead to 65a.) *Composition problems and fifteen studio hours a week. Five credits. Second semester.* Assistant Professor Fisk.

55a. PAINTING. Prerequisites, 63b or 51b, and 62b. A short course in painting as in 65a. *Nine studio hours a week. Three credits. First semester.* Assistant Professor Fisk.

55b. PAINTING. Continuation of 55a. *Three credits. Second semester.* Assistant Professor Fisk.

59a. INTERMEDIATE PAINTING. Prerequisites, 55b or 65a, and 62b. Still life and outdoor painting as in 65b. *Nine studio hours a week. Three credits. First semester.* Assistant Professor Fisk.

59b. INTERMEDIATE PAINTING. Continuation of 59a. (Note: 55a, 55b are equivalent to 65a; 59a, 59b are equivalent to 65b.) *Three credits. Second semester.* Assistant Professor Fisk.

Courses Open Only to Upper Division and Graduate Students

112a. ADVANCED COMPOSITION. A study of pictorial organization for advanced students. Prerequisites, 64a, 65b or 59b and approval of department head. *Six studio hours a week. Two credits. First semester.* Professor Rannells, Assistant Professor Fisk.

*Courses open to freshmen.

112b. ADVANCED COMPOSITION. Continuation of 112a. *Two credits. Second semester.* Professor Rannells, Assistant Professor Fisk.

116a. ETCHING. Open only to advanced students upon approval of department head. Prerequisites, 64b, 65b or 59b. *Eight studio hours and weekly problems. Four credits. First semester.* Assistant Professor Fisk.

116b. ETCHING. Continuation of 116a. *Four credits. Second semester.* Assistant Professor Fisk.

DESIGN

62a. DESIGN. (*Corresponds to 72a, 1928-9*). Fundamentals in design and color. Prerequisites, 61a or 43b. *Lecture, four studio hours and weekly problems. Two credits. First semester. Repeated second semester.* Miss Callihan, Miss Lowry.

62b. DESIGN. Continuation of 62a. *Two credits. First semester. Repeated second semester.* Miss Callihan, Miss Lowry.

64a. INTERMEDIATE DESIGN. (*Corresponds to 74a, 1928-9*). Prerequisites 61a or 43b, and 62b. Consideration of materials and processes in designing objects of use. *Lecture, six studio hours and weekly problems. Three credits. First semester.* Miss Callihan.

64b. INTERMEDIATE DESIGN. Continuation of 64a. *Three credits. Second semester.* Miss Callihan.

66a. ADVANCED DESIGN. (*Corresponds to 108a, 1928-9*). Individual problems. Open to advanced students upon approval of department head. Prerequisites, 63a or 51b, and 64b. *Three credits. First semester.* Professor Rannells.

66b. ADVANCED DESIGN. Continuation of 66a. *Three credits. Second semester.* Professor Rannells.

*2a. ART STRUCTURE. For students in Home Economics. *Lectures, four studio hours and weekly problems in design. Two credits. First semester.* Miss Callihan.

*2b. ART STRUCTURE. For students in Home Economics. Continuation of 2a. *Two credits. Second semester.* Miss Callihan.

16. ART STRUCTURE FOR ENGINEERS. *Lecture and studio, two hours a week. One credit. First semester.* Miss Callihan.

21. PERIOD FURNITURE. Prerequisites, 61a or 13b. *One lecture and weekly problems. Two credits. Second semester.* Miss Callihan.

HISTORY AND APPRECIATION OF ART

*17a. ART APPRECIATION. Survey of the plastic arts. *One hour a week. One credit.*

*Courses open to freshmen.

*17b. ART APPRECIATION. Survey of painting. *One hour a week. One credit.*

35. HISTORY OF ANCIENT ART. (*Corresponds to 31a, 31b, 1928-9*) Not open to freshmen. *Lectures, conference and reports. Three hours a week. Three credits. First semester.* Miss Lowry.

36. HISTORY OF MEDIEVAL ART. (*Corresponds to 32a, 1928-9*). Prerequisite, 35; not open to freshmen. *Lectures, conferences and reports. Three hours a week. Three credits. Second semester.* Miss Lowry.

37. HISTORY OF RENAISSANCE ART IN ITALY. (*Corresponds to 33a, 1928-9*). Prerequisite, 36. *Lectures, conferences and reports. Three hours a week. Three credits. First semester.* Miss Lowry.

38. HISTORY OF RENAISSANCE ART IN THE NORTH. (*Corresponds to 32b, 1928-9*). Prerequisite, 36. *Lectures, conferences and reports. Three hours a week. Three credits. Second semester.* Miss Lowry.

39. HISTORY OF MODERN ART. (*Corresponds to 33b, 1928-9*). Not open to freshmen. *Lectures, conferences and reports. Three hours a week. Three credits. Second semester.* Miss Lowry.

140. SURVEY OF ART. (*Corresponds to 117, 1928-9*). For seniors who have not scheduled other history and appreciation of art courses. *Three hours a week. Three credits. First semester. Repeated second semester.* Professor Rannells.

10a. THEORY AND PRACTICE OF TEACHING ART. Prerequisites, 63b, 62b, 36 and twelve credits in Education. Teaching problems and course outlines. Juniors and seniors only. (See Education—"Directed Teaching in Art" required of all those registered for Teaching Certificate in Art.) *Two credits. First semester.* Professor Rannells.

Note:—Other courses, such as Lettering, Historic Ornament, Water Color Painting, Illustration, will be given from time to time.

BACTERIOLOGY

Professor Scherago, Assistant Professor Weaver, Mrs. Cravens

REQUIREMENTS FOR A MAJOR. Prerequisites: Chemistry 1a and 1b; Bacteriology 2a and 2b or 102. Required: Two credits in seminar, and not less than eight additional credits in advanced courses in Bacteriology. Electives: Advanced courses in Bacteriology; Chemistry 4, 7, 8, 113, 118, 129, 106; Zoology 101, 105; Botany 3, 125a, 125b.

*2a. ELEMENTARY MICROBIOLOGY. Open to students who have not had the prerequisite courses for Bacteriology 102. *Lectures and recitations two hours, laboratory four hours a week. First semester. Repeated second semester.* Assistant Professor Weaver.

*Courses open to freshmen.

*2b. ELEMENTARY MICROBIOLOGY. Continuation of course 2a. *Lectures and recitations two hours, laboratory four hours a week. Second semester. Repeated first semester.* Assistant Professor Weaver.

*8. BACTERIA IN RELATION TO MAN. An elementary lecture course dealing in a general way with the relation of micro-organisms to man and his environments. Given during the summer session only. This course does not fulfill the requirements for advanced work in bacteriology. *Lectures two hours a week.* Assistant Professor Weaver.

52. PRINCIPLES OF BACTERIOLOGY. An introductory course in bacteriology. Prerequisites must be preceded or accompanied by Chemistry 1b. *Lectures and recitations two hours; laboratory four hours a week. First semester.* Professor Scherago.

Courses Open Only to Upper Division and Graduate Students

102. GENERAL BACTERIOLOGY. Prerequisites, Chemistry 1a and 1b. *Lectures and recitations two hours, laboratory four hours a week. Second semester.* Professor Scherago.

103. PATHOGENIC BACTERIOLOGY. Prerequisites, course 102 or 52; or 2b and Chemistry 1b and permission to register. *Lectures and recitations two hours, laboratory four hours a week.* Professor Scherago, Mrs. Cravens.

104. APPLIED BACTERIOLOGY. Prerequisite, course 102 or 52; or 2b, and Chemistry 1b. *Laboratory four hours a week. Second semester.* Assistant Professor Weaver.

106. BACTERIOLOGY OF FOODS. Prerequisite, course 102 or 52; 2b, and Chemistry 1b. *Lectures and recitation two hours, laboratory four hours a week. First semester.* Assistant Professor Weaver.

107. BACTERIOLOGY OF WATER AND SEWAGE. Prerequisite 102 or 52; or 2b and Chemistry 1b. *Lectures and recitations two hours, laboratory four hours a week. Second semester.* Assistant Professor Weaver.

110a. LABORATORY DIAGNOSIS. Designed for students specializing in Public Health Bacteriology. Prerequisites, course 103, and permission to register. *Laboratory six hours a week. First semester.* Professor Scherago.

110b. LABORATORY DIAGNOSIS. Continuation of course 110a. *Laboratory six hours a week. Second semester.* Professor Scherago.

111. GENERAL PATHOLOGY. Not given 1929-30. Prerequisites, Physiology 1, Zoology 1 or 5 and Histology 101b. *Lectures and recitations two hours, laboratory four hours a week. Second semester.* Professor Scherago.

115. INDEPENDENT WORK. Prerequisite, any course above 102.

*Courses open to freshmen.

Laboratory six hours a week. Three credits. Professor Scherago, Assistant Professor Weaver.

125. IMMUNOLOGY AND SEROLOGY. Prerequisite, Bacteriology 103. *Lectures and recitations two hours, laboratory six hours a week. Five credits. Second semester.* Professor Scherago.

150a or 150c. SEMINAR. *Two hours a week, one credit. First semester.* Professor Scherago, Assistant Professor Weaver.

150b or 150d. SEMINAR. *Two hours a week, one credit. Second semester.* Professor Scherago, Assistant Professor Weaver.

Courses Open Only to Graduate Students

201a. RESEARCH IN BACTERIOLOGY. *Laboratory ten hours a week. First semester.* Professor Scherago, Assistant Professor Weaver.

201b. RESEARCH IN BACTERIOLOGY. *Laboratory ten hours a week. Second semester.* Professor Scherago, Assistant Professor Weaver.

BOTANY

Professor McFarland, Assistant Professor McInteer

REQUIREMENTS FOR A MAJOR. Prerequisites: Botany 1a, 1b. Required: Botany 3, 6, 15, 20, 125a, 125b; Zoology 1a, 1b.

*1. GENERAL BOTANY. *Lecture one hour, recitation one hour, laboratory four hours a week. First semester.* Professor McFarland, Assistant Professor McInteer.

*1b. GENERAL BOTANY. *Lecture one hour, recitation one hour, laboratory four hours a week. Second semester.* Professor McFarland, Assistant Professor McInteer.

3. PLANT PHYSIOLOGY. Prerequisites, Botany 1a, 1b; Chemistry 1a, 1b. *Lecture one hour, recitation one hour, laboratory four hours a week. Second semester.* Assistant Professor McInteer.

4. ECOLOGY. Prerequisites, Botany 1a, 1b. 15. Two all day field trips will be required of students taking this course. *Three hours a week. Second semester.* Professor McFarland.

6. PLANT HISTOLOGY. Prerequisites, Botany 1a, 1b. *Laboratory six hours a week. First semester.* Assistant Professor McInteer.

12. ADVANCED MORPHOLOGY. Prerequisites, Botany 1a, 1b. Not given 1929-30. *Lecture one hour, recitation one hour, laboratory four hours a week. Second semester.* Professor McFarland, Assistant Professor McInteer.

15. LOCAL FLORA. Prerequisites, Botany 1a, 1b. *Lecture one hour, laboratory four hours a week.* Professor McFarland.

19. DENDROLOGY. (Tree study.) Prerequisites, Botany 1a, 1b. *Three lectures a week. Two credits. First or second semester.* Professor McFarland.

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*Courses open to freshmen.

Courses Open Only to Upper Division and Graduate Students

106a. SPECIAL PROBLEM. Prerequisites, Botany 1a and 1b, and 10 additional credits in Botany. *Three credits. First semester.* Professor McFarland, Assistant Professor McInteer.

106b. SPECIAL PROBLEM. *Three credits. Second semester.* Professor McFarland, Assistant Professor McInteer.

107. MORPHOLOGY OF THE ALGAE. Prerequisites, Botany 1a and 1b. *First or second semester. Six hours laboratory. Three credits.* Assistant Professor McInteer.

111. CLASSIFICATION OF PARASITIC FUNGI. Not given 1929-30. Prerequisites, Botany 125a and 125b. *Laboratory two hours a week. First semester.* Professor McFarland.

125a. MORPHOLOGY OF THE FUNGI. Prerequisites, Botany 1a, 1b. *Lecture one hour, recitation one hour, laboratory four hours a week. First semester.* Professor McFarland.

125b. MORPHOLOGY OF THE FUNGI. Prerequisite, Botany 125a. *Lecture one hour, recitation one hour, laboratory four hours a week. Second semester.* Professor McFarland.

126a. MYCOLOGY. Prerequisites, Botany 125a, 125b. Not given 1929-30. *Lecture one hour, laboratory four hours a week. First semester.* Professor McFarland.

126b. MYCOLOGY. Prerequisite, Botany 126a. Not given 1929-30. *Lecture one hour, laboratory four hours a week. Second semester.* Professor McFarland.

150a. ADVANCED SYSTEMATIC BOTANY. Prerequisite, Botany 15. *Six hours laboratory a week. First semester.* Professor McFarland, Assistant Professor McInteer.

150b. ADVANCED SYSTEMATIC BOTANY. Prerequisite, Botany 150a. *Six hours laboratory a week. Second semester.* Professor McFarland, Assistant Professor McInteer.

Courses Open Only to Graduate Students†

206a. RESEARCH IN MORPHOLOGY. *Laboratory ten hours a week. First semester.* Professor McFarland.

206b. RESEARCH IN MORPHOLOGY. *Laboratory ten hours a week. First semester.* Professor McFarland.

207a. RESEARCH IN MYCOLOGY. Those desiring to carry on investigations in mycology should have had Botany 125a, 125b, or their equivalent. Suitable work will be suggested to students desiring to enter this field. *Laboratory ten hours a week. First semester.* Professor McFarland.

†These courses given from time to time as students request them.

207b. RESEARCH IN MYCOLOGY. *Laboratory ten hours a week. Second semester.* Professor McFarland.

201a. RESEARCH IN PLANT PHYSIOLOGY. This work is open only to students expecting to take advanced degrees with their major in the Department of Botany. The student will be encouraged to develop initiative and independence. Assignment to investigations will be made with due regard to the previous preparation in physics or chemistry. *Laboratory ten hours a week. First semester.* Assistant Professor McInteer.

201b. RESEARCH IN PLANT PHYSIOLOGY. *Laboratory ten hours a week. Second semester.* Assistant Professor McInteer.

213a. RESEARCH IN SYSTEMATIC BOTANY. Students who desire to work in systematic botany will be assigned to work on some definite group. Prerequisites, Botany 15, 150a, 150b. *Laboratory ten hours a week. First semester.* Professor McFarland.

213b. RESEARCH IN SYSTEMATIC BOTANY. *Laboratory ten hours a week. Second semester.* Professor McFarland.

CHEMISTRY

Professor Tuttle, Professor Maxson, Associate Professor Barkenbus, Associate Professor Bedford, Assistant Professor Mitchell, Assistant Professor Stewart, Mr. Zimmerman, Mr. Keller, Mr. Krewson, Mr. Gabbard.

The department of Chemistry affords opportunity for students to gain the A. B. or B. S. degree with chemistry as a major, and also provides a course in Industrial Chemistry. The course in Industrial Chemistry is a prescribed course thruout and leads to the degree of Bachelor of Science in Industrial Chemistry.

REQUIREMENTS FOR A MAJOR. Prerequisites: Chemistry 1a, 1b, 4, 8. Required: Chemistry 109, 127a, 127b, and either 101 or 131a and 131b. Electives: Chemistry 150, 112, 114, 17, 118, 119a, 119b, 122a, 122b, 130a, 130b, 104, 106, 107, 108, 129, 110, 111, 102.

*1a. GENERAL INORGANIC CHEMISTRY. *One hour lecture, two hours recitation, four hours laboratory a week. First semester. Repeated second semester.* Assistant Professor Mitchell, Mr. Zimmerman, Mr. Keller, Mr. Krewson, Mr. Gabbard.

51. GENERAL INORGANIC CHEMISTRY. Prerequisite, one year of high school chemistry. *Three hours a week. First semester.* Assistant Professor Mitchell.

*1b. GENERAL INORGANIC CHEMISTRY. Prerequisite, Chemistry 1a. *One hour lecture, two hours recitation, four hours laboratory a week.*

*Courses open to freshmen.

Second semester. Repeated first semester. Assistant Professor Mitchell, Mr. Zimmerman, Mr. Keller, Mr. Krewson, Mr. Gabbard.

*3. INORGANIC PREPARATIONS. Preresquisites, Chemistry 1a and continuation of Chemistry 1b. *Laboratory four hours a week. Second semester.* Professor Maxson.

4. QUALITATIVE ANALYSIS. Prerequisite, Chemistry 1b. *One recitation and six laboratory hours a week. First semester. Repeated second semester.* Professor Maxson.

7. ORGANIC CHEMISTRY. Prerequisite, Chemistry 1b. *Three recitations and two laboratory hours a week. Either semester.* Associate Professor Barkenbus.

8. QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 4. *Recitation one hour, laboratory eight hours a week. Either semester.* Professor Tuttle, Assistant Professor Stewart.

10. QUANTITATIVE ANALYSIS. *Recitation one hour, laboratory eight hours a week. One-half second semester.* Professor Tuttle.

11. AGRICULTURAL ANALYSIS. An introductory course in quantitative analysis arranged for students in the College of Agriculture. The elements of quantitative analysis are studied with special reference to the constituents of soil, fertilizers and agricultural products. Prerequisites, Chemistry 1a and 1b. *Recitation one hour, laboratory eight hours a week. Either semester.* Professor Tuttle.

17. GAS ANALYSIS. Prerequisite, Chemistry 1b. *Laboratory two hours a week. Both semesters.* Associate Professor Bedford.

Courses Open Only to Upper Division and Graduate Students

101. PHYSICAL CHEMISTRY. For students in Agriculture and the biological sciences. Prerequisites, Chemistry 7 and 8, Physics 1b, Mathematics 5. *Lectures and recitations three hours a week, laboratory four hours a week. Five credits. Either semester.* Associate Professor Bedford.

102. ELECTRO CHEMISTRY. Elementary electro-analysis, electroplating and preparation of some inorganic and organic substances by electrolysis. Prerequisites, Chemistry 101 or 131b, 109, 127b. *Laboratory 10 hours a week. Five credits. Either semester.* Associate Professor Bedford.

109. QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 8 or 11. *Recitation one hour, laboratory eight hours a week. Either semester.* Professor Tuttle, Assistant Professor Stewart.

110. PHYSICAL CHEMISTRY. Intermediate course. Prerequisites, Chemistry 131b and Calculus. *Three hours a week. Either semester.* Associate Professor Bedford.

*Courses open to freshmen.

111. PHYSICAL CHEMISTRY. Intermediate course. Chemistry 110 is prerequisite or may be taken at the same time. *Laboratory four hours a week. Either semester.* Associate Professor Bedford.

112. AGRICULTURAL ANALYSIS. Prerequisite, Chemistry 8 or 11. *Laboratory eight hours a week. Either semester.* Professor Tuttle.

127a. ORGANIC CHEMISTRY. *Three recitiations and four laboratory hours a week. First semester.* Associate Professor Barkenbus.

127b. ORGANIC CHEMISTRY. Prerequisite, Chemistry 127a. *Three recitations and four laboratory hours a week. Second semester.* Associate Professor Barkenbus.

114. ADVANCED QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 109. *Recitation one hour, laboratory eight hours a week. Either semester.* Professor Tuttle, Assistant Professor Stewart.

131a. PHYSICAL CHEMISTRY. Prerequisites, Chemistry 8, Physics 3a and 5, or to be taken at the same time, Math. 7a. *Recitation two hours, laboratory four hours a week. First semester.* Associate Professor Bedford.

131b. PHYSICAL CHEMISTRY. Prerequisite, Chemistry 131a. *Lectures and recitations two hours a week, laboratory four hours a week. Second semester.* Associate Professor Bedford.

118. WATER ANALYSIS. Prerequisite, Chemistry 109. *Laboratory four hours a week. First semester.* Professor Tuttle.

119a. INDUSTRIAL CHEMISTRY. Prerequisite, Chemistry 131b. *Two hours a week. Either semester.* Professor Maxson.

119b. INDUSTRIAL CHEMISTRY. Prerequisite, Chemistry 131b. *Two hours a week. Either semester.* Professor Maxson.

122a. JOURNAL CLUB. Prerequisite, Chemistry 131b. *One hour a week. Either semester.* Professor Maxson.

122b. JOURNAL CLUB. Prerequisite, Chemistry 131b. *One hour a week. Either semester.* Professor Maxson.

129. FOOD CHEMISTRY AND ANALYSIS. Prerequisites, Chemistry 7 or 127a, 8. *Lectures and discussions, one hour a week, with assigned reading; laboratory eight hours a week. First semester.* Professor Tuttle.

130a. PHYSIOLOGICAL CHEMISTRY. The chemistry and metabolism of carbohydrates, proteins, and fats. A study of the tissues, the secretions, and excretions. The nature and action of enzymes. Nutrition, food values and requirements. The effects of a diet of selected food principles on the quantity of metalabolic products. Prerequisites, Chemistry 7 or 127a. *Two lectures, six hours laboratory a week. First semester.* Associate Professor Barkenbus.

130b. PHYSIOLOGICAL CHEMISTRY. Continuation of Chemistry 130a. *Two lectures, six hours laboratory a week. Second semester.* Associate Professor Barkenbus.

104. ADVANCED SYNTHETIC INORGANIC CHEMISTRY. Prerequisite, Chemistry 150, or to be taken at the same time. *Laboratory ten hours a week. Second semester.* Professor Maxson.

106. ADVANCED ORGANIC CHEMISTRY. Prerequisite, Chemistry 127b. *Laboratory ten hours a week. Either semester.* Associate Professor Barkenbus.

107. SELECTED PROBLEMS IN QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 114. *Laboratory ten hours a week. Either semester.* Professor Tuttle.

108. COLLOID CHEMISTRY. A course involving the preparation of colloids and the study of the physical and chemical properties of matter in the colloidal state. Prerequisite, Chemistry 101. *Laboratory work with conferences and collateral reading ten hours a week. Either semester.* Professor Maxson.

150. ADVANCED INORGANIC CHEMISTRY. Primarily for students specializing in chemistry. Prerequisite, Chemistry 101. *Two recita-* Maxson.

Courses Open Only to Graduate Students

201. SYSTEMATIC INORGANIC CHEMISTRY. *Laboratory ten hours a week. Either semester.* Professor Maxson.

202. QUANTITATIVE ANALYSIS. *Laboratory ten hours a week. Either semester.* Professor Tuttle.

204a. ORGANIC CHEMISTRY. Prerequisite, Chemistry 106. *Laboratory ten hours a week. Either semester.* Associate Professor Barkenbus.

205a. ADVANCED PHYSICAL CHEMISTRY. Prerequisites, Chemistry 131b and Calculus. *Lectures, two hours a week. Either semester.* Associate Professor Bedford.

205b. ADVANCED PHYSICAL CHEMISTRY. Continuation of 205a. *Lectures, two hours a week. Either semester.* Associate Professor Bedford.

206a. ADVANCED PHYSICAL CHEMISTRY. Laboratory course on selected topics in advanced physical or electro-chemistry. To be preceded or accompanied by Chemistry 205a. *Six or more hours a week. Three credits. Either semester.* Associate Professor Bedford.

206b. ADVANCED PHYSICAL CHEMISTRY. Continuation of 206a. To be preceded or accompanied by Chemistry 205b. *Six or more hours a week. Either semester. Three credits.* Associate Professor Bedford.

Course in Industrial Chemistry

German 3 must be completed and, if possible, one or two years work in French, so that a fair reading knowledge of both languages may be acquired. At least three years of modern language are required. Students planning to take this course are advised to take in the high school one year of chemistry, one year of physics and solid geometry. Unless so taken these preliminary courses must be taken at the University.

OUTLINE OF COURSE LEADING TO THE DEGREE B. S. IN INDUSTRIAL CHEMISTRY

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Matriculation Lec.	Required of all		1	.3
English 1a	English Composition	3		3.
Mathematics 5	College Algebra	5		5.
German 1a	Elementary German	3		3.
Drawing 2a	Mechanical Drawing		4	1.3
Chemistry 1a	General Inorganic Chemistry	3	4	5.
Military Science 1a	First Year Basic Course, Infantry	1	2	1.3
Physical Ed. 1a	Gymnasium or Field Athletics		2	.7

Second Semester

English 1b	English Composition	3		3.
Mathematics 4	Trigonometry	5		5.
German 1b	Elementary German	3		3.
Chemistry 1b	General Inorganic Chemistry	3	4	5.
Drawing 2b	Mechanical Drawing		4	1.3
Military Science 1b	First Year Basic Course, Infantry	1	2	1.3
Physical Ed. 1b	Gymnasium or Field Athletics		2	.7

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Physics 3a	General College Physics	4		4.
Physics 5	Measurements in Mechanics and Heat	1	4	3.
Mathematics 6	Analytical Geometry	5		5.
German 2a	Intermediate German	3		3.
Chemistry 4	Qualitative Analysis	1	6	4.
Mil. Science 6a	Second Year Basic Course, Infantry	1	2	1.5
Physical Ed. 2a	Gymnasium or Field Athletics		2	.7

Second Semester

		4		4.
Physics 2b	General College Physics	1	4	3.
Physics 6	Measurements in Elec., Sound & Light	3		3.
German 2b	Intermediate German	1	8	5.
Chemistry 8	Quantitative Analysis	5		5.
Mathematics 7a	Differential Calculus	1	2	1.5
Military Science 6b	Second Year Basic Course, Infantry		2	.7
Physical Ed. 2b	Gymnasium or Field Athletics			

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 127a	Organic Chemistry, Aliphatic Series	3	4	5.
Chemistry 109	Quantitative Analysis	1	8	5.
Chemistry 131a	Physical Chemistry	2	4	4.
Commerce 1a	Principles of Economics	3		3.
German 3a	Composition and Reading	3		3.

Second Semester

		3	4	5.
Chemistry 127b	Organic Chemistry, Cyclic Series		2	1.
Chemistry 17	Gas Analysis	3		3.
Commerce 1b	Principles of Economics	3		3.
German 3b	Composition and Reading		4	2.
Geology 109a	Mineralogy	2	4	4.
Chemistry 131b	Physical Chemistry, Continued	2		1.3
Hyg. & Pub. H. 1	General Hygiene			

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
		3		3.
Elec. Engr. 1 or	Elements		2	1.
Elec. Engr. 9a or	Laboratory			3.
Physics	Advanced Physics 2			2.
Chemistry 119a	Industrial Chemistry	1		1.
Chemistry 122a	Journal Club	3 or 2		3. or 2
English	Elective	2		2.
Geology 16a	Mineral Resources		4	2.
Chemistry 118	Water Analysis	1	8	5.
Chemistry 114	Advanced Quantitative Analysis			

Second Semester

Elec. Engr. 3 or	Alternating Currents	3		3.
Elec. Engr. 9b or	Laboratory		2	1.
Physics	Advanced Physics			3.
Chemistry 150	Advanced Inorganic Chemistry	2	4	4.
Chemistry 119b	Industrial Chemistry	2		2.
English	Elective	3 or 2		3. or 2
Chemistry 122b	Journal Club	1		1.
Chemistry	Elective		10	5.

Minimum credits for a degree 155.6.

Note:—Students excused from Military Science or Physical Education must gain equivalent credits in other subjects.

ECONOMICS

The following courses in the College of Commerce may be elected by Arts and Sciences students, without reference to the rule limiting work in other colleges of the University to thirty credits. Other advanced courses in Commerce require as a prerequisite completion of freshman and sophomore requirements of the Commerce course. For other courses in the College of Commerce, see page 201.

1a. PRINCIPLES OF ECONOMICS. Not open to freshmen. *Three hours a week. First semester. Repeated second semester.* Professors Wiest, Sullivan, Rouse and Carter.

1b. PRINCIPLES OF ECONOMICS. Not open to freshmen or commerce students. *Three hours a week. Second semester.* Professor Sullivan.

*2. ECONOMICS HISTORY OF EUROPE. Open only to freshmen and sophomores. *Three hours a week. First semester.* Professors Jennings, Sullivan and Lawrence.

*3. ECONOMICS HISTORY OF THE UNITED STATES. Open only to freshmen and sophomores. *Three hours a week. Second semester.* Professors Jennings and Sullivan.

8. ECONOMIC GEOGRAPHY. *Three hours a week. First semester.* Assistant Professor Carter.

9. FORMS OF BUSINESS ORGANIZATION. Prerequisite, course 1a. *Three hours a week. Second semester.* Mr. Rouse.

12. ECONOMIC GEOGRAPHY OF NORTH AMERICA. *Three hours a week. Second semester.* Professors Jennings and Carter.

Courses Open Only to Upper Division and Graduate Students

102. LABOR PROBLEMS. Prerequisite, course 1a. *Three hours a week. First semester.* Assistant Professor Carter.

103. TRANSPORTATION. Prerequisite, course 1a. Given in alternate years. *Three hours a week. First semester.* Assistant Professor Sullivan.

*Courses open to freshmen.

104. Public Finance. Prerequisite, course 1a. *Three hours a week. First semester.* Professor Martin.

105. Money and Banking. Prerequisite, course 1a. *Three hours a week. First semester.* Professors Wiest and Sullivan.

107. Statistical Method. Not open to freshmen and sophomores. *Recitation one hour, laboratory four hours a week. First semester.* Associate Professor Palmer.

110. Business Cycles. Prerequisites, courses 1a and 107. *Three hours a week. Second semester.* Associate Professor Palmer.

115. Contemporary Economic Thought. Prerequisite, course 1a. *Three hours a week. First semester.* Professor Martin.

120. Organization of Economic Groups. Prerequisite, course 1a. *Three hours a week. First semester.* Assistant Professor Sullivan.

124. State and Federal Taxation. Prerequisite, course 1a. *Three hours a week. Second semester.* Professor Martin.

125. Advanced Economic History of Europe. Not open to freshmen and sophomores nor to students who have had course 2, except when doing graduate work. *Three hours a week. First semester.* Professor Jennings.

126. Economics of Public Utilities. Prerequisite, course 1a. *Three hours a week. First semester.* Assistant Professor Carter.

127. International Economic Policies. Prerequisite, course 1a. Given in alternate years. *Three hours a week. Second semester.* Assistant Professor Sullivan.

130. Labor Legislation. Prerequisite, course 1a. *Three hours a week. Second semester.* Assistant Professor Carter.

134. Advanced Economic History of the United States. Not open to freshmen and sophomores nor to students who have had course 3, except when doing graduate work. *Three hours a week. Second semester.* Professor Jennings.

139. Advanced Time Series and Index Numbers. Prerequisites, an elementary course in statistics. *Three hours a week. First semester.* Associate Professor Palmer.

Courses Open to Graduate Students Only

203. History of Economic Thought. Prerequisite, course 1a. *Three hours a week. Second semester.* Professor Wiest.

EDUCATION

A student in the College of Arts and Sciences may elect toward the A. B. or B. S. degree a total of 30 credits from other colleges of the University. For information about courses in Education see page 183.

ENGINEERING

A student in the College of Arts and Sciences may elect toward the A. B. or B. S. degree a total of 30 credits from other colleges of the University. For information about courses in Engineering see page 150.

ENGLISH LANGUAGE AND LITERATURE

Professor Dantzler, Professor Farquhar, Associate Professor Knight, Associate Professor Brady, Assistant Professor Sutherland, Assistant Professor Yates, Assistant Professor Fowler, Assistant Professor Kelley, Assistant Professor Gallaway, Miss King, Miss Gay, Mr. Davis, Mr. Palmer, Mr. Fithian, Mrs. Smith, Mr. Shannon.

REQUIREMENTS FOR A MAJOR. Prerequisites: English 1a, 1b, 3a, 3b, Electives: English 2a, 2b, 102, 104, 106, 107, 108a, 108b, 109, 110, 111, 116, 120, 123a, 123b, 124, 126, 127a, 127b, 128, 129, 130a, 130b, 131a, 131b, 132, 133, 152a, 152b, 153.

ENGLISH LANGUAGE AND RHETORIC

D. ENGLISH COMPOSITION. A course for freshmen who are deficient in English. *Three hours a week. No credit.*

*1a. ENGLISH COMPOSITION. *Three hours a week. First semester. Repeated second semester.* All instructors.

*1b. ENGLISH COMPOSITION. *Three hours a week. Second semester. Repeated first semester.* All instructors.

2a. ADVANCED COMPOSITION. Prerequisites, English 1a or 1b. *Two hours a week. First semester.* Associate Professor Knight.

2b. THE SHORT STORY. Continuation of English 2a. *Two hours a week. Second semester.* Associate Professor Knight.

30. BUSINESS ENGLISH. *Two hours a week.* Primarily for juniors in the College of Commerce. *First semester. Repeated second semester.* Mr. Shannon.

117. LITERARY COMPOSITION. Prerequisites, two elective hours in composition and six in literature. Admission to the class depends upon the instructor's approval of some original composition by the student. *Two hours a week. First semester.* Associate Professor Knight.

102. HISTORY OF THE ENGLISH LANGUAGE. *Two hours a week. First semester.* Professor Dantzler.

125. PRONUNCIATION OF MODERN ENGLISH. *Three hours a week. Second semester.* Professor Dantzler.

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*Courses open to freshmen.
Note:—Courses numbered above one hundred open only to upper division and graduate students.

English Literature

3a. History of English Literature. Prerequisite, English 1a or 1b. *Three hours a week. First semester.* Professor Dantzler, Associate Professor Knight, Associate Professor Brady, Assistant Professor Yates, Mr. Davis, Miss Gay, Mr. Gallaway, Mr. Kelley.

3b. History of English Literature. *Three hours a week. Second semester.* Professor Dantzler, Associate Professor Knight, Associate Professor Brady, Assistant Professor Yates, Assistant Professor Kelley, Mr. Davis, Miss Gay, Mr. Kelley.

106. English Romanticism. *Three hours a week. First semester.* Associate Professor Brady.

107. Victorian Poets. *Three hours a week. Second semester.* Associate Professor Brady.

108a. Principles of Literary Criticism. *Three hours a week. First semester.* Professor Farquhar.

108b. Principles of Literary Criticism. *Three hours a week. Second semester.* Professor Farquhar.

109. Pre-Shakesperean Drama. *Three hours a week. First semester.* Professor Farquhar.

110a. Shakespeare, Comedy. *Three hours a week. First semester.* Professor Farquhar.

110b. Shakespeare, Tragedy. *Three hours a week. Second semester.* Professor Farquhar.

111. The English Novel of the Nineteenth Century. *Three hours a week. Second semester.* Associate Professor Knight.

116. The Contemporary Drama. *Three hours a week. First semester.* Professor Farquhar.

119a. Literature for Engineers. *Three hours a week. Two credits. First semester.* Professor Farquhar.

119b. Literature for Engineers. *Three hours a week. Two credits. Second semester.* Professor Farquhar.

121. Conferences on Life Interests. For sophomores and juniors. *One hour a week. Second semester.* Professor Dantzler and others.

123a. American Literature Before 1860. *Three hours a week. First semester.* Associate Professor Knight.

123b. American Literature After 1860. *Three hours a week. Second semester.* Associate Professor Knight.

124. The Renaissance. *Three hours a week. First semester.* Professor Dantzler.

Note:—Courses numbered one hundred or above open only to upper division and graduate students.

151. BROWNING. *Three hours a week. Second semester.* Professor Dantzler.

130a. COMPARATIVE LITERATURE. *Three hours a week. First semester.* Assistant Professor Brady.

130b. COMPARATIVE LITERATURE. *Three hours a week. Second semester.* Assistant Professor Brady.

134. DEVELOPMENT OF THE ESSAY. *Three hours a week. First semester.* Assistant Professor Brady.

135. PRE-VICTORIAN PROSE. *Three hours a week. First semester.* Assistant Professor Brady.

136. VICTORIAN PROSE. *Three hours a week. Second semester.* Assistant Professor Brady.

127a. LITERATURE OF THE BIBLE. *Two hours a week. First semester.* Professor Farquhar.

127b. LITERATURE OF THE BIBLE. *Two hours a week. Second semester.* Professor Farquhar.

131a. INDEPENDENT WORK. *Two hours a week. First semester.* Professor Dantzler.

131b. INDEPENDENT WORK. *Two hours a week. Second semester.* Professor Dantzler.

137. EDGAR ALLAN POE. Primarily for summer school. *Two credits.* Professor Farquhar.

152a. LITERATURE FROM THE RESTORATION TO SHERIDAN. *Three credits.* Assistant Professor Kelley.

152b. LITERATURE FROM THE RESTORATION TO SHERIDAN. *Three credits.* Assistant Professor Kelley.

153. RESTORATION—EIGHTEENTH CENTURY DRAMA. *Three hours a week.* Assistant Professor Kelley.

201a. LITERARY CRITICISM. *Three hours a week. First semester.* Professor Farquhar.

201b. LITERARY CRITICISM. *Three hours a week. Second semester.* Professor Farquhar.

202a. STUDIES IN CONTEMPORARY DRAMA. *Three hours a week. First semester.* Professor Farquhar.

202b. STUDIES IN CONTEMPORARY DRAMA. *Three hours a week. Second semester.* Professor Farquhar.

204a. BEOWULF. *Two hours a week. First semester.* Professor Dantzler.

204b. BEOWULF. *Two hours a week. First semester.* Professor Dantzler.

Note:—Courses numbered one hundred or above open only to upper division and graduate students.

205. CHAUCER. *Three hours a week. First semester.* Professor Dantzler.

206. ALFREDIAN PROSE. *Three hours a week. Second semester.* Professor Dantzler.

207. SPENSER. *Three hours a week. Second semester.* Professor Dantzler.

208. CARLYLE. *Three hours a week. First semester.* Associate Professor Brady.

PUBLIC SPEAKING

*7a. ELEMENTS OF PUBLIC SPEAKING. *Three hours a week. First semester.* Assistant Professor Sutherland.

*7b. ELEMENTS OF PUBLIC SPEAKING. *Three hours a week. Second semester.* Assistant Professor Sutherland.

11a. DEBATE AND ARGUMENTATION. *Three hours a week. First semester.* Assistant Professor Sutherland.

11b. DEBATE AND ARGUMENTATION. *Three hours a week. Second semester.* Assistant Professor Sutherland.

15a. ORATORY. Prerequisites: English 7a and 7b or the equivalent. *Two hours a week. First semester.* Assistant Professor Sutherland.

15b. ORATORY. Continuation of 15a. *Two hours a week. Second semester.*

12a. DEBATE PRACTICE. The forming of a debating squad which shall devote its time to preparation for the intercollegiate debates which take place in the spring. The representatives of the University in the intercollegiate debates will be chosen from this squad. *Two credits.* Assistant Professor Sutherland.

12b. DEBATE PRACTICE. Continuation of 12a. The courses are offered in alternate years. *Two hours a week.* Assistant Professor Sutherland.

10a. PUBLIC SPEAKING. For juniors in the College of Engineering. *Two hours a week. First semester.* Assistant Professor Sutherland.

10b. PUBLIC SPEAKING. Continuation of 10a. *Two hours a week. Second semester.* Assistant Professor Sutherland.

*34a. DRAMATIC PRODUCTION. *Two hours a week. First semester.* Assistant Professor Fowler.

*34b. DRAMATIC PRODUCTION. *Two hours a week. Second semester.* Assistant Professor Fowler.

35. ADVANCED DRAMATIC PRODUCTION. *Three hours a week. First semester.* Assistant Professor Fowler.

37. ADVANCED DRAMATIC PRODUCTION. *Three hours a week.* Assistant Professor Fowler.

*Courses open to freshmen.

Library Science

25. General Reference Work. Same as Education 112. *Two hours a week. First semester.* Miss King.

126. Place, Function, Administration and Opportunity. *Two hours a week.*

128. Children's Literature. *Two hours a week.*

129. Cataloging and Classification. *Two hours a week.*

132. Library Work with Children. *Two hours a week.*

133. Reference and Bibliography. *Two hours a week.*

138. Methods of Teaching the Use of the Library. *Two hours a week.*

139. Field Work. *Two hours a week.*

150. Book Selection for High School Teachers. *Two hours a week.*

GEOLOGY

†*Emeritus Professor Miller, Professor McFarlan, Assistant Professor Robinson, Assistant Professor Meacham*

Requirements for a Major. Prerequisites: Geology 22a, 22b. Required: Geology 15a, 15b, 16a, 16b, 9a, 9b, 19a, 19b, 101a, 101b, 109a, 109b, 117a, 117b. *Field Work.* An early summer field trip, Geology 118a or 118b is required of major students for graduation. This covers two weeks work in the Appalachian Mountains of Virginia, Tennessee and North Carolina. Local field work is offered thruout the year, and it is recommended that all major students take a summer course in field geology and geological methods. Such courses varying from four to six weeks in length are offered by a number of institutions. Electives: Geology 10a, 10b, 104a, 104b, 105a, 105b, 106a, 106b, 107a, 107b, 108, 110, 111.

*3. Elementary Geology for Agriculture Students. *Three hours a week. Second semester.* Assistant Professor Meacham.

4. Mineralogy. Survey course for Mining Engineers and others. *Four hours laboratory. First semester.* Assistant Professor Robinson.

7a. Engineering Geology. Prerequisite, Geology 12. *Two hours a week. First semester.* Assistant Professor Meacham.

8. Oil Geology for Engineers. Prerequisite, Geology 12. *Two hours a week thru one-half of second semester in conjunction with Geology* 116. Assistant Professor Robinson.

9a. Field Geology. Topographic mapping. *Two periods a week of three hours each. Two credits. First semester.* Assistant Professor Meacham.

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*Courses open to freshmen.
†Deceased, Nov., 1930.

9b. FIELD GEOLOGY. Structure mapping and contouring. *Two periods a week of three hours each. Two credits. Second semester.* Assistant Professor Robinson.

10a. GEOLOGY OF KENTUCKY. *Three hours a week. Three credits. First semester.* Professor McFarlan.

10b. GEOLOGY OF KENTUCKY. *Three hours a week. Three credits. Second semester.* Professor McFarlan.

12. ELEMENTARY GEOLOGY FOR ENGINEERS. *Two hours recitation and two hours laboratory a week. Second semester.*

*14. ELEMENTARY FIELD GEOLOGY. To accompany Geology 2b. *Second semester. One credit.*

15a. ADVANCED GEOLOGY. Prerequisite, Geology 2a, and 2b, or equivalent. *Three hours a week. First semester.* Professor McFarlan.

15b. ADVANCED GEOLOGY. Prerequisite, Geology 15a. *Three hours a week. Second semester.* Professor McFarlan.

16a. MINERAL RESOURCES. Non-Metallic Minerals. Prerequisites, Geology 2a, 2b. *Two hours a week. First semester.* Assistant Professor Meacham.

16b. MINERAL RESOURCES. Metallic Minerals. Prerequisites, Geology 2a, 2b. *Two hours a week. Second semester.* Assistant Professor Meacham.

17. CONSERVATION OF NATURAL RESOURCES. *Three hours a week for one semester.*

*18a. ELEMENTS OF GEOGRAPHY. *Three hours a week. First semester.* Assistant Professor Meacham.

*18b. ELEMENTS OF GEOGRAPHY. *Three hours a week. Second semester.* Assistant Professor Meacham.

19a. LABORATORY WORK IN HISTORICAL GEOLOGY. To accompany Geology 15a. *Two hours a week. One credit. First semester.*

19b. LABORATORY WORK IN HISTORICAL GEOLOGY. To accompany 15b. *Two hours a week. One credit. Second semester.*

21. A SURVEY OF KENTUCKY GEOLOGY. *One hour a week. One credit.* W. R. Jillson, State Geologist.

*22a. ELEMENTARY GEOLOGY. *Three recitations and lectures, one laboratory conference a week. Four credits. First semester.* Professor McFarlan, Assistant Professor Robinson, Assistant Professor Meacham.

*22b. ELEMENTARY GEOLOGY. *Three recitations and lectures, one laboratory conference a week. Four credits. Second semster.* Professor McFarlan, Professor Robinson, Assistant Professor Meacham.

*Courses open to freshmen.

Courses Open Only to Upper Division and Graduate Students

101a. PALEONTOLOGY. †Prerequisites, Geology 15a, 15b, and Zoology 1a, 1b. *Three credits. First semester.* Professor McFarlan.

101b. PALEONTOLOGY. Prerequisite, Geology 101a. *Three credits. Second semester.* Professor McFarlan.

104a. ADVANCED FIELD GEOLOGY. Prerequisite, Geology 9b, 15a, and 15b. Areal Geology and Geologic Report. *Six hours a week. Two credits. First semester.* Professor McFarlan.

104b. ADVANCED FIELD GEOLOGY. Areal Geology and Geologic Report. *Six hours a week. Two credits. Second semester.* Professor McFarlan.

105a. INDEPENDENT WORK IN GEOLOGY. *Three credits. First semester.*

105b. INDEPENDENT WORK IN GEOLOGY. *Three credits. Second semester.*

106a. ECONOMIC GEOLOGY. (Seniors). †Prerequisites, Geology 15a, 15b, 16a, 16b, 107a, and 107b. *Three hours a week. First semester.* Assistant Professor Robinson. Omitted 1930-31.

106b. ECONOMIC GEOLOGY. (Seniors.) *Three hours a week. Second semester.* Assistant Professor Robinson. Omitted 1930-31.

107a. PETROLOGY. †Prerequisite, Geology 109a. 109b. *Three credits. First semester.* Assistant Professor Robinson.

107b. PETROLOGY. *Six hours laboratory a week. Three credits. second semester.* Assistant Professor Robinson.

108. STRUCTURAL GEOLOGY. Prerequisite, Geology 15a, 15b. *Three credits.* One semester. Assistant Professor Robinson.

109a. MINERALOGY. Prerequisite, Chemistry 1a, 1b. *Four hours laboratory. Two credits. Second semester.* Assistant Professor Robinson.

109b. MINERALOGY. *Four hours laboratory. Two credits. First semester.* Assistant Professor Robinson.

110. STRATIGRAPHIC PALEONTOLOGY. †Prerequisite, Geology 101a, 101b. *Three credits, one semester.* Professor McFarlan.

111. PRINCIPLES OF SEDIMENTATION. (Seniors.) Prerequisite, Geology 15a, 15b, 109a, 109b. *Three credits, one semester.*

116. OIL GEOLOGY. Prerequisite, Geology 15a, 15b. *Two hours a week. Second semester.* Assistant Professor Robinson.

117a. SEMINAR. Required of seniors. *One hour a week. One credit. First semester.*

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†By special permission of the instructor a prerequisite may be satisfied by carrying the two courses together.

117b. SEMINAR. Required of seniors. *One credit. Second semester.*

118a. FIELD WORK IN REGIONAL GEOLOGY. Two weeks in the field in Virginia, North Carolina and Tennessee. Prerequisite, Geology 15a, 15b, 16a, 16b. Required of major students in their junior year. The course is offered as part of the first summer session coming early in June between commencement and the summer school. *Two credits.* Professor McFarlan, Assistant Professor Meacham.

118b. FIELD WORK IN REGIONAL GEOLOGY. Same as 118a but covering a different section in the Appalachians, and alternating with it. *Two credits.* Professor McFarlan, Assistant Professor Meachan.

Courses Open Only to Graduate Students

202a. RESEARCH IN GEOLOGY. *Five credits. First semester.*

202b. RESEARCH IN GEOLOGY. *Five cerdits. Second semester.*

GERMAN LANGUAGE AND LITERATURE

*Professor Melcher, ‡Assistant Professor Bigge, ‡Miss Connell, **Mr. Grass, **Mrs. Lewis, **Mr. Whitaker*

REQUIREMENTS FOR A MAJOR. Prerequisites: German 1a, 1b. Required: German 2a, 2b, 3a, 3b, 4a, 4b, 5, 6. Electives: German 101a, 101b, 102a, 102b; Romance Languages 2a, 2b, 6a, 6b, or 109a, 109b; Political Science 155a, 155b. English 102, or English 130a and 130b.

*1a. ELEMENTARY GERMAN. *Three hours a week. First semester.* Professor Melcher, Assistant Professor Bigge, Miss Connell.

*1b. ELEMENTARY GERMAN. Prerequisites, German 1a or one year high school German. *Three hours a week. Second semester.* Professor Melcher, Assistant Professor Bigge, Miss Connell.

*2a. INTERMEDIATE GERMAN. Prerequisites, 1a and 1b or two years high school German. *Three hours a week. First semester.* Professor Melcher, Assistant Professor Bigge.

*2b. INTERMEDIATE GERMAN. Prerequisites, German 1a, 1b and 2a. *Three hours a week. Second semester.* Professor Melcher, Assistant Professor Bigge.

3a. COMPOSITION AND READING. *Three hours a week. First semester.* Professor Melcher, Assistant Professor Bigge.

3b. COMPOSITION AND READING. Prerequisites, German 2a and 2b. *Three hours a week. Second semester.* Professor Melcher, Assistant Professor Bigge.

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‡On leave, 1929-30.
**Resigned June 1, 1930.
*Courses open to freshmen.

4a. ADVANCED READING AND COMPOSITION. Prerequisites, 3a and 3b or 5. *Three hours a week. First semester.* Professor Melcher, Melcher, Assistant Professor Bigge.

4b. ADVANCED READING AND COMPOSITION. Prerequisites, German 3a and 3b or 5. *Three hours a week. Second semester.* Professor Melcher, Assistant Professor Bigge.

†5. HISTORY OF GERMAN LITERATURE. Prerequisite, German 2a, 2b. Required of major German students. *Three hours a week. First semester.* Professor Melcher.

†6. SCIENTIFIC AND JOURNALISTIC GERMAN. Prerequisites, German 2b. *Three hours a week. Second semester.* Professor Melcher, Assistant Professor Bigge.

Courses Open Only to Upper Division and Graduate Students

†101a. THREE DRAMA. *Three hours a week. First semester.* Professor Melcher, Assistant Professor Bigge.

†101b. THE DRAMA. Prerequisites, German 4a, 4b. *Three hours a week. Second semester.* Professor Melcher, Assistant Professor Bigge.

†102a. NOVEL AND DRAMA. *Three hours a week. First semester.* Professor Melcher.

†102b. NOVEL AND DRAMA. Prerequisites, German 4a, 4b, 5. *Three hours a week. Second semester.* Professor Melcher.

105a. INDEPENDENT WORK. *First semester.* Professor Melcher, Assistant Professor Bigge.

105b. INDEPENDENT WORK. *Second semester.* Professor Melcher, Assistant Professor Bigge.

HISTORY

Professor Tuthill, Associate Professor Knapp, Mr. Hall, Mr. Lunde

Courses 2a, 2b will prepare the freshman for later courses in American history, law, and English history and literature. Courses 4a, 4b for freshmen, are recommended for cultural courses in European civilization, languages, foreign commerce, and a somewhat broader outlook on the world. Courses 10a, 10b (History of the Americas) are strongly recommended in the pursuit of advanced credits in American history.

Henceforth certain courses numbered above 100 will be offered in alternate years, and should be taken in sequence; hence the student ought to consult the Department before completing his program of studies.

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†Given when requested by sufficient number to form class.

REQUIREMENTS FOR A MAJOR. Prerequisites: History 2a, 2b, or 4a and 4b. Electives: History 10a, 10b, 114, 119a, 119b, 120, 40, 126, 130a, 130b, 170, 181, 182.

*2a. HISTORY OF THE BRITISH PEOPLE. *Three hours a week. First semester.* Mr. Hall.

*2b. HISTORY OF THE BRITISH PEOPLE. *Three hours a week. Second semester.* Mr. Hall.

*4a. INTRODUCTION TO MODERN EUROPE. *Three hours a week. First semester.* Mr. Lunde.

*4b. INTRODUCTION TO MODERN EUROPE. *Three hours a week. Second semester.* Mr. Lunde.

10a. HISTORY OF THE AMERICAS. A survey of the history of North and South America. Recommended to all who intend to elect American History. *Three hours a week. First semester.* Associate Professor Knapp.

10b. HISTORY OF THE AMERICAS. A continuation of course 10a. *Three hours a week. Second semester.* Associate Professor Knapp.

31. ENGLISH CONSTITUTIONAL HISTORY. Recommended to students of law. *Three hours a week. First semester.* Mr. Hall.

40. HISTORY OF KENTUCKY. *Two hours a week. Second semester.* Professor Tuthill.

Courses open only to upper division and graduate students.

105. COLONIAL AMERICA. Prerequisite, one year of American or English history in college. *Three credits.* Associate Professor Knapp.

106. LATIN AMERICA. *Lectures, text, and reading. First semester. Three hours a week.* Associate Professor Knapp.

114. THE RENAISSANCE. Prerequisite, History 4a or equivalent. *Three hours a week. First semester.* Professor Tuthill.

119a. FRENCH REVOLUTION AND NAPOLEON. *Three hours a week. First semester.* Professor Tuthill.

119b. NINETEENTH CENTURY. *Three hours a week. Second semester.* Professor Tuthill.

120. THE TWENTIETH CENTURY. Prerequisite, History 119b. *Three hours a week. Second semester.* Professor Tuthill.

126. THE OLD SOUTH. *Three hours a week. One semester.* Associate Professor Knapp.

130a. THE HISTORY OF THE WEST. *Two hours a week.* Associate Professor Knapp.

130b. HISTORY OF THE WEST. A continuation of History 130a. *Two hours a week.* Associate Professor Knapp.

*Courses open to freshmen.

147. RECENT HISTORY OF THE UNITED STATES. Prerequisite, one year of American history. *Three hours a week. Second semester.* Associate Professor Knapp.

170. THE ERA OF LOUIS XIV. Prerequisite, one year of Europen History. *Three hours a week. One semester.* Professor Tuthill.

180. EUROPEAN HISTIOGRAPHY. *One hour a week. First semester.* Professor Tuthill.

181. AMERICAN HISTORIOGRAPHY. *One hour a week. First semester.* Associate Professor Knapp.

182a. HISTORICAL CRITICISM. *One credit. First semester.* Professor Tuthill.

182b. HISTORICAL CRITICISM. A continuation of 182a. *One credit. Second semester.* Professor Tuthill.

184. THE GEOGRAPHIC BASIS OF AMERICAN HISTORY. Prerequisite, ten semester hours of American history. *One hour a week. One credit.*

Courses Open Only to Graduate Students

202. THE AMERICAN REVOLUTION. Seminar. *Two credits.*

203. THE FEDERAL CONVENTION OF 1787. Seminar. *Two credits.*

215a. THE PUBLIC SERVICES OF HENRY CLAY. *Two hours a week. First semester.*

215b. THE PUBLIC SERVICES OF HENRY CLAY. *Two hours a week. Second semester.*

230. DEVELOPMENT OF THE POPULIST MOVEMENT IN THE UNITED STATES. A close study of the origin and development of the Populist movement through the last quarter of the 19th century. *Two credits.*

220. ORIGINS OF THE GREAT WAR. Seminar. *Two credits.*

265. THE AMERICAN CIVIL WAR. Seminar. *Two credits.*

266. THE RECONSTRUCTION OF THE UNION. Seminar. *Two credits.*

Note:—One or more of the seminar courses will be offreed each semester.

HOME ECONOMICS

A student in the College of Arts and Sciences may elect toward the A. B. or B. S. degree a total of thirty credits from other colleges of the University. For information about courses in Home Economics see page 144.

HYGIENE AND PUBLIC HEALTH

Professor Chambers, Associate Professor Pinney, Mr. Heinz, Miss Desha, Mrs. Long, Miss Shackelford

The functions of the department are threefold; namely, medical service to the students, teaching and research. In the performance of

each of these functions primary emphasis is placed upon the prevention of disease.

The medical service consists of complete physical examinations of all entering students, the maintenance of a dispensary on the campus for students and faculty and calls by the physicians of the staff to sick students in their rooms.

The teaching consists of courses in general hygiene which are intended to give the university students a proper basis for an intelligent attitude toward the medical sciences in relation to himself and his community. In addition certain advanced courses are given for the benefit of students in other colleges and departments as follows: school health work for the College of Education, and certain courses relating to the social sciences. The department does not at this time give advanced work leading to a degree in public health.

Research is a necessary part of the activities, and provision is being made for the development of this phase of the work.

REQUIREMENTS FOR A MAJOR. Prerequisites: Hygiene 1, Chemistry 1a, 1b; Bacteriology 2a, 2b, or 102. Required: Hygiene 105, 111, 112, 115. Electives: Hygiene 110, 114, 116, Bacteriology 103, 107, 110a, 110b; Zoology 105; Chemistry 118.

*1. GENERAL HYGIENE. *Two hours a week. First and second semesters.* Dr. Chambers, Dr. Pinney, Mr. Heinz.

Courses Open Only to Upper Division and Graduate Students

105. ADVANCED HYGIENE. Prerequisites, Hygiene 1 and Bacteriology. *Two hours a week. First semester.* Dr. Chambers, Mr. Heinz.

110. HEALTH EDUCATION AND HEALTH SUPERVISION OF SCHOOLS. Prerequisite, Hygiene 1. 105 and Bacteriology advised. *Three hours a week. Second semester.* Dr. Chambers and Mr. Heinz.

112. PUBLIC HEALTH LAW AND ADMINISTRATION. Prerequisite, Hygiene. *Three hours a week. Second semester.* Mr. Heinz.

113. VITAL STATISTICS. (Omitted 1930-31.) Prerequisite, Hygiene 1. *Three hours a week. First semester.* Mr. Heinz.

114. INDUSTRIAL HYGIENE. (Omitted 1929-30.) Prerequisite, Hygiene 1. *Three hours a week. First semester.*

115. EPIDEMIOLOGY. Prerequisite, Hygiene 1. *Three hours a week. First semester.* Mr. Heinz.

116. SOCIOLOGIC AND ECONOMIC ASPECTS OF DISEASE. *Three hours a week. Second semester.* Mr. Heinz.

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*Courses open to freshmen.

JOURNALISM

Professor Grehan, Assistant Professor McLaughlin, Assistant Professor Portmann, Mr. Griffin, Mr. Plummer

The department is supplied with a library containing the latest works on the subject of journalism, leading daily and weekly newspapers, periodicals, and other publications. In connection with this department have been organized four Press Associations and a Campus Bulletin thru which it serves the University and the press with announcements concerning student and allied activities. All are used in laboratory work. The department is equipped with all necessary standard equipment for the printing and publishing of a modern community newspaper which serves the student body, the University, and the alumni. A quarterly literary journal is also published. This equipment is also used with a type laboratory for instructional purposes in the study of typography.

REQUIREMENTS FOR A MAJOR. Prerequisites: Journalism 1a, 1b, and either 2a or 2b. Required: Journalism 8a, 8b, 105, 106, 107, 108. Electives: Journalism 3a, 3b, 7, 9, 109; History, English, Political Science, and Sociology (numbers above 100); Psychology 5; Romance Languages 103a, 103b; German 2a, 2b. Two sequences of study are offered this year for the first time. See below.

*1a. REPORTING. Not open to juniors and seniors. *Three hours a week. First semester.* Assistant Professor McLaughlin, Mr. Plummer.

*1b. REPORTING. Not open to juniors and seniors. Continuation of 1a. *Three hours a week. Second semester.* Assistant Professor McLaughlin, Mr. Plummer.

2a. ADVANCED REPORTING, Prerequisite 1a, 1b. *Three hours a week. Both semesters.* Mr. Griffin.

2b. FEATURE WRITING. Prerequisite 1a, 1b. *Three hours a week. Both semesters.* Mr. Griffin.

3a. ETYMOLOGY. Open to sophomores. *Three hours a week. Both semesters.* Professor Grehan.

3b. VERBAL CRITICISM. Open to those of junior rank and above. *Three hours a week. Both semesters.* Professor Grehan.

Course open only to Upper Division Students

Prerequisites: Journalism 1a, 1b, and 2a or 2b.

7. COMMUNITY JOURNALISM. *Three hours a week. First semester.* Assistant Professor Portmann.

8a. COPYREADING, PROOFREADING, TYPOGRAPHY. No credit for 8a until 8b has been completed. *Lecture one hour, laboratory four hours a week. First semester.* Assistant Professor Portmann.

*Courses open to freshmen.

8b. COPYREADING, PROOFREADING, TYPOGRAPHY. Continuation of 8a. *Lecture one hour, laboratory four hours a week. Second semester.* Assistant Professor Portmann.

9. NEWSPAPER ADMINISTRATION *Three hours a week. Second semester.* Assistant Professor Portmann.

Course open only to Upper Division and Graduate Students.

Prerequisites: Journalism 1a, 1b, and either 2a or 2b.

105. LAW OF THE PRESS. *Three hours a week. Both semesters.* Assistant Professor Portmann.

106. ETHICS AND PRINCIPLES OF JOURNALISM. (For seniors.) *Three hours a week. First semester.* Assistant Professor Portmann.

107. EDITORIAL WRITING. (For seniors.) *Three hours a week. Second semester.* Professor Grehan.

108. HISTORY OF JOURNALISM. (For seniors.) *Three hours a week. Second semester.* Assistant Professor Portmann.

109. CRITICAL WRITING. (For seniors.) *Three hours a week. First semester.* Professor Grehan.

S101. SUPERVISION OF HIGH SCHOOL PUBLICATIONS. *Summer session. Two credits.* Assistant Professor Portmann.

OUTLINE OF COURSE LEADING TO DEGREE A. B. IN JOURNALISM, GENERAL SEQUENCE

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 1a	Reporting	3		3.
English 1a	English Composition	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Physical Science	Descriptive Astronomy or Elem. Geol.	2	2	3.
Psychology 2a	General Psychology	2		1.3
Hygiene 1	General Hygiene	1	2	1.3
Military Science	First Year Basic Course, Inf.		2	.7
Physical Ed. 1a	Gymnasium or Field Athletics	1		.3
Matric. Lect.	Required of all			
				18.6

Second Semester

Journalism 1b	Reporting	3		3.
English 1b	English Composition	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Physical Science	Descriptive Astronomy or Elem. Geol.	2	2	3.
Psychology 2b	General Psychology	1	2	1.3
Military Science	First Year Basic Course, Inf.		2	.7
Physical Ed. 1b	Gymnasium or Field Athletics			
				17.0

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 2a	Advanced Reporting	3		3.
English 3a	History English Literature	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Biological Science	Bacteriology, Bot., Zool., Physiol.	3	2	3. or 4
Social Science	History 4a or 5a, Political Sci. 15a or 51a, Sociology 1a	3		3.
Military Science 6a	Second Year Basic Course	1	2	1.5
Physical Ed. 2a	Gymnasium, Field Athletics		2	.7
				17.2

Second Semester

Journalism 2b	Feature Writing	3		3.
English 3b	History English Literature	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Biological Science	Bacteriology, Bot., Zool., Physiol.	3	2	3. or 4
Social Science	History 4b or 5b, Political Sci. 15b or 51b, Sociology 1b	3		3.
Military Science 6b	Second Year Basic Course	1	2	1.5
Physical Ed. 2b	Gymnasium, Field Athletics		2	.7
				17.2

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 8a	Copyreading, etc.	1	4	3.
Journalism 7	Community, Journalism	3		3.
English 123a	American Literature	3		3.
Psychology 5	Advertising and Selling	3		3.
Electives	Journ. 3a, English, History, Political Sc., Sociology (Numbers above 100)			3.
				15.

Second Semester

Journalism 8b	Copyreading, etc.	1	4	3.
Journalism 105	Law of the Press	3		3.
Journalism 9	Newspaper Administration	3		3.
English 123b	American Literature	3		3.
Electives	Journ. 3b, English, History, Political Sc., Sociology (Numbers above 100)			3.
				15.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 106	Ethics and Principles	3		3.
Journalism 109	Crictical Writing	3		3.
Electives	Journ. 3a, History, English, Political Sc., Sociology, (Numbers above 100)			9.
				15.

Second Semester

Journalism 108	History of Journalism	3		3.
Journalism 107	Editorial Writing	3		3.
Electives	Journ. 3b, History, English, Political Sc., Sociology, (Numbers above 100)			9.
				15.

Total credits, 130

OUTLINE OF COURSE LEADING TO DEGREE A. B. IN JOURNALISM, COMMUNITY SEQUENCE

Students will elect this sequence at the beginning of their sophomore year, and will follow the course as outlined in regard to specified courses in the class year specified.

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 1a	Reporting	3		3.
English 1a	English Composition	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Psychology 2a	General Psychology	2	2	3.
Math. 51a or }				
Geology 2a }	Astronomy or Elementary Geology	3		3.
Hygiene 1	General Hygiene	2		1.3
Military Science	1st Year Basic Course, Inf.	1	2	1.3
Physical Ed. 1a	Gymnasium, Field Athletics		2	.7
Matric. Lect.	Required of all	1		.3
				18.6

Second Semester

Journalism 1b	Reporting	3		3.
English 1b	English Composition	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Psychology 2b	General Psychology	2	2	3.
Math. 51b or }				
Geology 2b }	Astronomy or Elementary Geology	3		3.
Military Science	1st Year Basic Course, Inf.	1	2	1.3
Physical Ed. 1b	Gymnasium, Field Athletics		2	.7
				17.

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 2a	Advanced Reporting	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Biological Sci.	Bacteriology, Bot., Zool. or Physiol.	3		3.
Political Sci. 51a	American Government	3		3.
Sociology 1a or English 3a	Principles of Sociology or History / English Literature	3		3.
Military Sci. 6a	2nd Year Basic Course	1	2	1.5
Physical Ed. 2a	Gymnasium, Field Athletics		2	.7
				17.2

Second Semester

Journlaism 2b or Journalism 3a	Featuring Writing or Etymology	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Biological Sci.	Bacteriology, Bot., Zool. or Physiol.	3		3.
Political Sci. 51b	American Government	3		3.
Sociology 1b or English 3b	Principles of Sociology or History / English Literature	3		3.
Military Sci. 6b	2nd Year Basic Course	1	2	1.5
Physical Ed. 2b	Gymnasium, Field Athletics		2	.7
				17.2

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 8a	Copyreading, etc.	1	4	3.
Journalism 105	Law of the Press	3		3.
Journalism 7	Community Journalism	3		3.
Sociology 101	Social Dependence	3		3.
Political Sci. 152	Municipal Goverment	3		3.
				15.

Second Semester

Journalism 8b	Copyreading, etc.	1	4	3.
Journalism 9	Newspaper Administration	3		3.
Sociology 5	Rural Social Economy	3		3.
Sociology 108	Community Surveys	3		3.
Political Sci. 157	City Administration	3		3.
				15.

SENIOR YEAR
First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 106	Ethics and Principles	3		3.
Journalism 107	Editorial Writing	3		3.
Psychology 5	Advertising and Selling	3		3.
Political Sci.	Course above 100	3		3.
Electives	History 10a, English 123a, Journ. 3b, Journ. 109, Political Sc., Sociology, English (numbers over 100)			3.
				15.
	Second Semester			
Journalism 108	History of Journalism	3		3.
Sociology 112	Community Organization	3		3.
Political Sci.	Course above 100	3		3.
Electives	History 10b, English 123b, Journ. 3b, Journ. 109, Political Sc., Sociology, English (numbers over 100)			6.
				15.

Total credits, 130

LAW

A student in the College of Arts and Sciences may elect toward the A. B. or B. S. degree a total of 30 credits from other colleges of University. However election of law courses is restricted. See page 176.

MATHEMATICS AND ASTRONOMY

*Dean Boyd, Professor Davis, Professor Latimer, †Associate Professor Rees, Associate Professor Downing, Associate Professor LeStourgeon, Assistant Professor South, Assistant Professor Brown, Mr. Canaday, Mr. Chambers, **Mr. Garnett, Miss Pence, Mr. Allison, Miss Lemons, Mr. Bullock, Mr. Baxter*

Mathematics

Students planning to teach high school mathematics should consider Courses 1 to 7b inclusive, the minimum preparation for such work. Graduate students will be able to obtain sufficient work to qualify for the doctor's degree. Graduate students must have had at least 12 credits beyond calculus before counting work toward an advanced degree. The White Mathematics Club and Pi Mu Epsilon meet

†On leave of absence, 1929-30.
**Resigned June, 1930.

regularly for the study of some book of general interest or for the presentation of special topics.

REQUIREMENTS FOR A MAJOR. Prerequisites, Courses 1, 2, 4, 5, 6. Required, 7a and 7b. Electives, Courses 11, 12, and those numbered over 100.

*1. ELEMENTARY ALGEBRA. Open to students entering with only one unit of algebra. *Three hours a week. First semester.* Asssistant Professors South, Mr. Bullock.

*2. SOLID GEOMETRY. *Three hours a week. Second semester.* Associate Professor Brown, Miss Lemons, Mr. Allison.

*3. TRIGONOMETRY. *Three hours a week. Second semester.* Mr. Allison.

*4. PLANE TRIGONOMETRY. Prerequisite, 1½ units of entrance algebra. *Five hours a week. First semester. Repeated second semester.* All instructors.

*5. COLLEGE ALGEBRA. Prerequisite, 1½ units of entrance algebra. *Five hours a week. First semester. Repeated second semester.* All instructors.

6. ANALYTIC GEOMETRY. Prerequisites, Courses 2, 4, 5. *Five hours a week. First semester. Repeated second semester.* Professor Davis, Associate Professor Downing, Assistant Professor LeStourgeon, Mr. Canaday.

7a. DIFFERENTIAL CALCULUS. Prerequisites, Courses 2, 4, 5 and 6. *Five hours a week. First semester. Repeated second semester.* Professor Latimer, Associate Professor Le Stourgeon, Assistant Professor South.

7b. INTEGRAL CALCULUS. Prerequisites, Courses 2, 4, 5, 6, 7a. *Three hours a week. First semester. Repeated second semester.* Professor Latimer, Associate Professor Downing, Associate Professor Le Stourgeon.

11. SPHERICAL TRIGONOMETRY. Prerequisite, Course 4. *Two hours a week, first half of second semester.* Associate Professor Downing.

12. LEAST SQUARES. Prerequisite, Course 6. *Two hours a week, first half of second semester.* Associate Professor Downing.

*14. MATHEMATICS OF FINANCE. Prerequisite, Course 5. *Five hours a week. Second semester.* Assistant Professor South, Assistant Professor Brown.

Courses Open Only to Upper Division and Graduate Students

102. VECTOR ANALYSIS. Offered 1930-31. *Three hours a week Second semester.* Associate Professor Rees.

*Courses open to freshmen.

103. THEORY OF EQUATIONS. Given 1929-30. Offered 1930-31. *Three hours a week. Second semester.* Professor Davis, Assistant Professor South.

104. ADVANCED ANALYTICS. Offered 1930-31. *Three hours a week. First semester.* Associate Professor Downing.

105a. DIFFERENTIAL EQUATIONS. Given 1929-30. Offered 1930-31. *Three hours a week. First semester.* Professor Davis.

105b. DIFFERENTIAL EQUATIONS. Given 1929-30. *Three hours a week. Second semester.* Professor Davis.

106a. ADVANCED CALCULUS. Given 1929-30. *Three hours a week. First semester.* Associate Professor Downing.

106b. ADVANCED CALCULUS. *Continuation of 106.* Given 1929-30. *Three hours a week. Second semester.* Associate Professor Downing.

107. PROJECTIVE GEOMETRY. Given 1929-30. *Three hours a week. First semester.* Associate Professor Brown.

109. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. Offered 1930-31. *Three hours a week. Second semester.* Associate Professor LeStourgeon.

110a. INDEPENDENT WORK IN MATHEMATICS. Given 1929-30. Offered 1930-31. *Three credits. First semester.*

110b. INDEPENDENT WORK IN MATHEMATICS. Continuation of 110a. Given 1929-30. Offered 1930-31. *Three credits. Second semester.*

111. HIGHER ALGEBRA. Given 1929-30. *Three hours a week. First semester.* Professor Latimer.

113. FOURIER'S SERIES AND SPHERICAL HARMONIES. Offered 1930-31. *Three hours a week. Second semester.* Associate Professor Downing.

116. ANALYTIC MECHANICS. Offered 1930-31. *Three hours a week. First semester.* Associate Professor Downing.

117. ALGEBRAIC INVARIANTS. Given 1929-30. *Three hours a week. Second semester.* Professor Latimer.

119. MODERN GEOMETRY. Offered 1930-31. *Three hours a week. Second semester.* Dean Boyd.

120. MATHEMATICAL STATISTICS. Prerequisite, Math. 7a. Offered 1930-31. *Three hours a week. Second semester.* Assistant Professor South.

Courses Open Only to Graduate Students

202a. ALGEBRAIC CURVES. Given 1929-30. *Three hours a week. First semester.* Dean Boyd.

202b. ALGEBRAIC CURVES. Given 1929-30. *Three hours a week. Second semester.* Dean Boyd.

201a. GEOMETRIC TRANSPORATIONS. Offered 1930-31. *Three hours a week. First semester.* Dean Boyd.

201b. GEOMETRIC TRANSPORATIONS. Offered 1930-31. *Three hours a week. Second semester.* Dean Boyd.

204. CALCULUS OF VARIATIONS. Given 1929-30. *Three hours a week. First semester.* Associate Professor LeStourgeon.

205. DIFFERENTIAL GEOMETRY. Offered 1930-31. *Three hours a week. First semester.* Associate Professor Rees.

207a. THEORY OF NUMBERS. Offered 1930-31. *Three hours a week. First semester.* Professor Latimer.

207b. THEORY OF NUMBERS. Offered 1930-31. *Three hours a week. Second semester.* Professor Latimer.

208. THEORY OF THE REAL VARIABLE. Given 1929-30. *Three hours a week. Second semester.* Associate Professor Le Stourgeon.

ASTRONOMY

*51a. DESCRIPTIVE ASTRONOMY. *Three hours a week. First semester.* Associate Professor Downing, Assistant Professor South.

*51b. DESCRIPTIVE ASTRONOMY. *Three hours a week. Second semester.* Associate Professor Downing, Assistant Professor South.

Note:—Other courses such as Potential Function, Infinite Series, Substitution Groups, Solid Analytics, Practical Astronomy, Celestial Mechanics will be given from time to time.

MILITARY SCIENCE

Major Meredith, †Captain Schmid, †Captain Gessford, Captain Grady, Captain Scheibla, First Lieutenant LeStourgeon, First Lieutenant Rees, Warrant Officer Knight, Warrant Officer Gallagher, Master Sergeant Short, Sergeant Bryant, Mr. McCormick.

RESERVE OFFICERS' TRAINING CORPS

The University of Kentucky maintains an infantry unit of the Senior Division of the Reserve Officers' Training Corps in conformity with the provision of the National Defense Act of 1916, as amended.

OBJECT

The primary object of the Reserve Officers' Training Corps is to provide systematic military training at civil educational institutions for the purpose of qualifying selected students of such institutions as reserve officers in the military forces of the United States. This object is attained by employing methods which fit men physically, mentally

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*Courses open to freshmen.
†Transferred by War Department, June, 1930.

and morally for pursuits of peace as well as for duties as leaders in the defensive forces of the nation in an emergency.

Educational Aim

The course of study is designed to give to the student a training which will be as valuable to him in his industrial or professional career as it would be should the nation call upon him to act as a leader in its defensive forces.

General Policy

The policy adopted by the War Department to carry out the provisions of the act of Congress of June 3, 1916, as amended, is to give all students of the Reserve Officers' Training Corps a thoro physical training, to inculcate in them a respect for all lawful authority, to teach the fundamentals of the military profession, and to develop leadership and character.

Discipline of Body and Mind

It is not practical to install complete and rigid application of military discipline and method to the instruction of the students and to their daily life. However, the following characteristics of an officer and a gentleman, which are inculcated by a proper disciplinary training, will be insisted upon: Neatness in dress, the cultivation of the manners and habits of a gentleman, a dignified and military bearing, and devotion to duty; the cultivation in the student body of *esprit de corps*, obedience to orders, acceptance of responsibility and avoidance of excuses.

Uniform Equipment

Government uniforms and equipment are furnished the University for issue to students without cost to the individual. In order, however, to protect the University from loss or damage other than fair wear and tear incident to such issue, the basic student is required to make a deposit of $10.00, which will be returned at the end of the year when the uniform is turned in.

Course

The Military Department offers a progressive course of four years, consisting of two years' basic course and two years' advanced course.

Basic Course

The basic course is required of all male freshmen and sophomores who are citizens of the United States, of over fourteen years of age, and who conform to the physical requirements as prescribed by the War Department for units of the Reserve Officers' Training Corps.

The successful completion of the basic course is a prerequisite for graduation in every course in the University.

ADVANCED COURSE

An elective advanced course of two years, including one summer camp, is offered to students who have successfully completed the basic course, and who have been recommended by the President of the University and the Professor of Military Science and Tactics for further training. Recommendations for this course will be limited to those students who have manifested special interest and demonstrated ability during the basic course, and who desire to pursue the course to completion with a view of qualifying for a commission in the officers' Reserve Corps of the army.

The government offers a very liberal allowance to students enrolling in the advanced course in the matter of commutation of subsistence. At present the total monetary allowance amounts to about $200.00 for the two years, including the pay while attending camp and commutation for uniform.

Each student enrolling in the Advanced Course is required to execute the following contract:

"In consideration of commutation of subsistence to be furnished in accordance with law, we hereby agree to complete advanced course Infantry in the Reserve Officers' Training Corps in this or any other institution where such course is given, to devote five hours a week during such period to the military training prescribed, and to pursue the courses of camp training during such period as prescribed by the Secretary of War."

The Advanced Course having been elected, its completion becomes a prerequisite for graduation.

ADVANCED CAMPS

The summer camp prescribed for Advanced Course students is normally attended between the junior and senior years. The camp course covers a period of six weeks, and opens about June 15. The instruction is largely practical and of interest and benefit.

Transportation to and from camp, together with liberal allowance for meals en route, is paid by the government. Food and clothing are furnished while in attendance, and per diem allowance of seventy cents is paid the student.

REQUIREMENTS FOR A MAJOR. Prerequisites, Military Science 1a, 1b, 6a, 6b. Required, Military Science, 7a, 7b, 8a, 8b. Elective, Mathematics 6a, 7a, 7b; Romance Languages 2a, 2b, 103a, 103b; English 114, 3a, 3b; History and Political Science 150.

*1a. FIRST YEAR BASIC COURSE. Subjects: Drill and Command, National Defense Act, Military Courtesy and Discipline, Rifle Marks-

*Courses open to freshmen.

manship, Scouting and Patrolling. *Three hours a week. One and three-tenths credits.*

*1b. First Year Basic Course. Subjects: Drill and Command, Hygiene and First Aid. *Three hours a week. One and three-tenths credits.*

6a. Second Year Basic Course. Subjects: Combat Principles, Drill and Command, Musketry, Scouting and Patroling. *Three hours a week. One and one-half credits.*

6b. Second Year Basic Course. Subjects: Automatic Rifle, Drill and Command. *Three hours a week. One and one-half credits.*

7a. First Year Advanced Course. Subjects: Drill and Command, Infantry Weapons, Machine Gun. *Five hours a week. Three credits.*

7b. First Year Advanced Course. Subject: Combat Principles, Drill and Command, Sketching. *Five hours a week. Three credits.*

8a. Second Year Advanced Course. Subjects: Combat Principles, Drill and Command, Field Engineering. *Five hours a week. Three credits.*

8b. Second Year Advanced Course. Subject: Administration, Drill and Command, Military History and Policy, Military Law and Officers' Reserve Corps Regulations. *Five hours a week. Three credits.*

MUSIC

†Professor Lampert, Mr. Sulzer, Miss Wilson

The aim of this department is to provide musical leadership in Kentucky of a thoroly competent character, and to provide cultural study for those students who desire it. Various music courses may be taken:

(1) As electives for those majoring in other departments.
(2) As a major in Music.
(3) As work to apply on the degree of Bachelor of Science in Music.

The following courses are open only to students who are candidates for the B. S. in Music, and which do not count on other degrees: Music 9a, 9b, 14a, 14b, 15a, 15b, 16a, 16b, 17a, 17b, 18a, 18b.

Requirements for a Major. Prerequisites: Music 21a, 21b, 3a, 3b. Psychology 1. Required: Music 4a, 4b, 5a, 11b, 12a, 12b, 19a, 19b. Electives: Romance Languages, Advanced Courses, Education, Advanced courses.

*21a. Sight Reading. *Two hours a week. One and one-half credits. First semester.* Miss Wilson.

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*Courses open to freshmen.
†On leave of absence, second semester, 1929-30.

*21b. SIGHT READING. *Two hours a week. One and one-half credits. Second semester.* Professor Lampert.

25a. ELEMENTARY HARMONY. *Three hours a week. First semester.* Professor Lampert.

25b. ELEMENTARY HARMONY. *Three hours a week. Second semester.* Professor Lampert.

4a. PUBLIC SCHOOL MUSIC. *Two hours a week. First semester.* Miss Wilson.

4b. PUBLIC SCHOOL MUSIC. *Two hours a week. Second semester.* Miss Wilson.

26. HIGH SCHOOL MUSIC. *Two credits. First semester.* Miss Wilson.

27. SPECIAL PROBLEMS IN HIGH SCHOOL MUSIC. *Two credits. First semester.* Miss Wilson.

11a. ADVANCED HARMONY. *Two hours a week. First semester.* Professor Lampert.

11b. ADVANCED HARMONY. *Two hours a week. Second semester.* Professor Lampert.

12a. COUNTERPOINT AND COMPOSITION. *Two hours a week. First semester.* Professor Lampert.

12b. COUNTERPOINT AND COMPOSITION. *Two hours a week. Second semester.* Professor Lampert.

9a. ORGANIZATION AND TRAINING OF MUSICAL GROUPS. (Given 1929-30.) *Two hours a week. First semester.* Professor Lampert, Mr. Sulzer.

9b. ORGANIZATION AND TRAINING OF MUSICAL GROUPS. (Given 1929-30.) *Two hours a week. Second semester.* Professor Lampert, Mr. Sulzer.

14a. ORGANIZATION AND TRAINING OF MUSICAL GROUPS. (Offered 1930-31.) *Two hours a week. First semester.* Professor Lampert, Mr. Sulzer.

14b. ORGANIZATION AND TRAINING OF MUSICAL GROUPS. (Offered 1930-31.) *Two hours a week. Second semester.* Professor Lampert, Mr. Sulzer.

*15a. APPLIED MUSIC. *Four credits. First semester.* Instructor by arrangement.

*15b. APPLIED MUSIC. *Four credits. First semester.* Instructor by arrangement.

16a. APPLIED MUSIC. *Four credits. First semester.* Instructor by arrangement.

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*Courses open to freshmen.

16b. APPLIED MUSIC. *Four credits. Second semester.* Instructor by arrangement.

17a. APPLIED MUSIC. *Four credits. First semester.* Instructor by arrangement.

17b. APPLIED MUSIC. *Four credits. Second semester.* Instructor by arrangement.

18a. APPLIED MUSIC. *Four credits. First semester.* Instructor by arrangement.

18b. APPLIED MUSIC. *Four credits. First semester.* Instructor by arrangement.

*7a. ORCHESTRA. *Two hours a week. One-half credit. First semester.* Professor Lampert.

*7b. ORCHESTRA. *Two hours a week. One-half credit. Second semester.* Professor Lampert.

*8a[1]. GLEE CLUB. (Girls). *Two ohurs a week. One-half credit. First semester.* Miss Wilson.

*8b[1]. GLEE CLUB (Girls). *Two hours a week. One-half credit. Second semester.* Miss Wilson.

*8a[2]. GLEE CLUB. (Men). *Two hours a week. One-half credit. First semester.* Professor Lampert.

*8b[2]. GLEE CLUB. (Men). *Two hours a week. One-half credit. Second semester.* Professor Lampert.

*19a. HISTORY AND APPRECIATION OF MUSIC. *Recitation two hours a week. Laboratory one hour a week. Two credits. First semester* Professor Lampert.

*19b. HISTORY AND APPRECIATION OF MUSIC. *Recitation two hours a week. Laboratory one hour a week. Two credits. Second semester.* Professor Lampert.

*22a. BAND. For freshman who are not required to take Military Science. *Six hours a week. One and three-tenths credit. First semester.* Mr. Sulzer.

*22b. BAND. For freshman who have satisfied R. O. T. C. requirements. *Six hours a week. One and three-tenths cerdits. Second semester.* Mr. Sulzer.

23a. BAND. (For sophomores who have satisfied R. O. T. C. requirements). *Six hours a week. One and five-tenths credit. First semester.* Mr. Sulzer.

23b. BAND. (For sophomores who have satisfied R. O. T. C. requirements.) *Six hours a week. One and five-tenths credit. Second semester.* Mr. Sulzer.

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*Courses open to freshmen.

20a. BAND. (Girls.) *Two hours a week. One-half credit. First semester.* Mr. Sulzer.

20b. BAND. (Girls) *Two hours a week. One-half credit. Second semester.* Mr. Sulzer.

28a. CONCERT BAND. For juniors. *One credit. First semester.* Mr. Sulzer

28b. CONCERT BAND. For juniors. *One credit. Second semester.* Mr. Sulzer

29a. CONCERT BAND. For seniors. *One credit. First semester.* Mr. Sulzer

29b. CONCERT BAND. For seniors. *One credit. Second semester.* Mr. Sulzer

30a. EAR TRAINING. *Three hours a week. First semester.*

30b. EAR TRAINING. *Three hours a week. Second semester.*

UNIVERSITY BANDS

The University of Kentucky Bands furnish an opportunity for improvement for those who have previously played the various band instruments as well as an opportunity to learn band instruments for those who have not played. The bands perform together during the football season, after which they divide into two groups, the first the concert band and the second the basketball band. The bands also furnish music for the R. O. T. C. formations as well as many other events. A separate band organization is maintained for girls. A course in band directing is also available to a limited number of the more proficient students.

The University is prepared to furnish certain classes of instruments in cases where it is advisable.

The band courses are conducted by the Music Department.

OUTLINE OF COURSE LEADING TO THE DEGREE B. S. IN MUSIC

The object of this course in Music is primarily to meet a Kentucky problem; that is, to develop musical supervisors that can organize, teach, and direct orchestras, bands and choruses. Besides this work, the student of this course must major in either piano, voice, or some symphonic orchestral instrument for the entire four years. Attention should be called to the fact, however, that this course is valuable to those not contemplating teaching the subject as it furnishes an excellent opportunity to gain a very broad knowledge of music in general and detailed knowledge of one particular instrument.

FRESHMAN YEAR

First Semester

Course	Subject	Hr. Rec.	Hrs. Lab.	Credits
Music 21a	Sight Reading	2		1.5
Music 19a	Hist. and Appreciation of Music	2	1	2.
Music 15a	Applied Music	1	12	4.
English 1a	English Composition	3		3.
Mod. For. Lang.	French, German or Spanish	3		3.
Military Sci. 1a	First Year Basic Course, Inf.	1	2	1.3
Physical Educ. 1a	Gymnasium or Field Athletics		2	.7
Matric. Lec.	Required of all	1		.3

Second Semester

Music 21b	Sight Reading	2		1.5
Music 19b	Hist. and Appreciation of Music	2	1	2.
Music 15b	Applied Music	1	12	4.
English 1b	English Composition	3		3.
Mod. For. Lang.	French, German or Spanish	3		3.
Military Sci. 1b	First Year Basic Course, Inf.	1	2	1.3
Physical Educ. 1b	Gymnasium or Field Athletics		2	.7
Hyg. & Pub. H. 1	General Hygiene	2		1.3

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Music 25a	Elementary Harmony	3		3.
Music 4a	Public School Music	2		2.
Music 16a	Applied Music	1	12	4.
English 3a	Hist. of Eng. Lit.	3		3.
Education	Elective	3		3.
Mil. Sci. 6a	Second Basic Course, Inf.	1	2	1.5
Physical Educ. 2a	Gymnasium, Field Athletics		2	.7

Second Semester

Music 25b	Elementary Harmony	3		3.
Music 4b	Public School Music	2		2.
Music 16b	Applied Music	1	12	4.
English 3b	Hist. of Eng. Lit.	3		3.
Education	Elective	3		3.
Mil. Sci. 6b	Second Basic Course, Inf.	1	2	1.5
Physical Educ. 2b	Gymnasium, Field Athletics		2	.7

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Music 11a	Advanced Harmony	2		2.
Music 17a	Applied Music	1	12	4.
Music 9a	Organiz. & Train. of Music Groups	2		2.
Mod. For. Lang. or English	Elective	3		3.
Education	Elective	6		6.

Second Semester

Music 11b	Advanced Harmony	2		2.
Music 17b	Applied Music	1	12	4.
Music 9b	Organiz. & Train. of Music Groups	2		2.
Mod. For. Lang. or English	Elective	3		3.
Education	Elective	3		3.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Music 12a	Counterpoint & Composition	2		2.
Music 14a	Organiz. & Train. of Musical Groups	2		2.
Music 18a	Applied Music	1	12	4.
English 7a	Public Speaking	3		3.
Musical Ensemble Work	Band, Orchestra or Glee Club	*		.5
Elective	Elective	3		3.

Second Semester

Music 12b	Counterpoint & Composition	2		2.
Music 14b	Organiz. & Train. of Musical Groups	2		2.
Music 18b	Applied Music	1	12	4.
English 7b	Public Speaking	3		3.
Musical Ensemble Work	Band, Orchestra or Glee Club	*		.5
Education	Practice Teaching			5.

Total credits required for graduation 129.

Note:—If Military Science or Physical Education is not taken, equivalent credits must be gained in other subjects.

Each candidate for this degree must be a member of one of the musical ensemble groups thruout his course.

*By arrangement.

PHILOSPHY

†*Emeritus Professor Glanville Terrell, Associate Professor Kuiper.*

REQUIREMENTS FOR A MAJOR. Prerequisites, Philosophy 1a, 1b. Required: Philosophy 31, 51, 101a, 101b. Electives, all other courses in Philosophy and approved hundred courses in other departments.

*1a. ELEMENTARY PHILOSOPHY. *Three hours a week. First semester.* Associate Professor Kuiper.

*1b. ELEMENTARY PHILOSOPHY. *Three hours a week. Second semester.* Associate Professor Kuiper.

Courses Open Only to Upper Division and Graduate Students

31. LOGIC, DEDUCTIVE AND INDUCTIVE. *Three hours a week. First semester.* Associate Professor Kuiper.

51. ETHICS. Open to juniors and seniors. *Three hours a week. Second semester.* Associate Professor Kuiper.

101a. HISTORY OF PHILOSOPHY. *Three hours a week. First semester.* Associate Professor Kuiper.

101b. HISTORY OF PHILOSOPHY. *Three hours a week. Second Second semester.* Associate Professor Kuiper.

105a. PHILOSOPHY OF RELIGION. Given 1929-30. Not offered 1930-31. Prerequisite, Course 1a, 1b or 101a, 101b. *Three hours a week. First semester.* Associate Professor Kuiper.

105b. PHILOSOPHY OF RELIGION. Continuation of 105a. Given 1929-30. Not offered 1930-31. *Three hours a week. Second semester.* Associate Professor Kuiper.

109a. INDEPENDENT WORK. *Three credits.* Associate Professor Kuiper.

109b. INDEPENDENT WORK. *Three credits.* Associate Professor Kuiper.

111a. CONTEMPORARY PHILOSOPHY. Open to juniors and seniors with at least six hours credit in Philosophy. *Three credits. First semester.* Associate Professor Kuiper.

111b. CONTEMPORARY PHILOSOPHY. Continuation of Philosophy 111a. *Three credits. Second semester.* Associate Professor Kuiper.

PHYSICAL EDUCATION

Professor Boles, ‡Assistant Professor Robinson, Professor Stout, Professor Gamage, Mr. Hansen, Mr. Potter, ‡Mr. Mauer, Mr. Shively, Mr. Rupp, Mr. Pribble, Mr. Mann, Mr. Gilb, Miss Averill.

Upon entrance every student is given a physical examination by the Department of Health and Hygiene. The findings of the Depart-

†Retired July 1, 1930.
*Courses open to freshmen.
‡Resigned July, 1930.

ment of Health and Hygiene are furnished the Department of Physical Education and modification in the form of exercises are made accordingly. No student is allowed to participate in any form of competitive games or difficult exercises unless he be physically capable of such activity as determined by his examination. The members of the University team must present to the director a written permit from the Department of Health and Hygiene before reporting for practice with the teams.

FOR MEN

*1a. GYMNASIUM PRACTICE. *For all freshmen. Two hours a week. Seven-tenths credit. First semester.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

*1b. GYMNASIUM PRACTICE. *Two hours a week. Second semester. Seven-tenths credit.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

2a. ADVANCED GYMNASIUM PRACTICE. Prerequisite, Course 1a, 1b. *Two hours a week. Seven-tenths credit. First semester.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

2b. ADVANCED GYMNASIUM PRACTICE. *Two hours a week. Seven-tenths credit. Second semester.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

*10. PLAYS AND GAMES FOR THE SCHOOL AND PLAYGROUND. Given in summer school. Open to men and women. *Two credits.* Assistant Professor Robinson.

*11a. CORRECTIVE GYMNASTICS. *Two hours a week. Seven-tenths credit. First semester.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

11b. CORRECTIVE GYMNASTICS. *Two hours a week. Seven-tenths credit. Second semester.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

12a. CORRECTIVE GYMNASTICS. *Two hours a week. Seventh-tenths cerdit. First semester.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

12b. CORRECTIVE GYMNASTICS. *Two hours a week. Seven-tenths credit. Second semester.* Assistant Professor Robinson, Mr. Hansen, Mr. Potter.

*30. BASKETBALL THEORY AND PRACTICE. Lectures and practical work. *Eight hours a week, first half semester. One and one-half credits.* Mr. Mauer.

*31a. CALISTHENICS AND GYMNASTIC STUNTS. Lectures and prac-

*Courses open to freshmen.

tical work. *Eight hours a week, second half semester. One and one-half credits.* Mr. Potter and Mr. Hansen.

*31b. Calisthenics and Gymnastic Stunts. Lectures and practical work. *Ten hours a week, first half semester. One and one-half credit.* Mr. Potter and Mr. Hansen.

*32. Football Theory and Practice. Lectures and practical work. *Eight hours a week, second half semester. One and one-half credits.* Mr. Shively.

33. Track and Field Athletics. Lectures and practical work. *Eight hours a week. Three credits.* Mr. Shively

24. Boxing and Wrestling. Lectures and practical work. *Ten hours a week, one-half semester. Two credits.* Mr. Hansen, Mr. Shively.

25. Football Theory and Practice. Lectures and practical work. *Ten hours a week, one-half semester. Two credits.* Professor Gamage.

27. The School Program in Physical Education. Lectures and recitations. *Three hours a week. Three credits.* Assistant Professor Robinson.

43. Community Recreation. *Two hours recitation. Three hours laboratory. Three credits.* Assistant Professor Robinson, Mr. Hansen.

For Women

*1a. Gymnasium Practice. For all freshmen. *Two hours a week. Seven-tenths credit. First semester.* Professor Stout, Miss Skinner

*1b. Gymnasium Practice. *Two hours a week. Seven-tenths credit. Second semester.* Professor Stout, Miss Averill.

2a. Advanced Gymnasium Practice. *Two hours a week. Seven-tenths credit. First semester.* Professor Stout, Miss Averill.

2b. Advanced Gymnasium Practice. *Two hours a week. Seven-tenths credit. Second semester.* Professor Stout, Miss Averill.

6a. Massage. *No credit. First semester.* Professor Stout, Miss Averill.

6b. Massage. *No credit. Second semester.* Professor Stout, Miss Averill.

*11a. Corrective Gymnastics. *Two hours a week. Seven-tenths credit. First semester.* Professor Stout, Miss Averill.

*11b. Corrective Gymnastics. *Two hours a week. Seven-tenths credit. Second semester.* Professor Stout, Miss Averill.

12a. Corrective Gymnastics. *Two hours a week. Seven-tenths credit. First semester.* Professor Stout, Miss Averill.

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*Courses open to freshmen.

12b. Corrective Gymnastics. *Two hours a week. Seven-tenths credit. Second semester.* Professor Stout, Miss Averill.

*16a. Training for Leadership in Women's Athletics. *Two lectures and three practice hours a week. Two credits.* Miss Averill.

*16b. Training for Leadership in Women's Athletics. *Two lectures and three practice hours a week. Two credits.* Miss Averill.

S 12. Folk Dancing. Folk rythms and dances of many lands adapted for teaching in grade and high schools. *First term. One Credit.*

PHYSICS

*Professor Webb, †Emeritus Professor Pence, Professor States, Associate Professor Koppius, Assistant Professor Hahn, Mr. Todd, **Mr. Cawein, Mr. Ramsey, Mr. Stone, Instrument Maker Mr. Schneider*

Requirements for a Major. Prerequisites, Physics 3a, 3b, 5, 6; Mathematics 4, 5, 6. Required: Mathematics 7a, 7b. Electives, all other courses in Physics numbered above 100; Mathematics, certain advanced courses.

*1a. General Physics. *Lectures and recitations four hours; laboratory two hours a week. Both semesters.* Professor Webb, Mr. Todd.

*1b. General Physics. *Lectures and recitations four hours; laboratory two hours a week. Both semesters.* Professor Webb, Mr. Ramsey.

3a. General College Physics. *Lectures and recitations, four hours a week. Both semesters.* Associate Professor Koppius, Assistant Professor Hahn, Mr. Cawein.

3b. General College Physics. *Lectures and recitations four hours a week. Both semesters.* Professor States, Mr. Cawein.

*4. Elementary Physical Measurements. *Laboratory four hours a week. Both semesters.* Assistant Professor Hahn.

5. Measurements in Mechanics. Prerequisites, Physics 4 and credit in or the simultaneous study of Physics 3a. *Laboratory four hours; lecture one hour a week. Both semesters.* Associate Professor Koppius, Mr. Cawein.

S 5. Measurements in Mechanics and Heat. Prerequisite, credit in or simultaneous study of Physics 3a. *Lecture two hours a week; laboratory eight hours a week. First term.* Summer 1929. *Two credits.* Professor States.

6. Measurements in Magnetism and Electricity. Prerequisites, Physics 3a, 5 and credit in or the simultaneous study of Physics 3b.

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*Courses open to freshmen.
†Retired, July 1, 1929.
**Resigned June, 1930.

Laboratory four hours; lecture one hour a week. Both semesters. Professor States, Mr. Cawein.

S 6. ELECTRICAL MEASUREMENTS. Prerequisite, Physics 3a and 5, and credit in or simultaneous study of Physics 3b. *Lectures two hours a week; laboratory eight hours a week. Second term.* Summer 1929. *Two credits.* Professor States.

*51a. INTRODUCTION TO PHYSICS. Not acceptable as substitute for Physics 1a when Physics 1a is preprequisite for other courses. *Three credits. First semester.* Professor Webb.

*51b. INTRODUCTION TO PHYSICS. Continuation of Physics 51a. *Three credits. Second semester.* Professor Webb.

Courses Open Only to Upper Division and Graduate Students

101. THEORY OF HEAT. Prerequisites, Physics 3a, 5. Given 1929-30. *Lectures and recitations three hours; laboratory four hours a week. Second semester.* Associate Professor Koppius.

102a. ELECTRICITY AND MAGNETISM. Prerequisites, Physics 3b, 6, and Mathematics 7b. Given 1928-29. *Lectures and recitations three hours; labortory four hours a week. First semester.* Professor States.

102b. ELECTRICITY AND MAGNETISM. *Lecture and recitations three hours; laboratory four hours a week. Second semester.* Professor States.

103. THEORY OF LIGHT. Prerequisites, Physics 3b, 6 and Mathematics 7b. Given 1929-30. *Lectures and recitations three hours; laboratory four hours a week. Second semester.* Professor Webb.

104. THEORETICAL MECHANICS. Prerequisites, Physics 3a, and Mathematics 7b. Given 1929-30. *Lectures and recitations five hours a week. First semester.* Associate Professor Koppius.

110. SPECTROSCOPY. Prerequisites, Physics 3b and 6. *Lectures and recitations two hours; laboratory four hours a week. Second semester.* Professor Webb.

111. ELECTRICITY AND MAGNETISM. Prerequisites, Physics 3b, 6, and Mathematics 7b. Given 1928-29. *Lectures and recitations three hours a week. First semester.* Professor States.

113. RADIO COMMUNICATION. Prerequisites, Physics 3b and 6. Given 1929-30. *Lectures and recitations two hours a week, laboratory two hours a week. Second semester.* Professor States.

114a. RADIO COMMUNICATION. Prerequisites, Physics 3b and 6. *Lectures and recitation three hours a week, laboratory four hours a week. First term.* Summer 1929. *Two credits.* Professor States.

*Courses open to freshmen.

114b. Radio Communication. Prerequisite, Physics 114a. A continuation of S 113a. *Second term.* Summer 1929. *Two credits.* Professor States.

115. Theory of Measurements. *Three hours a week. Three credits.*

Physics 116a. Physical Manipulation. Prerequisite, ten credits in college Physics or ten credits in college Chemistry. *Laboratory two hours a week. One credit.* Professor Webb, Professor States. Mr. Schneider.

Physics 116b. Physical Manipulation. Continuation of Physics 112a. *Second semester.* Professor Webb, Professor States, Mr. Schneider.

Physics 119. Principles of X-Rays. Prerequisites, Physics 3b and 6, and Mathematics 7b. Given 1929-30. *Lectures and recitations three hours a week. Three credits.* Assistant Professor Hahn.

Courses Open Only to Graduate Students

201. Physical Optics. Prerequisites, Physics 103, one additional 100 course, and Mathematics 105a. *Three hours a week. First semester.* Professor Webb.

202. Measurements in Optics. *Laboratory four hours a week. First semester.* Professor Webb.

204. Dynamics of a Particle, Including Mechanics of Wave Motion. Prerequisites, Physics 104, one additional 100 course, and Mathematics 105a. Given 1928-29. *Three hours a week. First semester.* Professor States.

205. Kinetic Theory of Matter. Prerequisites, Physics 101, one additional 100 course, and Mathematics 105a. Given 1929-30. *Three hours a week. First semester.* Professor Webb.

212. Conduction of Electricity Thru Gases. Prerequisites, Physics 102a, 104. Given 1928-29. *Three hours a week. Second semester.*

213. Electro-Magnetic Theory of Light. Prerequisites, Physics 103, one additional 100 course and Mathematics 105a. Given 1928-29. *Lectures and recitations three hours a week. First semester.* Professor States.

214. Transient Electric and Vacuum Tube Phenomena. Prerequisites, Physics 3b and 6, 113 or 102a; one additional 100 course and Mathematics 105a. Given 1929-30. *Three credits. First semester.* Professor States.

215. Quantum Theory. Prerequisites, Physics 104, one additional 100 course and Mathematics 105a. Given 1929-30. *Lectures and recitations three hours a week. First semester.* Professor States.

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*Courses open to freshmen.

217a. THEORETICAL PHYSICS. Prerequisites, one 200 course and Mathematics 105a. *Three credits.*

217b. THEORETICAL PHYSICS. Continuation of 217a. *Three credits.*

218. THERMODYNAMICS. Prerequisites, Physics 101, 105, and Mathematics 105a. *Three credits.*

220a. SEMINAR. *One credit. First semester.* Staff.

220b. SEMINAR. *One credit. Second semester.* Staff.

223a. GENERAL PHYSICS. Prerequisites, one year of Elementary Physics and Mathematics 2 and 3. *Lectures and recitations five hours a week; laboratory four hours a week. Both semesters.* Associate Professor Koppius.

223b. GENERAL PHYSICS. Prerequisite, Physics 223a. *Lectures and recitations five hours a week; laboratory four hours a week. Both semesters.* Professor States.

224. X-RAYS AND THEIR APPLICATION TO PHYSICAL PROBLEMS. Prerequisite, Physics 201. Given 1927-28. *Lectures and recitations three hours a week. First semester.* Assistant Professor Hahn.

225. THESIS. *Three credits.*

226a. RESEARCH. *Three credits.*

226b. RESEARCH. *Three credits.*

227a. RESEARCH. *Five credits.*

227b. RESEARCH. *Five credits.*

PHYSICS 250a. RELATIVITY. A theory of space and time measurements as applied to physical phenomena. Prerequisites, Physics 103 and either Physics 102a or Physics 104. *Lectures and recitations three hours a week.* Professor Webb.

PHYSICS 205b. RELATIVITY. Continuation of Physics 250a. *Lectures and recitations three hours per week.* Professor Webb.

POLITICAL SCIENCE

President McVey, Professor Jones, Professor Vandenbosch, Associate Professor Manning, Assistant Professor Blanding, Assistant Professor Walp, Assistant Professor Cole, †Doctor Shull, Mr. Owsley, †Mr. Gates, Miss Scott, Mr. Mohney, Mr. Holtzclaw, Mr. Glenn

REQUIREMENTS FOR A MAJOR. Prerequisites: Political Science 15a and 15b, or 51a and 51b. Required: Political Science 155a, 155b, 190a, 190b.

UNDERGRADUATE COURSES

*15a. PROBLEMS IN CITIZENSHIP. For freshmen. *Three hours a week.* Professors Jones, Vandenbosch, Assistant Professor Blanding, Doctors Cole, Walp, Shull, Mr. Gates and Miss Scott.

†Resigned June, 1930.
*Courses open to freshmen.

*15b. PROBLEMS IN CITIZENSHIP. Continuation of course 15a *Three hours a week.* Professors Jones, Vandenbosch, Assistant Professor Blanding, Doctors Cole, Walp, Shull, Mr. Gates and Miss Scott.

51a. AMERICAN GOVERNMENT. *Three hours a week. First semester.* Professors Jones, Vandenbosch, Assistant Professor Blanding, Doctors Walp, Shull, Mr. Mohney, Mr. Owsley and Mr. Gates.

51b. AMERICAN GOVERNMENT. *Three hours a week. Second semester.* Professor Jones, Vandenbosch, Assistant Professor Blanding, Doctors Walp, Shull, Mr. Mohney, Mr. Dwsley and Mr. Gates.

Courses Open Only to Upper Division and Graduate Students

101. LATIN AMERICAN RELATIONS. *Three hours a week.* Professor Jones or Professor Vandenbosch.

102a. CONTEMPORARY PROBLEMS IN POLITICAL SCIENCE. Permission of the head of the department is required. *Two hours a week. First semester.* Professor Jones or Professor Vandenbosch.

102b. CONTEMPORARY PROBLEMS IN POLITICAL SCIENCE. Continuation of 102a. *Two hours a week. Second semester.* Professor Jones, Professor Vandenbosch or Assistant Professor Cole.

150a. INTERNATIONAL LAW. Not open to freshmen or sophomores. *Two hours a week. First semester.* President McVey or Professor Vandenbosch.

150b. INTERNATIONAL LAW. Continuation of 150a. *Two hours a week. Second semester.* President McVey or Professor Vandenbosch.

152. MUNICIPAL GOVERNMENT. *Three hours a week.* Associate Professor Manning.

155a. COMPARATIVE GOVERNMENT. *Three hours a week.* Professor Jones.

155b. COMPARATIVE GOVERNMENT. Continuation of 155a. *Three hours a week.* Professor Jones.

156. COLONIAL GOVERNMENT. *Three hours a week.* Professor Vandenbosch.

157. CITY ADMINISTRATION. *Three hours a week.* Associate Professor Manning.

158. PUBLIC UTILITIES. Prerequisites: Course 152 and Economics 12 or equivalents. *Three hours a week.* Associate Professor Manning.

159a. DEVELOPMENT AND EXPANSION OF THE CONSTITUTION. *Three hours a week. First semester.* Assistant Professor Cole.

159b. DEVELOPMENT AND EXPANSION OF THE CONSTITUTION. Continuation of 159a. *Three credits.* Assistant Professor Cole.

160. AMERICAN FOREIGN SERVICE. *Three hours a week. First semester.* Professor Vendenbosch or Assistant Professor Walp.

161. International Organization. *Three hours a week.* Professor Jones, Professor Vandenbosch or Assistant Professor Walp.

163a. Political Geography. *Recitation two hours a week, laboratory two hours a week. Three credits.* Assistant Professor Walp.

163b. Political Geography. Continuation of 163a. Doctor Walp.

165a. World Politics. Prerequisites: Government 51a and 51b, or Government 155a and 155b. *Three hours a week.* Assistant Professor Blanding.

165b. World Politics. Continuation of 165a with the same prerequisites. *Three hours a week.* Assistant Professor Blanding.

170. Political Parties. *Three hours a week.* Professor Vandenbosch or Assistant Professor Cole.

171. Political Theory. *Three hours a week.* Professor Vandenbosch or Assistant Professor Cole.

174. Public Opinion and Extra-Legal Government. *Three hours a week.* Professor Jones or Assistant Professor Cole.

175a. Legislative Drafting. Consent of instructor required. *One hour a week.* Professor Jones.

175b. Legislative Drafting. Continuation of 175a. *One hour a week.* Professor Jones.

178a. Independent Work. (Honors Course.) Consent of instructor required. *One hour a week.* Professor Jones, Professor Vandenbosch, Associate Professor Manning or Assistant Professor Cole.

178b. Independent Work. Continuation of 178a. *One hour a week.* Professor Jones, Professor Vandenbosch, Associate Professor Manning or Assistant Professor Cole.

180a. Independent Work. (Honors Course.) Consent of instructor required. *Three hours a week.* Professor Jones, Professor Vandenbosch, Associate Professor Manning or Assistant Professor Cole.

180b. Independent Work. Continuation of 180a. *Three hours a week.* Professor Jones, Professor Vandenbosch, Associate Professor Manning or Assistant Professor Cole.

190a. Seminar in Political Science. Open only to major students. *One hour a week.* Professor Jones.

190b. Seminar in Political Science. Continuation of 190a. *One hour a week.* Professor Jones.

Courses Open Only to Graduate Students

201a. Seminar. Not offered 1930-31. *Two hours a week.* Professor Jones.

201b. Seminar. Not offered 1930-31. *Two hours a week.* Professor Jones.

202a. SCOPE AND METHOD IN POLITICAL SCIENCE. Not offered 1930-31. *Two hours a week.* Professor Vandenbosch or Assistant Professor Cole.

202b. SCOPE AND METHOD IN POLITICAL SCIENCE. Not offered 1930-31. *Two hours a week.* Professor Vandenbosch or Assistant Professors Cole.

203a. PUBLIC ADMINISTRATION. Not offered 1930-31. *Two hours a week.* Associate Professor Manning or Mr. Owsley.

203b. PUBLIC ADMINISTRATION. Not offered 1930-31. *Two hours a week.* Associate Professor Manning or Mr. Owsley.

204. INTERNATIONAL ORGANIZATION. Not offered 1930-31. *Two hours a week.* Assistant Professor Walp.

205. FREEDOM OF THE SEAS. Not offered 1930-31. Prerequisite: International Law. *Two hours a week.* Professor Vandenbosch.

207. IMPERIALISM AND NATIONALISM. Not offered 1930-31. *Two hours a week.* Assistant Professor Blanding.

255a. COMPARATIVE GOVERNMENT. Not offered 1930-31. *Two hours a week.* Professor Jones.

255b. COMPARATIVE GOVERNMENT. Not offered 1930-31. *Two hours a week.* Professor Jones.

211. INTERNATIONAL ADMINISTRATIVE BODIES. Offered 1930-31 and alternate years. *Two hours a week. Two credits.*

212a. MUNICIPAL FRANCHISES. Offered 1930-31 and alternate years. *Two hours a week. Two credits.*

212b. MUNICIPAL FRANCHISES. Continuation of 212a. Offered 1930-31 and alternate years. *Two hours a week. Two credits.*

213a. FEDERAL CENTRALIZATION. Offered 1930-31 and alternate years. *Two hours a week. Two credits.*

213b. FEDERAL CENTRALIZATION. Continuation of 213a. Offered 1930-31 and alternate years. *Two hours a week. Two credits.*

PSYCHOLOGY

Professor Miner, Professor Basset, †Associate Professor Boynton, Assistant Professor Beaumont, Mr. Asher, †Mr. Bagwell

DIAGNOSIS OF INDIVIDUAL DEVELOPMENT. The Department offers to students and others and opportunity for the diagnosis of mental development, special abilities and talents, educational attainments, commercial and trade skill. Individual examinations for vocational guidance are made. Prolonged studies of mental adjustments are undertaken when time permits. Parents, schools and business men are invited to make use of this service.

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†Resigned June, 1930.

REQUIREMENT FOR MAJOR. Prerequisites: Psychology 2a and 2b or Psychology 10. Required: Not less than 26 credits in Psychology in the four years. Electives: All courses in Psychology except 6. Anatomy and Physiology 102a, 102b. Commerce 102, 107, 114, 135, 136, 137. Education 122, 123, 152. Philosophy 101 or above. Sociology 101, 102, 103, 107, 109, 110, 113. Zoology 101a and 101b, 108a and 108b.

Students in Education are advised to take Psychology 7, 104, 108a, 108b, 109a, 109b, 111, 113, 117; in Commerce, Psychology 5, 112, 104, 108a, 108b, 109b; in the pre-medical course, Psychology 3, 7, 107, 108a, 108b, 109a, 109b, 111, 114; in the pre-law course, Psychology 3, 104, 107, 114; in Journalism and in English, Psychology 3, 5, 104, 107; in social work, Psychology 3, 7, 104, 107, 108a, 108b, 109a, 109b, 111.

All courses except 2, 6, 8 and 10 require an introductory course in Psychology as a prerequisite.

*2a. GENERAL PSYCHOLOGY. *Two recitations, two hours laboratory a week. First semester.* Professors Miner and Basset, Associate Professor Boynton, Mr. Asher, and Mr. Bagwell.

*2b. GENERAL PSYCHOLOGY. Prerequisite, 2a. *Two recitations, two hours laboratory a week. Second semester.* Professors Miner and Associate Professors Basset, Boynton, Mr. Asher, and Mr. Bagwell.

3. INDIVIDUAL DEVELOPMENT. *Three hours a week. First semester.* Associate Professor Boynton.

5. PSYCHOLOGY OF ADVERTISING AND SELLING. *Three hours a week. First semester.* Professor Miner.

*6. PSYCHOLOGY FOR TEACHERS. Open only to prospective teachers. *Three hours a week. Second semester.* Mr. Asher.

7. PSYCHOLOGY OF THE CHILD. *Three hours a week. Second semester.* Mr. Asher.

8. MENTAL HYGIENE AND PERSONAL ADJUSTMENTS. *Three hours a week.* No prerequisites. Does not count on group requirements. *Two credits.* Professor Basset.

10. INTRODUCTION TO PSYCHOLOGY. Open only to juniors and seniors. *Three hours a week. First semester.* Mr. Asher.

Courses open only to upper division and graduate students.

104. SOCIAL PSYCHOLOGY. *Three hours a week. First semester.* Professor Basset.

107. PSYCHOLOGICAL INTERPRETATION. Not given 1930-31. *Three hours a week. Second semester.* Professor Miner.

108a. HUMAN MEASUREMENTS. Not open to those who have taken Psychology 111. *Two hours a week. First semester.* Associate Professor Boynton.

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*Courses open to freshmen.

108b. HUMAN MEASUREMENTS. *Two hours a week. Second semester.* Associate Professor Buynton.

109a. DIAGNOSIS OF DEVELOPMENT. Prerequisite or concurrent 108a, 108b or 111. *One hour discussion; three hours' practice in developmental diagnosis a week. Two credits. First semester.* Associate Professor Boynton.

109b. DIAGNOSIS OF DEVELOPMENT. Prerequisite or concurrent 108a, 108b, or 111. *Two credits. Second semester.* Associate Professor Boynton.

110. EXPERIMENTAL METHODS. *One hour discussion, laboratory four hours a week. Three credits. First semester.* Mr. Asher.

111. MENTAL MEASUREMENTS. Not open to those who have taken Psychology 108a. *Three hours a week. First semester.* Associate Professor Boynton.

112. PERSONNEL ADMINISTRATION. *Three hours a week. Second semester.* Professor Miner.

113. PSYCHOLOGY OF LEARNING. Not given in 1929-30. *Lectures two hours, laboratory two hours a week. Second semester.* Associate Professor Boynton.

114. ABNORMAL PSYCHOLOGY. *Three hours a week. Second semester.* Professor Basset.

115. MEASUREMENTS OF HUMAN RELATIONSHIPS. *Two hours recitation and two-hours practice period. Three credits... Second semester.* Associate Professor Boynton.

116. COMPARATIVE PSYCHOLOGY. Not given in 1930-31. *Three hours a week. Second semester.* Professor Basset.

117. PSYCHOLOGY OF LANGUAGE. *Lectures two hours; laboratory two hours a week. Second semester.* Associate Professor Boynton.

118. SYSTEMATIC PSYCHOLOGY. *Three hours a week. First semester.* Professor Miner.

119. THE PSYCHOLOGICAL CLINIC. *Lecture one hour, laboratory two hours a week.* Professor Basset.

120a. INDEPENDENT WORK IN PSYCHOLOGY. *Two credits. First semester.* Professor Miner and members of the department.

120b. INDEPENDENT WORK IN PSYCHOLOGY. *Two credits. Second semester.* Professor Miner and members of the department.

190a. SEMINAR IN PSYCHOLOGY. *One two-hour discussion a week. One credit. First semester.* Professor Miner and members of the department.

190b. SEMINAR IN PSYCHOLOGY. *One two-hour discussion a week. One credit. Second semester.* Professor Miner and members of the department.

Courses open only to Graduate Students

210a. RESEARCH IN PSYCHOLOGY. *Three credits. First semester.* Professors Miner and Basset, Associate Professor Boynton.

210b. RESEARCH IN PSYCHOLOGY. *Three credits. Second semester.* Professors Miner and Basset, Associate Professor Boynton.

ROMANCE LANGUAGES AND LITERATURES

Professor Zembrod, Assistant Professors Horsfield, Server, Holmes, Schick

REQUIREMENTS FOR A MAJOR. Prerequisites, Romance Languages 1a, 1b, 2a, 2b, 5a, 5b. Electives, Romance Languages 4a, 4b, 6a, 6b, 7a, 7b, 112a, 112b, 110a, 110b, 8a, 8b, 109a, 109b, 104a, 104b.

FRENCH

*1a. ELEMENTARY FRENCH. *Three hours a week. Both semesters.* Assistant Professor Horsfield, Assistant Professor Server, Assistant Professor Shick, Assistant Professor Holmes.

*1b. ELEMENTARY FRENCH. Prerequisites, French 1a or one year high school French. *Three hours a week. Both semesters.* Assistant Professors Horsfield, Server, Schick, Holmes.

*2a. INTERMEDIATE FRENCH. Prerequisites, one year college French or two years high school French. *Three hours a week. Both semesters.* Assistant Professors Horsfield, Schick.

*2b. INTERMEDIATE FRENCH. Prerequisites, one year college French or two years high school French. *Three hours a week. Both semesters.*

6a. FRENCH NOVEL AND DRAMA. *Three hours a week. First semester.* Professor Zembrod, Assistant Professor Horsfield.

6b. FRENCH NOVEL AND DRAMA. *Three hours a week. Second semester.* Professor Zembrod, Assistant Professor Horsfield.

8a. FRENCH PHONETICS. A scientific study of French sounds. *Three hours a week. First semester.* Assistant Professor Schick.

8b. FRENCH PHONETICS. Continuation of 8a. *Three hours a week. Second semester.* Assistant Professor Schick.

Courses open only to Upper Division and Graduate Students

109a. FRENCH LITERATURE OF 19TH CENTURY. Fourth and fifth year French. *Three hours a week. First semester.* Professor Zembrod.

109b. FRENCH LITERATURE OF 19TH CENTURY. Fourth and fifth year French. *Three hours a week. Second semester.* Professor Zembrod.

110a. FRENCH LITERATURE OF 17TH CENTURY. Fourth and fifth year French. *Three hours a week. First semester.* Professor Zembrod.

*Courses open to freshmen.

110b. FRENCH LITERATURE OF 18TH CENTURY. Continuation of 110a. *Three hours a week. Second semester.* Professor Zembrod.

113a. ADVANCED GRAMMAR. Syntax, Composition. For graduate students only. *Three hours a week. First semester.* Professor Zembrod.

113b. ADVANCED GRAMMAR. Continuation of 113a. *Three hours a week. Second semester.* Professor Zembrod.

114a. INDEPENDENT WORK IN ROMANCE LANGUAGES. *Three credits. First semester.* Professor Zembrod, Assistant Professors Horsfield, Server, Schick.

114b. INDEPENDENT WORK IN ROMANCE LANGUAGES. *Three credits. Second semester.* Professor Zembrod, Assistant Professors Horsfield, Server, Schick.

SPANISH

*5a. ELEMENTARY SPANISH. *Three hours a week. Both semesters.* Assistant Professors Server, Holmes.

*5b. ELEMENTARY SPANISH. Prerequisite, Spanish 5a or one year Spanish in high school. *Three hours a week. Both semester.* Assistant Professors Server, Holmes.

*7a. INTERMEDIATE SPANISH. Prerequisite, one year college Spanish or two years of Spanish in high school. *Three hours a week. Both semesters.* Assistant Professors Server, Holmes.

*7b. INTERMEDIATE SPANISH. *Three hours a week. Second semester.* Assistant Professors Server, Holmes.

9a. SPANISH NOVEL AND DRAMA. Offered 1930-31. Prerequisite, two years college Spanish or four years high school Spanish. *Three hours a week. First semester.* Assistant Professor Server.

9b. SPANISH NOVEL AND DRAMA. Continuation of 9a. *Three hours a week. Second semester.* Assistant Professor Server.

Courses open only to Upper Division and Graduate Students

104a. SPANISH LITERATURE OF THE 17TH CENTURY. Omitted 1929-30. Offered 1930-31. *Three hours a week. First semester.* Assistant Professor Server.

104b. SPANISH LITERATURE OF THE 17TH CENTURY. Omitted 1929-30. Offered 1930-31. *Three hours a week. Second semester.* Assistant Professor Server.

112a. SPANISH LITERATURE OF THE 19TH CENTURY. Offered 1930-31. *Three hours a week. First semester.* Assistant Professor Server.

112b. SPANISH LITERATURE OF THE 19TH CENTURY. Offered 1930-31. *Three hours a week. Second semester.* Assistant Professor Server.

*Courses open to freshmen.

Italian

4a. Elementary Italian. Prerequisites, French 1 and 2. Juniors and seniors. *Three hours a week. First semester.* Professor Zembrod.

4b. Elementary Italian. Juniors and seniors. *Three hours a week. Second semester.* Professor Zembrod.

SOCIOLOGY

Professor Best, Assistant Professor Shannon, Mr. Beehler

The courses in Sociology are designed primarily to give students an acquaintance with and fundamental conceptions of the larger social problems of the day. They are prepared with the purpose of making them an elemental part of one's general education. At the same time they are intended to provide a certain preliminary training, especially in its theoretical aspects, for students looking to the field of social service, whether as a professional career, or as an expectation to do volunteer work or to participate in the direction of some social service agency.

Requirements for a Major. Prerequisites: Sociology 1a, 1b. Electives: Advanced courses in Sociology; and certain approved courses in Economics, Psychology, Political Science, History, Education, Philosophy, Hygiene and Public Health, and Farm Economics.

*1a. Principles of Sociology. Not open to seniors. *Three hours a week. First semester. Repeated second semester.* Assistant Professor Shannon.

*1b. Principles of Sociology. Not open to seniors. *Three hours a week. Second semester. Repeated first semester.* Assistant Professor Shannon.

5. Rural Social Economy. Omitted 1929-30. *Three hours a week. Second semester.* Professor Best.

10. Child Welfare. Omitted 1929-30. *Three hours a week. Second semester.*

12. Urban Social Economy. *Three hours a week. First semester.* Assistant Professor Shannon.

15. Social Control. *Three hours a week. Second semester.* Assistant Professor Shannon.

Courses open only to Upper Division and Graduate Students

101. Social Dependence. *Three hours a week. First semester.* Professor Best.

*Courses open to freshmen.

102. Social Pathology. *Three hours a week. Second semester.* Professor Best.

103. Criminology. *Three hours a week. First semester.* Professor Best.

105. Social Systems. *Three hours a week. First semester.* Professor Best.

106. American Immigration. *Three hours a week. Second semester.* Professor Best.

107. Community Welfare Work. Prerequisites or concurrent courses: 1a or 1b, and one other course in Sociology. *Three hours a week. Second semester.* Mr. Beehler.

108. Community Surveys. Prerequisite or concurrent courses: 1a or 1b, and one other course in Sociology. *Three hours a week. Second semester.* Mr. Beehler.

109. The Family. *Three hours a week. First semester.* Professor Best.

112. Community Organization. *Three hours a week. Second semester.* Assistant Professor Shannon.

Courses open only to Graduate Students

201a. Sociology Seminar. Open only to graduate students. *One hour a week. First semester.* Professor Best.

201b. Sociology Seminar. Open only to graduate students. *One hour a week. Second semester.* Professor Best.

ZOOLOGY

Professor Funkhouser, Associate Professor Allen, †Assistant Professor Brauer, Mr. Sherwood, Mr. Johnson, Mr. Middleton, Mr. Taylor

Courses 1a, 1b and 3a, 3b, are open to beginning students; course 10 is required of freshmen in Education; courses 108a, 108b are open to juniors and seniors only; courses 201 and 202 are open to graduate students only.

Reqirements for a Major. Prerequisites: Zoology 1a, 1b. Required: Zoology 106, 107a, 107b, 108a, 108b, 114. Electives: Zoology 3, 9, 101, 102, 105, 110, 112. Geology 101. Botany 6. Bacteriology 103, 104, 111. Animal Industry 104, 119, 121. Chemistry 7, 113, 130. Agricultural Entomology 4, 5.

*1a. General Zoology. *Lecture one hour; recitation one hour; laboratory four hours a week. First semester.* Professor Funkhouser, Associate Professor Allen, Assistant Professor Brauer, Mr. Johnson, Mr. Middleton, Mr. Taylor.

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*Courses open to freshmen.
*Courses open to freshmen.

*1b. GENERAL ZOOLOGY. Continuation of 1a. *Lecture one hour, recitation one hour; laboratory four hours a week. Second semester.* Professor Funkhouser, Associate Professor Allen, Assistant Professor Bauer, Mr. Salmon, Miss Scott, Mr. Kinser.

3a. GENERAL ENTOMOLOGY. *Lecture one hour, recitation one hour, laboratory two hours a week. Second semester.* Associate Professor Allen.

3b. GENERAL ENTOMOLOGY. Continuation of 3a. *Lecture one hour, recitation one hour, laboratory two hours a week. Second semester.* Associate Professor Allen.

5. AGRICULTURAL ZOOLOGY. *Recitation three hours; laboratory two hours a week. Second semester.* Assistant Professor Brauer.

7a. COMPARATIVE ANATOMY. *Lecture one hour, recitation one hour, laboratory four hours a week. First semester.* Associate Professor Allen.

7b. COMPARATIVE ANATOMY. Continuation of 7a. *Lecture one hour, recitation one hour, laboratory four hours a week. Second semester.* Associate Professor Allen.

9. ANIMAL ECOLOGY AND FIELD BIOLOGY. *Lecture one hour; recitation one hour; laboratory and field work two hours a week.* Associate Professor Allen.

*10. OUTLINES OF ZOOLOGY. *Recitation two hours, laboratory two hours a week.* Assistant Professor Brauer.

S 11. NATURE STUDY. Given in summer session only. *Lectures, recitations and laboratory work daily.* Associate Professor Allen.

Courses open only to Upper Division and Graduate Students

101a. HISTOLOGY. Prerequisite, courses 1a, 1b, or 3. *Lecture one hour, laboratory four hours a week. First semester.* Assistant Professor Brauer.

101b. HISTOLOGY. Continuation of 101a. Prerequisite 101a. *Lecture one hour, laboratory four hours a week. Second semester.* Assistant Professor Brauer.

102. ORNITHOLOGY. *Lecture one hour, recitation two hours a week. Second semester.* Professor Funkhouser.

106. EMBROLOGY. Prerequisite 101a. *Lecture two hours, laboratory four hours a week. Second semester.* Assistant Professor Brauer.

105. MEDICAL ENTOMOLOGY. Prerequisite, 1a, 1b, or 3. Given alternate years. Omitted 1929-30. *Lecture one hour, recitation one hour, laboratory two hours a week. First semester.* Associate Professor Allen.

*Courses open to freshmen.

157a. INVERTEBRATE ANATOMY. Prerequisites Zoology 1a and 1b. *Two hours recitation, four hours laboratory a week. Four credits. First semester.* Associate Professor Allen.

157b. VERTEBRATE ANATOMY. A continuation of 157a. Prerequisites, Zoology 1a, 1b and 157a. *Four credits. Second semester.* Associate Professor Allen.

108a. PRINCIPLES OF ZOOLOGY. *Lectures three hours a week. Two credits. First semester.* Professor Funkhouser.

108b. PRINCIPLES OF ZOOLOGY. Continuation of 108a. *Lectures three hours a week. Two credits. Second semester.* Professor Funkhouser.

110a. INDEPENDENT WORK. *Three credits. Laboratory and library work six hours a week.* Professor Funkhouser, Associate Professor Allen, Assistant Professor Brauer.

110b. INDEPENDENT WORK. Continuation of 110a. *Three credits.* Professor Funkhouser, Associate Professor Allen, Assistant Professor Brauer.

112. ICHTHYOLOGY. Given alternate years. Given 1929-30. *Lectures three hours a week. First semester.* Associate Professor Allen.

114a. ZOOLOGICAL SEMINAR. *Seminar two hours a week. One credit.* Professor Funkhouser, Associate Professor Allen, Assistant Professor Brauer.

114b. ZOOLOGICAL SEMINAR. *One credit.* Professor Funkhouser, Associate Professor Allen, Assistant Professor Brauer.

Courses open only to Graduate Students

201a. HERPETOLOGY. Not offered 1929-30. *Lectures two hours, laboratory two hours a week. First semester.* Professor Funkhouser.

201b. HERPETOLOGY. Not offered 1929-30. Continuation of 201a. *Lectures two hours, laboratory two hours a week. Second semester.* Professor Funkhouser.

202a. SYSTEMATIC ENTOMOLOGY. Not offerel 1929-30. *Lecture one hour, recitation two hours, laboratory two hours a week. First semester.* Professor Funkhouser.

202b. SYSTEMATIC ENTOMOLOGY. Not offered 1929-30. Continuation of 202a. *Lecture one hour, recitation two hours, laboratory two hours a week. Second semester.* Professor Funkhouser.

COLLEGE OF AGRICULTURE

THOMAS POE COOPER, B. S. in Agr.
Dean and Director

ORGANIZATION

The College of Agriculture includes three divisions:

1. The College (resident teaching.)
2. The Experiment Station.
3. The Extension Division.

REQUIREMENTS FOR GRADUATION

To receive the degree of Bachelor of Science in Agriculture, a student must complete 139.3 credits of work with a standing of 1. (For definition of "credit" and "standing" see page 49.) These credits are classified as follows:

Prescribed subjects, non-agriculture	44.0 credits
Prescribed subjects, agriculture	35.3 credits
Electives required in agriculture	27.0 credits
Free electives	33.0 credits
Total	139.3 credits

Students who have not had physics in high school will be required to take a six-credit course in college which will reduce the number of free elective credits to 27. The free electives may be in agriculture. It will thus be seen that there is opportunity to take work in agriculture amounting to 95.3 credits.

To receive the degree of Bachelor of Science in Home Economics, a student must complete 133.7 credits of work with a standing of 1. (For outline of courses in Home Economics see page 145.)

The amount of work a student will be permitted to carry is indicated in the outline of courses. However, if a student has maintained a standing of 2 during a semester, he may, upon permission of the Dean, carry additional hours the following semester.

A regular student must carry at least 12 credit hours each semester. The maximum and minimum hours for special students are the same as for regular students.

Prior to the senior year all candidates for the degree in agriculture must satisfy the Dean that they have had at least one year's work on the farm or work for two summer vacations of three months each.

OUTLINE OF COURSES REQUIRED OF ALL CANDIDATES FOR THE DEGREE OF B. S. IN AGRICULTURE

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Animal Industry 21	Market Classes & Grades of Livestock		4	2.
Animal Industry 22	Farm Poultry Production (first half of semester)	3	2	2.
Animal Industry 23	Elements of Dairying (second half of semester)	3	2	2.
Agronomy 11	Farm Crops	2	2	3.
Botany 1a	General Morphology	2	4	4.
English 1a	English Composition	3		3.
Military Science 1a	First Year Basic Course, Infantry	1	2	1.3
Physical Educ. 1a				
Freshman Assembly	Gymnasium or Field Athletics	1		.3
				18.3

Second Semester

Animal Industry 17	Breeds of Livestock	2	2	3.
Chemistry 1a	General Inorganic Chemistry	3	4	5.
Botany 1b	General Morphology	2	4	4.
English 1b	English Composition	3		3.
Military Science 1b	First Year Basic Course, Infantry	1	2	1.3
Physical Educ. 1b	Gymnasium or Field Athletics		2	.7
				17.

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 1b	General Inorganic Chemistry	3	4	5.
Economics 1a	Principles of Economics	3		3.
Horticulture 1	General Horticulture	3	2	4.
Farm Engr. 10	Mechanics of the Farmstead	2	2	3.
Military Science 6a	Second Year Basic Course, Infantry	2	1	1.5
				16.5

Second Semester

Zoology 10 or Geology 3	Outline of Zoology / Elementary Geology	2	2	3.
Farm Economics 4	Agricultural Economics	2	2	3.
Animal Industry 20	Principles of Animal Nutrition	3		3.
Education 16	Educational Psychology	3		3.
Agronomy 1	Soils	3	2	4.
Military Science 6b	Second Year Basic Course, Infantry	2	1	1.5
				20.5

Physics 51a and 51b are required of students who have not had one year of physics in high school. The course may be begun with 51b in the second semester if desired, in the place of Zoology or Geology which may be taken later.

JUNIOR YEAR
First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Farm Economics 113	General Farm Management	3		3.
Markets and Rural Finance 108	Marketing	3		3.
*Electives				12.
				18.
Second Semester				
Bacteriology 102	General Bacteriology	2	4	4.
Electives				14.
				18.

*It is suggested that students planning to teach under the Smith-Hughes Act elect Farm Shop.

The work in the senior year is all elective. The student is permitted to take a maximum of 18 credit hours of work each semester, unless he has a standing making him eligible to carry extra work.

DEPARTMENT MAJORS

A student desiring to do major work in any department of instruction should select his courses of study upon the advice of the Head of the department.

TRAINING FOR TEACHERS OF VOCATIONAL AGRICULTURE AND HOME ECONOMICS

An act of Congress, popularly known as the Smith-Hughes vocational educational bill, provides for the training of teachers for the teaching of agriculture and home economics in secondary schools. The University of Kentucky has been designated to train white teachers for this work.

The State Board for Vocational Education grants a certificate to teach through the Department of Vocational Teacher Training of the University to graduates of a standard college of agriculture who have had one-tenth of their work in professional education and three years' farm experience after the age of twelve. The courses in education must

be selected upon the advice of the Department of Vocational Teacher Training.

The State Board of Vocational Education grants a certificate to teach home economics through the Department of Vocational Teacher Training of the University of Kentucky to students upon graduation from a four-year college course in home economics. The percentage distribution of hours should be about as follows:

Home economics subjects	25 to 30 per cent
Related subjects	20 to 30 per cent
Professional subjects	10 to 18 per cent
General academic subjects	25 to 37 per cent

The courses in education must be selected upon the advice of the Department of Vocational Teacher Training.

ELECTIVES SUGGESTED FOR STUDENTS WHO ARE PREPARING TO BE COUNTY AGRICULTURE AGENTS

JUNIOR YEAR

First Semester

Farm Engr. 8	Farm Structural Engineering (Farm Shop)	4
A. I. 119	Genetics	3
Agronomy 2	Soil Management	3
Agr. Ent. 10	Agricultural Entomology	3

Second Semester

Horticulture 110	Vegetable Gardening	3
A. I. 107	Sheep Production	3
A. I. 113	Livestock Judging	2
Agronomy 23	Plant Pathology	4
Agronomy 105	Advanced Crops	3

SENIOR YEAR

First Semester

Journalism 1a	Reporting	3
English 7a	Public Speaking	3
A. I. 102	Farm Butchering and Curing of Meats	4
A. I. 106	Pork Production	3
Agronomy 101	Methods and Results of Field Experimentation	2
Horticulture 103	Apple Production	3
Markets and Rural Finance 111	Agricultural Prices	3

Second Semester

Farm. Ec. 120	Rural Community Problems	3
Agr. Exten. 1	Methods	1
Agr. Ent. 102	Advanced Agricultural Entomology	3
A. I. 105	Beef Production	3
A. I. 112	Advanced Poultry Production	4
A. I. 116	Diseases of Domestic Animals	4
A. I. 125	Dairy Cattle Feeding and Management	3

ELECTIVES SUGGESTED FOR STUDENTS WHO ARE PREPARING TO TEACH VOCATIONAL AGRICULTURE

JUNIOR YEAR

First Semester

Farm Engr. 8	Farm Structural Engineering (Farm Shop)	4
A. I. 119	Genetics	3
Agronomy 2	Soil Management	3
Agr. Ent. 10	Agricultural Entomology	3

Second Semester

Horticulture 110	Vegetable Gardening	3
A. I. 107	Sheep Production	3
A. I. 113	Livestock Judging	2
Agronomy 23	Plant Pathology	4
Agronomy 105	Advanced Crops	3

SENIOR YEAR

First Semester

A. I. 102	Farm Butchering and Curing of Meats	4
A. I. 106	Pork Production	3
Agronomy 101	Methods and Results of Field Experimentation	2
Horticulture 103	Apple Production	3
Education 101	School Organization	3
Markets and Rural Finance 111	Agricultural Prices	3
*Ag. Ed. 181	Teaching Vocational Agriculture	7

Second Semester

Agr. Ent. 102	Advanced Agricultural Entomology	3
A. I. 105	Beef Production	3
A. I. 112	Advanced Poultry Production	4
A. I. 116	Diseases of Domestic Animals	4
A. I. 125	Dairy Cattle Feeding and Management	3
*Ag. Ed. 179	Determining Course—Content in Vocational Ag.	3
*Ag. Ed. 181	Teaching Vocational Agriculture	7

Starred courses are required of students planning to teach vocational agriculture. It is suggested that all students elect physics even tho they have had physics in high school.

DEPARTMENT OF INSTRUCTION

Student Assemblies

1. FRESHMAN ASSEMBLY. *One hour a week. First semester.* Professor Horlacher, Assistant to the Dean.

2. SOPHOMORE ASSEMBLY. (Home Economics.) *One hour a week. First semester. Three-tenths credit.* Professor Erikson.

3. JUNIOR ASSEMBLY. (Home Economics.) *One hour a week. First semester. Three-tenths credit.* Professor Erikson.

4. SENIOR ASSEMBLY. Four meetings during second semester. Requirement for graduation. Dean Cooper, Professor Horlacher.

AGRICULTURAL ENTOMOLOGY

Professor Price

10. AGRICULTURAL ENTOMOLOGY. *Lectures and recitations, two hours, laboratory two hours per week. Three credits. First semester.* Professor Price.

11. APICULTURE. *Lectures and recitations two hours, laboratory two hours a week. Three credits. Second semester.* Professor Price.

102. ADVANCED AGRICULTURAL ENTOMOLOGY. Prerequisite, Agricultural Entomology 10. *Lectures and recitations two hours, laboratory two hours a week. Three credits. Second semester.* Professor Price.

103. ECONOMIC ENTOMOLOGY. Fruit and Garden Insects. Prerequisite Agricultural Entomology 10. *Lectures and recitations two hours, laboratory two hours a week. Three credits. First semester.* Professor Price.

104. ECONOMIC ENTOMOLOGY. Farm Crop Insects and Animal Parasites. Prerequisite, Agricultural Entomology 10. *Lectures and recitations two hours, laboratory two hours a week. Three credits. Second semester.* Professor Price.

106a-106b. SYSTEMATIC AND TECHNICAL AGRICULTURAL ENTOMOLOGY. Prerequisite, Agricultural Entomology 10 and any one of the following: 102, 103, 104. *Lectures and recitations two hours, laboratory two hours a week. Three credits each semester.* 106a *first semester;* 106b *second semester.* Professor Price.

201a-201b. ENTOMOLOGICAL PROBLEMS. Prerequisites, Agricultural Entomology 10 and 102, 103 or 104. *Three credits each semester.* 201a *first semester;* 201b *second semester.* Professor Price.

AGRICULTURAL EXTENSION

Professor Bryant

1. METHODS IN AGRICULTURAL EXTENSION. *Open to juniors and seniors. Lecture one hour a week. One credit. Second semester.*

AGRONOMY

Professor Roberts (Soils), Professor Kinney (Field Crops), Professor Valleau (Plant Pathology), Associate Professor Karraker (Soils), Associate Professor Fergus (Crops).

1. SOILS. Prerequisites, Chemistry 1a and 1b. *Lectures and recitations three hours a week, laboratory two hours a week. Four credits. Second semester.* Associate Professor Karraker.

2. SOIL MANAGEMENT. Prerequisite, Agronomy 1. *Lectures three hours a week. Three credits. First semester.* Professor Roberts.

11. FARM CROPS. *Lectures and recitations two hours a week,*

laboratory two hours a week. Three credits. First semester. Associate Professor Fergus.

14. Market Grain Grading and Grain Judging. Prerequisite, Agronomy 11. *Laboratory four hours a week. Two credits. First semester.* Associate Professor Fergus.

23. Plant Pathology. Prerequisites, Botany 1a and 1b. *Lectures and recitations two hours, laboratory four hours a week. Four credits. Second semester.* Professor Valleau.

101. Methods and Results of Field Experimentation. Prerequisite, Agronomy 2. *Lectures two hours a week. Two credits. First semester.* Professor Roberts.

105. Advanced Crops. Prerequisite, Agronomy 11. *Lectures three hours a week. Three credits. Second semester.* Professor Kinney.

106. Field Crop Improvement. Prerequisites, Agronomy 11, Animal Industry 119. *Lectures two hours a week. Two credits. Second semester.* Professor Kinney.

107a-107b. Seminar. *One hour a week thruout the year. One credit each semester.* The Agronomy Staff.

110. Advanced Soils; Biological Studies in Soils. Prerequisite, Agronomy 1. *Lecture one hour a week; laboratory four hours a week. Three credits. First semester.* Associate Professor Karraker.

111. Advanced Soils; Physico-Chemical Studies in Soils. Prerequisite, Agronomy 1. *Lecture one hour a week; laboratory four hours a week. Three credits. Second semester.* Associate Professor Karraker.

112. Special Work in Soils. Prerequisite, Agronomy 1 and permission of instructors. *Three credits, either semester.* Professor Roberts, Associate Professor Karraker.

202. Special Problems in Crop Production. *For graduate students. Two credits.* Professor Kinney.

203a-203b. Literature of Plant Pathology. *Three credits each semester.* Professor Valleau.

ANIMAL INDUSTRY

Professor Good, Professor Horlacher, Professor Anderson, Professor Martin, Professor Ely, Associate Professor Wilford, Assistant Professor Barkman, Assistant Professor Harris, Mr. Nutter.

4. Live Stock Management. *Laboratory two hours a week. One credit. First semester.* Assistant Professor Harris.

17. Breeds of Live Stock. Required of freshmen. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Professor Horlacher.

20. PRINCIPLES OF ANIMAL NUTRITION. Prerequisite, Chemistry 1a. *Lectures three hours a week. Three credits. Second semester.* Professor Good, Assosiate Professor Wilford.

21. MARKET CLASSES AND GRADES OF LIVE STOCK. Required of freshmen. *Laboratory four hours a week. Two credits. First semester.* Assistant Professor Harris.

22. FARM POULTRY PRODUCTION. Required of freshmen. *Lectures three hours, laboratory two hours a week. Two credits. First half of first semester.* Professor Martin.

23. ELEMENTS OF DAIRYING. Required of freshmen. *Lectures three hours, laboratory two hours a week. Second half of first semester. Two credits.* Professor Ely, Assistant Professor Barkman.

102. FARM BUTCHERING AND CURING OF MEATS. *Lecture two hours, laboratory four hours a week. Four credits. First semester.* Associate Professor Wilford.

104. ANIMAL BREEDING. Prerequisites, Animal Industry 17, 119. *Lectures three hours, laboratory two hours a week. Four credits. Second semester.* Professor Anderson.

105. BEEF PRODUCTION. Prerequisite, Animal Industry 20. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Professor Good.

106. PORK PRODUCTION. Prerequisite, Animal Industry 20. *Lectures two hours, laboratory two hours a week. Three credits. First semester.* Associate Professor Wilford.

107. SHEEP PRODUCTION. Prerequisites, Animal Industry 21, 17. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Professor Horlacher.

110. ADVANCED STOCK JUDGING. Required of judging team candidates. *Admission by permission of instructor. First semester. Three credits.* Professor Horlacher.

111a-b-c-d. SPECIAL PROBLEMS. *Three credits each semester.* Staff.

112. ADVANCED POULTRY PRODUCTION. Prerequisite, Animal Industry 22. *Lectures three hours, laboratory two hours a week. Four credits. Second semester.* Professor Martin.

113. LIVE STOCK JUDGING. Prerequisites, Animal Industry 21, 17. *Laboratory four hours a week. Two credits. Second semester.* Assistant Professor Harris.

118. DAIRY MANUFACTURES. *Lecture one hour, laboratory eight hours a week. Five credits. First semester.* Assistant Professor Barkman.

119. GENETICS. *Lectures three hours. First semester, one section*

for men and one section for women. Repeated second semester. *Three credits.* Professor Anderson.

120. Systems of Live Stock Production. Prerequisites, Animal Industry 21, 17. *Three credits. Lectures three hours a week. First semester.* (Not offered in 1930-31.) Professor Horlacher.

121. Advanced Genetics. A course dealing with plant, animal and human genetics. Prerequisite, Animal Industry 119. *Lecture three hours. Three credits. First semester.* Professor Anderson.

123. Exhibition and Production Poultry Judging. Prerequisite, Animal Industry 22. *Laboratory four hours a week. Two credits. First semester.* Professor Martin.

124. Advanced Study of the Dairy Breeds. Prerequisites, Animal Industry 17, 23. *Lectures two hours a week, laboratory four hours a week. Four credits. Second semester.* Professor Ely.

125. Dairy Cattle Feeding and Management. Prerequisite, Animal Industry 20. *Lectures three hours a week. Three credits. Second semester.* Professor Ely.

127. Advanced Poultry Breeding. Prerequisites, Animal Industry 22, 119. *Lectures two hours a week, laboratory two hours a week. Three credits. First semester.* Professor Martin.

128. Judging and Scoring Dairy Products. Prerequisite, A. I. 118. *One two-hour laboratory a week. One credit. First semester.* Assistant Professor Barkman.

201. Economic Factors Involved in Meat Production. *Three credits.* Professor Good, Professor Horlacher, Associate Professor Wilford, Assistant Professor Harris.

202. Meats. *Three credits.* Associate Professor Wilford.

203. Research in Genetics. *Three credits.* Professor Anderson.

204a-b. Investigation in Feeding Dairy Animals. *Three credits. Each semester.* Professor Ely.

205. Investigations in Breeding Light Horses. *Three credits.* Professor Anderson.

206a-206b. Research in Poultry. *Three credits each semester.* Professor Martin.

207. Investigations in Wool. *Three credits.* Professor Horlacher.

208. Research in Animal Breeding. *Three credits.* Professor Anderson.

209a. Seminar. *One credit. First semester.* Staff.

209b. Seminar. *One credit. Second semester.* Staff.

ANIMAL PATHOLOGY

Dr. Dimock, Dr. Hull

116. Diseases of Domestic Animals. *Lectures three hours, laboratory three hours a week. Four credits. Second semester.* Dr. Dimock

126. Anatomy and Physiology of Domestic Animals. *Lectures three hours a week, laboratory two hours a week. Four credits. First semester.* Dr. Hull.

FARM ECONOMICS

Professor Nicholls, Assistant Professor Finn, Mr. Oyler

4. Agricultural Economics. Prerequisite, Economics 1a. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Assistant Professor Finn.

10. Farm Accounting. Prerequisite, Farm Economics 4, or special permission of instructor. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Assistant Professor Finn.

103a-103b. Agricultural Economics Seminar. *Two hours a week. One credit each semester.* Farm Economics Staff.

104. Advanced Farm Cost Accounting. Prerequisite, Farm Economics 10. *Laboratory four hours a week. Either semester. Two credits.* Assistant Professor Finn.

107a-107b. Special Problems in Farm Management. *Three credits. First and second semesters.* Professor Nicholls.

108. Land Problems. Prerequiiste, Farm Economics 4. *Lectures two hours a week. Two credits. First semester.* Professor Nicholls.

109. Advanced Farm Management. Prerequisite, Farm Economics 113. *Lecture one hour, laboratory two hours a week. Two credits. First semester.* (Not offered in 1930-31.) Professor Nicholls.

113. Farm Management. Prerequisite, Farm Economics 4. *Lectures three hours a week. Three credits. First semester.* Professor Nicholls.

120. Rural Community Problems. Prerequisites, Economics 1a and Farm Economics 4. *Lectures three hours a week. Three credits. Second semester.* Mr. Oyler.

201a-201b. Research in Farm Economics. Open to graduate students. *Three credits each semester.* Professor Nicholls.

FARM ENGINEERING

Professor Kelley, Mr. Matson.

5. Land Measurements and Drainage. *Lecture one hour a week; laboratory two hours a week. Two credits. Second semester.* Professor Kelley.

8. Farm Structural Engineering. A shop course specially designed for students preparing for Smith-Hughes work. *Lectures and recitations two hours, laboratory four hours a week. Four credits. First semester.* Professor Kelley, Mr. Matson.

9. Farm Motors. *Lectures and recitations two hours, laboratory two hours a week. Three credits. Second semester.* Professor Kelley.

10. Mechanics of the Farmstead. *Lectures and recitations two hours, laboratory two hours a week. Three credits. First semester.* Professor Kelley, Mr. Matson.

101a-101b. Special Problems. Prerequisite Farm Engineering 10. Three credits each semester. Professor Kelley.

HORTICULTURE

Professor Olney, Mr. Waltman, Mr. Emmert.

1. General Horticulture. *Lectures three hours, laboratory two hours a week. Four credits. First semester.* Professor Olney.

6. Greenhouse Construction and Management. *Lecture one hour, laboratory two hours a week. Two credits. First semester.* Mr. Emmert.

8. Vegetable Forcing. *Lectures two hours, laboratory two hours a week. Three credits. First semester.* Mr. Emmert.

10. Flower Garden and Home Grounds. *Juniors and seniors. Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Professor Olney.

11. Elements of Floriculture. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Professor Olney.

13. Landscape Gardening. *Lecture two hours, laboratory two hours a week. Three credits. Second semester.* Professor Olney.

103. Apple Production. Prerequisite, Horticulture 1. *Lectures two hours, laboratory two hours. Three credits. First semester.* Mr. Waltman.

104. Stone Fruits. Prerequisite, Horticulture 1. *Lectures two hours, laboratory two hours. Three credits. Second semester.* Mr. Waltman.

105. Small Fruits. Prerequisite, Horticulture 1. *Lectures and laboratory. Two credits. Second semester.* Mr. Waltman.

110. Vegetable Gardening. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Mr. Emmert.

111. Market Gardening. Prerequisites, Horticulture 8, 110. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Mr. Emmert.

115a-115b. Special Problems. May be taken only with approval of the instructor. *Three credits each semester.* Professor Olney.

MARKETS AND RURAL FINANCE

Professor Price, Assistant Professor Card, Mr. Bradley

108. MARKETING. Prerequisite, Economics 1a. *Lectures three hours a week. Three credits. First semester.* Professor Price.

109. COOPERATIVE MARKETING. Prerequisite, Markets and Rural Finance 108. *Lectures three hours a week. Three credits. Second semester.* Professor Price.

110. ADVANCED MARKETING. Prerequisite, Markets and Rural Finance 108. Lectures three hours a week . Three credits. First semester. Professor Price.

111. AGRICULTURAL PRICES. Prerequisite, Farm Economics 4. *Lectures three hours a week. Three credits. First semester.* Assistant Professor Card.

112. FARM FINANCE. Prerequisite, Farm Economics 4. *Lectures three hours a week. Three credits. Second semester.* Mr. Bradley.

113. AGRICULTURAL STATISTICS. *Lectures two hours, laboratory two hours a week. Three credits. First semester.* (Not offered in 1930-31). Assistant Professor Card.

131. ADVANCED AGRICULTURAL PRICES. Prerequisites, Markets and Rural Finance 111 and 113, or Commerce 107. *Two credits. Second semester.* (Not offered in 1930-31). Assistant Professor Card.

201a-201b. RESEARCH IN MARKETING AND COOPERATION. Open to graduate students by arrangement with the Department. *Three hours a week. Throughout the year.* Professor Price, Assistant Professor Card.

HOME ECONOMICS

Professor Erikson, Associate Professor Wade, Assistant Professor Grundmeier, Miss Barkley, Miss Foster, Miss Hoover, Miss Newman

The curriculum as outlined, with the proper electives, offers opportunity for training for any one of the phases of Home Economics. A student desiring to do major work in any group of Home Economics subjects should select her courses of study upon the advice of the head of the department.

To receive the degree of Bachelor of Science in Home Economics, a student must complete 133.7 credits of work with a standing of 1. These credits are classified as follows:

Prescribed non-home economics	68.8
Prescribed home economics	36.9
Electives required in home economics	13.0
Free electives	15.0
Total	**133.7**

OUTLINE OF COURSES REQUIRED OF ALL CANDIDATES FOR THE DEGREE OF B. S. IN HOME ECONOMICS

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 1a	General Chemistry	3	4	5.
Physics 51a	Introduction to Physics	3		3.
Art 2a	Art Structure		4	2.
Journalism 1a	Reporting	3		3.
H. E. 26	Textiles	1	2	2.
Physical Ed. 1a	Gymnasium		2	0.7
Freshman Assembly		1		0.3
				16.0

Second Semester

Chemistry 1b	General Chemistry	3	4	5.
Physics 51b	Introduction to Physics	3		3.
Art 2b	Art Structure		4	2.
H. E. 6a	Foods		6	3.
H. E. 29	Costume Design	1	4	3.
Physical Ed. 1b	Gymnasium		2	0.7
				16.7

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 7	Organic Chemistry	3	2	4.
Anat. & Physiol. 3	Physiology	2	4	4.
English 1a	English Composition	3		3.
H. E. 6b	Foods	2	4	4.
Physical Ed. 2a	Gymnasium		2	0.7
Sophomore Assembly		1		0.3
				16.0

Second Semester

English 1b	English Composition	3		3.
Economics 1a	Principles of Economics	3		3.
Psychology 10	Introduction to Psychology	3		3.
H. E. 3	Foods and Nutrition	2	4	4.
H. E. 51	Elementary Clothing	2	4	4.
Physical Ed. 2b	Gymnasium			0.3
				17.7

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Bacteriology 102	General Bacteriology	2	4	4.
Sociology 1a	Principles of Sociology	3		3.
H. E. 4	Dietetics	2	4	4.
H. E. 52	Cothing		6	3.
	Electives			3.
Junior Assembly				0.3
				17.3

Second Semester

English 3b	History of English Literature	3		3.
Psychology 7	Psychology of the Child	3		3.
H. E. 43	The House	2	4	4.
H. E. 115	Child Care and Training	3		3.
H. E. 7	Food Sources and Costs	2		2.
				15.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
H. E. 42	Home Management or Electives	2	6	5.
	Electives			12.
				17.

Second Semester

H. E. 42	Home Management or Electives	2	6	5.
	Electives			13.
				18.

Students desiring to qualify for a vocational teacher's certificate are required to take fifteen credits in education including Education 160 and Education 162.

Students who do not present one unit in clothing for entrance or who do not pass the placement examination will be required to take Home Economics 50—one credit in the first semester of the freshman year.

COURSES OF STUDY

3. Foods and Nutrition. Prerequisite, Chemistry 7. *Lecture two hours, laboratory four hours a week. Four credits. Both semesters.* Professor Erikson.

4. Dietetics. Prerequisites, Home Economics 3, Physiology 3, Home Economics 6b. *Lectures two hours, laboratory four hours a week. Four credits. First semester.* Professor Erikson.

6a. Foods. Prerequisite, Chemistry 1a. *Laboratory six hours a week. Three credits. Second semester.* Miss Barkley.

6b. Foods. Prerequisite, Home Economics 6a. *Lecture two hours, laboratory four hours a week. Four credits. First semester.* Miss Barkley.

7. Food Sources and Costs. Prerequisite, Economics 1a. *Lectures two hours a week. Two credits. Second semester.*

16. Beginning Foods. Open only to students who are not majoring in Home Economics. *Lectures two hours, laboratory two hours a week. Three credits. First semester.* Professor Erikson.

26. Textiles. *Lecture one hour a week, laboratory two hours a week. Two credits. First semester.* Associate Professor Wade.

29. Costume Design. Prerequisites, Art 2a, Home Economics 26. *Lecture one hour, laboratory four hours a week. Three credits. Both semesters.* Associate Professor Wade.

32. Children's Clothing. Prerequisite, Home Economics 51. *Laboratory six hours a week. Three credits. First semester.* Miss Barkley.

40. Home Sanitation. *Lectures two hours a week. Two credits. Second semester.*

42. Home Management. Prerequisites, Home Economics 4 and 43. *Lectures two hours, laboratory six hours a week. Five credits. Both semesters.*

43. The House. Prerequisites, Art 2b, Home Economics 26. *Lectures two hours, laboratory four hours a week. Four credits. Second semester.* Associate Professor Wade.

50. Elementary Clothing Construction. *Laboratory three hours a week. One credit. First semester.*

46. Clothing. *Lectures two hours a week, laboratory four hours a week. Four credits. Second semester.* Miss Barkley.

47. Advanced Clothing. Prerequisite, Home Economics 51. *Laboratory six hours a week. Three credits. First semester.* Associate Professor Wade.

76. Institutional Foods. Prerequisite, Home Economics 6b.

Lecture one hour, laboratory four hours a week. Three credits. Second semester. Miss Hoover.

79. INSTITUTIONAL MARKETING. Prerequisites, Economics 1a. *Lectures two hours, laboratory four hours a week. Four credits. First semester.* Miss Hoover.

105a-105b. SEMINAR IN NUTRITION. Prerequisite, senior or graduate standing. *One hour a week. One credit. Thruout the year.* Professor Erikson.

106. SEMINAR—TEXTILES AND CLOTHING. Prerequisite, senior or graduate standing. *One hour a week. One credit. First semester.* Associate Professor Wade.

107a-107b. EXPERIMENTAL COOKERY. Prerequisites, Home Economics 4, 109. *Lectures two hours a week, laboratory six hours a week. Five credits each semester. Thruout the year.*

109. NUTRITION. Prerequisite, Home Economics 4. *Lectures two hours, laboratory four hours a week. Four credits. Second semester.* Professor Erikson.

112. PUBLIC SCHOOL NUTRITION. *Lectures two hours, laboratory two hours a week. Three credits. First semester. Repeated second semester.*

114. ADVANCED TAILORING. Prerequisite, Home Economics 52. *Lecture one hour, laboratory six hours a week. Four credits. Second semester.* Associate Professor Wade.

115. CHILD CARE AND TRAINING. Prerequisites, Psychology 7, Physiology 3 and Home Economics 3. *Lectures three hours a week. Three credits. Both semesters.*

116. ADVANCED COSTUME DESIGN. Prerequisites, Art 2b, Home Economics 29. *Three credits. Second semester.* Associate Professor Wade.

117. INTERIOR DECORATION. Prerequisites, Art 2b, Home Economics 26 and 43. *Lecture one hour, laboratory four hours a week. Three credits. First semester.* Associate Professor Wade.

121a-121b. SPECIAL PROBLEMS. *Two credits each semester.* Staff.

144. ADVANCED HOME MANAGEMENT. Prerequisites, Sociology 1a, Economics 1a, Home Economics 42. *Lectures three hours a week. Three credits. Second semester.*

178. INSTITUTIONAL ORGANIZATION AND ADMINISTRATION. Prerequisite, Home Economics 180. *Lectures two hours, laboratory two hours a week. Three credits. Second semester.* Miss Hoover.

179. INSTITUTIONAL MANAGEMENT. Prerequisite, Home Economics 178. *Lectures, conferences and laboratory. Six credits. Second semester.* Miss Hoover.

180. INSTITUTIONAL EQUIPMENT. Prerequisite Home Economics 79. *Lectures two hours, laboratory two hours a week. Three credits. First semester.* Miss Hoover.

COLLEGE OF ENGINEERING

FREDERICK PAUL ANDERSON, M. E., DEAN

INTRODUCTORY STATEMENT

ORGANIZATION

The College of Engineering embraces the following Departments: Civil Engineering, Collateral Activities, Drawing, Electrical Engineering, Engineering Mechanics, Mechanical Engineering, Mining Engineering, Metallurgical Engineering and Practical Mechanics.

COURSES OF STUDY AND DEGREES

The College of Engineering offers instruction leading to the following baccaleaurate degrees:

Bachelor of Science in Civil Engineering.

Bachelor of Science in Mechanical Engineering.

Bachelor of Science in Mining Engineering.

Bachelor of Science in Metallurgical Engineering.

The degree "Bachelor of Science in Mechanical Engineering" is given at the completion of the course in Mechanical and Electrical Engineering.

The courses of study leading to these degrees are identical during the freshman and sophomore years. Familiarity with such fundamental subjects as Chemistry, Drawing, English, Mathematics, Physics and Practical Mechanics is essential to the successful study and practice of any branch of the engineering profession. Furthermore, after two years of college work a student is better able to make a definite choice of the branch of engineering which he prefers to follow. During the junior and senior years the courses are planned to give the training that is especially suited to each branch of the profession.

The College of Engineering offers graduate courses leading to the following advanced degrees.

C. E. (Civil Engineering).

E. E. (Electrical Engineer).

M. E. (Mechanical Engineer).

Met. E. (Metallurgical Engineer).

E. M. (Mining Engineer).

For further information regarding these degrees, see the announcement of the Graduate School, page 209.

SUMMER WORK

It is very desirable that students of engineering should obtain practical experience while pursuing their college course. It is strongly urged that all engineering students obtain employment during their summer vacations with some concern engaged in engineering work.

OUTLINE OF THE FRESHMAN AND SOPHOMORE YEARS OF ALL COURSES LEADING TO ENGINEERING DEGREES

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 1a	General Inorganic Chemistry	3	4	5.0
Collateral Activ. 9a	Freshman Class Society	1		0.3
Drawing 1a	Mechanical Drawing		6	2.0
English 1a	English Composition	3		3.0
Hygiene 1a	General Hygiene	2		1.3
Mathematics 5	College Algebra	5		5.0
Military Science 1a	Basic Course, First Year Infantry		3	1.3
Physical Educa. 1a	Gymnasium Practice		2	0.7
*Physics 4	Elementary Physical Measurements		4	2.0
Prac. Mech. 7a	Wood Shop and Foundry		8	2.7

Second Semester

Chemistry 1b	General Inorganic Chemistry	3	4	5.0
Collateral Activ. 9b	Freshman Class Society	1		0.3
Drawing 1b	Mechanical Drawing		6	2.0
Drawing 3	Descriptive Geometry	5		5.0
English 1b	English Composition	3		3.0
Mathematics 4	Trigonometry	5		5.0
Military Science 1b	Basic Course, First Year Infantry		3	1.3
Physical Educa. 1b	Gymnasium Practice		2	0.7
Prac. Mech. 7b	Wood Shop and Foundry		8	2.7

A credit represents one hour of recitation, two hours of laboratory, or three hours of practical work a week for one semester.

*Physics 4 is not required of students who take Physics 1a.

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Civil Engin. 61	Surveying	2		2.0
Civil Engin. 62	Field Practice (Four hrs. a wk. First half)		2	1.0
Collateral Activ. 10a	Sophomore Class Society	1		0.3
Drawing 4a	Advanced Drawing (Four hrs. a wk., first half, and 8 hrs. a wk., second half)		6	2.0
Engin. Mech. 5	Slide Rule Practice	1		1.0
English 3a	History of English Literature	3		3.0
Mathematics 6	Analytical Geometry	5		5.0
Military Science 6a	Basic Course, Second Year Infantry		3	1.5
Prac. Mech. 8a	Forge, Machine and Automobile Shop		6	2.0
Physics 3a	General College Physics	4		4.0
Physics 5	Measurement in Mech. and Heat	1	4	3.0

Second Semester

Civil Engin. 63	Advanced Surveying	2		2.0
Civil Engin. 64	Advanced Field Practice (Four hrs. a wk., second half)		2	1.0
Collateral Activ. 10b	Sophomore Class Society	1		0.3
Drawing 4b	Advanced Drawing (Eight hrs. a wk., first half, and 4 hrs. a wk., second half)		6	2.0
English 3b	History of English Literature	3		3.0
Mathematics 7a	Calculus, First Part	5		5.0
Military Science 6b	Basic Course, Second Year Infantry		3	1.5
Prac. Mech. 8b	Forge, Machine and Automobile Shop		6	2.0
Physics 3b	General College Physics	4		4.0
Physics 6	Measurements in Elec., Sound and Light	1	4	3.0

CIVIL ENGINEERING

Professor Terrell, Professor Carrel, Professor Newman, Professor Hawkins, Assistant Professor Chambers, Mr. Meriwether

OUTLINE OF COURSE LEADING TO DEGREE B. S. IN CIVIL ENGINEERING

For freshmen and sophomore years see page 151 and 152.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Civil Engin. 21	Hydraulics	2		2.0
Civil Engin. 31	Highway Loc., Const. & Main.	2		2.0
Civil Engin. 33	Road Material Laboratory (Two hrs. a wk., second half)		1	0.5
Civil Engin. 66	Topographic Surveying (Six hrs. a wk. for 8 wks.)		3	1.0
Civil Engin. 71	Stresses	3		3.0
Civil Engin. 72	Graphic Statics		4	1.3
Civil Engin. 73	Roof Truss Design (Four hrs. a wk., second half)		2	0.7
Collateral Activ. 12a	A. S. C. E. and Magazine Digest	1		0.3
Commerce 5a	Economics for Engineers	2		2.0
Elec. Engin. 1	Elements of Electrical Engin.	3		3.0
Elec. Engin. 9a	Electrical Laboratory		2	1.0
Engin. Mech. 1	Mech. of Materials	5		5.0
Engin. Mech. 2	Testing Materials		2	1.0
*English 10a	Public Speaking	2		2.0
Mathematics 7b	Calculus, Second Part	3		3.0

Second Semester

Civil Engin. 1	Masonry Construction (Two hrs. a wk., second half)	1		1.0
Civil Engin. 46	Railroad Location, Construction and Maintenance	5		5.0
Civil Engin. 47	Railroad Drafting and Field Practice (Twelve hrs. a wk., second half)		6	2.0
Civil Engin. 75	Highway Bridge Design (Eight hrs. a wk., first half)		4	1.3
Collateral Activ. 1	Junior Inspection Trip	1		0.3
Collateral Activ. 12b	A. S C. E. and Magazine Digest	1		1.0
Comerce 5b	Economics for Engineers	3		3.0
Elec. Engin. 3a	Alternating Currents		2	1.0
Elec. Engin. 9b	Electrical Laboratory	5		5.0
Engin. Mech. 6	Analytical Mech.	2		2.0
*English 10b	Public Speaking	3		3.0
Geology 12	Elementary Geology for Engineers			
Mathematics 11	Spherical Trigonometry (Two hrs. a wk., second half)	1		1.0
Mathematics 12	Least Squares (Two hrs. a wk., first half)	1		1.0

*English 10a and 10b are not required of students who take Military Science 7a and 7b.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Art 16	Art Structure for Engineers		2	1.0
Civil Engin. 2	Reinforced Concrete	3		3.0
Civil Engin. 3	Masonry Dams	2		2.0
Civil Engin. 4a	Reinforced Concrete Design		2	0.7
Civil Engin. 7a	Elements of Architecture (One hr. a wk., first half, and 5 hrs. a wk., second half)	1	2	2.0
Civil Engin. 67	Geodesy	2		2.0
Civil Engiu. 68	Geodetic Surveying (Four hrs. a wk., first half)		4	1.0
Civil Engin. 76	Railroad Bridge Design		8	2.7
Collateral Activ. 15a	A. S. C. E. and Magazine Digest	1		0.3
English 119a	Literature for Engineers	3		2.0
Geology 7a	Engineering Geology	2		2.0
Mech. Engin. 1	Thermodynamics	4		4.0
Metallurgy 4	Metallurgy of Iron and Steel	2		2.0

Second Semester

Civil Engin. 4b	Reinforced Concrete Design (Four hrs. a wk., first half)		2	0.7
Civil Engin. 7b	Elements of Architecture (One hr. a wk., first half)	1		0.5
Civil Engin. 11	Contracts and Specifications (Two hrs. a wk., first half)	1		1.0
Civil Engin. 22	Water Power Engineering (Two hrs. a wk., first half)	1		1.0
Civil Engin. 32	Streets and Pavements (Four hrs. a wk., first half)	2.0		2.0
Civil Engin. 34	Asphalt Laboratory (Four hrs. a wk., first half)		2	1.0
Civil Engin. 51	Water Supply and Waterworks Supply (Two hrs. a wk., first half)	1		1.0
Civil Engin. 52	Sewer and Sewage Disposal (Three hrs. a wk., first half)	1.5		1.5
Civil Engin. 53	Sewer Design (Four hrs. a wk., first half)		2	0.7
Collateral Activ. 2	Senior Inspection Trip			
Collateral Activ. 3	Thesis (Twenty-seven hrs. a wk., second half)		13.5	4.5
Collateral Activ. 15b	A. S. C. E. and Magazine Digest	1		0.3
Drawing 5	Photography (Two hrs. a wk., first half)		1	0.5
English 119b	Literature for Engineers	3		2.0
Geology 8	Oil Geology (Two hrs. a wk., first half)	1		1.0

DEPARTMENT OF INSTRUCTION
CIVIL ENGINEERING

Construction

1. Masonry Construction. Required of juniors in Civil Engineering. *Lectures and recitations two hours a week. Second half of second semester.* Professor Newman.

2. Reinforced Concrete. Required of seniors in Civil Engineering. Prerequisites, Engineering Mechanics 1 and Civil Engineering 21. *Recitations three hours a week. First semester.* Professor Terrell.

3. Masonry Dams. Required of seniors in Civil Engineering. Prerequisites, Engineering Mechanics 1 and Civil Engineering 21. *Lectures, recitations and design two hours a week. First semester.* Professor Terrell.

4a. Reinforced Concrete Design. Required of seniors in Civil Engineering. Prerequisites, Engineering Mechanics 1, Civil Engineering 21, and Drawing 3 and 4. *Two hours a week. First semester.* Professor Terrell.

4b. Reinforced Concrete Design. Continuation of Civil Engineering 4a. *Four hours a week. First half of second semester.* Professor Carrel.

7a. Elements of Architecture. Required of seniors in Civil

Engineering. *One hour a week first half and five hours a week second half of first semester.* Mr. Meriwether.

7b. ELEMENTS OF ARCHITECTURE. Continuation of C. E. 7a. Required of seniors in Civil Engineering. *One hour a week, first half of second semester.* Mr. Meriwether.

CONTRACTS AND SPECIFICATIONS

11. CONTRACTS AND SPECIFICATIONS. Required of seniors in Civil Engineering. *Lectures and recitations two hours a week. First half of second semester.* Professor Carrel.

HYDRAULICS

21. HYDRAULICS. Required of all students in Engineering. Prerequisites, Physics 3a and Mathematics 7a. Mathematics 7b must have been completed or be taken at the same time. *Lectures and recitations two hours a week. First semester; repeated second semester.* Professor Hawkins.

22. WATER POWER ENGINEERING. Required of seniors in Civil Engineering. Prerequisite, Civil Engineering 21. *Lectures and recitations two hours a week. First half of second semester.* Professor Carrel.

HIGHWAY ENGINEERING

31. HIGHWAY LOCATION, CONSTRUCTION AND MAINTENANCE. Required of juniors in Civil Engineering. *Lectures and recitations two hours a week. First semester.* Professor Terrell.

32. STREETS AND PAVEMENTS. Required of seniors in Civil Engineering. Prerequisite, Civil Engineering 31. *Lectures and recitations three hours a week. First half of second semester.* Professor Terrell.

33. ROAD MATERIAL LABORATORY. Required of juniors in Civil Engineering. Given in connection with Civil Engineering 31. *Laboratory two hours a week. Second half of second semester.* Assistant Professor Chambers.

34. ASPHALT LABORATORY. Required of seniors in Civil Engineering. Must accompany Civil Engineering 32. *Laboratory four hours a week. First half of second semester.* Assistant Professor Chambers.

RAILROAD ENGINEERING

46. RAILROAD LOCATION, CONSTRUCTION AND MAINTENANCE. Required of juniors in Civil Engineering. Prerequisites, Civil Engineering 63 and 64. *Lectures and recitations five hours a week. First semester.* Professor Newman.

47. Railroad Field Practice and Drafting. Required of juniors in Civil Engineering. Prerequisite, Civil Engineering 46 must have been completed or be taken at the same time. *Twelve hours a week. Second half of second semester.* Professor Newman.

Sanitary Engineering

51. Water Supply and Water Works Supply. Required of seniors in Civil Engineering. Prerequisites, Civil Engineering 21 and Chemistry 1b. *Lectures and recitations two hours a week. First half of second semester.* Professor Terrell.

52. Sewers and Sewage Disposal. Required of seniors in Civil Engineering. Prerequisites, Civil Engineering 21, Chemistry 1b. *Lectures and recitations three hours a week. First half of second semester.* Professor Terrell.

53. Sewer Design. Required of seniors in Civil Engineering. Civil Engineering 52 must be taken at the same time. *Four hours a week. First half of second semester.* Professor Terrell.

Surveying and Geodesy

61. Surveying. Required of all sophomores in Engineering. Prerequisite, Mathematics 4. *Lectures and recitations two hours a week. First semester. Repeated second semester.* Professor Newman.

62. Field Practice. Required of all sophomores in Engineering. Must accompany Civil Engineering 61. *Four hours a week. First half of first semester. Repeated second half of second semester.* Professor Newman.

63. Advanced Surveying. Continuation of Civil Engineering 61. Required of all sophomores in Engineering. *Lectures and recitations two hours a week. Second semester. Repeated first semester.* Professor Newman.

64. Advanced Field Practice. Required of all sophomores in Engineering. Must accompany Civil Engineering 63. *Four hours a week. Second half of second semester. Repeated first half of first semester.* Professor Newman.

66. Topographical Surveying. Required of juniors in Civil Engineering. Prerequisites, Civil Engineering 63 and 64. *Recitations, lectures and field practice six hours a week. First half of first semester.* Professor Terrell.

67. Geodesy. Required of seniors in Civil Engineering. Prerequisites, Mathematics 11 and 12, and Civil Engineering 66. *Lectures and recitations two hours a week. First semester.* Professor Newman.

68. Geodetic Surveying. Required of seniors in Civil Engineer-

ing. Must accompany Civil Engineering 67. *Field work and drawing room four hours a week. First half of first semester.* Professor Newman.

Structural Engineering

71. Stresses. Required of juniors in Civil Engineering. Prerequisites, Engineering Mechanics 1 must have been completed or taken at the same time; Civil Engineering 71 and 73 should be taken during the same semester. *Lectures and recitations three hours a week. First semester. Repeated second semester.* Professor Carrel.

72. Graphic Statics. Required of juniors in Civil Engineering. Prerequisites, Drawing 4b, Mathematics 4, and Physics 4. *Drawing, four hours a week. First semester. Repeated second semester.* Professor Carrel.

73. Roof Truss Design. Required of juniors in Civil Engineering. Prerequisites, Engineering Mechanics 1 must have been completed or taken at the same time; Civil Engineering 71 and 73 should be taken during the same semester. *Drawing four hours a week. Second half of first semester.* Professor Carrel.

74. Structural Design. Required of juniors in Mechanical and Electrical Engineering. This is a combination of courses 72 and 73. Prerequisites, Drawing 4b. Engineering Mechanics 1 must have been completed or taken at the same time. *Drawing ten hours a week for six weeks. Second semester.* Professor Carrel.

75. Highway Bridge Design. Required of juniors in Civil Engineering. Prerequisite, Civil Engineering 71, 72 and 73. *Drawing eight hours a week. First half of second semester.* Professor Carrel.

76. Railroad Bridge Design. Required of seniors in Civil Engineering. Prerequisite, Civil Engineering 75. *Nine hours a week. First semester.* Professor Carrel.

77a. Mine Structures. Required of seniors in Mining and Metallurgical Engineering. Prerequisites, Engineering Mechanics 1, and Drawing 4b. *Drawing four hours a week. First semester.* Professor Carrel.

77b. Mine Structures. Required of seniors in Mining Engineering. Continuation of Course 77a. *Drawing six hours a week. First half of second semester.* Professor Carrel.

For Graduates

Prerequisites for graduate work: Students desiring to take any of the following courses should have a thoro working knowledge of chemistry, physics and mathematics. These courses are offered to graduates and to such practicing engineers as may be qualified to

pursue them. For major work, a candidate must hold a baccalaureate degree in Civil Engineering.

201a. CONSTRUCTION. Advanced work in plane and reinforced concrete. *Lectures, recitations, reading, report writing and designing. Twenty hours a week. Ten credits. First semester.* Professor Terrell.

201b. CONSTRUCTION. Continuation of 201a. *Lectures, recitations, reading, report writing and designing. Twenty hours a week. Ten credits. Second semester.* Professor Terrell.

231a. HIGHWAY ENGINEERING. Advanced course, designed for graduate civil engineering who wish to enter the field of highway engineering. *Lectures, recitations, reading, laboratory work and design. Twenty-four hours a week. Twelve credits. First semester.* Professor Terrell.

231b. HIGHWAY ENGINEERING. Continuation of 231a. *Lectures, recitations, reading, laboratory work and design. Twenty-four hours a week. Twelve credits. Second semester.* Professor Terrell.

241a. RAILROAD ENGINEERING. Advanced work in location, construction and maintenance. *Lectures, recitations, reading and report writing. Fifteen hours a week. Seven credits. First semester.* Professor Newman.

241b. RAILROAD ENGINEERING. Continuation of 241a. *Lectures, recitations, reading and report writing. Fifteen hours a week. Seven credits. Second semester.* Professor Newman.

251a. SANITARY ENGINEERING. Advanced work in sewer systems and disposal plants. Courses in water analysis, sewage analysis and bacteriology should be taken in connection with this course. *Lectures, recitations, reading, report writing, design and laboratory work. Twenty hours a week. Ten credits. First semester.* Professor Terrell.

251b. SANITARY ENGINEERING. Continuation of 251a. *Lectures, recitations, reading, report writing, design and laboratory work. Twenty hours a week. Ten credits. Second semester.* Professor Terrell.

271a. STRUCTURAL ENGINEERING. Advanced work in theory of structures. *Detail drawing, lectures, recitations and report writing. Eighteen hours a week. Nine credits. First semester.* Professor Carrel.

271b. STRUCTURAL ENGINEERING. Continuation of 271a. *Detail drawing, lectures, recitations and report writing. Eighteen hours a week. Nine credits. Second semester.* Professor Carrel.

COLLATERAL ACTIVITIES

Dean Anderson, All Heads of Departments and Others

1. JUNIORS INSPECTION TRIP. Required of all juniors in Engineering. One week during the second semester is devoted to an inspection

trip for the juniors in Engineering. Professor Hawkins, Professor Bureau, Professor Johnson, Professor Crouse, Professor Terrell, Professor Jett, Assistant Professor Beebe.

2. Senior Inspection Trip. Required of all seniors in Engineering. One week during the second semester. Dean Anderson, Professor Freeman, Professor Terrell, Professor O'Bannon, Assistant Professor Dicker.

3. Thesis. *Twenty-seven hours a week. Last half of second semester.* Dean Anderson, Professor Freeman, Professor C. H. Anderson, Professor Terrell, Professor Crouse, Professor Jett, Professor O'Bannon, Professor Bureau, Assistant Professor Emarth, Mr. Watkins.

9a. Freshman Class Society. *One hour a week. First semester.* Assistant Professor Dicker.

9b. Freshman Class Society. *One hour a week. Second semester.* Assistant Professor Dicker.

10a. Sophomore Class Society. *One hour a week. First semester.* Professor Nollau.

10b. Sophomore Class Society. *One hour a week. Second semester.* Professor Nollau.

11a. Junior Mechanical and Electrical Engineering Class Society. *One hour a week. First semester.* Professor Bureau, Assistant Professor Barnett.

11b. Junior Mechanical and Electrical Engineering Class Society. *One hour a week. Second semester.* Professor Bureau, Assistant Professor Barnett.

12a. Student Branch of the American Society of Civil Engineers and Magazine Digest. Required of juniors in Civil Engineering. *One hour a week. First semester.* Professor Terrell.

12b. Student Branch of the American Society of Civil Engineers and Magazine Digest. Required of juniors in Civil Engineering. *One hour a week. Second semester.* Professor Terrell.

13a. Student Branch of the American Institute of Mining and Metallurgical Engineers and Magazine Digest. Required of juniors in Mining and Metallurgical Engineering. *One hour a week. First semester.* Professor Crouse.

13b. Student Branch of the American Institute of Mining and Metallurgical Engineers and Magazine Digest. Required of juniors in Mining and Metallurgical Engineering. *One hour a week. Second semester.* Professor Crouse.

14a. Student Branches of the American Society of Mechanical Engineers and the American Institute of Electrical Engineers and Magazine Digest. Required of seniors in Mechanical and Electrical

Engineering. *One hour a week. First semester.* Professor Freeman, Professor Jett.

14b. STUDENT BRANCHES OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS AND THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS AND MAGAZINE DIGEST. Required of seniors in Mechanical and Electrical Engineering. *One hour a week. Second semester.* Professor Freeman, Professor Jett.

15a. STUDENT BRANCH OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS AND MAGAZINE DIGEST. Required of seniors in Civil Engineering. *One hour a week. First semester.* Professor Terrell.

15b. STUDENT BRANCH OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS AND MAGAZINE DIGEST. Required of seniors in Civil Engineering. *One hour a week. Second semester.* Professor Terrell.

16a. STUDENT BRANCH OF THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS AND MAGAZINE DIGEST. Required of seniors in Mining and Metallurgical Engineering. *One hour a week. First semester.* Professor Crouse.

16b. STUDENT BRANCH OF THE AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS AND MAGAZINE DIGEST. Required of seniors in Mining and Metallurgical Engineering. *One hour a week. Second semester.* Professor Crouse.

DRAWING

Professor Nollau, Associate Professor Horine, Miss Webb, Mr. Mock, Mr. Spicer, Mr. Farris

1a. MECHANICAL DRAWING. Required of all freshman in Engineering. *Six hours a week. First semester. Repeated second semester.* Associate Professor Horine, Miss Webb, Mr. Spicer, Mr. Farris.

1b. MECHANICAL DRAWING. Continuation of Drawing 1a. *Six hours a week. Second semester. Repeated first semester.* Associate Professor Horine, Miss Webb, Mr. Spicer, Mr. Farris.

2a. MECHANICAL DRAWING. Required of freshmen in Industrial Chemistry. *Four hours a week. First semester.* Associate Professor Horine, Miss Webb, Mr. Spicer, Mr. Farris.

2b. MECHANICAL DRAWING. Required of sophomores in Industrial Chemistry. *Four hours a week. First semester.* Associate Professor Horine, Miss Webb, Mr. Spicer, Mr. Farris.

3. DESCRIPTIVE GEOMETRY. Required of all freshmen in Engineering. Prerequisite, Mathematics 2. *Five hours a week. First semester. Repeated second semester.* Professor Nollau, Associate Professor Horine, Mr. Mock, Mr. Spicer, Mr. Farris.

4a. ADVANCED DRAWING. Required of all sophomores in Engineering. Prerequisites, Drawing 1b and 3. *Four hours a week, first half,*

and eight hours a week, second half of first semester. Professor Nollau, Mr. Mock.

4b. ADVANCED DRAWING. Continuation of Drawing 4a. *Eight hours a week, first half, and four hours a week, second half of second semester.* Professor Nollau, Mr. Mock.

5. PHOTOGRAPHY. Required of all seniors in Engineering. *Recitations and laboratory two hours a week. First half of second semester.* Professor Nollau.

ELECTRICAL ENGINEERING

Professor Freeman, Professor Bureau, Assistant Professor Barnett

*OUTLINE OF COURSE LEADING TO THE DEGREE B. S. IN MECHANICAL ENGINEERING.

For freshmen and sophomore years see page 151 and 152.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Collateral Activ. 11a	Junior M. & E. Class Society	1		0.3
Commerce 5a	Economics for Engineers	2		2.0
Elec. Engin. 1	Elements of Electrical Engin.	3		3.0
Elec. Engin. 9a	Electrical Laboratory		2	1.0
Engin. Mech. 1	Mechanics of Materials	5		5.0
Engin. Mech. 2	Testing of Materials		2	1.0
Engin. Mech. 3	Kinematics	3		3.0
Engin. Mech. 4	Kinematic Drawing		12	4.0
**English 10a	Public Speaking	2		2.0
Mathematics 7b	Calculus, Second Part	3		3.0
Mech. Engin. 12	Automotive Engineering	2		2.0

Second Semester

Civil Engin. 74	Structural Design (Ten hrs. a wk. for 6 wks.)		4	1.3
Collateral Activ. 1	Junior Inspection Trip			
Collateral Activ. 11b	Junior M. & E. Class Society	1		0.3
Commerce 5b	Economics for Engineers (Two hrs. a wk. for 9 wks.) (First half)	1		1.0
Elec. Engin. 3	Alternating Currents	3		3.0
Elec. Engin. 2	Direct Current Dynamos	2		2.0
Elec. Engin. 7	Dynamos Design		7	2.3
Elec. Engin 9b	Electrical Laboratory		2	1.0
Engin. Mech. 6	Analytical Mechanics	5		5.0
Engin. Mech. 7	Machine Design (Ten hrs. a wk. for 10 wks.)		6.0	2.0
**English 10b	Public Speaking	2		2.0
Mech. Engin. 8	Steam Laboratory	1	2	2.0
Mech. Engin. 13	Principles of Engineering Thermodynamics	2		2.0

*The course in Electrical Engineering is the same as that in Mechanical Engineering and leads to the degree "Bachelor of Science in Mechanical Engineering."

**English 10a and 10b are not required of students who take Military Science 7a and 7b.

SENIOR YEAR
First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Art 16	Art Structure for Engineers		2	1.0
Civil Engin. 21	Hydraulics	2		2.0
Collateral Activ. 14a	A. S. M. E., A. I. E. E. and Magazine Digest	1		0.3
Elec. Engin. 4	Electrical Equipment	4		4.0
Elec. Engin. 10a	Electrical Laboratory	1	2	2.0
Elec. Engin. 6	Electrical Equipment Problems (Nine hrs a wk. for 7 wks.)		4	1.3
Elec. Engin. 8	Transformer Design (Eight hrs. a wk. for 4 wks.)		2	0.7
English 119a	Literature for Engineers	3		2.0
Mech. Engin. 2	Valve Gears	2		2.0
Mech. Engin. 3	Steam Boilers	2		2.0
Mech. Engin. 6a	Steam Engine Design (Eight hrs. a wk. for 4 wks.)		2	0.7
Mech. Engin. 9a	Steam and Gas Engine Laboratory	1	2	2.0
Mech. Engin. 14	Adv. Engineering Thermodynamics	2		2.0
Metallurgy 4	Metallurgy of Iron and Steel	2		2.0

Second Semester

Chemistry 17	Gas Analysis (Two hrs. a wk. for 8 wks.)		1	0.5
Collateral Activ. 2	Senior Inspection Trip			
Collateral Activ. 3	Thesis (Twenty-seven hrs. a wk. for 8 wks.)		13.5	4.5
Collateral Activ. 14b	A. S. M. E., A. I. E. E. and Magazine Digest	1		0.3
Drawing 5	Theory and Practice of Photography (Two hrs. a week. for 8 wks.)		1	0.5
Elec. Engin. 5	Applications of Electricity (Four hrs. a wk. for 9 wks.)	2		2.0
Elec. Engin. 10b	Electrical Laboratory (Three hrs. a wk. for 8 wks.)	0.5	1	1.0
English 119b	Literature for Engineers	3		2.0
Mech. Engin. 4	Steam Engineering of Power Plants (Two hrs. a wk. for 8 wks.)	1		1.0
Mech. Engin. 5	Gas Engineering (Four hrs. a wk. for 9 wks.)	2		2.0
Mech. Engin. 6b	Steam Engine Design (Ten hrs. a wk. for three wks.)		2	0.7
Mech. Engin. 9b	Steam and Gas Engine Laboratory (Three hrs. a wk. for 8 wks.)	0.5	1	1.0
Mech. Engin. 10	Heating and Ventilation (Two hrs. a wk. for 8 wks.)	1		1.0
Mech. Engin. 11	Heating and Venetilation Design (Ten hrs. a wk. for 5 wks.)		3	1.0

Electrical Engineering

1. Elements of Electrical Engineering. Required of all juniors in Engineering. Prerequisite, Physics 3b and 6. *Three hours a week. First semester. Repeated second semester.* Professor Bureau, Assistant Professor Barnett.

2. DIRECT CURRENT DYNAMOS. Required of juniors in Mechanical and Electrical Engineering. Prerequisite, Electrical Engineering 1. *Two hours a week. Second semester.* Professor Bureau.

3. ALTERNATING CURRENTS. Required of all juniors in Engineering. Prerequisite, Electrical Engineering 1 and 9a. *Five hours a week. Second semester.* Professor Bureau, Assistant Professor Barnett.

4. ELECTRICAL EQUIPMENT. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Electrical Engineering 1 and 3. *Four hours a week. First semester.* Professor Freeman.

5. APPLICATIONS OF ELECTRICITY. Required of Seniors in Mechanical and Electrical Engineering. Prerequisites, Electrical Engineering 1 and 3. *Four hours a week. First half of second semester.* Professor Freeman.

6. ELECTRICAL EQUIPMENT PROBLEMS. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Electrical Engineering 1 and 3. *Nine hours a week for seven weeks. First semester.* Professor Bureau.

7. DYNAMO DESIGN. Required of juniors in Mechanical and Electrical Engineering. Prerequisite, Electrical Engineering 1. Electrical Engineering 2 must have been completed or be taken at the same time. *Seven hours a week. Second semester.* Professor Bureau, Assistant Professor Barnett.

8. TRANSFORMER DESIGN. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Electrical Engineering 1, 2 and 3. *Eight hours a week for four weeks. First semester.* Professor Bureau.

9a. ELECTRICAL LABORATORY. Required of all juniors in Engineering. Prerequisites, Physics 3a and 6. Electrical Engineering 1 must have been completed or be taken at the same time. *Two hours a week. First semester. Repeated second semester.* Assistant Professor Barnett.

9b. ELECTRICAL LABORATORY. Required of all juniors in Engineering. Prerequisite, Electrical Engineering 9a. Electrical Engineering 3 must have been completed or be taken at the same time. *Two hours a week. Second semester.* Assistant Professor Barnett.

10a. ELECTRICAL LABORATORY. Required of seniors in Mechanical and Electrical Engineering. Prerequisite, Electrical Engineering 3 and 9b. *Lectures and recitations one hour a week; laboratory two hours a week. First semester.* Professor Bureau.

10b. ELECTRICAL LABORATORY. Required of seniors in Mechanical and Electrical Engineering. This is a continuation of Course 10a.

Lectures and recitations one hour a week; laboratory two hours a week. First half of second semester. Professor Bureau.

FOR GRADUATES

201a. ADVANCED ALTERNATING CURRENTS. *Lectures and recitations five hours, laboratory ten hours, and drawing ten hours a week. First semester. Twelve credits.* Professor Freeman.

201b. ADVANCED ALTERNATING CURRENTS. A continuation of course 201a. *Lectures and recitations five hours; laboratory ten hours, and drawing ten hours a week. Second semester. Twelve credits.* Professor Freeman.

202. TELEPHONE ENGINEERING. *Lectures and recitations five hours; laboratory ten hours, and drawing ten hours a week. Twelve credits. First semester.* Professor Freeman.

203. ILLUMINATION. *Lectures and recitations five hours; laboratory ten hours, and drawing ten hours a week. Second semester. Twelve credits.* Professor Freeman.

ENGINEERING MECHANICS

Professor Johnson, Professor C. H. Anderson, Professor O'Bannon, Professor Jett, Professor Hawkins, Mr. Chambers

1. MECHANICS OF MATERIALS. Required of all juniors in Engineering. Prerequisites, Physics 3a, Mathematics 7a. *Five hours a week. First semester. Repeated second semester.* Professor Johnson.

2. TESTING OF MATERIALS. Required of all juniors in Engineering. Engineering Mechanics 1 must have been completed or be taken at the same time. *Two hours a week. First semester. Repeated second semester.* Assistant Professor Chambers.

3. KINEMATICS. Required of juniors in Mechanical and Electrical Engineering. Prerequisites, Mathematics 4, 5. Drawing 3, and Physics 3a. *Three hours a week. First semester. Repeated second semester.* Professor Hawkins.

4. KINEMATIC DESIGN. Required of all juniors in Mechanical and Electrical Engineering. Prerequisite, Drawing 4b. Engineering Mechanics 3 must have been completed or be taken at the same time. *Twelve hours a week. First semester. Repeated second semester.* Professor Jett, Professor Hawkins, Professor C. H. Anderson.

5. SLIDE RULE PRACTICE. Required of all sophomores in Engineering. Prerequisites, Mathematics 4, 5. *One hour a week. First semester. Repeated second semester.* Professor O'Bannon.

6. ANALYTICAL MECHANICS. Required of all juniors in Engineering. Prerequisites, Physics 3a, Mathematics 7a. Mathematics 7b must

have been completed or taken at the same time. *Five hours a week. First semester. Repeated second semester.* Professor Johnson.

7. MACHINE DESIGN. Required of juniors in Mechanical and Electrical Engineering. Prerequisites, Engineering Mechanics 1, 3, 4. *Ten hours a week for ten weeks. Second semester. Repeated first semester.* Professor Jett, Professor Hawkins, Professor C. H. Anderson.

MECHANICAL ENGINEERING

Dean Anderson, Professor O'Bannon, Professor Jett, Professor Hawkins, Mr. Watkins, Mr. Porter, Mr. Kendall, Mr. Singer.

OUTLINE OF COURSES LEADING TO THE DEGREE B. S. IN MECHANICAL ENGINEERING

For freshmen and sophomore years see page 151 and 152.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Collateral Activ. 11a	Junior M. & E. Class Society	1		0.3
Commerce 5a	Economics for Engineers	2		2.0
Elec. Engin. 1	Elements of Electrical Engin.	3		3.0
Elec. Engin. 9a	Electrical Laboratory		2	1.0
Engin. Mech. 1	Mechanics of Materials	5		5.0
Engin. Mech. 2	Testing of Materials		2	1.0
Engin. Mech. 3	Kinematics	3		3.0
Engin. Mech. 4	Kinematic Drawing		12	4.0
*English 10a	Public Speaking	2		2.0
Mathematics 7b	Calculus, Second Part	3		3.0
Mech. Engin. 12	Automotive Engineering	2		2.0

Second Semester

Civil Engin. 74	Structural Design (Ten hrs. a wk. for 6 wks.)		4	1.3
Collateral Activ. 1	Junior Inspection Trip			
Collateral Activ. 11b	Junior M. & E. Class Society	1		0.3
Commerce 5b	Economics for Engineers (Two hrs. a wk., first half)	1		1.0
Elec. Engin. 3	Alternating Currents	3		3.0
Elec. Engin. 2	Direct Current Dynamos	2		2.0
Elec. Engin. 7	Dynamos Design		7	2.3
Elec. Engin. 9b	Electrical Laboratory		2	1.0
Engin. Mech. 6	Analytical Mechanics	5		5.0
Engin. Mech. 7	Machine Design (Ten hrs. a wk. for 10 wks.)		6.0	2.0
*English 10b	Public Speaking	2		2.0
Mech. Engin. 8	Steam Laboratory	1	2	2.0
Mech. Engin. 13	Principles of Engineering Thermodynamics	2		2.0

*English 10a and 10b are not required of students who take Military Science 7a and 7b.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Art 16	Art Structure for Engineers		2	1.0
Civil Engin. 21	Hydraulics	2		2.0
Collateral Activ. 14a	A. S. M. E., A. I. E. E. and Magazine Digest	1		0.3
Elec. Engin. 4	Electrical Equipment	4		4.0
Elec. Engin. 10a	Electrical Laboratory	1	2	2.0
Elec. Engin. 6	Electrical Equipment Problems (Nine hrs a wk. for 7 wks.)		4	1.3
Elec. Engin. 8	Transformer Design (Eight hrs. a wk. for 4 wks.)		2	0.7
English 119a	Literature for Engineers	3		2.0
Mech. Engin. 2	Valve Gears	2		2.0
Mech. Engin. 3	Steam Boilers	2		2.0
Mech. Engin. 6a	Steam Engine Design (Eight hrs. a wk. for 4 wks.)		2	0.7
Mech. Engin. 9a	Steam and Gas Engine Laboratory	1	2	2.0
Mech. Engin. 14	Adv. Engineering Thermodynamics	2		2.0
Metallurgy 4	Metallurgy of Iron and Steel	2		2.0

Second Semester

Chemistry 17	Gas Analysis (Two hrs. a wk., first half)		1	0.5
Collateral Activ. 2	Senior Inspection Trip			
Collateral Activ. 3	Thesis (Twenty-seven hrs. a wk., second half)		13.5	4.5
Collateral Activ. 14b	A. S. M. E., A. I. E. E. and Magazine Digest	1		0.3
Drawing 5	Theory and Practice of Photography (Two hrs. a wk., first half)		1	0.5
Elec. Engin. 5	Applications of Electricity (Four hrs. a wk., first half)	2		2.0
Elec. Engin. 10b	Electrical Laboratory (Three hrs. a wk., first half)	0.5	1	1.0
English 119b	Literature for Engineers	3		2.0
Mech. Engin. 4	Steam Engineering of Power Plants (Two hrs. a wk., first half)	1		1.0
Mech. Engin. 5	Gas Engineering (Four hrs. a wk., first half)	2		2.0
Mech. Engin. 6b	Steam Engine Design (Ten hrs. a wk. for 3 wks.)		2	0.7
Mech. Engin. 9b	Steam and Gas Engine Laboratory (Three hrs. a wk., first half)	0.5	1	1.0
Mech. Engin. 10	Heating and Ventilation (Two hrs. a wk., first half)	1		1.0
Mech. Engin. 11	Heating and Ventilation Design (Ten hrs. a wk. for 5 weeks)		3	1.0

COURSES OF INSTRUCTION

Mechanical Engineering

1. Thermodynamics. Required of seniors in Civil, Mining and Metallurgical Engineering. Prerequisites, Physics 3a, Mathematics

7a. *Four hours a week. First semester.* Dean Anderson, Professor O'Bannon.

2. VALVE GEARS. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Physics 3a and Engineering Mechanics 3. *Two hours a week. First semester.* Dean Anderson, Professor Jett.

3. STEAM BOILERS. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Chemistry 1b, Physics 3a. *Two hours a week. First semester.* Dean Anderson, Professor O'Bannon, Mr. Porter.

4. STEAM ENGINEERING OF POWER PLANTS. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Mechanical Engineering 1a. *Two hours a week. First half of second semester.* Dean Anderson, Professor O'Bannon.

5. GAS ENGINEERING. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Chemistry 1b, Mechanical Engineering 1a. *Four hours a week. First half of second semester.* Dean Anderson, Professor O'Bannon.

6a. STEAM ENGINE DESIGN. Required of seniors in Mechanical and Electrical Engineering. Prerequisites, Engineering Mechanics 1 and 7. *Eight hours a week for four weeks. First semester.* Professor Jett.

6b. STEAM ENGINE DESIGN. Required of seniors in Mechanical and Electrical Engineering. A continuation of Mechanical Engineering 6a. *Ten hours a week for three weeks. Second semester.* Professor Jett.

8. STEAM LABORATORY. Required of juniors in Mechanical, Electrical, Mining and Metallurgical Engineering. Prerequisites, Physics 5, Chemistry 1b. *Recitations one hour a week; laboratory two hours a week. Second semester.* Professor O'Bannon, Mr. Porter.

9a. STEAM AND GAS ENGINE LABORATORY. Required of seniors in Mechanical, Electrical and Mining Engineering. Prerequisite, Mechanical Engineering 8. *Recitations one hour a week; laboratory two hours a week. First semester.* Professor O'Bannon, Mr. Porter, Mr. Watkins.

9b. STEAM AND GAS ENGINE LABORATORY. Required of seniors in Mechanical and Electrical Engineering. A continuation of Course 9a. Must be accompanied by Mechanical Engineering 5. *Lectures and recitations one hour a week. First half of second semester.* Professor O'Bannon, Mr. Porter, Mr. Watkins.

10. HEATING AND VENTILATION. Required of seniors in Mechanical and Electrical Engineering. Prerequisite, Mechanical Engineering 14. *Two hours a week. First half of second semester.* Dean Anderson, Professor O'Bannon.

11. HEATING AND VENTILATION DESIGN. Required of seniors in Me-

chanical and Electrical Engineering. Must be taken at the same time as Mechanical Engineering 10. *Ten hours a week for five weeks. Second semester.* Professor O'Bannon.

12. AUTOMOTIVE ENGINEERING. Required of juniors in Mechanical and Electrical Engineering. *Two hours a week. First semester. Repeated second semester.* Mr. Singer.

13. PRINCIPLES OF ENGINEERING THERMODYNAMICS. Required of juniors in Mechanical and Electrical Engineering. Prerequisites, Physics 3a, Mathematics 7a. *Two hours a week. Second semester. Two credits.* Professor O'Bannon.

14. ADVANCED ENGINEERING THERMODYNAMICS. Required of seniors in Mechanical and Electrical Engineering. Prerequisite, Mechanical Engineering 13. *Two hours a week. First semester. Two credits.* Professor O'Bannon.

FOR GRADUATES

201a. AUTOMOTIVE ENGINEERING. *Recitations five hours a week; design ten hours a week, and laboratory fifteen hours a week. First semester. Twelve credits.* Professor C. H. Anderson.

201b. AUTOMOTIVE ENGINEERING. A continuation of Course 201a. *Recitations five hours a week; design ten hours a week; laboratory fifteen hours a week. Second semester. Twelve credits.* Professor C. H. Anderson.

202a. POWER PLANTS. *Recitations five hours a week; design fifteen hours a week. First semester. Ten credits.* Dean Anderson, Professor O'Bannon.

202b. POWER PLANTS. A continuation of Course 202a. *Recitations five hours a week; design fifteen hours a week. Second semester. Ten credits.* Dean Anderson, Professor O'Bannon.

203a. HEATING AND VENTILATION. *Recitations five hours a week; design twenty hours a week. First semester. Twelve credits.* Dean Anderson, Professor O'Bannon.

203b. HEATING AND VENTILATION. A continuation of Course 203a. *Recitations five hours a week; design twenty hours a week. Second semester. Twelve credits.* Dean Anderson, Professor O'Bannon.

MINING ENGINEERING

Professor Crouse, Assistant Professor Emrath

OUTLINE OF COURSES LEADING TO THE DEGREE B. S. IN MINING ENGINEERING

For freshmen and sophomore years see page 151 and 152.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 4	Qualitative Analysis	1	6	4.0
Collateral Activ. 13a	A. I. M. & M. E. and Magazine Digest	1		0.3
Commerce 5a	Economics for Engineers	2		2.0
Elec. Engin. 1	Elements of Electrical Engin.	3		3.0
Elec. Engin. 9a	Electrical Laboratory		2	1.0
Engin. Mech. 1	Mech. of Materials	5		5.0
Engin. Mech. 2	Testing of Materials		2	1.0
*English 10a	Public Speaking	2		2.0
Geology 4	Mineralogy		4	2.0
Mathematics 7b	Calculus, Second Part	3		3.0
Metallurgy 4	Iron and Steel	2		2.0
Mining 14	Principles of Mining	4		4.0

Second Semester

Chemistry 10	Quantitative Analysis (Nine hrs. a wk., first half)	0.5	4	2.5
Collateral Activ. 1	Junior Inspection Trip			
Collateral Activ. 13b	A. I. M. & E. E. and Magazine Digest	1		0.3
Commerce 5b	Economics for Engineers (Two hrs. a wk., first half)	1		1.0
Elec. Engin. 3	Alternating Currents	3		3.0
Elec. Engin. 9b	Electrical Laboratory		2	1.0
Engin. Mech. 6	Analytical Mech.	5		5.0
*English 10b	Public Speaking	2		2.0
Geology 12	Elementary Geology for Engineers	2	1	3.0
Mech. Engin. 8	Steam Laboratory	1	2	2.0
Metallurgy 19	Non-Ferrous Metallurgy	5		5.0
Metallurgy 22	Elements of Metallography (One hr. a wk. 1st half and 7 hrs. a wk. 2nd half)	2	2	3.0
Mining 10	Advanced Mine and Land Surveying (Eight hrs. a wk., second half)		4	2.0

*English 10a and 10b are not required of students who take Military Science 7a and 7b.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Art 16	Art Structure for Engineers		2	1.0
Civil Engin. 21	Hydraulics	2		2.0
Civil Engin. 77a	Mine Structures		4	1.3
Collateral Activ. 16a	A. I. M. & M. E. and Magazine Digest	1		0.3
English 119a	Literature for Engineers	3		2.0
Mech. Engin. 1	Thermodynamics	4		4.0
Mech. Engin. 9a	Steam and Gas Engine Laboratory	1	2	2.0
Metallurgy 1	Assaying		8	4.0
Metallurgy 17	Ore Dressing	2		2.0
Mining 5	Mining Geology	3		3.0
Mining 6	Ventilation	3		3.0
Mining 16	Prospecting Methods	2		2.0

Second Semester

Civil Engin. 77b	Mine Structures (Six hrs. a wk., first half)		3	1.0
Collateral Activ. 2	Senior Inspection Trip			
Collateral Activ. 3	Thesis (Twenty-seven hrs. a wk. second half)		13.5	4.5
Collateral Activ. 16b	A. I. M. & M. E. and Magazine Digest	1		0.3
Drawing 5	Photography (Two hrs. a wk., first half)		1	0.5
English 119b	Literature for Engineers	3		2.0
Hygiene 7	First Aid (Two hrs. a wk., first half)	1		1.0
Metallurgy 18	Ore Dressing Laboratory (Four hrs. a wk., first half)		3	1.0
Mining 12	Oil Field Engineering (Five hrs. a wk., first half)	2.5		2.5
Mining 15	Working of Stratified Mineral Deposits (Three hrs. a wk, first half)	1.5		1.5
Mining 17	Working of Unstratified Mineral Deposits (Six hrs. a wk., first half)	3.0		3.0

METALLURGICAL ENGINEERING

Professor Crouse, Assistant Professor Beebe

OUTLINE OF COURSE LEADING TO THE DEGREE B. S. IN METALLURGICAL ENGINEERING

The work during the first three years is the same as for Mining Engineering.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Art 16	Art Structure for Engineers		2	1.0
Civil Engin. 21	Hydraulics	2		2.0
Civil Engin. 77a	Mine Structure		4	1.3
Collateral Activ. 16a	A. I. M. & M. E. and Magazine Digest	1		0.3
English 119a	Literature for Engineers	3		2.0
Mech. Engin. 1	Thermodynamics	4		4.0
Metallurgy 1	Assaying		8	4.0
Metallurgy 20	Advanced Non-Ferrous Metallurgy	3		3.0
Metallurgy 114	Metallurgical Calculations	3		3.0
Metallurgy 17	Ore Dressing	2		2.0
Mining 5	Mining Geology	3		3.0
Mining 16	Prospecting Methods	2		2.0

Second Semester

Collateral Activ. 2	Senior Inspection Trip			
Collateral Activ. 3	Thesis (Twenty-seven hrs. a wk., second half)		13.5	4.5
Collateral Activ. 16b	A. I. M. & M. E. and Magazine Digest	1		0.3
Drawing 5	Photography (Two hrs. a wk, first half)		1	0.5
English 119b	Literature for Engineers	3		2.0
Metallurgy 2	Advanced Assaying (Four hrs. a wk., first half)		2	1.0
Metallurgy 105	Advanced Metallurgy of Iron and Stel (Five hrs. a wk., first half)	2.5		2.5
Metallurgy 113	Pyrometry (Four hrs. a wk., first half)		2	1.0
Metallurgy 18	Ore Dressing Laboratory (Four hrs. a wk., first half)		2	1.0
Metallurgy 23	Metallurgy of Non-Metallics	1		1.0
Mining 12	Oil Engineering (Five hrs. a wk., first half)	2.5		2.5
Mining 17	Working of Unstratified Mineral Deposits (Six hrs. a wk., first half)	2.5		2.5

PRACTICAL MINERS' COURSE

A short course is offered for practical miners, mine formen, and mine managers who desire to improve their knowledge of the prin-

ciples that underlie correct mining. This course, which covers eight weeks, is given in the spring. Details concerning the course are set forth in a special circular, which may be obtained upon application to the head of the department. Persons desiring to take the examination for Mine Foreman and for Assistant Inspector of Mines will find the course quite helpful.

COURSES OF INSTRUCTION

Mining

5. Mining Geology. Required of seniors in Mining and Metallurgical Engineering. Prerequisites, Geology 12, and Mining 14. *Three hours a week. First semester.* Assistant Professor Emrath.

6. Ventilation. Required of seniors in Mining Engineering. Prerequisites, Physics 3a, Mining 14. *Three hours a week. First semester.* Assistant Professor Emrath.

10. Advanced Mine and Land Surveying. Required of juniors in Mining and Metallurgical Engineering. Prerequisites, Civil Engineering 63, 64. *Eight hours a week. Second half of second semester.* Professor Crouse.

12. Oil Field Engineering. Required of seniors in Mining and Metallurgical Engineering. *Five hours a week. First half of second semester.* Assistant Professor Emrath.

14. Principles of Mining. Required of juniors in Mining and Metallurgical Engineering. Prerequisites, Physics, 3a and Chemistry 1b. *Four hours a week. First semester. Four credits.* Assistant Professor Emrath.

15. Working of Stratified Mineral Deposits. Required of seniors in Mining Engineering. Prerequisites, Engineering Mechanics 1 and Mining 14. *Three hours a week. First half of second semester. One and a half credit.* Assistant Professor Emrath.

16. Prospecting Methods. Required of seniors in Mining and Metallurgical Engineering. Prerequisite, Mining 14. *Two hours a week. First semester. Two credits.* Assistant Professor Emrath.

17. Working of Unstratified Mineral Deposits. Required of seniors in Mining and Metallurgical Engineering. Prerequisites, Engineering Mechanics 1 and Mining 14. *Six hours a week. First half of second semester. Three credits.* Assistant Professor Emrath.

203. Mine Organization and Operation. *Lectures and recitations three hours a week. Three credits.* Assistant Professor Emrath.

206. Explosive Engineering. Prerequisite, Mining 14. *Lectures and recitations two hours a week. Two credits.* Assistant Professor Emrath.

207. Advanced Prospecting. Prerequisite, B. S. in Mining Engineering or its equivalent. *Lectures two hours a week. One semester. Two credits.* Assistant Professor Emrath.

208. Coal Dust Investigation. Prerequisite, B. S. in Metallurgical Engineering or its equivalent. *Laboratory eight hours a week. One semester. Four credits.* Assistant Professor Emrath.

209. Advanced Mine Engineering. Prerequisite, B. S. in Mining Engineering or B. S. in Metallurgical Engineering or the equivalent. *Lectures and recitations three hours a week, drawing and mapping eight hours a week for one semester. Seven credits.* Assistant Professor Emrath.

Metallurgy

1. Assaying. Required of seniors in Mining and Metallurgical Engineering. Prerequisites, Chemistry 10. *Laboratory eight hours a week. First semester.* Professor Crouse, Assistant Professor Beebe.

2. Advanced Assaying. Required of seniors in Metallurgical Engineering. Prerequisite, Metallurgy 1. *Laboratory four hours a week. First half of second semester.* Professor Crouse, Assistant Professor Beebe.

4. Metallurgy of Iron and Steel. Required of all students in Engineering. Prerequisite, Chemistry 1b. *Lectures and recitations two hours a week. First semester. Repeated second semester.* Professor Crouse, Assistant Professor Beebe.

17. Ore Dressing. Required of seniors in Mining and Metallurgical Engineering. Prerequisites, Physics 3b and 6; Geology 12 and Mining 14. *Lectures and recitations two hours a week. First semester.* Professor Crouse.

18. Ore Dressing Laboratory. Required of seniors in Mining and Metallurgical Engineering. Prerequisite, Metallurgy 17. *Four hours a week. First half of second semester.* Professor Crouse, Assistant Professor Beebe.

19. Non-Ferrous Metallurgy. Required of juniors in Mining and and Metallurgical Engineering. Prerequisite, Chemistry 1b. *Lectures and recitations five hours a week. Second semester.* Professor Crouse.

20. Advanced Non-Ferrous Metallurgy. Required of seniors in Metallurgical Engineering. Prerequisite, Metallurgy 19. *Lectures and recitations three hours a week. First semester.* Professor Crouse.

22. Elements of Metallography. Required of juniors in Mining and Metallurgical Engineering. Prerequisite, Metallurgy 4. *Lectures one hour a week thruout the second semester. Recitations two hours a week and laboratory four hours a week during the second half of second semester.* Professor Crouse, Assistant Professor Beebe.

23. METALLURGY OF NON-METALICS. Required of seniors in Metallurgical Engineering. Prerequisites, Metallurgy 1a and Mining 14. *Lectures and recitations two hours a week. First half of second semester. One credit.* Assistant Professor Beebe.

101. ELEMENTS OF OIL SHALE ENGINEERING. Prerequisites, Physics 3a, 3b, Chemistry 10. *Lectures and quizzes two hours a week. Two credits.* Professor Crouse.

105. ADVANCED METALLURGY OF IRON AND STEEL. Required of seniors in Metallurgical Engineering. Prerequisites, Metallurgy 4 and Chemistry 10. *Five hours a week. First half of second semester.* Professor Crouse.

113. PYROMETRY. Required of seniors in Metallurgical Engineering. Prerequisites, Physics 3b and 6; Metallurgy 4. Metallurgy 21 should be taken at the same time. *Laboratory four hours a week. First half of second semester.* Professor Crouse, Assistant Professor Beebe.

114. METALLURGICAL CALCULATION. Required of seniors in Metallurgical Engineering. Prerequisites, Metallurgy 4 and 19; Physics 3b and 6; Chem. 10. *Lectures and recitations three hours a week. First semester.* Professor Crouse.

205. HEAT TREATMENT OF METALS AND ALLOYS. Prerequisite, B. S. in Metallurgical Engineering or its equivalent. *Lectures and recitations two hours a week; laboratory eight hours a week. Six credits.* Professor Crouse.

206. OIL SHALE TECHNOLOGY. Prerequisites, Chemistry 10, Physics 3a, 3b. It would be desirable also to have some knowledge of Physical and Organic Chemistry. *Lectures and recitations three hours a week, laboratory twelve hours a week. Nine credits.* Professor Crouse.

207. TECHNOLOGY OF ALLOYS. Prerequisite, B. S. in Metallurgical Engineering, or its equivalent. *Lectures and recitations two hours a week, laboratory eight hours a week. Six credits.* Professor Crouse.

208. ADVANCED METALLOGRAPHY. Prerequisite, B. S. in Metallurgical Engineering or its equivalent. *Lectures and recitations two hours a week, laboratory eight hours a week. First semester. Six credits.* Professor Crouse.

209. ADVANCED ORE DRESSING. Prerequisite, B. S. in Metallurgical Engineering or its equivalent. *Lectures and recitations two hours a week, laboratory eight hours a week. Second semester. Six credits.* Professor Crouse, Assistant Professor Emrath.

210. THE TECHNOLOGY OF LOW TEMPERATURE CARBONIZATION. Prerequisite, B. S. in Metallurgical Engineering or its equivalent. *Lectures*

and recitations two hours a week, laboratory eight hours a week. Six credits. Professor Crouse.

PRACTICAL MECHANICS

Assistant Professor Dicker, Mr. Thurman, Mr. Saunier, Mr. Singer, Mr. Arkle, Mr. Tucker, Mr. Crowder, Mr. Brend, Mr. Beckley, Mr. Kettenacker, Mr. McBee, Mr. Sturgeon

COURSES OF INSTRUCTION

Practical Mechanics

7a. Wood Shop and Foundry. Required of all freshmen in Engineering. *Eight hours a week. First semester. Repeated second semester.* Assistant Professor Dicker, Mr. Arkle. Mr. Tucker, Mr. Crowder, Mr. Kettenacker, Mr. Sturgeon.

7b. Wood Shop and Foundry. Required of all freshmen in Engineering. Prerequisite, Practical Mechanics 7a. *Eight hours a week. Second semester. Repeated first semester.* Assistant Professor Dicker, Mr. Arkle, Mr. Tucker, Mr. Crowder, Mr. Kettenacker, Mr. Sturgeon.

8a. Forge, Machine and Automobile Shops. Required of all sophomores in Engineering. Prerequisite, Practical Mechanics 7b. *Six hours a week. First semester. Repeated second semester.* Mr. Thurman, Mr. Saunier, Mr. Singer, Mr. Brend, Mr. Beckley, Mr. McBee.

8b. Forge, Machine and Automobile Shops. Required of all sophomores in Engineering. Prerequisite, Practical Mechanics 8a. Six *hours a week. Second semester. Repeated first semester.* Mr. Thurman, Mr. Saunier, Mr. Singer, Mr. Brend, Mr. Beckley, Mr. McBee.

THE COLLEGE OF LAW

ALVIN E. EVANS, PH. D., J. D., Dean

INTRODUCTORY STATEMENT

HISTORY AND PURPOSES OF THE COLLEGE OF LAW

The College of Law of the University of Kentucky was organized under the provisions of an act of the legislature of the State of Kentucky passed in 1908 as one of the colleges of the State University. It was opened for the admission of students in September, 1908, and the first class graduated in June, 1910. The school has always been open to men and women students.

Within four years after the organization of the school, it became a member of the Association of American Law Schools, and it has endeavored to advance steadily the ideals of legal education in the State. In 1921, the American Bar Association made certain recommendations for standard colleges of law, and in 1924 the College of Law of the University of Kentucky was placed on the approved list by the American Bar Association, and has been ranked since 1925 as an approved law school. Beginning with the session of 1925-26, the College of Law required two years of college work for entrance. It is the purpose of the school to maintain the standards prescribed by the most competent authorities in the field of legal education in America and to give to the young men in this section of the country the opportunity to prepare themselves for the bar in the most thorough and scholarly way. It is believed that the lawyer can be worthy of the great profession he represents only if he has had adequate preliminary education and a three-year intensive study of legal principles thru the use of leading cases.

The course of study in the College of Law is the standard course of three years, leading to the degree of Bachelor of Laws.

The design of the College of Law is to train the student in the fundamental principles of English and American common law so as to equip him to practice his profession wherever that system of law prevails and to develop a scholarship and critical attitude toward the problems of society. As most of the students intend to practice in the State of Kentucky, special emphasis is placed on the decisions of that State, but only as representing the current of judicial authority or a dissent therefrom. The method used in all classes is the study of cases,

the method of instruction followed in all the leading law schools of the country. Credit is obtained by the successful passing of written examinations at the end of each semester, and the student who successfully completes the course is awarded the degree of Bachelor of Laws.

The ideal held before the student body is the lawyer who is honored not only as a successful practitioner before the bar, but also as a useful citizen in his community. At no time has the lawyer enjoyed a larger opportunity to serve the cause of justice and good will thru his professional skill and right motives than at present. It is the purpose of the College of Law to graduate only those who by reason of adequate preliminary education, diligence and ability in their professional studies in the law school and sound character are qualified to be lawyers in the highest sense of the term.

Instruction is not limited to those who choose the law as a profession, but is open also to students who desire to take the whole or a limited course in law as a preparation for business or public life. The study of law as it is now taught is recognized as an important part of a liberal education and as an excellent foundation for a career in financial or commercial circles.

MEMBERSHIP IN ASSOCIATION OF AMERICAN LAW SCHOOLS

The University of Kentucky College of Law is a member of the Association of American Law Schools, an association which has as its object the improvement of legal education in America and the adoption of the highest scholastic standards. It includes within its membership the leading law schools of the United States.

REQUIREMENTS OF THE AMERICAN BAR ASSOCIATION

The American Bar Association in 1921 adopted the following standards for law schools:

a. It shall require as a condition of admission at least two years of study in a college.

b. It shall require its students to pursue a course of three years' duration, if they devote substantially all of their working time to their studies, and a longer course, equivalent in the number of working hours, if they devote only part of their working time to their studies.

c. It shall provide an adequate library available for the use of the students.

d. It shall have among its teachers a sufficient number giving their entire time to the school to ensure actual personal acquaintance and influence with the whole student body.

As the University of Kentucky College of Law complies with these requirements, it has been placed on the list of approved law schools prepared by the American Bar Association.

ADMISSIONS

Regular Students

The applicant for admission to the law school must have, in addition to the standard high school course that will satisfy the general requirements for admission to the University, two years of college credit (sixty semester hours exclusive of gymnasium and military science).

Pre-Law Work

In order to meet the two years of college credit required for entrance, no special course is prescribed except six college credits in English. The credits obtained in the two years of college work that are required must be sufficient to entitle the holder to admission to the junior class in the College of Arts and Sciences of the University of Kentucky. The pre-law work may be taken at the University of Kentucky or at any standard university or college. Students who expect to study law are advised to lay special emphasis on courses in English, history, economics, political science and psychology. Those who would like special advice concerning their work are invited to communicate with the dean.

Combined Course Leading to Degrees of A. B. and LL. B.

Inasmuch as the requirements of the law school now call for a total of five years in college and law school before the degree of LL. B. can be obtained, the attention of the student is particularly called to the fact that with the addition of a single year, making six years in all, he can obtain the degree of Bachelor of Arts and also the degree of Bachelor of Laws. After the student has completed three full years of work in the Arts College, and has taken all the required subjects for the Arts degree, he should register in the law school. The first year's work in law is credited toward the A. B. degree as well as towards the LL. B. degree, and he may thus obtain his A. B. degree after having been registered one year in the law school and completing one year's work therein; and two years later, upon completing the two remaining years in law, he will be granted the degree of LL. B., thus obtaining both degrees in six years.

Combined Course Leading to the Degrees of B. S. in Commerce and LL. B.

A similar combined course may be taken by students in the College of Commerce who desire to obtain the degree of B. S. in Commerce and

the degree of LL. B. in six years. After completing three full years and all the required subjects in the College of Commerce the student should enroll in the law school, and upon completing one year's work in the law school may be awarded the B. S. degree in Commerce. Upon completing two additional years of work in the law school, he may be awarded the LL. B. degree, thus obtaining both degrees in six years.

Required Courses

All the work of the first year is required. It is felt that certain other subjects, while not absolutely required, should be taken normally by all students in the College of Law. The following subjects are in this group: In the second year, Trial Practice, Constitutional Law, Equity, Evidence and Property III; in the third year, Trusts, Property IV, Private Corporations and Conflict of Laws. A sufficient number of other subjects must be taken in addition, to bring the total up to eighty semester hours of work. More than fourteen hours each semester may not be taken except by special leave of the Council of Deans.

Summer Session

A limited number of courses in law are offered in the summer session of the University. The work in these courses is the same in kind and amount as that given in the same courses in the regular sessions of the school, and credit obtained in the summer session is counted towards a degree. The length of the school during the summer of 1930 will be ten weeks, and will be deemed to be equal to approximately one-third of the regular session.

The attention of students is directed to the fact that work done in the summer session may materially shorten the time required for the completion of the LL. B. degree. A student who begins his law work at the close of his sophomore year in June, 1930, by attending summer sessions for three years and also attending the regular sessions will obtain his law degree at the close of the summer session in 1932, or if he desires to obtain both the academic and law degrees he may do so in June, 1933. This saving of nine months in the case of the law degree alone and of approximately two years in the case of both degrees is accomplished without any sacrifice of standards or requirements. Students who are interested in the summer session should consult with the dean, as the particular subjects to be given are largely determined by the number of students applying for instruction therein.

The following courses in the College of Law are accepted as graduate work when taken by students majoring in Political Science, Eco-

nomics, Sociology, Commerce or other fields in which such courses are recommended by the major professors:

105. AGENCY. Keedy's Cases. *Two hours a week. Second semester.* Professor Moreland.

106. CIVIL PROCEDURE I AND II. Sunderland's Cases. *Three hours a week. First and second semesters.* Mr. Ragland.

164. CONFLICT OF LAWS. Lorenzen's Cases. *Three hours a week. Second semester.* Professor Black.

161a-161b. CONSTITUTIONAL LAW I AND II. Hall's Cases. *Two hours a week. First and second semesters.* Professor Black.

101a-101b. CONTRACTS I AND II. Williston's Cases. *Three hours a week. First and second semesters.* Professor Evans.

107. CRIMINAL LAW I AND II. Sayre's Cases. *Two hours a week. First and second semesters.* Professor Moreland.

121a-121b. EQUITY I AND II. Cook's Cases, Volumes 1 and 2. *Three hours a week first semester, two hours a week, second semester.* Professor Moreland.

124a-124b. EVIDENCE I AND II. Hinton's Cases. *Two hours a week. First and second semester.* Professor Randall.

123. NEGOTIABLE INSTRUMENTS. Smith and Moore's Cases. *Three hours a week. Second semester.* Professor Murray.

125a-125b. PRACTICE COURT I AND II. Selected Cases. *One hour a week. First and second semesters.* Professor Chalkley.

160a-160b. PRIVATE CORPORATIONS I AND II. Richard's Cases (2nd edition). *Two hours a week. First and second semesters.* Mr. Ragland.

104a. PROPERTY I (Personal Property). Warren's Cases. *Three hours a week. First semester.* Professor Murray.

104b. PROPERTY II (Real Property). Warren's Cases. *Three hours a week. Second semester.* Professor Murray.

122. PROPERTY III. Titles and Conveyancing. Warren's Cases. *Three hours a week. First semester.* Professor Murray.

162. PROPERTY IV. Future Interest. Kale's Cases. Not given in 1928-9. *Three hours a week. Second semester.* Professor Murray.

166. SALES. Williston's Cases. *Three hours a week. Second semester.* Professor Moreland.

102a-102b. TORTS I AND II. Ames and Smith's Cases. (Pound's Edition). *Two hours a week. First and second semesters.* Professor Black.

120a-120b. TRIAL PRACTICE I AND II. Sunderland's Cases. *Two hours a week. First and second semesters.* Professor Randall.

165. TRUSTS. Scott's Cases. *Four hours a week. Second semester.* Professor Evans.

163. WILLS AND THE ADMINISTRATION OF ESTATES. Mechem and Atkinson's Cases. *Three hours a week. First semester.* Professor Evans.

ELECTIVE SUBJECTS OPEN TO SECOND AND THIRD YEAR STUDENTS

146. BANKRUPTCY. Holdbrook and Aigler's Cases. Not given in 1928. *Two hours a week. Summer session.* Professor Moreland.

154. DAMAGES. Beale's Cases. *Two hours a week. First semester.* Professor Moreland.

148. DOMESTIC RELATIONS. McCurdy's Cases. *Two hours a week. First semester.* Professor Chalkley.

145. INSURANCE. Woodruff's Cases. *Two hours a week. Second semester.* Professor Chalkley.

140. INTERNATIONAL LAW. Evans' Cases. *Two hours a week. Second semester.* Professor McVey.

143. MORTGAGES. Campbell's Cases. Not offered in 1928-29. *Two hours a week. Second semester.* Professor Evans.

149. MUNICIPAL CORPORATIONS. Tooke's Cases. *Two hours a week. First semester.* Professor Black.

152. OIL AND GAS. Kulp's Cases. *Three hours a week. Summer session.* Professor Roberts.

141. PARTNERSHIP. Crane and Magruder's Cases. *Three hours a week. Second semester.* Professor Chalkley.

150. PUBLIC UTILITIES. Robinson's Cases. *Three hours a week. Second semester.* Professor Murray.

147. QUASI-CONTRACTS. Thurston's Cases. *Two hours a week. First semester.* Professor Chalkley.

151. SURETYSHIP. Ames' Cases. *Two hours a week. First semester.* Professor Roberts.

153. TAXATION. Beales Cases *Three hours a week. First semester.* Professor Black.

144. USE OF LAW BOOKS. Selected problems, Cooley's Brief Making and Use of Law Books. *One hour a week. Second semester.* Professor Moreland.

142. INDUSTRIAL RELATIONS. Selected Cases. *Three hours a week. First semester.* Professor Moreland.

166. RESEARCH IN THE RESTATEMENT OF THE LAW OF CONTRACTS. *Three hours a week. By appointment. Summer session* 1930. Professor Evans.

167. ADMINISTRATIVE LAW. Freund's Cases. Given in 1929-30. *Three hours a week. First semester.* Professor Black.

168. THE ADMINISTRATION OF THE CRIMINAL LAW. Keedy's Cases. Given in 1929-30. *Two hours a week. Second semester.* Professor Moreland.

169. LAW OF THE AIR. Selected Readings. *Two hours a week. First semester.* Professor Randall.

COLLEGE OF EDUCATION

WILLIAM SEPTIMUS TAYLOR, Ph. D., Dean

INTRODUCTORY STATEMENT

ORGANIZATION

The College of Education was established by the University to provide for the training of teachers, supervisors, elementary and high school principals, and city and county superintendents for the public schools of Kentucky. School boards are demanding professionally trained teachers, supervisors and administrators. The curricula offered by the College have been planned to enable the student to procure the education that will best prepare him for the work he contemplates doing.

Students in general education do their observation, participation and practice in the University Training School. Each student is given an opportunity to study good methods and to develop skill in teaching.

Through the cooperation of the board of education in Fayette County students preparing to teach agriculture have an opportunity to do their observation and practice in the high schools near Lexington offering agriculture on a vocational basis. The University also has a cooperative relationship with the school boards of Versailles and Georgetown that makes possible splendid facilities for observation and practice in home economics. The students in both agriculture and home economics work under skilled supervisors in their respective fields.

TEACHERS' CERTIFICATES

The act governing the certification of teachers by the University of Kentucky passed by the General Assembly of 1926 provides for the issuance of certificates through the College of Education, University of Kentucky, as follows:

A COLLEGE ELEMENTARY CERTIFICATE, valid for two years of teaching in any elementary school of the state, shall be issued upon completion of at least thirty-two semester hours of work, including six semester hours in education. This certificate shall be renewed for two years upon completion of at least sixteen or more additional semester hours of college work, at least eight of which must be earned in residence.

A STANDARD CERTIFICATE, valid for three years of teaching in any public school of the Commonwealth, shall be issued upon completion of at least sixty-four semester hours of college work, including twelve

semester hours in education. This certificate shall be renewed upon evidence of at least thirty-two additional semester hours of college work including six semester hours of education. It may be extended for life when the applicant has met the requirements for a baccalaureate degree in the College of Education and presents in addition thereto three years of successful teaching experience after graduation from the University of Kentucky.

A COLLEGE CERTIFICATE, valid for three years of teaching in any public school of the Commonwealth, shall be issued to persons completing a curriculum in the College of Education and receiving a degree therefrom. This certificate shall be renewed for life after three years of successful experience in educational work in the public schools. Credit for one year of graduate work may be accepted in lieu of one year of successful experience as above provided.

RESIDENCE REQUIREMENTS FOR CERTIFICATES

A minimum of sixteen credits for the Elementary Certificate, twenty-three credits for the Standard Certificate, and thirty credits for the Life Certificate must be done in residence at the University of Kentucky.

Not more than fifty per cent of the work required for any certificate may be done thru extension whether by correspondence, class extension, or a combination of the two.

All work for renewal of certificates at the University of Kentucky shall be done in this institution.

In the work required for the renewal of certificates issued by the University of Kentucky not more than fifty per cent may be done by extension.

REQUIREMENTS FOR GRADUATION

The College of Education grants two degrees: A Bachelor of Arts in Education and a Bachelor of Science in Education.

The students who major in education and select their group work in English, mathematics, social sciences, natural sciences, or the languages, will be entitled to consideration for the degree of Bachelor of Arts in Education.

Students who major in education and select their group work in Art, Education, Agriculture, Engineering or Home Economics will be entitled to consideration for the degree of Bachelor of Science in Education.

For a degree in Education the student is required to present a total of 127 credits with a standing of 1.

THE DEGREE OF BACHELOR OF ARTS IN EDUCATION

The following is the work required in all curricula leading to the degree of Bachelor of Arts in Education:

ARTS AND SCIENCES

English	6 credits
Sciences	6 credits
Social Sciences	6 credits
Psychology	3 credits
Physical Education	1.4 credits
General Hygiene	1.3 credits
Military Science (Men)	5.6 credits
Total academic subjects	29.3 credits

PROFESSIONAL SUBJECTS

Psychology of Study	3 credits
Survey of Education	3 credits
Educational Psychology	3 credits
Tests and Measurements	4 credits
School Organization	3 credits
Directed Teaching	5 credits
Educational Sociology	3 credits
	24 credits

GROUP ELECTIVES

Group Electives in First Minor	24 to 30 credits
Group Electives in Second Minor	24 to 30 credits
Free Electives	15 to 24 credits

TRAINING AND CERTIFICATION OF HIGH SCHOOL TEACHERS

The high school pupils of Kentucky will not be efficiently taught until the teachers are offering instruction in the subjects of their major interest in college. The curricula and daily schedules set forth in this bulletin make possible such teaching combinations that except in rare cases no teacher will be called upon to offer instruction in more than two fields. In view of the requirements of the curricula suggested, the teaching combinations and special fields for which certificates will be recognized in accredited high schools are as follows:

1. English and Latin
2. English and French
3. Social Studies and English

4. Social Studies and Latin
5. Social Studies and French
6. Social Studies and Science
7. Social Studies and Mathematics
8. Science and Mathematics
9. Home Economics and Science
10. Home Economics and Social Studies
11. Agriculture and Science
12. Agriculture and Mathematics

The minimum training required to qualify a teacher for service in an accredited high school in Kentucky is the completion of one of the following curricula. Each curriculum leads to a Baccalaureate degree and to a College High School Certificate.

CURRICULUM FOR TEACHERS OF ENGLISH AND LATIN OR ENGLISH AND FRENCH

FRESHMAN YEAR

First Semester		Second Semester	
English Composition	3	English Composition	3
Educational Psychology	3	Survey of Education	3
History of British People	3	History of British People	3
Latin or French	3	Latin or French	3
General Hygiene	1.3	Physical Education	.7
Physical Education	.7	Military Science	1.3
Military Science	1.3	Elective	3
	15.3		17

SOPHOMORE YEAR

First Semester		Second Semester	
English Literature	3	English Literature	3
General Psychology	3	Educational Psychology	3
History or P. S. (to be selected)	3	History or P. S.	3
Latin or French	3	Latin or French	3
Zoology	3	Botany	3
Military Science	1.5	Military Science	1.5
	16.5		16.5

JUNIOR YEAR

First Semester		Second Semester	
English (to be selected)	3	English (to be selected)	3
Tests and Measurements	4	School Organization	3
Latin or French	3	Latin or French	3
English Word Study	3	Electives	6
Elective	3		
	16		15

SENIOR YEAR

First Semester		Second Semester	
English (to be selected)	3	English (to be selected)	3
Directed Teaching	5	Library Methods for Teachers	3
Public Speaking	3	American Literature	2
Latin or French	6	Philosophy of Education	2
Philosophy of Education	2	Latin or French	6
		Elective	3
	16		16

Science and Mathematics

FRESHMAN YEAR

First Semester		Second Semester	
English Composition	3	English Composition	3
College Algebra	5	Trigonometry	3
Zoology	4	Zoology	4
Educational Psychology	3	Survey of Education	3
General Hygiene	1.3	Dendrology	2
Physical Education	.7	Physical Education	.7
Military Science	1.3	Military Science	1.3
	18.3		17

SOPHOMORE YEAR

First Semester		Second Semester	
Analytics	5	Differential Calculus	5
Elementary Physics	5	Elementary Physics	5
General Psychology	3	Educational Psychology	3
History	3	History	3
Military Science	1.5	Military Science	1.5
	17.5		17.5

JUNIOR YEAR

First Semester		Second Semester	
Botany	4	Botany	4
General Chemistry	5	General Chemistry	5
Tests and Measurements	4	School Organization	3
Elective	4	Elective	4
	17		16

SENIOR YEAR

First Semester		Second Semester	
Directed Teaching	5	Philosophy of Education	2
Philosophy of Education	2	Elective	13
Elective	8		
	15		15

CURRICULUM FOR TEACHERS OF SOCIAL STUDIES

FRESHMAN YEAR

First Semester		Second Semester	
English Composition	3	English Composition	3
Introduction to Modern Europe	3	Introduction to Modern Europe	3
Modern Language	3	Modern Language	3
Educational Psychology	3	Survey of Education	3
General Hygiene	1.3	Physical Education	.7
Physical Education	.7	Military Science	1.3
Military Science	1.3	Elective	3
Elective	3		
	18.3		17

SOPHOMORE YEAR

First Semester		Second Semester	
English Literature	3	English Literature	3
History of the U. S.	3	History of the U. S.	3
General Psychology	3	Educational Psychology	3
Zoology	3	Botany	3
Elective	3	Military Science	1.5
Military Science	1.5	Elective	3
	16.5		16.5

JUNIOR YEAR

First Semester		Second Semester	
Comparative Government	3	Comparative Government	3
Tests and Measurements	4	Principles of Economics	3
Principles of Economics	3	Principles of Sociology	3
Principles of Sociology	3	School Organization	3
Electives	4	Elective	3
	17		15

SENIOR YEAR

First Semester		Second Semester	
Directed Teaching	5	Philosophy of Education	2
History of Philosophy	3	Twentieth Century History	3
Philosophy of Education	2	History of Education	3
Electives	6	Electives	8
	16		16

Thirty-three semester hours of elective work have been provided so that a person electing this curriculum may qualify for the teaching of the social studies and for one of the following: English, Latin, French, Science, Mathematics.

CURRICULUM FOR TEACHERS OF HOME ECONOMICS

FRESHMAN YEAR

First Semester		Second Semester	
General Inorganic Chemistry	5	General Inorganic Chemistry	5
English Composition	3	English Composition	3
Art Structure	2	Art Structure	2
Textiles	2	Foods	3
Elementary Clothing	3	Food Sources and Cost	2
Physical Education	.7	Physical Education	.7
	15.7		15.7

SOPHOMORE YEAR

First Semester		Second Semester	
Advanced Composition	2	History of English Literature	3
Organic Chemistry	4	General Bacteriology	4
Physiology	4	Foods and Nutrition	4
Costume Design	3	Clothing	2
Foods	4	The House	3
	17		16

JUNIOR YEAR

First Semester		Second Semester	
Principles of Economics	3	Electives in Economics	3
Group Electives	3	Group Electives	3
Dietetics	4	Genetics	3
General Psychology	4	Psychology of the Child	3
Educational Psychology	3	Technique of Teaching Home Economics	3
		School Organization	3
		Clothing	3
	17		21

SENIOR YEAR

First Semester		Second Semester	
Principles of Sociology	3	Electives in Home Economics	3
Educational Psychology	3	Electives	13
Home Management and Directed Teaching in Home Economics	5 6		
	17		16

CURRICULUM FOR TEACHERS OF VOCATIONAL AGRICULTURE

FRESHMAN YEAR

First Semester		Second Semester	
Market Classes and Grades of Live Stock	3	Breeds of Live Stock	3
Farm Poultry Production	3	General Inorganic Chemistry	5
Farm Crops	3	General Morphology	4
General Morphology	3	English Composition	3
English Composition	3	First Yr. Basic Course, Inf.	1.3
First Yr. Basic Course, Inf.	1.3	Gym. or Field Athletics	.7
Gym. or Field Athletics	.7		
Freshman Lecture	.3		
	17.3		17

SOPHOMORE YEAR

First Semester		Second Semester	
General Inorganic Chemistry	5	Outlines of Zoology or Elements of Geology	3
Principles of Economics	3	Agricultural Economics	3
General Horticulture	4	Principles of Animal Nutrition	3
Mechanics of the Farmstead	3	Educational Psychology	3
Second Yr. Basic Course, Inf.	1.5	Soils	4
Introduction to Agricultural Education	2	Second Yr. Basic Course, Inf.	1.5
	18.5		17.5

JUNIOR YEAR

First Semester		Second Semester	
General Farm Management	3	General Bacteriology	4
Marketing	3	Electives	11
Electives	9	Philosophy of Vocational Ed.	4
Tests and Measurements	4		
	19		19

SENIOR YEAR

First Semester		Second Semester	
Methods in Agriculture	4	High School Administration	3
Directed Teaching	3	Electives	12
Electives	9		
	16		15

CURRICULUM FOR HIGH SCHOOL PRINCIPALS

FRESHMAN YEAR

First Semester		Second Semester	
English Composition	3	English Composition	3
Sociology 1a	3	Sociology 1b	3
Biological Science	3	Survey of Education	3
Educational Psychology	3	Biological Science	3
Hygiene	1.3	Physical Training	0.7
Physical Training	0.7	Military Science	1.3
Military Science	1.3	Elective	3
Elective	3		
	18.3		17

SOPHOMORE YEAR

First Semester		Second Semester	
General Psychology	3	Educational Psychology	3
Economics 1a	3	Economics 1b	3
Military Science	1.5	Military Science	1.5
Group Electives	9	Group Electives	9
	16.5		16.5

JUNIOR YEAR

First Semester		Second Semester	
Tests and Measurements	4	School Organization	3
Group Electives	11	Group Electives	12
	15		15

SENIOR YEAR

First Semester		Second Semester	
Educational Sociology, or Philosophy of Education	2	Educational Sociology, or Philosophy of Education	2
Supervised Teaching	5	Supervised Teaching	5
Group Electives	8 or 13	Group Electives (if not taken first semester)	13 or 8
	15		15

GRADUATE YEAR

First Semester		Second Semester	
Junior High School	3	Senior High School	3
High School Administration	3	Curriculum	3
Educational Statistics	3	Supervision	3
Ed. Research (Thesis Course)	3	Ed. Research (Thesis Course)	3
Electives	3	Electives	3
	15		15

CURRICULUM FOR SUPERINTENDENTS

FRESHMAN YEAR

First Semester		Second Semester	
English	3	English	3
Educational Psychology	3	Survey of Education	3
Biological Science	3	Biological Science	3
Sociology	3	Sociology	3
Hygiene	1.3	Physical Training	0.7
Physical Training	0.7	Military Science	1.3
Military Science	1.3	Elective	3
Elective	3		
	18.3		17

SOPHOMORE YEAR

First Semester		Second Semester	
General Psychology	3	Educational Psychology	3
Economics	3	Economics	3
Military Science	1.5	Military Science	1.5
Electives	9	Electives	9
	16.5		16.5

JUNIOR YEAR

First Semester		Second Semester	
Tests and Measurements	4	School Organization	3
Electives	11	Electives	12
	15		15

SENIOR YEAR

First Semester		Second Semester	
Supervised Teaching	5	Educational Sociology, or Philosophy of Education	2
Educational Sociology, or Philosophy of Education	2	Electives	13
Electives	8		
	15		15

GRADUATE YEAR

First Semester		Second Semester	
Educational Administration	3	Educational Administration	3
Educational Statistics	3	Supervision	3
Financing Public Education	3	Curriculum Construction	3
Ed. Research (Thesis Course)	3	Ed. Research (Thesis Course)	3
Electives	3	Electives	3
	15		15

THE TRAINING AND CERTIFICATION OF ELEMENTARY TEACHERS

Degree of Bachelor of Arts

Major in Elementary Education

A total of 127 credits with a standing of 1.

Students who major in Elementary Education may select their group electives and have directed teaching in either the lower elementary (Grades I, II, III) or Upper Elementary Grades (Grades IV, V. VI). It is desirable that a student decide as soon as possible the division in which she is most interested. The observation and special problems connected with the theory classes may then be assigned accordingly.

Electives in this field should be chosen largely from the field of English and the Social Sciences.

At least 40 semester hours must be courses numbering above 100.

Any student reported deficient in spelling, penmanship, or English fundamentals by her training teacher will be required to take extra work to make up the deficiency.

Professional Requirements

No.	Course	Credits
1	Psychology of Study	3
42	Teaching of Arithmetic in the Elementary School	2
37	Teaching of English in the Elementary School (Spelling, Writing, Composition)	2
44	Teaching Social Sciences in the Primary Grades	
	or	
40	Teaching Social Sciences in the Upper Grades	2
172	Teaching of Reading in the Elementary School	3
122a-1	Tests and Measurements (for elementary teachers)	2
173	Children's Literature	3
119	Foundations of Elementary Education (Ch. Psy. 5-12 yrs.)	3
130a	Health Education	2
17	Industrial Arts in the Elementary School	2
18	Plays, Games for Children	2
133	Directed Teaching in the Elementary Grades	5

SUGGESTED ELECTIVES

114	Educational Sociology	3
10a-b	Moral and Esthetic Education	3
101	School Organization	3
	Total Required Credit Hours	31

(It is suggested that not more than 36 credit hours in Education be offered by any student for credit.)

ACADEMIC REQUIREMENTS

English

1a	English Composition	3
1b	English Composition	3
3a	English Literature	3
3b	English Literature	3
		12 total

History

10a	History of America	3
10b	History of America	3
4a	Introd. to Mod. Europe	3
4b	Introd. to Mod. Europe	3
40	History of Kentucky	2
		14 total

Hygiene

1	General Hygiene	1.3
1a	Physical Education	.7
1b	Physical Education	.7
		2.7 total

Political Science

15a	Problems of citizenship	3
15b	Problems of Citizenship	3
		6 total

Sociology

1a	Principles of Sociology	3
1b	Principles of Sociology	3
		6 total

Science		
11	Nature Study	2
108a	Zoology or	
108b	Zoology	2
	Science	3
		8 total
Geography		
	Geography	3
	Geography	3
		6 total
Art		
	Suggested elective—Arts Structure	
	Public School Art	2
Music		
4a	Public School Music	2
4b	Public School Music	2
		6 total
	Total academic credit hours required	60.7
	Electives	30.3

CURRICULUM FOR THE TRAINING AND CERTIFICATION OF ELEMENTARY TEACHERS

FRESHMAN YEAR

First Semester		Second Semester	
Psychology of Study	3	Teaching of English Ed. 37	2
Hygiene 1	1.3	Physical Education 1b	.7
Physical Education 1a	.7	English Composition 1b	3
English Composition 1a	3	Introduction to Modern Europe 4b	3
Introduction to Modern Europe 4a	3	Music 4b	2
Geography	3	Geography	3
Music 4a	2	Public School Art	2
	16		15.7

SOPHOMORE YEAR

First Semester		Second Semester	
Teaching of Arith., Ed. 42	2	Teaching Industrial Arts in the Elem. School, Ed. 17	2
English Literature 3a	3	English Literature 3b	3
Problems of Citizenship 15a	3	Problems of Citizenship 15b	3
History of America 10a	3	Nature Study 11	2
Plays and Games for Children, Ed. 18	2	Principles of Sociology 1b	3
Principles of Sociology 1a	3	History of America 10b	3
	16		16

JUNIOR YEAR

First Semester		Second Semester	
Teaching the Social Studies in the Primary Grades, Ed. 44 or Teaching the Social Studies in the Upper Grades, Ed. 40	2	Foundations of Elementary Education	3
History of Kentucky 40	2	Teaching of Reading, Ed. 172	3
Science	3	Health Education 130	2
Electives	9	Electives	8
	16		16

SENIOR YEAR

First Semester		Second Semester	
Directed Teaching 133 (either semester)	5	Directed Teaching 133 (either semester)	
Children's Literature 173	3	Tests and Measurements	2
Electives	8	Zoology 108a or 108b (either semester)	2
		Electives	12
	16		16

VOCATIONAL EDUCATION

Agriculture

The Federal Vocational Education Act passed by Congress in 1917 makes provision for the training of teachers of vocational education in agriculture for schools below college grade. The University of Kentucky has been designated as the institution in the state to train white teachers for this work.

Students who complete the work for a Bachelor's degree in agriculture and who present fifteen credits in education meeting the approval of the staff in agricultural education will be entitled to a state certificate to teach agriculture on a vocational basis in the public schools of Kentucky.

Home Economics

The Federal Vocational Education Act passed by Congress in 1917 provides for the training of teachers for vocational education in home economics for schools below college grade. The University of Kentucky has been designated as the institution in the state to train white teachers for this work.

Students who complete the work for a Bachelor's degree in home economics and who present fifteen credits in education including special methods and practice teaching in home economics will be entitled to a state certificate to teach home economics on a vocational basis in the public schools of Kentucky.

Industry

The Federal Vocational Education Act passed by Congress in 1917 provides for the training of teachers of part-time, general continua-

tion and industrial education. The University of Kentucky has been designated as the institution in the state responsible for the training of teachers for this work.

AGRICULTURAL EDUCATION

179. Determining Content in Vocational Agriculture. *Three credits. Both semesters.* Professor Hammonds, Professor Woods.

181. Teaching Vocational Agriculture. *Seven credits. Both semesters.* Professor Hammonds, Professor Woods.

185. Apprentice Teaching. *Two credits. Both semesters.* Professor Hammonds, Professor Woods.

188. Project Supervision. *One credit. Second semester.* Professor Hammonds, Professor Woods.

280. Methods of Teachihg Vocational Agriculture. *Two credits. Summer session only.* Professor Hammonds, Professor Woods.

287. Advanced Problems in Agricultural Education. *Three credits. Both semesters.* Professor Hammonds, Professor Woods.

289. Research in Agricultural Education. *Three credits. Both semesters.* Professor Hammonds, Professor Woods.

COMMERCIAL EDUCATION

158. Methods of Teaching Commercial Subjects in the Secondary School. *Three credits. Summer session only.* Mr. Lawrence.

159. The Commercial Curriculum in the Secondary School. *Three credits. Summer session only.* Mr. Lawrence.

EDUCATIONAL ADMINISTRATION

101. School Organization. *Three credits.* Prerequisite, Education 16 or equivalent. *First semester. Repeated second semester.* Assistant Professor Chamberlain.

102. Kentucky School Law. Prerequisite, Education 101 or equivalent. *Two credits.* (Not offered in 1929-30.)

103. The Elementary School. *Three credits. Second semester.* Professor Hill.

125. Supervision of Instruction. Prerequisite, Education 101 or equivalent. *Three credits. First semester. Repeated second semester.* Mr. Whitehead.

190a. Technique of the Registrar's Office. *Two credits. First semester.* Professor Gillis.

190b. Technique of the Registrar's Office. *Two credits. Second semester.* Professor Gillis.

202. City School Administration. Prerequisite, Education 101. *Three credits. Second semester.* Assistant Professor Chamberlain.

204a. The Administration of Higher Education. *Two credits. Summer session only.* President McVey.

204b. The Administration of Higher Education. *Two credits. Second semester.*

206. Problems of College Teaching. *Two credits. Second semester.* Dean Taylor.

210. Special Problems in School Administration. *Three credits. Summer session only.* Professor Hill.

213. State and County School Administration. Prerequisite, Education 101. *Three credits. First semester.* Assistant Professor Chamberlain.

231. Financing Public Education. Prerequisite, Education 101. *Three credits. First semester.* Professor Hill.

232. High School Administration. Prerequisites, Education 101 and 150. *Three credits. First semester.* Professor Ligon.

301a, b. Research Problems in Educational Administration. Prerequisites, Education 202 and 213. *Three credits. First semester. Repeated second semester.*

302. Special Problems in Educational Finance. Prerequisite, Education 231. *Three credits. First semester. Repeated second semester.*

304. Special Problems in School Supervision. Prerequisite, Education 125. *Three credits. First semester. Repeated second semester.*

307. Special Problems in High School Administration. Prerequisite, Education 232. *Three credits. First semester. Repeated second semester.* Professor Ligon.

308. Special Problems in Elementary School Administration. Prerequisite, Education 202. *Three credits. First semester. Repeated second semester.*

309. Special Problems in Rural School Administration. Prerequisite, Education 213. *Three credits. First semester. Repeated second semester.*

321a. Special Problems in Higher Education. Prerequisite, either Education 204 or 205. *Three credits. First semester.*

321b. Special Problems in Higher Education. Continuation of 321a. *Three credits.*

EDUCATIONAL PSYCHOLOGY

1. Psychology of Study. Open to Education freshmen only. *Three credits. First semester.* Professor Ross.

16. Educational Psychology. Not open to freshmen. *Three credits. First semester.* Professor Ross, Professor Patrick.

119. Foundation of Elementary Education. *Three credits. First semester.* Professor Ross.

122a. Educational Tests and Measurements. Prerequisite, Education 16. *Two credits. First semester.* Professor Ross.

122b. Educational Tests and Measurements. A continuation of 122a. *Two credits. Second semester.* Professor Ross.

147. Foundation of Secondary Education. *Three credits. Second semester.* Professor Ligon.

152. Problems in Educational Psychology. *Three credits. Second semester.* Professor Ross.

216. Seminar in Educational Tests and Measurements. *Three credits. Second semester.* Professor Ross.

223. Educational Statistics. *Three credits. First semester.* Professor Ross.

ELEMENTARY EDUCATION

17. Teaching Industrial Arts in the Elementary School. *Two credits. Second semester.*

18. Plays and Games for Children. *Two credits. Second semester.*

37. Teaching Language, Spelling and Writing in the Elementary School. *Two credits. Second semester.* Mrs. Duncan.

40. History and Geography in the Upper Grades. *Two credits. First semester.* Mrs. Duncan.

42. Arithmetic in the Elementary School. *Two credits. First semester.* Mrs. Duncan.

44. Teaching the Social Sciences in the Primary Grades. *Two credits. First semester.* Mrs. Duncan.

130a. Teaching of Health in the Public Schools. *Two credits. Summer session only.*

130b. Teaching of Health in the Public Schools. *Two credits. Summer session only.*

133. Directed Teaching in the Elementary Grades. *Five credits. Both semesters.* Mrs. Duncan.

145. Rural School Supervision in the Public Schools. *Two credits. Summer session only.*

151. Normal School Problems. Not given in 1930-31. *Three credits.*

172. Teaching Reading in the Elementary School. *Three credits. Both semesters.* Mrs. Duncan.

173. Teaching Literature to Children. *Three credits. Second semester.* Mrs. Duncan.

HISTORY OF EDUCATION

10a. Moral and Esthetic Education. *Three credits. Second semester.* Professor Noe.

10b. Moral and Esthetic Education. *Three credits.* Not offered 1930-31.

117a. History of Education. *Three credits. Second semester.* Professor Noe.

117b. History of Education. *Three credits.* Not offered 1930-31.

219. Great Educators and Their Work. *Three credits. Second semester.* Professor Noe.

121. History of Education in the United States. *Three credits.* Not offered 1930-31.

220. Comparative Education. *Three credits. Summer session only.* Professor Noe.

HOME ECONOMICS EDUCATION

160. Technique of Teaching Home Economics. *Three credits. Both semesters.* Miss Parker, Miss Spickard.

162. Directed Teaching in Home Economics. *Conference two hours a week, laboratory ten hours a week. Six credits. Both semesters.* Miss Parker, Miss Spickard.

163. Current Problems in Home Economics Education. *Two credits. First semester.* Miss Parker, Miss Spickard.

164. Methods of Teaching Child Care. *Three credits.* Miss Parker.

165. Problems in Vocational Home Economics Education. *Three credits. Second semester.* Miss Parker, Miss Spickard.

166. Seminar in Home Economics Education. *Three hours a week. Second semester.* Miss Parker, Miss Spickard.

S168. Home Economics Curriculum Construction. *Two credits. Summer session only.* Miss Parker, Miss Spickard.

261. Home Economics Supervision. *Three credits.* Miss Spickard.

INDUSTRIAL EDUCATION

70. Industrial Education. *Three credits. First semester. Repeated second semester.* Professor May.

72. Special Methods in Trade and Industrial Education. *Two hours a week. First semester.* Professor May.

74. Vocational Guidance. *Three credits. First semester.* Professor May.

75. Reorganization of Industrial Arts. *Two credits. First semester.* Professor May.

170. Part-Time General Continuation Teacher Training. *Three credits. Second semester.* Professor May.

171. Vocational Education. Informational Course. *Two credits. Second semester.* Professor May.

PHILOSOPHY OF EDUCATION

4. Principles of Education. *Three credits. Second semester.* Professor Noe.

19. Modern Educational Problems. *Summer session only. One credit.* Dean Taylor and others.

35. Survey of Education. Open to freshmen only. *Three credits. Both semesters.* Professor Adams.

114. Educational Sociology. *Three credits. Both semesters.* Professor Adams.

227a. Principles in Curriculum Construction. *Three credits. First semester.* Professor Adams.

227b. Problems in Curriculum Construction. *Three credits. Second semester.* Professor Adams.

140a. Philosophy of Education. *Two credits.* Not offered 1930-31. Professor Adams.

140b. Philosophy of Education. *Two credits.* Not offered 1930-31. Professor Adams.

200. Advanced Course in Philosophy of Education. *Three credits. Second semester.* Professor Adams.

205. Review of Current Educational Literature. *Three credits. First semester.* Professor Adams.

222a. Thesis Course. *Three hours a week. First semester.* Dean Taylor.

222b. Thesis Course. *Three credits. Second semester.* Dean Taylor.

248. Problems of Educational Sociology. *Three credits. Second semester.* Professor Adams.

SECONDARY EDUCATION

105. The Technique of Teaching. Prerequisite, Education 101. *Three credits. First semester.* Professor Ligon.

226. The Junior High School. Prerequisite, Education 101. *Three credits. First semester.* Professor Ligon.

250. The Senior High School. Prerequisite, Education 101. *Three credits. Second semester.* Professor Ligon.

153. Directed Teaching in English. Prerequisite, Education 122. *Five credits. Both semesters.* Miss Anderson.

154. Directed Teaching in Languages. Prerequisite, Education 122. *Five credits. Both semesters.* Miss West.

155. Directed Teaching in Sciences. Prerequisite, Education 122. *Five credits. Both semesters.* Mr. Kemper.

156. Directed Teaching in Mathematics. Prerequisite, Education 122. *Five credits. Both semesters.* Mr. Mitchell.

157. Directed Teaching in the Social Sciences. Prerequisite, Education 122. *Five credits. Both semesters.* Miss Peck.

38. Scouting and Scoutcraft. *Two credits. Summer session only.*

134. English in the High School. *Two credits. Summer session only.*

135. The Social Sciences in the High School. *Two credits. Summer session only.*

138. Latin in the High School. *Two credits. Summer session only.*

129. Mathematics in the High School. *Two credits. Summer session only.*

130a. The Teaching of Health in the Public Schools. *Two credits. Summer session only.*

130b. The Teaching of Health in the Public Schools. A continuation of 130a. *Two credits. Summer session only.*

139. French in the High School. *Two credits. Summer session only.*

136. The Biological Sciences in the High School. *Two credits. Summer session only.*

137. The Physical Sciences in the High School. *Two credits. Summer session only.*

149. Extra Curricula Activities. *Two credits. Summer session only.*

161. Directed Teaching in Art. *Five credits. Both semesters.*

COLLEGE OF COMMERCE

EDWARD WIEST, A. M., PH. D., Dean

INTRODUCTORY STATEMENT

The College of Commerce aims to train young men and women for business careers, and also to provide instruction intended to give an understanding of the general aspects of economic relationships. Students interested primarily from the latter point of view are advised to take the more general courses. Students who intend to specialize in commerce should register in the College of Commerce and follow one of the prescribed curricula.

REQUIREMENTS FOR GRADUATION

The degree of Bachelor of Science in Commerce is conferred upon students who present 127 credits with a standing of at least "1" and who complete all the required courses. Required subjects vary somewhat according to the curriculum selected. Unless two units in the ancient or foreign languages are offered for entrance, one year of language in college is required. It is strongly recommended that all commerce students elect at least one year of language.

GENERAL-BUSINESS CURRICULUM

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
English Comp. 1a	3	English Comp. 1b	3
Econ. Hist. of Europe 2	3	Econ. Hist. of U. S. 3	3
College Algebra 5	5	Math. of Finance 14	5
General Psychology 2a	3	General Psychology 2b	3
General Hygiene 1	1.3	Gymnasium 1b	.7
Gymnasium 1a	.7	1st Yr. Basic Course, Inf.	1.3
1st Yr. Basic Course, Inf.	1.3		

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Principles of Econ. 1a	3	Forms of Organization 9	3
Principles of Acct. 7a	4	Principles of Acct. 7b	4
American Government 51a	3	Intro. to Modern Europe 4b	3
Science	3 to 4	Science	3 to 4
2d Yr. Basic Course, Inf.	1.5	Principles of Marketing 10	3
Elective	1 to 3	2d Yr. Basic Course, Inf.	1.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Money and Banking 105	3	Corporation Finance 117	3
Statistical Method 107	3	Business English 30	2
Electives, including one from Advertising, Salesmanship or Sociology	9 to 11	Business Cycles 110	3
		Electives, including one Commerce course	4 to 6

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Business Law 109a	3	Business Law 109b	3
Public Finance 104	3	Problems in Management 137 or Investigation of Business Problems 138	3
Electives, including one Commerce course	9 to 11	Electives, including one Commerce course	9 to 11

COMBINED COMMERCE-LAW COURSE

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
English Comp. 1a	3	English Comp. 1b	3
Econ. Hist. of Europe 2	3	Econ. Hist. of U. S. 3	3
College Algebra 5	5	Math. of Finance 14	5
General Psychology 2a	3	General Psychology 2b	3
General Hygiene 1	1.3	Gymnasium 1b	.7
Gymnasium 1a	.7	1st Yr. Basic Course, Inf.	1.3
1st Yr. Basic Course, Inf.	1.3		

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Principles of Econ. 1a	3	Forms of Business Organization 9	3
Principles of Acct. 7a	4	Principles of Acct. 7b	4
Amer. Government 51a	3	Amer. Government 51b	3
Science or Foreign Language	3 to 4	Science or Foreign Language	3 to 4
2d Yr. Basic Course, Inf.	1.5	Intro. to Modern Europe 4b	3
Elective	3	2d Yr. Basic Course, Inf.	1.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Labor Problems 102	3	Business English 30	2
Money and Banking 105	3	Principles of Marketing 10	3
Public Finance 104	3	Corporation Finance 117	3
Elective in Comerce	3	Elective in Commerce	8
Elective in Commerce or Sociology	4 to 5		

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Contracts	3	Contracts	3
Torts	3	Torts	3
Property I	3	Agency or Partnership	2
Public Utilities (Law)	3	Sales (Law)	3
Elective in Law	2	Elective in Law	2

The combined Commerce-Law Course is intended for students who wish to complete the requirements for the two degrees of Bachelor of Science in Commerce and Bachelor of Laws in six years. First-year law subjects are included in the senior year of this curriculum. During the fifth and sxith years the student completes the remaining law courses necessary to receive the degree of LL. B.

SECRETARIAL-TRAINING COURSE

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
English Comp. 1a	3	English Comp. 1b	3
Econ. Hist. of Europe 2	3	Econ. Hist. of U. S. 3	3
Foreign Language or College Algebra	3 or 5	Foreign Language or Math. of Finance	3 or 5
General Psychology 2a	3	General Psychology 2b	3
General Hygiene 1	1.3	Gymnasium 1b	.7
Gymnasium 1a	.7	1st Yr. Basic Course, Inf.	1.3
1st Yr. Basic Course, Inf.	1.3		

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Principles of Econ. 1a	3	Forms of Bus. Org. 9	3
Principles of Accounting 7a	4	Principles of Accounting 7b	4
American Government 51a	3	Introduction to Mod. Europe	3
Science	3 to 4	Science	3 to 4
2d Yr. Basic Course, Inf.	1.5	Principles of Marketing 10	3
Elective	1 to 3	2d Yr. Basic Course, Inf.	1.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Statistical Method 107	3	Salesmanship 11	3
Money and Banking 105	3	Business English 30	2
Principles of Sociology	3	Secretarial Practice 13b	3
Secretarial Practice 13a	3	Corporation Finance 117	3
Secretarial Accounting	3	Elective in English	3

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Business Law 109a	3	Business Law 109b	3
Office Management 14a	3	Office Management 14b	3
Public Finance 104	3	Electives including two Commerce courses	9
Electives	6		

CURRICULUM IN ACCOUNTING

This curriculum is the same as the General-Business Curriculum except that Advanced Accounting is added as a required subject in the first and second semesters of the junior year, and Auditing in the first semester of the senior year. Contracts and other law courses are suggested as electives. This combination should be taken by students preparing for accountancy.

CURRICULUM IN STATISTICS

This curriculum is meant for those who are preparing for the profession of statistician. It is the same as the General-Business curriculum except that Advanced Index Numbers and Time Series is added as a required subject in the first semester of the senior year; also one other advanced course using statistical method is required. This latter course need not be in the College of Commerce. It is strongly urged that additional courses in mathematics be elected.

FOREIGN-SERVICE CURRICULUM

All required subjects of the General-Business Curriculum must be completed and in addition two years of foreign languages. Courses in Comparative Government, American Foreign Service and International Law are suggested as electives. This curriculum should be followed by students planning to go into foreign service.

OTHER CURRICULA

Students planning to go into banking should add to the General-Business Curriculum courses in accounting and in law. For training in insurance Commerce 108 must be taken and Calculus is suggested as an elective. Those preparing to go into merchandising and manufacturing should take advanced accounting courses, Salesmanship, the Psychology of Advertising and Selling, Transportation and additional law. Those preparing to teach commercial subjects should elect considerable education.

COURSES OF INSTRUCTION

1a. PRINCIPLES OF ECONOMICS. Not open to freshmen. *Three hours a week. First semester. Repeated second semester.* Professors Wiest, Sullivan, Rouse, Carter.

1b. PRINCIPLES OF ECONOMICS. Not open to freshmen or commerce students. *Three hours a week. Second semester.* Assistant Professor Sullivan.

2. ECONOMIC HISTORY OF EUROPE. Open only to freshmen and sophomores. *Three hours a week. First semester.* Professors Jennings, Sullivan, Lawrence.

3. ECONOMIC HISTORY OF THE UNITED STATES. Open only to freshmen and sophomores. *Three hours a week. Second semester.* Professors Jennings and Sullivan.

5a. ECONOMICS FOR ENGINEERS. *Two hours a week. First semester.* Associate Professor Palmer.

5b. ECONOMICS FOR ENGINEERS. *Two hours a week. Second semester.* Associate Professor Palmer.

6. SECRETARIAL ACCOUNTING. Prerequisite, course 7a. *Three hours a week. Second semester.* Associate Professor Haun.

7a. PRINCIPLES OF ACCOUNTING. Not open to freshmen. *Recitation two hours, laboratory four hours a week. First semester.* Associate Professor Haun, and Assistant Professor Lawrence.

7b. PRINCIPLES OF ACCOUNTING. *Recitation two hours, laboratory four hours a week. Second semester.* Associate Professor Haun, and Assistant Professor Lawrence.

8. Economic Geography. *Three hours a week. First semester.* Assistant Professor Carter.

9. Forms of Business Organization. Prerequisite, course 1a. *Three hours a week. Second semester.* Assistant Professor Rouse.

10. Principles of Marketing. Prerequisite, course 1a. *Three hours a week. Second semester.* Professor McIntyre.

11. Salsemanship. Prerequisites, courses 1a, 10 and first two years of Commerce course. *Three hours a week. First semester.* Professor McIntyre.

12. Economic Geography of North America. Three hours a *week. Second semester.* Professors Jennings and Carter.

13a. Secretarial Practice. Credit for this course will not be given until 13b is completed. Prerequisite, two years of college work. *Recitation, three hours a week; laboratory, two hours a week. Three credits.* Assistant Professor Lawrence.

13b. Secretarial Practice. Continuation of 13a. Prerequisite, course 13a, or its equivalent. *Recitation, three hours a week; laboratory, two hours a week. Three credits.* Assistant Professor Lawrence.

14a. Office Management. Prerequisites, 13a and 13b. A portion of the laboratory work must actually be done in the office under supervision. *Recitation, two hours a week; laboratory, two hours a week. Three credits. First semester.* Assistant Professor Lawrence.

14b. Office Management. Continuation of 14a. A portion of the laboratory work must actually be done in the office under supervision. *Recitation, two hours a week; laboratory, two hours a week. Three credits.* Assistant Professor Lawrence.

102. Labor Problems. Prerequisite, course 1a. *Three hours a week. First semester.* Assistant Professor Carter.

103. Transportation. Prerequisite, course 1a. Given in alternate years. *Three hours a week. First semester.* Assistant Professor Sullivan.

104. Public Finance. Prerequisite, course 1a. *Three hours a week. First semester.* Professor Martin.

105. Money and Banking. Prerequisite, course 1a. *Three hours a week. First semester.* Professors Wiest and Sullivan.

106a. Advanced Accounting. Prerequisites, courses 7a, 7b, and first two years of Commerce course. *Three hours a week. First semester.* Associate Professor Haun.

106b. Advanced Accounting. *Three hours a week. Second semester.* Associate Professor Haun.

107. Statistical Method. Not open to freshmen and sophomores. *Recitation one hour, laboratory four hours a week. First semester.* Associate Professor Palmer.

108. INSURANCE. Prerequisites, course 1a, Mathematics 14 and first two years of Commerce course. *Three hours a week. Second semester.* Associate Professor Palmer.

109a. BUSINESS LAW. Open to students who have had first two years of Commerce course. *Three hours a week. First semester.* Assistant Professor Rouse.

109b. BUSINESS LAW. Open to students who have had first two years of Commerce course. *Three hours a week. Second semester.* Assistant Professor Rouse.

110. BUSINESS CYCLES. Prerequisites, courses 1a and 107. *Three hours a week. Second semester.* Associate Professor Palmer.

112a. INDIVIDUAL WORK IN ECONOMICS. Prerequisite, course 1a. *Two hours a week. First semester.* Professors Wiest and Martin.

112b. INDIVIDUAL WORK IN ECONOMICS. Prerequisite, course 1a. *Two hours a week. Second semester.* Professor Wiest and Martin.

113. AUDITING. Prerequisites, courses 7a, 7b and first two years of Commerce course. *Three hours a week. Second semester.* Associate Professor Haun.

115. CONTEMPORARY ECONOMIC THOUGHT. Prerequisite, course 1a. *Three hours a week. First semester.* Professor Martin.

117. CORPORATION FINANCE. Prerequisites, courses 1a, 7a, 7b and 9. *Three hours a week. Second semester.* Professors Wiest and Lawrence.

118. COST ACCOUNTING. Prerequisites, courses 7a, 7b and first two years of Commerce course. *Three hours a week. First semester.* Associate Professor Haun.

119. PRINCIPLES OF RETAILING. Prerequisites, courses 1a, 10 and first two years of Commerce course. *Two hours a week. Second semester.* Professor McIntyre.

120. ORGANIZATION OF ECONOMIC GROUPS. Prerequisite, course 1a. *Three hours a week. First semester.* Assistant Professor Sullivan.

124. STATE AND FEDERAL TAXATION. Prerequisite, course 1a. *Three hours a week. Second semester.* Professor Martin.

125. ADVANCED ECONOMIC HISTORY OF EUROPE. Not open to freshmen and sophomores nor to students who have had course 2 except when doing graduate work. *Three hours a week. First semester.* Professor Jennings.

126. ECONOMICS OF PUBLIC UTILITIES. Prerequisite, course 1a. *Three hours a week. First semester.* Assistant Professor Carter.

127. INTERNATIONAL ECONOMIC POLICIS. Prerequisite, course 1a. Given in alternate years. *Three hours a week. Second semester.* Assistant Professor Sullivan.

128. Foreign Exchange. Prerequisite, course 1a. *Two hours a week. First semester.* Associate Professor Palmer.

129. Credits and Collections. Prerequisite, courses 1a, 10 and first two years in Commerce course. *Two hours a week. First semester.* Professor McIntyre.

130. Labor Legislation. Prerequisite, course 1a. *Three hours a week. Second semester.* Assistant Professor Carter.

131. Investments. Prerequisites, courses 1a, and 9. Given in alternate years. *Two hours a week. Second semester.* Associate Professor Palmer.

132a. C. P. A. Problems. Prerequisites, courses 106a, 106b and first two years of Commerce course. *Three hours a week. First semester.* Associate Professor Haun.

132b. C. P. A. Problems. Continuation of 132a. *Three hours a week. Second semester.* Associate Professor Haun.

133. Income Tax Procedure. Prerequisites, courses 106a, 106b and first two years of Commerce course. *Three hours a week. Second semester.* Associate Professor Haun.

134. Advanced Economic History of the United States. Not open to freshmen and sophomores nor to students who have had course 3 except when doing graduate work. *Three hours a week. Second semester.* Professor Jennings.

135. Problems in Marketing. Prerequisites, course 10, first two years of Commerce course, and consent of instructor. *Three hours a week. First semester.* Professor McIntyre.

136. Problems in Sales Management. Prerequisite, course 114 or the consent of the instructor. *Three hours a week. Second semester.* Professor McIntyre.

137. Problems in Management. Open only to seniors of the College of Commerce who are required to take either this course or 138 and to graduate students who have had the necessary prerequisite training. *Three hours a week. Second semester.* Assistant Professor Carter.

138. Investigation of Business Problems. Open only to seniors in the College of Commerce who are required to take either this course or 137 and to graduate students who have had the necessary prerequisite training. *Three hours a week. Second semester.* Associate Professor Palmer.

139. Advanced Time Series and Index Numbers. Prerequisite, an elementary course in Statistics. *Three hours a week. First semester.* Associate Professor Palmer.

140. ADVERTISIN CAMPAIGNS Prerequisite, Commerce 11 or Psychology 5 or the consent of the instructor. *Three hours a week. Second semester.* Professor McIntyre.

202a. SEMINAR. *First semester.* Professor Wiest, Martin and Jennings.

202b. SEMINAR. *Second semester.* Professor Wiest, Martin and Jennings.

203. HISTORY OF ECONOMIC THOUGHT. Prerequisite, course 1a. *Three hours a week. Second semester.* Profesosr Wiest.

204. ECONOMIC HISTORY OF THE UNITED STATES PRIOR TO 1860. Not open to students who had course 134 except by special permission of instructor. *Two hours a week. First semester.* Professor Jennings.

205. ECONOMIC HISTORY OF THE UNITED STATES SINCE 1860. Not open to students who had course 134 except by special permission of instructor. *Two hours a week. Second semester.* Professor Jennings.

THE GRADUATE SCHOOL

WILLIAM D. FUNKHOUSER, A. M.. PH. D.. SC. D., Dean

INTRODUCTORY STATEMENT

Graduate work is offered in all colleges in the University. Approximately three hundred courses are listed in the catalog under the various departments, which are accepted for graduate credit.

The following advanced degrees are conferred by the University: Master of Arts, Master of Science, Master of Science in Agriculture, Master of Science in Home Economics, Civil Engineer, Mechanical Engineer, Electrical Engineer, Metallurgical Engineer, Mining Engineer.

The degree of Doctor of Philosophy is offered with major work in the following departments: Chemistry, Education, Economics, Mathematics, Physics, Political Science and Psychology. Minor work may be carried in any department offering graduate courses.

ADMISSION TO GRADUATE STANDING

Graduates of institutions accredited by the University may be admitted to the Graduate School upon the presentation of a certificate of graduation and an official transcript of undergraduate courses taken. The status of the institution is to be ascertained from the Registrar of the University. Graduates from non-accredited institutions are encouraged to secure a bachelor's degree from an accredited institution.

It should be clearly understood that admission to the Graduate School does not necessarily admit a student to full graduate status. A student only attains full graduate status when he has fulfilled all the preliminary requirements of the degree which he seeks and of the department under whose direction he is pursuing graduate work.

Department prerequisites are detemined jointly by the Dean of the Graduate School and the respective departments. In brief, it may be stated that such prerequisites usually consist of the equivalent of an undergraduate major. In some fields, the equivalent of an undergraduate minor is sufficient.

REGISTRATION

The first steps in the procedure for admission to the Graduate School is the filing of a formal application with the Registrar on a form prepared for that purpose. Applicants from institutions other

than this University are also required to file an official transcript showing (a) all undergradute work covered, (b) graduate work taken, if any, and (c) degrees received.

If the record submitted to the Registrar entitles him to admission he should confer with the Dean of the Graduate School and his major professor concerning preliminary requirements that he may have to satisfy and as to the graduate courses that he should take.

Preliminary requirements may be added from time to time as found necessary and all such requirements, together with graduate courses, must be recorded in the Registrar's office and must be satisfied by the student before he is eligible for the degree for which he is registered.

All courses listed in this bulletin, and all courses which may appear later in the regular University catalog, which have numbers above 100, may be counted as credit towards a graduate degree. A grade of D in a course will not be given graduate credit.

FEES

Registration and laboratory fees are the same as for undergraduate students in the college in which the major work is done.

Before the advanced degree is conferred, a fee of fifteen dollars must be paid at the Business Office of the University. This covers the graduation fee, diploma fee, fee for binding thesis and all other incidental fees.

REQUIREMENTS FOR THE DEREE OF MASTER OF ARTS AND MASTER OF SCIENCE

Students having completed the equivalent of an A. B. or B. S. degree from an accredited liberal arts college or a standard teachers' college, may become candidates for the degree of Master of Arts or Master of Science.

Two plans are provided for satisfying the requirements for a master's degree, as follows:

1. Twenty-four credits in graduate courses exclusive of the thesis, one academic year (36 weeks) in residence, and an acceptable thesis.
2. At the option of a department (not of the student) the master's degree may be granted for the completion of forty-five credits in graduate courses with an average standing of B or better, three semester (54 weeks) in residence, and no requirements of a thesis.

Credits

The credits (semester hours) may not include credits received in a thesis course. All of the work may be done in one field but it should preferably be done in a major subject and one or two minors. At least half of the work must be taken in major courses.

Residence

The residence requirements may be fulfilled by any combination of regular semester or summer school sessions which total the required number of weeks. This does not mean that the work prescribed for each individual student can always be completed in the minimum length of time. Inadequate preparation or assistance in departments very frequently makes a longer period necessary. Part-time work during a regular semester is evaluated on the basis of the amount of work carried.

The transfer of acceptable graduate credits from other institutions or of other work done *in absentia* such as writing a thesis under the direction of the major professor, cannot reduce the standard residence requirements.

Thesis

If a thesis is submitted, two typewritten copies of the completed thesis must be presented not later than three weeks before the time set for the oral examination. One copy is presented to the Dean of the Graduate School to be bound and placed in the University Library and the other to the major professor to be retained by the department concerned.

Examinations of regular class work are taken by all resident graduate students. A final *oral examination* is given the condidate not later than fifteen days before the close of the semester. The Dean appoints an examining committee of at least three members for the purpose, selecting its members from the major and minor professors under whom the work was done. The Dean is *ex officio* a member of all such examining committees. The candidate is asked to defend his thesis and is examined on any subject matter related to his field.

MASTER OF SCIENCE IN AGRICULTURE OR IN HOME ECONOMICS

Students holding a bachelor's degree from a standard agricultural college may obtain the degree of Master of Science in Agriculture or Master of Science in Home Economics by satisfying the same requirements as those designated for the M. A. and M. S. degrees. The work is prescribed by the major professor with the approval of the Dean.

REQUIREMENTS FOR THE DEGREES IN ENGINEERING. C. E., CIVIL ENGINEERING; E. E., ELECTRICAL ENGINEERING; M. E., MECHANICAL ENGINEERING; MET. E., METALLURGICAL ENGINEERING; E. M., MINING ENGINEERING.

Any of these advanced engineering degrees may be obtained in residence by satisfying the same requirements as those outlined for the M. A. and M. S. degrees, provided the student holds a bachelor's degree from an engineering college of recognized standing. The course of study should be arranged in consultation with the head of the department in which the student expects to do his major work and must have the approval of the Dean of the College of Engineering and the Dean of the Graduate School.

These degrees may also be obtained for work done *in absentia* three or more years after receiving the degree of bachelor of science in engineering, providing this time has been spent in practical engineering work and an acceptable thesis is presented. At least one year's notice must be given the Dean of the Graduate School that graduate work is being done, and such work must have his approval and that of the major professor under whose supervision the thesis is prepared.

The fees for the degree obtained *in absentia* are $15.00 registration fee and $15.00 graduation fee.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is conferred upon a candidate who, after completing not less than three years of graduate work devoted to the study of a special field of knowledge, passes the required examinations in the subjects, presents a satisfactory dissertation, and is deemed worthy of recognition as a scholar of high attainments in his chosen province.

The Doctor's degree is intended to represent not a special amount of work covering a special time, but the attainment, thru long study, of independent and comprehensive scholarship in a special field. Such scholarship should be shown by a thoro acquaintance with present knowledge in his special field of learning and a marked capacity for research.

REQUIREMENTS FOR APPLICANT

Admission

Admission to the Graduate School and acceptance of advanced credits from other institutions must first be approved by the Registrar.

In order to be accepted as an *applicant* for the degree of Doctor

of Philosophy the student must present evidence that he has completed an undergraduate course and has received his baccalaureate degree from a college of recognized standing.

The Graduate Committee reserves the right to decide in each case of applicancy for a degree whether the prerequisite training has been satisfactory and, if any of the years of advanced work have been passed in another institution, whether they may be properly regarded as having been spent under suitable guidance and favorable conditions. Private study is not considered as equivalent to university work. In any case the student must pass the qualifying examinations at the University of Kentucky and spend the last year of the residence requirement at this institution.

Classification

A student wishing to become an applicant for the Doctor's degree must first regularly register in the Graduate School of the University of Kentucky and must then classify with the Dean of the Graduate School who will appoint a special committee for that student. This special committee, the chairman of which shall be his major professor, will consist of members of the departments in which the applicant elects to do his major and minor work and this committee will supervise his work thruout his period of study.

Not every *applicant* for the Doctor's degree is a *candidate*. A student is not a *candidate* for the degree until he has passed the qualifying examinations, satisfied the language requirements, and made formal application to be so enrolled.

Courses of Study

Every applicant for the degree must select one major and at least one and not more than two minor subjects.

The major subject should be one in which he intends to concentrate his efforts; the minor subjects should be closely allied to the major field or be subjects which will be of value in the major work and should be approved by the major department.

The applicant's principal work must be in the major subject. Altho no absolute regulations are laid down in respect to the time to be devoted to the major and minor subjects, it may be stated in general that the major subject should represent two-thirds of the student's entire time.

Any regular gradute course may be assigned as part of the applicant's work by his special committee. Only courses numbered above 100 in the University catalog are considered as a graduate status. The number and extent of such courses is determined by the special committee.

REQUIREMENTS FOR CANDIDATES

Residence

A minimum of three collegiate years of resident graduate work, of which at least the last year must be spent at the University of Kentucky, is required for the doctrine. The full time of each of these years must be spent in study. Part-time students and those holding assistantships or engaging in other outside activities will of course be required to take a proportionately longer time.

While it is expected that a well prepared student of good ability may secure the degree upon the completion of three years of study, it should be understood that this time requirement is a minimum and is wholly secondary to the matter of scholarship. Neither time spent in study, however long, nor the accumulation of facts, however great in amount, nor the completion of advanced courses, however numerous, can be substituted for independent thinking and original research.

Work done in other institutions of learning may be accepted toward the doctrine at the University of Kentucky but no work is credited which has not been done in a college or university of recognized standing or in a research laboratory.

Language Requirements

The applicant must give evidence of having a good reading knowledge of and of being able to translate at sight, at least two modern foreign languages. This proficiency is determined by examinations conducted by the respective language departments. Ordinarily French and German are expected to be offered, but other languages may be substituted on recommendation of the special committee if it is considered that such languages are of greater importance in the special field of work. The language requirements must be satisfied before the applicant can be admitted to the qualifying examination.

Qualifying Examinations

Applicants for the degree of Doctor of Philosophy are required to pass a Qualifying Examination. This examination shall be taken during the second semester of the second year of residence. The examination shall be both oral and written and shall cover both major and minor subjects. It shall be prepared and given to the applicant by a committee of five to be appointed by the Dean of the Graduate School. The language requirements must have been met before the qualifying examination is taken. No applicant may proceed to his final examination until one year of work has been completed after he has passed the qualifying examination. If the applicant fails to pass the qualifying examination, no re-examination shall be allowed except upon the recommendation of the special committee and the approval of the

Graduate Committee. If the applicant passes the qualifying examination he is then considered as a *candidate* for the degree and may make formal application for this rating.

DISSERTATION

Each candidate must present a dissertation covering his thesis work. This dissertation must give evidence of the candidate's ability to carry on independent investigation and must be satisfactory in style and composition. It must represent a definite contribution to the knowledge of his subject, must be the result of independent work, must include original research and must in some way add to or otherwise modify what was previously known on the subject. Two bound typewritten copies of the thesis and an abstract of not less than 1,200 nor more than 3,000 words must be formally presented to the Dean of the Graduate School at least four weeks before the final examination.

PRINTING OF DISSERTATION

One hundred printed copies of the dissertation must be presented to the University within one year from the time when the degree is conferred. Not later than one week before the conferring of the degree the candidate must deposit with the Business Agent of the University the sum of $50.00, this amount to be returned if the printed copies are received within the time specified. The University does not obligate itself to publish the thesis but if in the judgment of the Graduate Committee the thesis or an abstract of same should be published, the University reserves the privilege of so doing.

or

The candidate may have the dissertation printed at his own expense in which case he must present one hundred copies to the University before the degree is granted. If the candidate has the dissertation printed at his own expense, he will be expected to use good substantial paper and sightly typography. A page four by six inches with outside margin of at least one inch is recommended. The dissertation must have a cover and title page and the latter, in addition to the title and the name of the author, must bear the following inscription:

> *"A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the University of Kentucky."*

If the dissertation is published in a technical journal or other recognized educational publication, the reprints will be accepted if presented with special printed covers and proper title page.

APPLICATION

All candidates who desire to be admitted to the final examination must file an application, approved by the Dean of the Graduate School, with the Registrar of the University at least three weeks before the examination is held.

FINAL EXAMINATION

After the acceptance of the dissertation by the special committee and the Dean of the Graduate School, the candidate shall be given a final oral examination by a committee of five members which shall include the Head of the Major Department or his delegate presiding, one additional professor selected by the major department, one professor selected by each of the minor departments and additional members (to make the total of five) selected by the Dean of the Graduate School. The President of the University and the Dean of the Graduate School are *ex officio* members of all examining committees.

The final examination shall not be held until at least one year after the student has been accepted as a *candidate* for the degree.

The completion of three years of residence work confers no right upon the student to be so examined.

RECOMMENDATIONS

After the final examination has been passed, the name of the candidate will be presented to the University Senate for Recommendation to the Board of Trustees for the degree of Doctor of Philosophy in course.

FELLOWSHIPS AND SCHOLARSHIPS

For the encouragement of research and scholarship the following fellowships and scholarships have been established:

Ten University scholarships with a stipend of $200.00 each.

Five University fellowships with a stipend of $400.00 each.

One Registrar's fellowship with a stipend of $500.00.

Scholars and fellows will be expected to devote their whole time to graduate work, and no teaching or other departmental work may be required of them. Students employed as assistants in departments should as a rule take two year's requirement.

Fellowships and scholarships are open to those who already hold, or will receive at the close of the academic year, a bachelor's degree from any college or university of good standing, provided the student has shown some special aptitude for the line of work he desires to pursue.

The primary object of these appointments is to stimulate research and not to give pecuniary aid. No departmental duties of any kind

will be required of fellows and scholars. Candidates for the awards must be graduates of standard colleges or universities and must show evidence of high scholarship and fitness for graduate study. No student should apply for the award who does not cherish a real and earnest desire to do research work. The appointments are made for one year only but may be renewed if it can be satisfactorily shown that the prosecution of research undertaken should continue.

Forms for making application may be secured from the Dean of the Graduate School, University of Kentucky, Lexington, Kentucky. All applications should be on file not later than the 15th of April.

GRADUATE STUDENTS NOT CANDIDATES FOR A DEGREE

Graduate students who are not candidates for an advanced degree are not required to designate major or minor subjects, but may elect their work with a view to the special purpose for which they are in attendance at the University.

Any course of study announced for advanced undergraduates and graduates is open for election by such students upon the same conditions that are imposed upon those who are candidates for degrees.

Should a graduate student who has not arranged for his work with a view to obtaining a degree, subsequently desire to become a candidate for a degree, the amount of credit he is to receive for work already done will be determined at the time he applies for admission to candidacy for the degree.

No work is given graduate credit unless the student was enrolled in the Graduate School at the time during which the work was taken.

THE GRADUATE CLUB

All graduate students are members of the Graduate Club, in which they are expected to take an active part. The club serves the purpose of developing an *esprit de corps* among graduate students and provides ways and means for securing prominent men for addresses on various subjects of interest.

SUMMER SESSION

WILLIAM S. TAYLOR, PH. D.
Director

WELLINGTON PATRICK, PH. D.
Assistant Director

The Summer Session of the University of Kentucky has been organized to serve the teachers, principals and superintendents of schools in Kentucky and to afford all persons desiring further education and training an opportunity for summer study. The rapid growth of the high school program in Kentucky has created a demand for larger numbers of professionally trained teachers. The expansion of the curricula in the light of new objectives in education will require teachers trained in the theory and practice of modern education. The summer session of the University has been organized in large part to satisfy this demand.

The program of the summer session for 1930 was greatly enlarged to meet the needs of both undergraduate and graduate students. A larger selection of courses was offered in undergraduate work. The graduate program was more comprehensive and embraced work adapted to the needs of public school teachers and administrators, and to normal school and college teachers. Work was offered in Agriculture, Arts and Sciences, Education, Law, Engineering and Commerce.

The entire plant of the University, including laboratories, libraries, and buildings is advisable for summer session use. In addition to the regular faculty of the University, specialists of national reputation will be brought for the 1930 program.

For detailed information write for Bulletin of the Summer Session.

DEPARTMENT OF UNIVERSITY EXTENSION

WELLINGTON PATRICK, PH. D., *Director*

PURPOSE OF UNIVERSITY EXTENSION

The object of this department is to provide at the smallest possible expense and in the most practical manner, the highest type of education possible to the citizens of the Commonwealth who are unable to attend educational institutions. It is believed that the University of Kentucky should be in close relationship with the homes of the state to the end that any citizen might feel free to call upon the University for any assistance which the institution can render.

The Department of University Extension operates thru four bureaus as follows:

1. A Bureau of Correspondence Study—Offering courses in Art, Botany, Economics, Education, English, French, German, Greek, Latin, Hygiene, Mathematics, Mechanical Drawing, Mining, Political Science, Psychology, Sociology, Spanish and Courses in high school subjects.
2. A Bureau of Lectures—Offering single lectures or a series of lectures; speakers for teachers' institutes, commencement addresses, memorial and dedication exercises, civic and women's clubs, etc.
3. A Bureau of Debating and Public Speaking—Offering assistance to those interested in social, political or educational problems, and fostering forum activities in study and discussion. It conducts the Interscholastic League for Debate and Athletics among the high schools of the state.
4. A Bureau of General Information and Welfare—Acting as a clearing house for inquiries of the people of the state in general matters. It furnishes reports on special subjects—Foods, sanitation, diseases, child labor, municipal problems, etc. It gives assistance in community dramatics.

HONORS AND PRIZES

Awarded Commencement 1930

THE ALGERNON SIDNEY SULLIVAN MEDALLIONS (Three in number)

Established in 1927, by the New York Southern Society. Awarded to a man and woman in the senior class of the University and to a citizen of Kentucky not connected with the University who, because of the quality of their lives, are judged to be the appropriate recipients of this distinction.

JOHN CHARLES BENSON, Lexington, Kentucky

ELIZABETH CRAMER, Louisville, Kentucky

MAX BRUNSWICK NAHM, Bowling Green, Kentucky

JOHN SKAIN PRIZE of One Hundred Dollars

Established in 1926 by John Skain. Awarded to the woman in the senior class whose influence has been most helpful and wholesome in the life of the University

BERNICE BYLAND, Dayton, Kentucky

WOMEN'S SELF GOVERNMENT ASS'N PRIZE of One Hundred Dollars

Established in 1926 by the Women's Self Government Association to woman student for outstanding service to the University

NANCY B. SCRUGHAM, Lexington, Kentucky

YOUNG MEN'S CHRISTIAN ASSOCIATION KEY (Gold Key)

Established in 1927. Awarded by the Y. M. C. A. to seniors for special services in the Y. M. C. A. since entering the University

HENRY CRAVENS, of Livia, Kentucky

THE CHARLES S. BRENT MEMORIAL PRIZE IN AMERICAN HISTORY

Books Valued at Sixty Dollars

Established in 1926 by Henry Kelley Brent. Awarded for highest scholarship in American History in sophomore and junior years

JANE CLAY KENNEY, Paris, Kentucky

THE BENNETT PRIZES

Established in 1904 from the Philom Bennett Fund of which William J. Bryan was trustee, for the best essay on the Origin and Development of Parliamentary Government

MARY VIRGINIA HAILEY, Cincinnati, Ohio

LEWIS ANDREW WASH, Lawrenceburg, Kentucky

MORTAR BOARD PRIZES, Two Cups

Established in 1927 by Mortar Board. Awarded to the woman in the freshman class having the highest standing for the first semester

ISABEL ISGRIG, Paris, Kentucky

MILDRED NEAL, Catlettsburg, Kentucky

THE CHI OMEGA SOROITY PRIZE of Twenty-five Dollars

Established in 1926 at the suggestion of National Officers of Chi Omega sorority. Awarded to the woman in the sophomore class attaining the highest scholarship in Economics

MARY ADA HONEY, Nicholasville, Kentucky

THE DELTA SIGMA PI KEY

Established in 1920 by International Fraternity of Delta Sigma Pi. Awarded to the senior of the College of Commerce having highest scholarship for four years

F. LELAND HOWARD, Hodgenville, Kentucky

E. B. ELLIS PRIZE of One Hundred Dollars

Established in 1918 by Ernest B. Ellis. Awarded to the student in the College of Engineering attaining the highest scholarship in the freshman and sophomore years

ROBERT IRMEN FORT, Frankfort, Kentucky

HOWARD PAYNE INGELS PRIZE of One Hundred Dollars

Established in 1925 by Howard Payne Ingels. Awarded to the senior in College of Engineering attaining the highest scholarship in Public Speaking

JAMES C. STARKS, Midway, Kentucky

THE LAFFERTY MEDAL

Established in 1926 by Alumni of the Law School. Awarded to the senior in the College of Law attaining the highest scholarship for the three years

ROBERT MURRAY ODEAR, Lexington, Kentucky

THE CHI DELTA PRIZES of Ten Dollars Each

Established in 1928 by Chi Delta Pi, Honorary Literary Sorority. Awarded for poetry contributed to "Letters" by students

HAZEL GIBSON, Berea, Kentucky

MARJORIE GOULD, East Hartford, Connecticut

CALE YOUNG RICE PRIZES of Ten Dollars Each

Established in 1928 by Cale Young Rice. Awarded for poems contributed to "Letters" by persons not students at the University of Kentucky

WALTER F. WRIGHT, Anchorage, Kentucky

SLAYDEN W. DOUTHITT, Farmington, Kentucky

KENTUCKY KERNEL CUP

Established in 1926 by "The Kentucky Kernel." Awarded to the senior having the highest scholarship for the four years

LOLO LEMME ROBINSON, Lexington, Kentucky

SIGMA DELTA CHI SCHOLARSHIP KEYS

Established in 1927. Presented by National Chapter of Sigma Delta Chi, International Journalistic Fraternity, to senior majors in journalism each year with highest standings

LAURENCE SHROPSHIRE, Lexington, Kentucky

SARA ELVOVE. Paris, Kentucky

RICHARD BREWER, Austin, Texas

ALPHA ZETA MEDAL

Established in 1923 by Alpha Zeta, Honorary Agricultural Fraternity. Awarded for the highest scholarship in the agricultural course during the freshman year

SCOTT McLAIN, Taylorsville, Kentucky

BLOCK AND BRIDLE CUPS

Established in 1928. Awarded by Block and Bridle Club to upper-classman and freshman for best record in judging live stock

O. J. PRICE, Princeton, Kentucky

WILLIAM E. FLORENCE, Paris, Kentucky

PHI UPSILON OMICRON MEDAL

Established in 1924 by Phi Upsilon Omicron, Honorary Home Economics Fraternity. Awarded to the woman in freshman class attaining highest scholarship in Home Economics

EUDENAH HAMBY, Dawson Springs, Kentucky

WEIL SCHOLARSHIP PRIZE of One Hundred Dollars

Established in 1926 by Jonas Weil, of Lexington, thru the Agricultural Honorary Society, Alpha Zeta, for the highest scholarship in Agricultural courses in the freshman and sophomore years

JESSE LOGAN COLLINS, Flemingsburg, Kentucky

JAMES B. HAGGAN MEMORIAL ESSAY CONTEST

Established in 1929 by the James B. Haggin Memorial Fund for best essays on some agricultural subject by students in College of Agriculture

First, $75.00, AARON LEE, Depoy, Kentucky

Second, $30.00, A. A. WILLIAMS, Scottsville, Kentucky

Third, $20.00, Wm. G. SURVANT, Owensboro, Kentucky.

Fourth, $15.00, THEODORE MILBY, Buffalo, Kentucky

Fifth, $10.00, HENRY CRAVENS, Livia, Kentucky

COLONEL FREEMAN CUP AND STREAMER

Established in 1921 by Col. George D. Freeman, Jr., Infantry, U. S. Army. Awarded to the best drilled company

B COMPANY

LAFAYETTE HOTEL CUP

Established in 1922 by the Lafayette Hotel. Awarded to the junior for the highest standing in Military Science for the year

AUSTIN M. HENDERSON, Ashland, Kentucky

LEXINGTON HERALD CUP

Established in 1922 by the Lexington Herald. Awarded to the sophomore attaining the highest standing in Military Science for the year

HARRY R. LAIR, Cynthiana, Kentucky

LEXINGTON LEADER CUP

Established in 1922 by the Lexington Leader. Awarded to the freshman attaining the highest standing in Military Science for the year

HARRY EMMERICH, Henderson, Kentucky

PHOENIX HOTEL CUP

Established in 1922 by the Phoenix Hotel. Awarded to the senior attaining the highest standing in Military Science

ELDRED E. ADAMS

RESERVE OFFICERS TRAINING CORPS

Honor Graduates

HAYS HIRAM OWENS, Lexington, Kentucky

LAURENCE K. SHROPSHIRE, Lexington, Kentucky

RESERVE OFFICERS' ASSOCIATION OF CENTRAL KENTUCKY

Field Glasses

Established in 1923 by Reserve Officers' Association of Central Kentucky. Awarded to the senior attaining the highest standing in Military Department and other departments of the University for the year

ROBERT MURRAY ODEAR, Lexington, Kentucky

ROTARY CITIZENSHIP TROPHY

Established in 1928 by the Lexington Rotary Club. Awarded to the senior R. O. T. C. student who excels in the requirements of good citizenship

JOHN CHARLES BENSON, Lexington, Kentucky

SCABBARD AND BLADE CUP

Established in 1927 by Kentucky Company of Scabbard and Blade, National Military Fraternity. Awarded to the best drilled cadet

RICHARD HAMMOND HEYSER

UNIVERSITY CUP

Established in 1921 by the University of Kentucky. Awarded to the company having the highest average standing in Military Science for the year

B COMPANY

UNIVERSITY DEBATING TEAM

CLIFFORD AMYX, Lexington, Kentucky, Sophomore
International Debate of 1928

PAT. D. RANKIN, Lancaster, Kentucky, Senior
International Debate of 1927

RICHARD M. WEAVER, Lexington, Kentucky, Junior
International Debate of 1928

Seniors

H. C. SMITH, Bowling Green, Kentucky
BRUCE WATERS, Portsmouth, Kentucky

Juniors

WILLIAM H. DYSARD, Ashland, Kentucky
VIRGINIA DOUGHERTY, Lexington, Kentucky
JAMES S. PORTER, Lexington, Kentucky
ROBERT STEWART, Denton, Kentucky

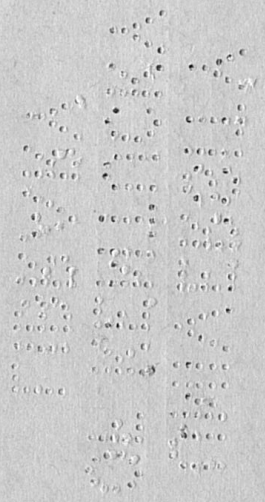
Sophomores

HUGH R. JACKSON, Lexington, Kentucky
KERMIT S. PACK, Portsmouth, Ohio
WILLIAM R. PEARCE, Motte, North Dakota
SIDNEY T. SCHELL, Lexington, Kentucky

Freshmen

WILLIAM ARDERY, Paris, Kentucky
NORRIS B. BROWNE, Lexington, Kentucky
KENNETH GREENQUIST, Racine, Wisconisn

UNIVERSITY LIBRARY



Part V

THE ALUMNI ASSOCIATION

THE ALUMNI ASSOCIATION

The Alumni Association now includes former students as well as graduates of the University banded together to insure the necessary aid to the University in its expansion and general activities and to promote a feeling of closer relationship among its sons and daughters.

The Association has taken a keen interest in the growth and development of the University for many years. Its activities are toward a more intimate and helpful relationship with the student body and fostering the interest of the Alumni in the affairs of the University. As evidence of this the Association is organizing student loan funds for worthy students in need of financial help, is promoting and encouraging those things which tend to develop higher standards and ideals in the students and has secured a legislative act giving the alumni representation on the Board of Trustees so that it may have a direct influence in the administrative affairs of the University.

One noteworthy endeavor of the Association is the Kentucky Memorial Building Campaign to raise $300,000.00 for a monument to Kentucky's war heroes, to which fund the alumni are generously contributing.

Membership in the organization is widely scattered and alumni clubs have been formed in many of the larger cities thruout the country. It is also the plan of the Association to establish a club in each county in the Commonwealth. Annual business meetings and class reunions are held during commencement week of each year at the University. Club meetings are held at the will of the various clubs.

ALUMNI REPRESENTATIVES ON BOARD OF TRUSTEES

James Park, Lexington, Ky.
Louis Hillenmeyer, Lexington, Ky.
E. B. Webb, Lexington, Ky.

OFFICERS OF THE ASSOCIATION

Leon F. Frankel, '00, President
Sarah G. Blanding, '23, Vice-President.
James Shropshire, '29, Secretary-Treasurer.

EXECUTIVE COMMITTEE

W. C. Wilson, '13.
Dr. George H. Wilson, '04.
Dr. E. C. Elliott, '02.
Lulie Logan, '13.
Wayland Rhoads, '15.
Walter Hillenmeyer, '11.

DISTRIBUTION OF ENROLLMENT OF RESIDENT STUDENTS FOR THE YEAR ENDING JUNE 30, 1930

By Colleges, Classes and Sex

(Includes the Summer Session of 1929)

STUDENTS IN REGULAR SESSION	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate School		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	____	____	____	____	____	____	____	____	____	____	____	____	398	227	398	227	625
Seniors	103	113	44	22	65	1	30	____	43	169	45	____	____	____	330	306	636
Juniors	184	178	31	32	111	____	45	1	33	193	62	6	____	____	466	409	875
Sophomores	221	150	44	27	158	1	36	1	20	135	70	6	____	____	549	320	869
Freshmen	235	173	63	36	271	2	____	____	23	92	122	3	____	____	714	306	1020
Specials	4	58	1	7	2	____	____	2	11	80	5	____	____	____	23	147	170
Auditors	6	21	1	2	2	____	____	____	3	20	____	1	____	____	12	44	56
Totals	753	693	184	126	609	4	111	4	133	689	304	16	398	227	2492	1759	*4251

All duplicates have ben excluded.
*This total includes 203 Part-Time students.

UNIVERSITY EXTENSION AND UNIVERSITY HIGH SCHOOL

University Extension	289	1174	1463
University High School	68	37	105
Total	357	1211	1568
Grand totals	2849	2970	5819

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